20395
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From: Clark, Lisa <LClark@trccompanies.com>
Sent: Monday, June 21, 2021 1:19 PM
To: Kuhn, Kimberly M. <kuhnkm@dhec.sc.gov>
Cc: Berresford, James <berresjl@dhec.sc.gov>; Eddie Lanier (Eddie.Lanier@wphome.com) <Eddie.Lanier@wphome.com>; Webb, Steve <SWebb@trccompanies.com>; Peterson, Joyce <JPeterson@trccompanies.com>; GuzmanDeLaFuente, Claudia <CGuzmanDeLaFuente@trccompanies.com>
Subject: Expanded ABC+ Pilot Study Report - Former WestPoint Home Site, Clemson, SC - DHEC File #20395

Kimberly,

The Adhoc link below will direct you to the Expanded ABC+ Pilot Study Report for the former WestPoint Home site in Clemson, South Carolina. The report cover letter is attached as a PDF. A hard copy of this report is not being submitted, however, if you would like for me to send a hard copy, please let me know.

https://adhocftp.trccompanies.com:443/AHT/AHT_UI/public/#/password?package=50jajF5QPMTNeJ%2bCviwpO0JPf8pTwiJCDTybTTcHDeEPppY%2b9a1onvO2vsu8HOnzdf77fyOpg0OWOx4r1U6Hmvm1OfMrVGQ2QKs6L70c68l%3d

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WESTPOINT
HOME

June 21, 2021

S. C. Department of Health & Environmental Control
Bureau of Land & Waste Management
2600 Bull Street
Columbia, SC 29201
Attention: Kimberly M. Kuhn

Re: Expanded ABC+® Pilot Study Report
Former WestPoint Home Site – Clemson, SC
Oconee County – File #20395

Attached is a copy of the Expanded ABC+® Pilot Study Report for the former WestPoint Home Site in Clemson, South Carolina. We are pleased with the progress shown by this treatment method and request that SCDHEC revisit the 2017 Focused Feasibility Study to consider approving ABC+® as the preferred remediation method. We believe that ABC+® is the safest proven remedy for this site. Please let us know if you have any questions or need additional information.

Sincerely,

Eddie Lanier, PE
Consultant for WestPoint Home LLC

Cc: Mr. Lucas Berresford - SCDHEC
Dr. Steve Webb – TRC
Lisa Clark - TRC

Expanded ABC+® Pilot Study Report

Former WestPoint Home Site – Clemson, South Carolina

June 2021

Prepared For
WestPoint Home, LLC

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Executive Summary

The Former WestPoint Home Site (Site) is the location of a former textile manufacturing complex that was situated along West Cherry Road near Clemson, South Carolina. The property was acquired by private land developers who are now repurposing the land for residential housing units, apartment buildings, and mixed-use commercial lots. The WestPoint Home (WPH) facility was closed in April 2006 and most of the buildings and infrastructure were demolished and removed. The land was regraded in anticipation of redevelopment activities during the period of 2008/2009.

Environmental investigations conducted at the Site revealed evidence of groundwater contamination emanating from beneath the former textile facility. Groundwater assessment data suggested the presence of two contaminant plumes within the groundwater, each consisting mainly of the volatile organic compound (VOC) tetrachloroethene (PCE). From their subsurface points of origin, each of these two VOC plumes migrate in a southeastwardly direction toward Hartwell Lake.

In support of the Focused Feasibility Study (FFS) that was prepared to evaluate suitable remedial alternatives to address the PCE-affected Site groundwater, TRC Environmental Corporation (TRC) initiated a pilot study in 2016. The purpose of this pilot study was to evaluate the potential for application of a treatment technology commercially referred to as ABC+®. This remedial treatment alternative integrates a lactate-based treatment component that promotes microbe-facilitated enhanced reductive dichlorination (ERD) with an abiotic treatment technique that utilizes zero valent iron (ZVI). The biotic and abiotic components of the ABC+® product blend were previously documented to impart useful synergistic treatment effects in addressing VOC plumes.

The initial pilot study conducted in 2016 was conceived and implemented as a small-scale demonstration at two selected areas of the Site. The primary objective of the pilot study was to acquire evidence and document the potential treatment effectiveness of the ABC+® treatment product. After reviewing the initial pilot study test results, SC DHEC expressed reservations and concerns regarding the overall efficacy and robustness of test results that the Department considered to be limited and inconclusive. Because TRC and WPH felt that the ABC+® pilot study results, in fact, provided actual lines of evidence that the ABC+® pilot study injections were promoting useful treatment of the PCE contaminants, WPH elected to respond to the Department's concerns by proposing to conduct a considerably more expanded version of the ABC+® pilot study.

An Expanded ABC+® Pilot Study was undertaken in 2019 involving a significant increase in the number of treatment locations, a large increase in the applied volume of ABC+® injectate, and a significant expansion of the performance monitoring network to acquire data that would more conclusively

demonstrate observable changes and treatment responses to the distribution of PCE in the underlying groundwater.

The expanded ABC+® treatment injections were conducted during the period of May through July 2019 using direct push technology (DPT). ABC+® was introduced into 80 locations along seven transects of the 0.1 mg/L PCE isoconcentration contour line within the upgradient PCE plume. Following completion of the expanded ABC+® injection event, initial monitoring for indicator parameters was conducted in October/November 2019 and a broader field and laboratory performance monitoring event was conducted in March 2020. It was during this timeframe that shutdown of field activities was deemed to be necessary due to the COVID-19 global pandemic. After a hiatus of several months, WPH directed TRC to resume evaluation of the March 2020 test results and communicate with SC DHEC regarding recommendations for resumption of the expanded ABC+® pilot study.

TRC conducted another round of performance monitoring activities at the Site in March 2021, during which groundwater samples were collected from 53 permanent wells and eight direct-push sampling locations. The permanent wells provide data for four groundwater intervals: shallow (water table) zone, intermediate zone, transition zone, and bedrock zone. The direct-push sampling locations each provided supplementary data for the shallow, intermediate, and transition zones, as the deepest injections and deepest direct push groundwater samples were constrained to the top of the transition zone.

In this Expanded ABC+® Pilot Study report, TRC has compiled the results of the March 2021 performance monitoring events into a document that conclusively demonstrates the treatment efficacy and suitability for conducting ABC+® treatment injections at the Site. In the two-year period since expanded ABC+® treatment of the upgradient VOC plume area was conducted, TRC has confirmed and documented significant reductions in PCE concentrations within the targeted treatment zone. Additionally, more pronounced lines of evidence regarding the suitability and expansion of ERD-conducive treatment conditions across the targeted treatment zone are now available for the Department's review and consideration. Based on the available Site data and lines of evidence, TRC has concluded that the Expanded ABC+® Pilot Study has successfully demonstrated that this treatment technique is suitable and effective for remediation of PCE-affected groundwater across the Site. On this basis, TRC recommends that the Department initiate review and reconsideration of the existing Focused Feasibility Study and proceed towards issuing approval of ABC+® treatment as a full-scale treatment remedy for the former WPH Clemson Site.

Section 1
Introduction

WestPoint Home, Inc. (WPH) is the former owner/operator of a textile manufacturing complex located along West Cherry Road near Clemson, South Carolina (Figure 1-1). The facility was closed in April 2006 and the property was later sold to a group of real estate investors. The former buildings and infrastructure of the WPH textile facility were subsequently demolished and the Site was regraded for future redevelopment. These demolition and grading activities occurred during the period of 2008 through 2009.

Subsequent environmental investigations conducted across the Site revealed evidence of VOC-related groundwater contamination, presumably emanating from process piping that was situated beneath the former textile facility. This groundwater contamination was determined to comprise two distinct groundwater plumes, each containing VOCs primarily composed of tetrachloroethene (PCE). These two groundwater plumes are more commonly referred to as the "upgradient" and "downgradient" VOC plumes.

During these earlier Site investigations, various lines of evidence revealed that both of these VOC plumes appear to have been sourced from a network of underground process piping that had serviced the former textile manufacturing complex. After extensive field work and records review, there has been no definitive Site data or historic information to indicate or suggest that either of these two VOC plumes were ever related to any surficial spill(s) and/or releases. Furthermore, extensive soil testing data has also failed to reveal any link between the underlying VOC-related groundwater impacts and the surface soils, which show no indication of prior VOC impacts.

From their subsurface points of origin, each of the two VOC plumes migrate in a southeastwardly direction toward Hartwell Lake. Along the shores of Hartwell Lake, pore water sampling has revealed the presence of low levels of VOCs that are discharging into the surface water of the lake.

The former WPH property is currently owned and managed by Tom Winkopp, Realtor/Developer, LLC. To date, a considerable portion of the Site has been the focus of redevelopment and building, resulting in the construction of various residential housing units, apartment buildings, and mixed-use commercial lots. For the most part, the housing units are being occupied by students attending nearby Clemson University.

Site development activities have encircled the area where the two VOC plumes are situated. While the Winkopp site development team has indicated that further residential development within the immediate vicinity of the upgradient and downgradient VOC plumes is not currently being

contemplated, there is nothing contractual to prevent future site development from occurring in these areas of the Site. There is visual evidence of active site development across most of the remaining acreage of the former WPH property.

1.1 Background

In April 2015, TRC prepared and submitted a work plan for the design and implementation of a pilot study that was designed to investigate the potential applicability of applying an in-situ treatment remedy at the site. The proximity of college students and residents across the Site led TRC to conclude that a groundwater treatment remedy was needed that did not involve the application of aggressive or otherwise dangerous chemicals. Reducing the potential exposure of nearby residents to any hazards was, and remains, and important consideration.

The initial pilot study work plan was submitted to the South Carolina Department of Health and Environmental Control (SC DHEC) and described the methods, means and materials necessary to assess and evaluate the potential applicability and suitability for application of ABC+® treatment technology that integrates a lactate-based treatment approach for inducing microbe-facilitated enhanced reductive dechlorination (ERD) with an abiotic treatment technique that utilizes zero valent iron (ZVI). This treatment technology is commercially referred to as ABC+®, and offers a promising approach to conducting an in situ treatment of VOCs present within the underlying groundwater safely in proximity to the nearby community of college students and their dependents. Following subsequent discussions with SC DHEC and incorporation of Department review comments, the ABC+® pilot study work plan was formally approved for site implementation in June 2016.

The ABC+® pilot study was initiated in the field on June 20, 2016. The pilot study was conducted in two locations – one treatment area situated near the upper end of the upgradient VOC plume area and the second treatment area located near the head of the downgradient VOC plume area. Three DPT injection locations were designated for each pilot study work zone. In order to manage the required timing and cost of the pilot study, the overall scope and scale of the initial ABC+® pilot study was intentionally limited to the DPT injection locations and nearby performance monitoring wells. Thus, the focus and objective of the initial ABC+® pilot study was to provide "proof of concept" information and details that could be used to further substantiate the details and conclusions of a Focused Feasibility Study (FFS) for the Site groundwater.

After nearly a year of in-situ treatment and performance monitoring, the initial ABC+® Pilot Study Report was prepared and submitted to SC DHEC in May 2017. In a letter dated October 12, 2017, SC DHEC offered their comments on the pilot study report, suggesting that the scope of the pilot study was too limited and the results were felt to be inconclusive. The Department wanted to see more substantial evidence of active ABC+® treatment response and reduction in PCE concentrations via biotic and abiotic pathways. The State indicated that they would like to receive "before and after" PCE plume maps and

more conclusive data before they would be willing to consider ABC+® as a suitable remedial treatment alternative for the Site.

Despite the Department reviewer's comments, both Redox Tech and TRC felt that the 2016 pilot study report did identify multiple lines of evidence that revealed the treatment efficacy of ABC+® treatment as a suitable and reliable treatment strategy for the upgradient and downgradient VOC plume areas. The limited size and scale of the pilot study and the timing of the pilot study schedule constrained our ability to track the transport/migration of the ABC+® treatment materials from the point of injection to detection within nearby observations wells, further constraining our ability to generate the "before and after" PCE isocontour maps desired by the SC DHEC reviewer. After nearly 5 years of in situ treatment within the 2016 pilot study treatment zones, TRC can still identify pronounced evidence of applied ABC+® treatment influences.

Keeping the Department's comments, and concerns in mind, TRC revisited the remedial objectives and scope of the initial ABC+® pilot study work plan. In order to suitably address the Department's concerns, it quickly became apparent that the remedial design and scope of the ABC+® pilot study would need to be considerably increased and expanded. Working closely with Redox Tech and WPH, TRC developed an expanded pilot study work scope that would encompass a substantially larger treatment zone area and target treatment efforts within the most concentrated PCE contaminant mass present within the upgradient VOC plume area. By expanding the scope of the initial ABC+® pilot study, TRC developed a more robust experimental design capable of addressing SC DHEC concerns, extensive enough to impart more robust and meaningful treatment efforts within a concentrated area of VOC mass, and large enough in scale and scope to conclusively demonstrate the efficacy of ABC+® treatment as a suitable remediation tool for the former WPH Site. Where the initial 2016 ABC+® pilot study utilized only 3 DPT injection points in the upgradient VOC plume area, the expanded ABC+® pilot study would now make use of 80 DPT injection points.

The workplan for the Expanded ABC+® Pilot Study was prepared and submitted to SC DHEC in May 2018. In a letter dated June 8, 2018, SC DHEC provided its comments to the workplan, requesting various additional details and technical considerations (*i.e.*, permanent monitoring well locations, additional performance monitoring parameters, and introduction of numerical performance criteria). TRC prepared a technical response to address these comments and this document was submitted to the Department on June 22, 2018.

At the request of SC DHEC, a conference call was coordinated and conducted on August 30, 2018. During this call, the project stakeholders were able to discuss the various technical considerations and concerns. As a result of these discussions, a mutually agreeable path forward was developed, which was summarized in SC DHEC correspondence dated August 31, 2018. On October 10, 2018, a revised Workplan for Expanded ABC+® Pilot Study was submitted to address the various technical discussions

and agreements that were set forth in SC DHEC's August 31, 2018, correspondence. The revised Workplan for Expanded ABC+® Pilot Study was approved by SC DHEC in correspondence dated November 16, 2018.

1.2 Purpose and Scope

The Expanded ABC+® Pilot Study included performance of pre-injection field sampling activities, injection of the ABC+® into the subsurface, collection of post-injection performance monitoring, and evaluation of the performance monitoring data. The purpose of this report is to compile and document the implementation and results of the expanded ABC+® pilot study activities.

The scope of this report includes a discussion of the treatment technology that was used during the pilot study, subsequent well redevelopment efforts, pre-and post-injection monitoring results, and a detailed discussion of the various lines of evidence that all point towards ABC+® treatment representing a suitable and applicable remedial technology for the former WPH Site.

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WESTPOINT HOME, INC.
CLEMSON, SOUTH CAROLINA

FIGURE 1-1
LOCATION OF FORMER
WESTPOINT HOME SITE

DRAWN BY:	DJS
APPROVED BY:	LMC
PROJECT NO:	3000688.0.0
FILE NO.	
DATE:	MAY 2018

U:\West Point Home\Clemson SC\ArcGIS10\300688\Pilot Study Work Plan\Fig 1 - Site location.mxd
Date Saved: 5/4/2018 10:16:57 AM

Section 2
Overview of Treatment Technology

Enhanced reductive dechlorination (ERD) is a widely accepted, biologically mediated process by which chlorinated ethenes (like PCE) can be degraded using specialized microbes under anoxic/anaerobic conditions. During this naturally occurring process, anaerobic microbes (i.e. dehalogenators) have the ability to substitute hydrogen (H) for chlorine (Cl) on various chlorinated ethene compounds, effectively dechlorinating the target compound and ultimately reducing its toxicity.

Reductive dechlorination is fundamentally a redox reaction that requires both an electron donor and an electron acceptor. The anaerobic microbes that are capable of mediating this chemical reaction require nutrients and appropriate/conducive environmental conditions under which they can grow and proliferate. The ABC treatment formulation has been specifically engineered and blended to adapt to a particular site's geochemical characteristics, using a combination of various organic substrates, including lactate esters, glycerine, and emulsified fatty acids that are introduced into the subsurface to serve as the functional electron donors with different metabolic rates. The availability of carbon at different metabolic rates facilitates the growth of a more balanced microbial consortium, including dehalococcoides (the genus capable of completely dehalogenating chlorinated ethenes), without domination by an undesirable species or group (*e.g.*, methanogens). The electron acceptors for the ERD treatment process include the chlorinated VOCs being targeted for treatment, plus other naturally occurring groundwater constituents such as dissolved oxygen (DO), nitrate, manganese (IV), iron (III), sulfate, and carbon dioxide.

The formulation of the organic substrate (electron donor) affects the manner in which the reductive dechlorination treatment process will play out in the environment. Substrates such as sodium lactate can be quickly metabolized by the dehalogenators and can result in enhanced degradation of the chlorinated VOCs. However, these effects may also be short-lived, enabling chlorinated VOC compounds from nearby soils and groundwater to desorb or migrate and create conditions of VOC rebound. Slower metabolizing organic substrates, such as emulsified fatty acids, and vegetable oil (which requires a hydrolysis reaction to fatty acid before it can be used by dehalogenating organisms), are also receiving considerable attention in the literature, but they are also much slower to establish/sustain reductive dechlorination conditions. TRC has considered these possible options and considerations, selecting the ABC® formulation as our desired choice of treatment media for this pilot study. We also readily acknowledge that there are other commercially available treatment additives and choices that can also be tailored to address site-specific conditions.

As indicated earlier, zerovalent iron (ZVI) is an abiotic pathway to facilitate the redox reaction responsible for dechlorinating VOCs via a short-lived acetylene intermediate. The ZVI employed in this

reaction is basically a bulk reducing agent that is of a suitable particle size for aquifer treatment. The corrosion of iron metal yields the formation of Fe^{2+} and hydrogen gas, which can directly reduce chlorinated contaminants or otherwise enhance the reduction process. On activated ZVI surfaces, chlorinated ethenes are directly dechlorinated via the beta elimination pathway without accumulation of the VOC daughter products that are more typically generated during ERD treatment. The by-products of ZVI oxidation also tend to enhance the growth of biological chlorinated compound reducers. ZVI, once injected into the subsurface, does not tend to migrate within the aquifer, but rather stays in-place and continues to remediate VOC-containing groundwater (sometimes for more than a decade) as it passes through the in situ ZVI treatment material.

The combined influence of the biological ERD treatment components with the abiotic treatment components of the ZVI have led TRC to select this treatment material for the pilot study. ABC+® is available from Redox Tech and was utilized for both the 2016 and 2018 pilot studies. According to Redox Tech literature on their ABC+® product, this formulation has been developed to promote both rapid onset and long-lasting reductive dechlorination. This is accomplished by using both the ERD and abiotic treatment components in a symbiotic manner, where each treatment process tends to facilitate and enhance the performance of the other. The relative amounts of the various organic substrates, nutrients and iron can be adjusted to address/accommodate site-specific conditions and requirements.

Section 3
Description of Expanded Pilot Study

The expanded ABC+® pilot study was focused on injection of ABC+® into the underlying groundwater, with primary emphasis on the most contaminated zone of the upgradient VOC plume. This targeted treatment area was characterized by PCE levels at concentrations at or above 0.10 mg/L. Because ABC+® is a lactate-based carbon substrate containing many essential nutrient amendments suitable for ERD and it also incorporates finely milled ZVI powder, ABC+® affords a unique *in situ* treatment formulation that can impart both a biotic (*i.e.,* ERD) treatment component and an abiotic (*i.e.,* ZVI) treatment component. As with the previous 2016 pilot study, a suitable inoculum of anaerobic micro-organisms (*i.e.*, Shaw's Dechlorinating culture – SDC-9™) was injected along with the ABC+® to serve as a bio-augmentation source during the expanded pilot study.

3.1 Pilot Study Objectives

The objectives of the expanded pilot study included the following:

- Conduct robust application of the ABC+® treatment technology within the upgradient VOC plume,
- Raise SC DHEC confidence and support that this treatment alternative is suitable for current site conditions, as well as aligned with the ongoing site residential development activities,
- Achieve meaningful and documented VOC reductions within the targeted treatment area of the upgradient VOC plume area,
- Document how the observed distribution of PCE and VOC daughter products respond to the applied ABC+® treatment efforts, and
- Collect suitable field data to support SC DHEC's subsequent review/approval the August 2017 Focused Feasibility Study (FFS).

3.2 Pre-Injection Sampling and Site Conditions

Prior to collecting pre-pilot groundwater samples, TRC redeveloped several monitoring wells that had experienced "daylighting" during the initial 2016 pilot study. "Daylighting" is a term that refers to conditions where the applied injectate treatment fluid emerges from the ground surface at the point of injection or within a nearby monitoring well. Ideally, the injected treatment material would displace a uniform disk of soil surrounding the injection point. In reality, the pressurized injectate tends to follow preferential flow pathways that occur along zones of weakness within the soil fabric, such as remnant foliation, fractures, joints, and soil heterogeneities. The wells that incurred "daylighting" during the 2016 pilot study, included RMW-23, RMW-23A, and RMW-27A.

TRC conducted extensive redevelopment of these monitoring wells in September through November 2018, and submitted a technical memorandum (TM) for SC DHEC's review on December 20, 2018. The memorandum concluded that redevelopment and rehabilitation efforts had improved the groundwater quality conditions observed within the monitoring wells. One well, RMW-23, continued to yield ZVI filings during redevelopment and was recommended for special sampling procedures that would be applied during VOC monitoring events. For that well, an industrial-grade magnet has been used to capture/remove accumulated iron filings, if any, that may be present prior to collecting performance monitoring samples.

Pre-injection (i.e., baseline) groundwater sampling was conducted during the timeframe of January 16 and February 14, 2019, and included collection of water levels and groundwater samples from each of the 77 permanent monitoring wells currently in use at the Site. Groundwater samples were also collected from 8 multi-depth DPT borings located within the upgradient VOC plume area. Three groundwater samples were collected at each DPT location; one representing the shallow water table zone (i.e., corresponding to the screens of the shallow monitoring wells), one representing the intermediate zone (i.e., corresponding to the depth of the screen of wells having the "A" in their well naming designation), and one at DPT refusal (i.e., corresponding to the top of the transition zone). Well purging and sampling were performed in accordance with the procedures described in Subsection 3.7 of the approved Site Sampling and Analysis Plan (SAP). Field parameters (*i.e.*, pH. ORP, DO, temperature and specific conductivity) were measured and recorded during well purging activities. Pre-injection sample locations are indicated on Figure 3-1.

Groundwater samples were submitted to Shealy Environmental Services, Inc., a South Carolina certified analytical laboratory. Groundwater samples collected from the 77 monitoring wells and 8 multi-depth DPT borings were analyzed for Target Compound List (TCL) VOCs using USEPA Method 8260B. In addition, samples collected from the 45 upgradient monitoring wells and five of the downgradient wells (i.e., RMW-09 and RMW-23/23A/23B/23C) were also analyzed for dissolved gases (i.e., ethane, ethene, and methane), ERD indicator parameters (nitrate, sulfate, and chloride), and bromide.

The baseline data were submitted to SC DHEC in a letter dated March 20, 2019. This letter included the following information:

- Data point location map
- Summary tables of baseline results
- Water table and potentiometric surface maps for the water table, intermediate zone, transition zone, and bedrock monitoring wells
- Tetrachloroethene isoconcentration maps for the water table, intermediate zone, transition zone, and bedrock monitoring wells

Groundwater flow directions continued to reflect the flow rate and migration direction similar to previous sampling events. Of particular interest was the fact that the groundwater results from the early 2019 baseline sampling showed continued distribution of ABC+® treatment effects from the initial 2016 pilot study injections. These baseline results are discussed in greater detail in Section 4 of this report, to provide a base of comparison for the post-injection performance monitoring results.

3.3 Pilot Study Injections

During the period of May 14 through July 10, 2019, ABC+® injections were conducted at 80 locations, targeting the 0.1 mg/L PCE isoconcentration contour of the upgradient VOC plume (see Figure 3-1). At each location, 50 pounds of ABC, 50 pounds of ZVI, 0.05 L of concentrated (x4) DHC culture, 5 pounds of magnesium oxide, 0.5 pounds of sodium tripolyphosphate, approximately 2 pounds of guar, and 44 gallons of deoxygenated water were injected at two-foot intervals starting from the deepest interval, which was determined by injector refusal. Bromine was added as a tracer to eight injection locations. Injection locations containing bromine are highlighted in yellow on Figure 3-1. Appendix A provides a copy of the Field Summary Report generated by Redox Tech.

The ABC+® injections were conducted across seven transects of the upgradient VOC plume, perpendicular to the direction of groundwater flow. These transects were identified and labeled as A through G and each included between 7 and 17 locations along the transect. Injection depths ranged from 12 to 90 feet bls. The shallowest interval at each location was between 12 and 20 feet below land surface (bls) depending on depth to water at the location. In response to prior "lessons learned" from the initial 2016 pilot study, reduced injection pressures were applied at shallower depths to minimize the potential for "daylighting" of the injectate. Only five minor instances of "daylighting" were encountered at injection locations C-6, E-8, E-9, F-10, and F-12. Daylighting occurred at each of these locations during the injection process, all of which were documented at relatively shallow depth intervals. In each case, injection flow rates were reduced to address these occurrences.

Bromide at a concentration of approximately 40 mg/L, was introduced with the ABC+® injectate as a groundwater tracer in eight locations (C-4, C-5, E-1, E-2, F-13, F-14, G-6, and G-7). These injection locations were selected to evaluate groundwater flow directions at specific locations.

Total injected quantities for the expanded ABC+® pilot study are summarized in the following table.

ITEM	QUANTITY	UNITS
ABC+® slurry	127,700	gallons
Depth intervals	2,554	--
ABC	127,700	pounds
ZVI	127,700	pounds
Magnesium oxide	12,770	pounds
Sodium tripolyphosphate	1,277	pounds
DHC concentrated bacteria (x4)	130	liters
Guar	5,108	pounds
Sodium bromide (8 locations)	2,232	grams

The ABC+® injection event was conducted as planned and without incident.

3.4 Pilot Study Performance Monitoring

The Expanded ABC+® Pilot Study Workplan established quarterly and semiannual performance monitoring that was intended to provide quarterly field and laboratory indicator parameter monitoring and two episodes of semiannual monitoring to address VOC analyses and dissolved gases.

The first quarterly performance monitoring was conducted October 25 through November 8, 2019. A summary of the monitoring results was submitted to SC DHEC on December 10, 2019. Despite the short period of time from the onset of the ABC+® injection event, the results from this sampling provided early indications of ERD activity within the aquifer.

The first semiannual performance monitoring was conducted during March 2020. Because of the global COVID-19 pandemic and its associated quarantines and lockdowns, WPH decided to suspend further work on the pilot study. SC DHEC was notified of this suspension in work via correspondence dated April 6, 2020. Thus, the quarterly sampling event originally planned for July 2020 and the semiannual sampling event planned for November 2020 were not conducted. Work resumed on the pilot study project in September 2020 and involved analysis and evaluation of the March 2020 performance monitoring results. A letter report communicating TRC's findings from this semiannual monitoring event was submitted to SC DHEC on December16, 2020. The results from the March 2020 semiannual monitoring event yielded results that revealed an expanded area of treatment, exhibiting ERD-conducive conditions and pronounced reductions in PCE isocontours, when compared to pre-injection conditions.

Because of the COVID-related disruptions to the original pilot study monitoring schedule, SC DHEC approved postponement of the second semiannual sampling event until March 2021. This was a useful

schedule adjustment, as TRC could now evaluate Site conditions within the ABC+® treatment zone a full year after the first semiannual sampling event was conducted. Based on the previous monitoring results, SC DHEC also agreed to adjust the following elements of the monitoring program for the second semiannual sampling:

- Downgradient plume monitoring wells MG-05/A, RMW-16/A, and RMW-17 were added to the list of wells to be sampled;
- Nitrate and chloride were deleted from the parameter list; and
- The purge method was revised from the Multiple-Volume Purge Method (Groundwater Monitoring Operating Procedure Section 3.4) as referenced in Site Assessment Sampling and Analysis Plan (TRC, July 2011, revised March 2013) to the Low-Flow Method (Groundwater Monitoring Operating Procedure Section 3.5)[1].

During the final performance monitoring event for the Expanded ABC+® Pilot Study in March 2021, groundwater samples were collected from the 45 upgradient plume monitoring wells, 8 multi-depth DPT borings, and ten downgradient plume monitoring wells (i.e., MG-05/05A, RMW-09, RMW-16/16A, RMW-17, and RMW-23/23A/23B/23C). Section 4 of this Pilot Study Report provides a more detailed discussion of the results and implications regarding the distribution and effectiveness of the ABC+® treatment media.

3.4.1 Water Level Measurements and Groundwater Flow

Prior to collecting groundwater samples, water level measurements were collected at all 77 monitoring wells in use at the site on March 8-9, 2021. These measurements are summarized on Table 3-1.

Figure 3-2 illustrates the observed configuration of the water table based on water levels measured in shallow depth monitoring wells. Figures 3-3 through 3-5 illustrate potentiometric surfaces developed from water level measurement collected from intermediate depth wells, transition zone wells, and bedrock wells, respectively. At each depth interval, the observed direction of horizontal groundwater flow is to the east-southeast, toward Hartwell Lake.

Vertical groundwater flow pathways were also evaluated along cross sectional lines drawn along the long axis of the upgradient and downgradient VOC plumes. Figures 3-6 and 3-7 illustrate generalized vertical groundwater flow pathways along the A-A' and B-B' cross sections, respectively. Equipotential lines shown on Figures 3-6 and 3-7 were drawn based on measured water elevations only; potential influences due to variations in geology have not been taken into account. As illustrated on these figures, downward vertical flow is observed at every well nest

[1] USEPA Region 4 Science and Ecosystem Support Division Operating Procedure number SESDPROC-301-R4, April 2017

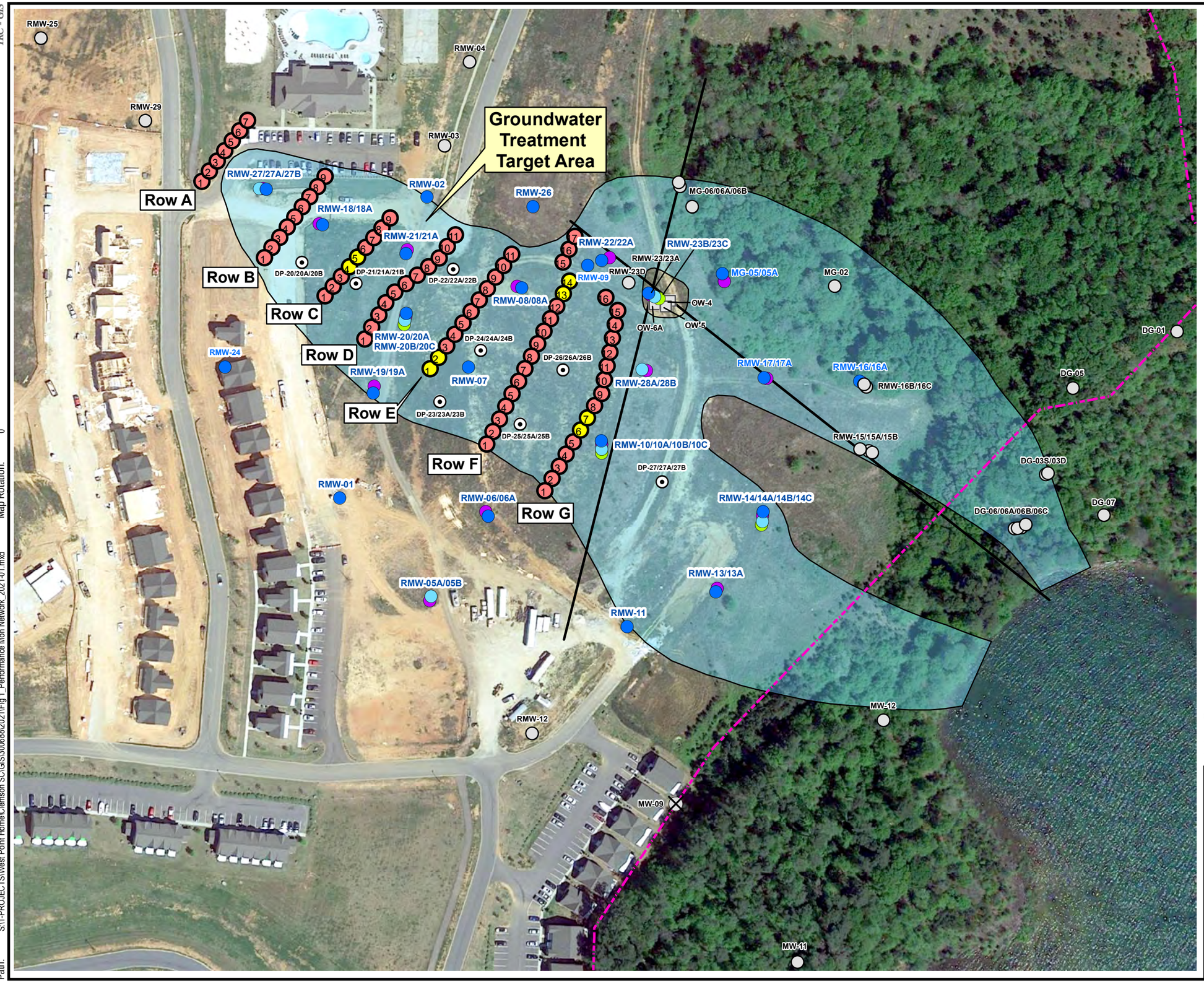
except the DG-06 grouping. An upward gradient from the lower aquifer toward the lake is observed, as would be expected in a groundwater discharge area.

3.4.2 Field Indicator Parameters

Field indicator parameters were collected to demonstrate stability of purging the wells and to provide information about the condition of the aquifer with respect to ERD-conducive conditions. Field indicator parameters included pH, temperature, specific conductivity, dissolved oxygen, turbidity, and ferrous iron. These measurements are summarized on Table 3-2.

3.4.3 Laboratory Results

Samples were collected from 55 monitoring wells and 24 DPT locations for laboratory analysis of VOCs, metabolic gases (i.e. methane ethane and ethene), bromide, and sulfate. These results are summarized on Table 3-2. In addition, samples were collected from RMW-27, RMW-18A, RMW-20B to evaluate to presence of DHC (dechlorinating) anaerobes. These results are summarized on Table 3-3. Appendix B provides a comprehensive data table that includes field and analytical results from 2014 through 2021. Appendix C provides laboratory data sheets for the Expanded ABC+® Pilot Study analytical data (pre-injection/baseline monitoring, first March 2020 semiannual sampling event, and the second March 2021 semiannual sampling event).



LEGEND

- Water Table Aquifer Monitoring Well
- Intermediate Aquifer Monitoring Well
- Transition Zone Aquifer Monitoring Well
- Bedrock Aquifer Monitoring Well
- Observation Well (Previous Pilot Study)
- Direct-Push Groundwater Sample Location
- Destroyed Water Table Monitoring Well
- Pilot Study Injection Point
- Pilot Study Injection Point with Bromide Tracer
- Property Boundary (Approximate)
- Inferred Fracture

NOTES

Aerial Photograph Source: Google Earth (2018).

The groundwater treatment target area is based on the extent of PCE concentrations in groundwater greater than 0.1 mg/L.

Monitoring wells shown in gray are not included in the performance monitoring network.

N

0 120 240 Feet

1 " = 133 '

1:1,600

PROJECT:

FORMER WESTPOINT HOME
CLEMSON, SOUTH CAROLINA

TITLE:

ABC+ PERFORMANCE MONITORING NETWORK

DRAWN BY:	WIXON S	PROJ. NO.:	300688.0.0.10
CHECKED BY:	CLARK L		
APPROVED BY:	WEBB S		**FIGURE 3-1**
DATE:	JANUARY 2021		

TRC

50 International Drive, Suite 150
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Greenville, SC 29615
Phone: 864.281.0030
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FILE NO.: Fig 1_Performance Mon Network_2021-01.mxd

Plot Date: 1/12/2021, 14:21:19 PM by RWIXON -- LAYOUT: ANSI B (11"x17")
Path: S:\11-PROJECTS\West Point Home\Clemson SC\GIS\300688\2021\Fig 1_Performance Mon Network_2021-01.mxd
Coordinate System: NAD 1983 StatePlane South Carolina FIPS 3900 Feet (Foot US)
Map Rotation: 0
TRC - GIS

Plot Date: 5/28/2021, 11:45:30 AM by DSZYNAL – LAYOUT: ANSI B (11"x17")
Path: U:\West Point Home\Clemson SC\ArcGIS\10\300688\Water Table & PZ Maps\2021\Fig 2 - WaterTable_2021.mxd
Coordinate System: NAD 1983 StatePlane South Carolina FIPS 3900 Feet (Foot US)
Map Rotation: 0

RMW-25 675.88
RMW-29 674.18
RMW-27 672.96
RMW-18 671.82
RMW-21 670.33
RMW-20 669.99
RMW-24 NA
RMW-19 668.69
RMW-01 667.82
RMW-06 667.12
RMW-07 668.49
RMW-04 669.92
RMW-03 670.11
RMW-02 670.69
RMW-26 669.13
RMW-08 669.03
RMW-09 668.06
RMW-22 667.98
RMW-23 667.30
RMW-10 666.94
RMW-12 663.76
RMW-11 663.69
RMW-13 664.00
RMW-14 664.80
RMW-15 664.52
RMW-17 666.06
RMW-16 665.83
MG-06 665.68
MG-05 666.19
MG-02 (657.62)
DG-05 662.95
DG-03S 661.93
DG-06 660.63
DG-01 (656.14)
MW-12 661.26
MW-11 660.43
HARTWELL LAKE 659.20

675 674 673 672 671 670 669 668 667 666 665 664 663 662 661 660

LEGEND

- Water Table Aquifer Monitoring Well
- Water Table Elevation Contour (ft MSL). Dashed Where Inferred.
- Estimated Groundwater Flow Direction
- Property Boundary (Approximate)
- NA Not Available

NOTES

Aerial Photograph Source: Google Earth (2018).

Water Levels measured March 8, 2021.

Water Levels in parentheses were not used to create contours.

NM - Not Measured

Hartwell Lake Elevation Source: www.mylakehartwell.com/Level/Calendar/2021/03/

N

0 100 200 Feet

1 " = 200 '

1:2,400

PROJECT:
FORMER WESTPOINT HOME SITE
CLEMSON, SOUTH CAROLINA

TITLE:
WATER TABLE CONFIGURATION
MARCH 2021

DRAWN BY:	SZYNAL D	PROJ NO.:	300688
CHECKED BY:	CLARK L		
APPROVED BY:	WEBB S		**FIGURE 3-2**
DATE:	MAY 2021		

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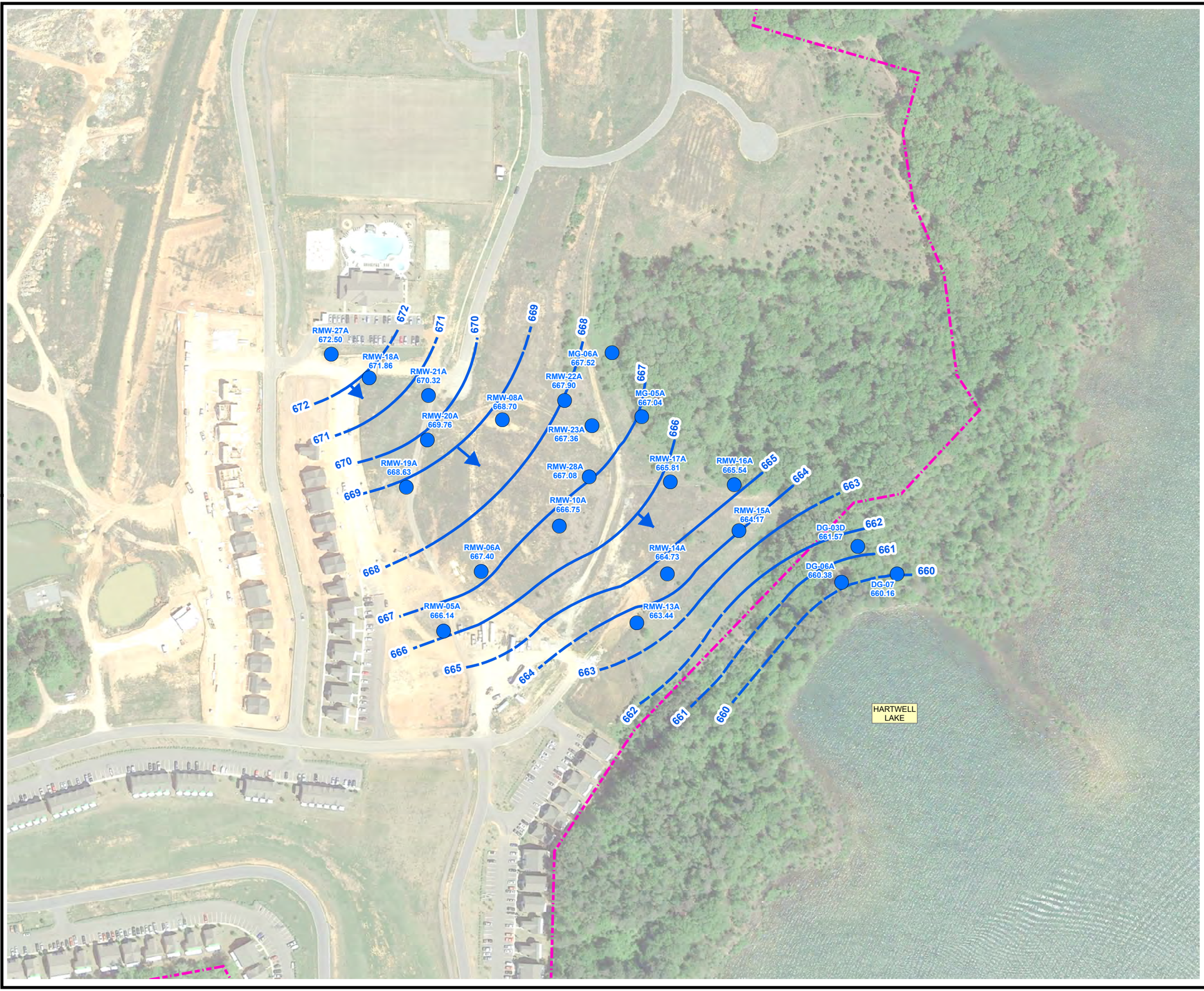
FILE NO.: Fig 2 - WaterTable_2021.mxd



LEGEND

- Intermediate Aquifer Monitoring Well
- Intermediate Piezometric Surface Elevation Contour (ft MSL). Dashed Where Inferred.
- Estimated Groundwater Flow Direction
- Property Boundary (Approximate)

NOTES

Aerial Photograph Source: Google Earth (2018)

Water Levels measured January March 8, 2021.

N

0 100 200 Feet

1 " = 200 '

1:2,400

PROJECT:

FORMER WESTPOINT HOME SITE
CLEMSON, SOUTH CAROLINA

TITLE:

PIEZOMETRIC SURFACE - INTERMEDIATE ZONE
MARCH 2021

DRAWN BY:	SZYNAL D	PROJ NO.:	300688
CHECKED BY:	CLARK L		
APPROVED BY:	WEBB S		**FIGURE 3-3**
DATE:	MAY 2021		

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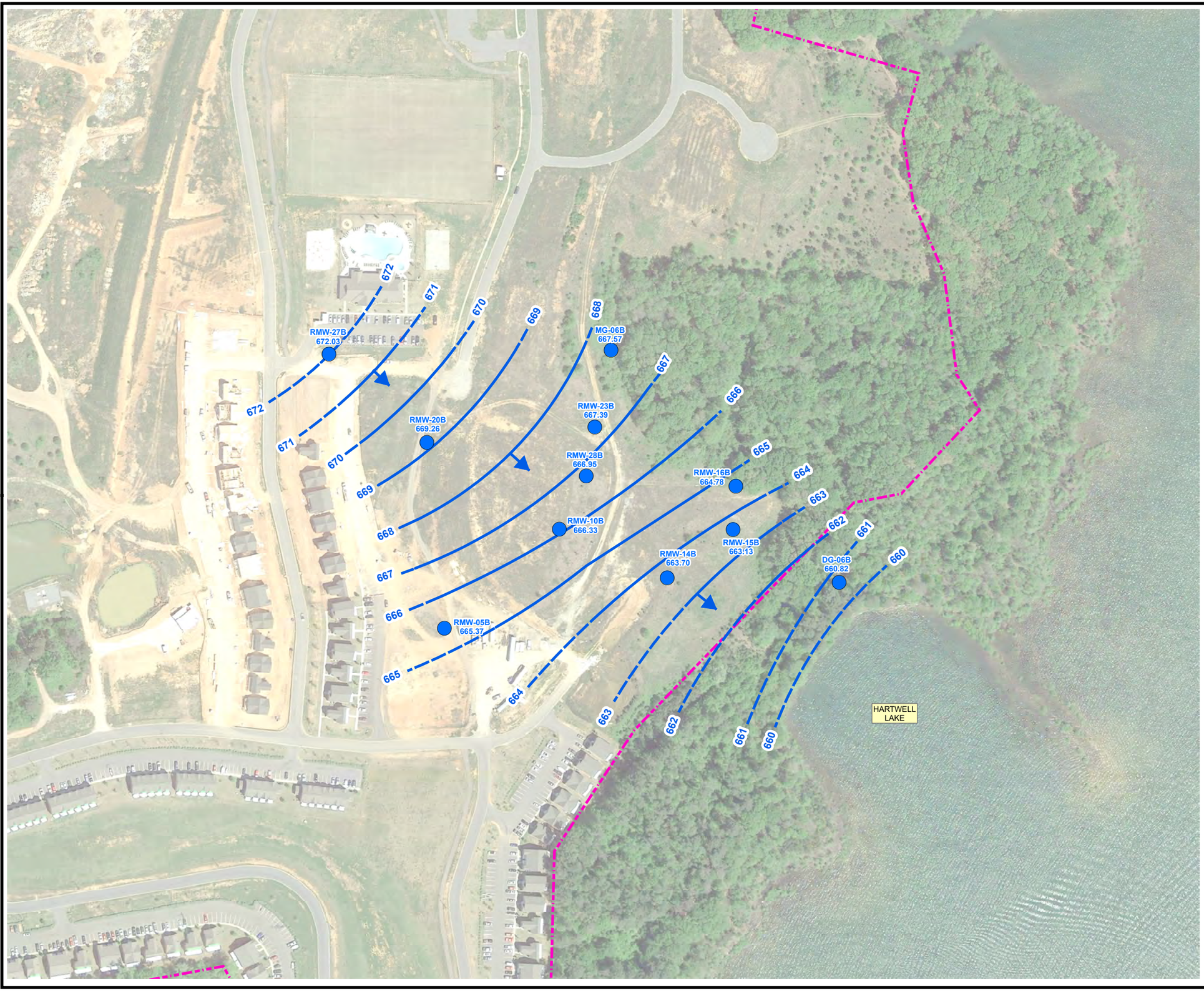
FILE NO.: Fig 3 - Piezometric-Intermediate_2021.mxd

Plot Date: 5/27/2021, 14:28:35 PM by DSZYNAL – LAYOUT: ANSI B (11"x17")
Path: U:\West Point Home\Clemson SC\ArcGIS\10\300688\Water Table & PZ Maps\2021\Fig 3 - Piezometric-Intermediate_2021.mxd
Coordinate System: NAD 1983 StatePlane South Carolina FIPS 3900 Feet (Foot US)
Map Rotation: 0
TRC - GIS



LEGEND

- Transition Zone Aquifer Monitoring Well
- Transition Zone Piezometric Surface Elevation (ft MSL). Dashed where Inferred.
- Estimated Groundwater Flow Direction
- Property Boundary (Approximate)

NOTES

Aerial Photograph Source: Google Earth (2018).

Water Levels measured March 8, 2021.

N

0 100 200
Feet

1 " = 200 '
1:2,400

PROJECT:
FORMER WESTPOINT HOME SITE
CLEMSON, SOUTH CAROLINA

TITLE:
PIEZOMETRIC SURFACE - TRANSITION ZONE
MARCH 2021

DRAWN BY:	SZYNAL D	PROJ NO.:	300688
CHECKED BY:	CLARK L		
APPROVED BY:	WEBB S		**FIGURE 3-4**
DATE:	MAY 2021		

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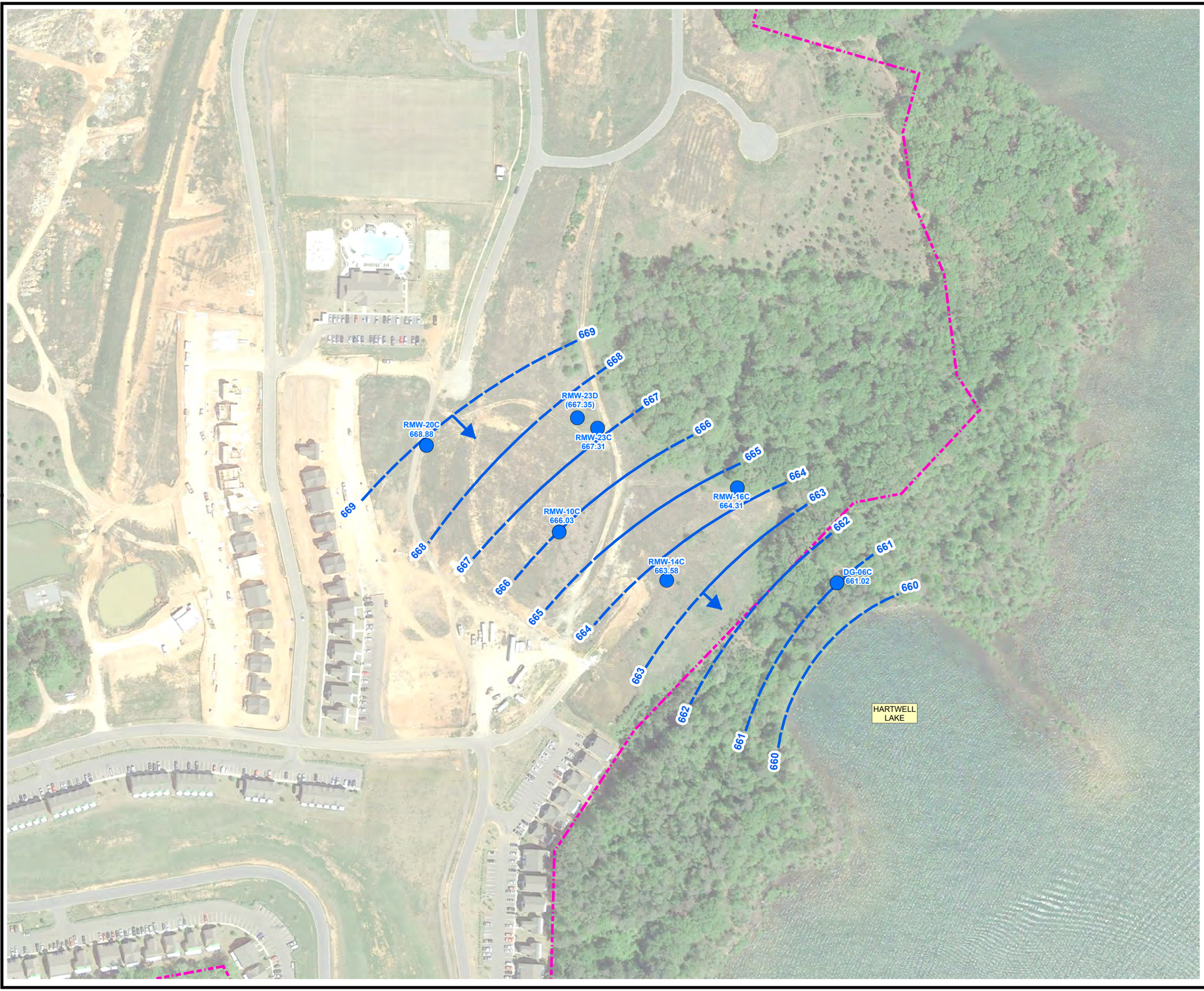
FILE NO.: Fig 4 - Piezometric-TransitionZone_2021.mxd

Plot Date: 5/27/2021, 14:19:49 PM by DSZYNAL – LAYOUT: ANSI B (11"x17")
Path: L:\West Point Home\Clemson SC\ArcGIS\10\300688\Water Table & PZ Maps\2021\Fig 4 - Piezometric-TransitionZone_2021.mxd
Coordinate System: NAD 1983 StatePlane South Carolina FIPS 3900 Feet (Foot US)
Map Rotation: 0
TRC - GIS



LEGEND

- Bedrock Aquifer Monitoring Well
- Bedrock Piezometric Surface Elevation (ft MSL). Dashed where Inferred.
- Estimated Groundwater Flow Direction
- Property Boundary (Approximate)

NOTES

Aerial Photograph Source: Google Earth (2018).

Water Levels in parentheses were not used to create contours.

Water Levels measured March 8, 2021.

N

0 100 200 Feet

1 " = 200 '

1:2,400

PROJECT:

FORMER WESTPOINT HOME SITE
CLEMSON, SOUTH CAROLINA

TITLE:

PIEZOMETRIC SURFACE - BEDROCK
MARCH 2021

DRAWN BY:	SZYNAL D	PROJ NO.:	300688
CHECKED BY:	CLARK L		
APPROVED BY:	WEBB S		**FIGURE 3-5**
DATE:	MAY 2021		

TRC

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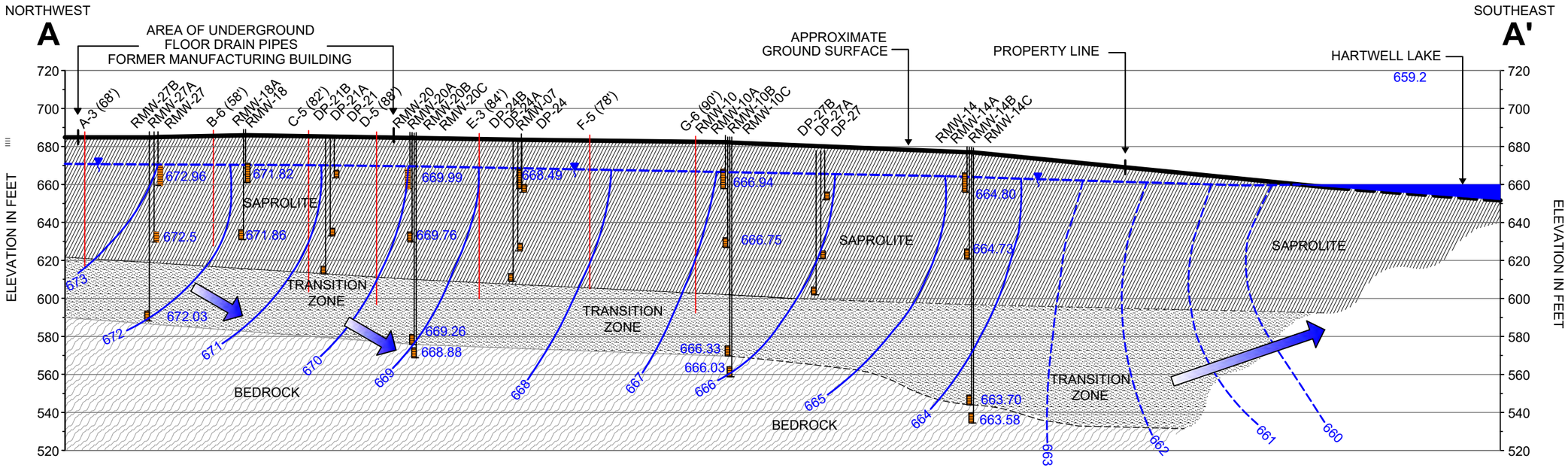
FILE NO.: Fig 5 - Piezometric-Bedrock_2021.mxd

Plot Date: 5/27/2021, 14:31:38 PM by DSZYNAL -- LAYOUT: ANSI B(11"x17")
Path: U:\West Point Home\Clemson SC\ArcGIS\10\300688\Water Table & PZ Maps\2021\Fig 5 - Piezometric-Bedrock_2021.mxd
Coordinate System: NAD 1983 StatePlane South Carolina FIPS 3900 Feet (Foot US)
Map Rotation: 0
TRC - GIS



CROSS SECTION A - A'

LEGEND

- SAPROLITE
- TRANSITION ZONE
- BEDROCK
- WELL
- WELL SCREEN
- WATER TABLE (MARCH 8, 2021)
- TEMPORARY DIRECT PUSH DP WELL
- WELL SCREEN
- ABC+ INJECTION LOCATION
- VERTICAL FLOW CONTOUR
- GROUNDWATER FLOW DIRECTION

NOTES

A-3 (68') - MAXIMUM DEPTH OF ABC+ INJECTION AT LOCATION A-3 PROVIDED IN FEET BELOW GRADE.

672.03 - WATER ELEVATION AT DESIGNATED WELL IN FEET MSL.

WATER LEVELS NOT AVAILABLE AT DP LOCATIONS.

PROFILE SCALE:
VERTICAL 0 60 SCALE: 1" = 60'
HORIZONTAL 0 120 SCALE: 1" = 120'

VERTICAL EXAGGERATION = 2X

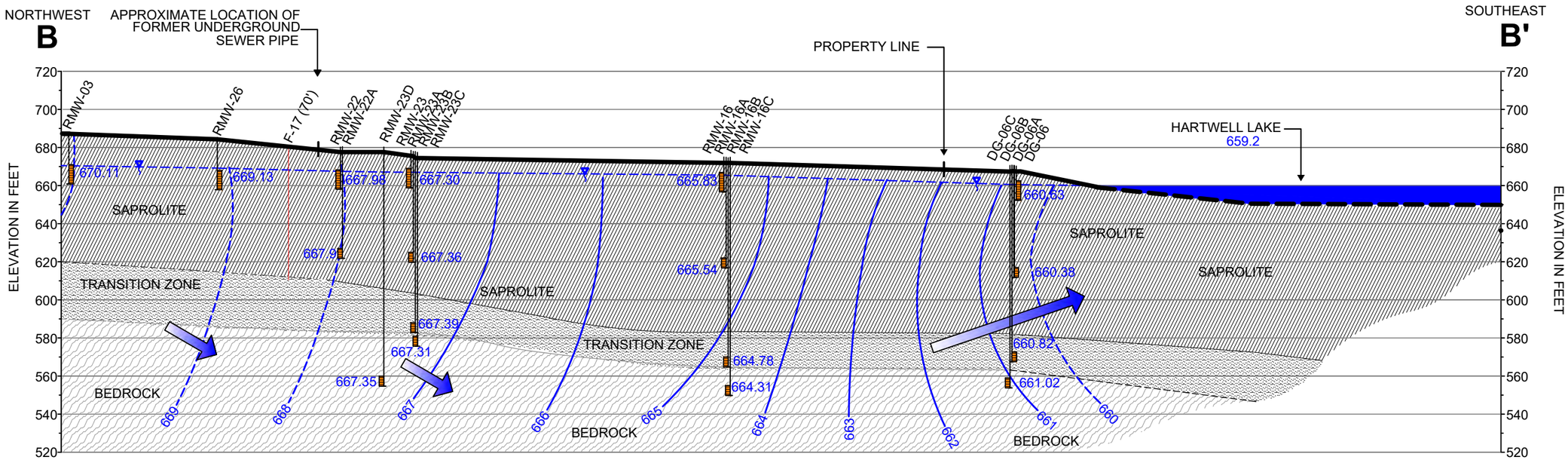
PROJECT:
WESTPOINT HOME, INC
CLEMSON, SOUTH CAROLINA

TITLE:
VERTICAL GROUNDWATER FLOW
CROSS SECTION A - A'

DRAWN BY:	S. HAMWAY	PROJ NO.:	300688.0000.0000
CHECKED BY:	L. CLARK		
APPROVED BY:	S. WEBB		FIGURE 3-6
DATE:	MAY 2021		

TRC
650 Suffolk Street
Suite 200
Lowell, MA 01854
Phone: 978.970.5600

FILE NO.: 300688 - FIG 8 VERTICAL FLOW GRADIENT MAP.dwg



CROSS SECTION B - B'

LEGEND

- SAPROLITE
- TRANSITION ZONE
- BEDROCK
- WELL
- WELL SCREEN
- WATER TABLE (MARCH 8, 2021)
- ABC+ INJECTION LOCATION
- VERTICAL FLOW CONTOUR
- GROUNDWATER FLOW DIRECTION

NOTES

F-17 (70') - MAXIMUM DEPTH OF ABC+ INJECTION AT LOCATION F-17 PROVIDED IN FEET BELOW GRADE.

667.31 - WATER ELEVATION AT DESIGNATED WELL IN FEET MSL.

PROFILE SCALE:
VERTICAL: 60 to 0, SCALE: 1" = 60'
HORIZONTAL: 0 to 120, SCALE: 1" = 120'

VERTICAL EXAGGERATION = 2X

PROJECT:
WESTPOINT HOME, INC
CLEMSON, SOUTH CAROLINA

TITLE:
VERTICAL GROUNDWATER FLOW CROSS SECTION B - B'

DRAWN BY:	S. HAMWAY	PROJ NO.:	300688.0000.0000
CHECKED BY:	L. CLARK		
APPROVED BY:	S. WEBB		**FIGURE 3-7**
DATE:	MAY 2021		

TRC
650 Suffolk Street
Suite 200
Lowell, MA 01854
Phone: 978.970.5600

FILE NO.: 300688 - FIG 9 VERTICAL FLOW GRADIENT MAP.dwg

Table 3-1 - Water Level Measurements March 2021

WELL ID	TOP OF CASING ELEVATION (ft MSL)	DEPTH TO WATER (ft below TOC)	WATER LEVEL ELEVATION (ft MSL)
DG-01	666.23	10.09	656.14
DG-03D	670.26	8.69	661.57
DG-03S	670.13	8.2	661.93
DG-05	669.35	6.4	662.95
DG-06	670.26	9.63	660.63
DG-06A	670.5	10.12	660.38
DG-06B	670.73	9.91	660.82
DG-06C	670.54	9.52	661.02
DG-07	667.43	7.27	660.16
MG-02	666.59	8.97	657.62
MG-05	669.77	3.58	666.19
MG-05A	673.18	6.14	667.04
MG-06	669.26	3.58	665.68
MG-06A	673.34	5.82	667.52
MG-06B	673.19	5.62	667.57
MW-11	665.69	5.26	660.43
MW-12	665.75	4.49	661.26
RMW-01	686.01	18.19	667.82
RMW-02	686.99	16.3	670.69
RMW-03	687.28	17.17	670.11
RMW-04	686.41	16.49	669.92
RMW-05A	685.89	19.75	666.14
RMW-05B	685.96	20.59	665.37
RMW-06	684.56	17.44	667.12
RMW-06A	684.62	17.22	667.4
RMW-07	686.61	18.12	668.49
RMW-08	683.68	14.65	669.03
RMW-08A	683.49	14.79	668.7
RMW-09	679.95	11.89	668.06
RMW-10	685.15	18.21	666.94
RMW-10A	684.96	18.21	666.75
RMW-10B	685.04	18.71	666.33
RMW-10C	684.97	18.94	666.03
RMW-11	679.47	15.78	663.69
RMW-12	680.98	17.22	663.76
RMW-13	679.18	15.18	664
RMW-13A	678.96	15.52	663.44
RMW-14	681.12	16.32	664.8
RMW-14A	680.74	16.01	664.73
RMW-14B	680.63	16.93	663.7
RMW-14C	681.16	17.58	663.58
RMW-15	678.23	13.71	664.52
RMW-15A	678.09	13.92	664.17

Table 3-1 - Water Level Measurements March 2021

WELL ID	TOP OF CASING ELEVATION (ft MSL)	DEPTH TO WATER (ft below TOC)	WATER LEVEL ELEVATION (ft MSL)
RMW-15B	678.15	15.02	663.13
RMW-16	674.99	9.16	665.83
RMW-16A	674.9	9.36	665.54
RMW-16B	674.62	9.84	664.78
RMW-16C	674.88	10.57	664.31
RMW-17	676.99	10.93	666.06
RMW-17A	676.94	11.13	665.81
RMW-18	688.96	17.14	671.82
RMW-18A	688.96	17.1	671.86
RMW-19	688.23	19.54	668.69
RMW-19A	688.09	19.46	668.63
RMW-20	687.45	17.46	669.99
RMW-20A	687.35	17.59	669.76
RMW-20B	687.1	17.84	669.26
RMW-20C	687.26	18.38	668.88
RMW-21	688.52	18.19	670.33
RMW-21A	688.56	18.24	670.32
RMW-22	680.23	12.25	667.98
RMW-22A	680.53	12.63	667.9
RMW-23	678.49	11.19	667.3
RMW-23A	677.94	10.58	667.36
RMW-23B	677.88	10.49	667.39
RMW-23C	677.44	10.13	667.31
RMW-23D	680.23	12.88	667.35
RMW-24	686.14	18.08	668.06
RMW-25	686.59	10.71	675.88
RMW-26	685.19	16.06	669.13
RMW-27	687.91	14.95	672.96
RMW-27A	687.79	15.29	672.5
RMW-27B	687.83	15.8	672.03
RMW-28A	681.5	14.42	667.08
RMW-28B	681.19	14.24	666.95
RMW-29	688	13.82	674.18

TOC - top of casing

MSL - mean sea level

Table 3-2 - Summary of March 2021 Water Quality Results

CONSTITUENT	MCL[1]	DP-20 3/26/2021 20 - 24 ft	DP-20A 3/26/2021 51 - 55 ft	DP-20B 3/26/2021 70 - 74 ft	DP-21 3/26/2021 20 - 24 ft	DP-21A 3/26/2021 51 - 55 ft	DP-21B 3/26/2021 72 - 76 ft	DP-21B DU-21105 3/25/2021 72 - 76 ft	DP-22 3/25/2021 20 - 24 ft	DP-22A 3/25/2021 51 - 55 ft	DP-22B 3/25/2021 67 - 71 ft
Gases (µg/L)											
Methane	--	**1600**	**20**	**11**	**7200**	**5900**	**280 J**	**190 J**	**2100**	**11**	**25**
Ethane	--	**8.9**	**0.24 J**	**0.38 J**	**6.2**	**60**	**12 J**	**8.6 J**	**8.6**	**2.0**	**1.4**
Ethene	--	**0.42 J**	< 0.12	**0.23 J**	**6.6**	**3.9**	**2.0**	**1.6**	**0.55 J**	**1.1**	**0.93 J**
Volatile Organic Compounds (mg/L)											
1,1-Dichloroethane	--	< 0.0050	< 0.05	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.02	< 0.0050
1,1-Dichloroethene	0.007	< 0.0050	< 0.05	< 0.0050	< 0.0010	**0.00069 J**	< 0.0010	< 0.0010	< 0.0050	< 0.02	< 0.0050
1,2-Dichlorobenzene	0.6	< 0.0050	< 0.05	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.02	< 0.0050
1,4-Dichlorobenzene	0.075	< 0.0050	< 0.05	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.02	< 0.0050
1,2-Dichloroethane	0.005	< 0.0050	< 0.05	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.02	< 0.0050
2-Butanone	--	< 0.05	< 0.5	< 0.05	< 0.01	**0.11**	**0.25**	**0.24**	**0.015 J**	< 0.2	< 0.05
Acetone	--	**0.026 J**	< 1	< 0.1	< 0.02	**0.11**	**0.015 J**	**0.015 J**	< 0.1	< 0.4	< 0.1
Benzene	0.005	< 0.0050	< 0.05	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.02	< 0.0050
Carbon disulfide	--	**0.0051**	< 0.05	< 0.0050	< 0.0010	**0.0033**	< 0.0010	< 0.0010	< 0.0050	< 0.02	**0.0071**
Carbon tetrachloride	0.005	< 0.0050	< 0.05	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.02	< 0.0050
Chlorobenzene	0.1	< 0.0050	< 0.05	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.02	< 0.0050
Chloroethane	--	< 0.01	< 0.1	< 0.01	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.01	< 0.04	< 0.01
Chloroform	0.08000[(2)]	< 0.0050	< 0.05	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.02	< 0.0050
Chloromethane	--	< 0.0050	< 0.05	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.02	< 0.0050
cis-1,2-Dichloroethene	0.07	**0.31**	< 0.05	< 0.0050	**0.092**	**0.07**	**0.0090**	**0.0096**	**0.061**	< 0.02	< 0.0050
Cyclohexane	--	< 0.0050	< 0.05	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.02	< 0.0050
Ethylbenzene	0.7	< 0.0050	< 0.05	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.02	< 0.0050
Isopropylbenzene (Cumene)	--	< 0.0050	< 0.05	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.02	< 0.0050
Methyl acetate	--	< 0.0050	< 0.05	< 0.0050	**0.0041**	**0.016**	**0.0093**	**0.0079**	< 0.0050	< 0.02	< 0.0050
Methylcyclohexane	--	< 0.025	< 0.25	< 0.025	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.025	< 0.1	< 0.025
Methylene chloride	0.005	< 0.0050	< 0.05	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.02	< 0.0050
Styrene	0.1	< 0.0050	< 0.05	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.02	< 0.0050
Tetrachloroethene	0.005	**0.41**	**4.3**	**0.36**	**0.017**	**0.13**	**0.15**	**0.19**	**0.35**	**2.2**	**0.4**
Toluene	1	< 0.0050	< 0.05	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.02	< 0.0050
trans-1,2-Dichloroethene	0.1	< 0.0050	< 0.05	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.02	< 0.0050
Trichloroethene	0.005	**0.03**	< 0.05	< 0.0050	**0.0010**	**0.079**	**0.0049**	**0.0056**	**0.075**	**0.022**	**0.023**
Trichlorofluoromethane (Freon 11)	--	< 0.0050	< 0.05	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.02	< 0.0050
Trichlorotrifluoroethane (Freon 113)	--	< 0.0050	< 0.05	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.02	< 0.0050
Vinyl chloride	0.002	< 0.0050	< 0.05	< 0.0050	**0.0013**	**0.00049 J**	< 0.0010	< 0.0010	< 0.0050	< 0.02	< 0.0050
Xylenes, total	10	< 0.0050	< 0.05	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.02	< 0.0050
General Chemistry (mg/L)											
Bromide	--	**0.37**	**0.39**	**0.083 J**	**0.18 J**	**0.56**	**0.086 J**	**0.083 J**	**0.21**	**2.0**	**0.18 J**
Sulfate	--	**38 J-**	**1.1 J-**	**6.8 J-**	**16 J-**	**0.51 J-**	**0.33 J-**	**0.43 J-**	**45 J-**	**0.37 J-**	**0.35 J-**
Field Parameters											
pH, Field (su)	--	**5.8**	**6.38**	**10.53**	**6.61**	**5.52**	**7.02**	NA	**5.56**	**5.2**	**6.25**
Temperature, Field (°C)	--	**22.63**	**21.76**	**23.36**	**17.54**	**19.32**	**20.47**	NA	**17.51**	**17.36**	**19.25**
Specific Conductivity, Field (µS/cm)	--	**344**	**270**	**213**	**263**	**501**	**401**	NA	**238**	**779**	**694**
Dissolved Oxygen, Field (mg/L)	--	**0**	**0.07**	**0.58**	**0**	**0**	**1.27**	NA	**0**	**0**	**0**
Oxidation Reduction Potential, Field (mV)	--	**149**	**34**	**-126**	**-472**	**-291**	**-79**	NA	**-13**	**-126**	**-207**
Turbidity, Field (NTU)	--	**>1000**	**863**	**305**	**585**	**>1000**	**>1000**	NA	**>1000**	**>1000**	**>1000**
Iron, Ferrous, Field (mg/L)	--	**2**	**1**	**0**	**>10**	**>10**	**8**	NA	**1**	**5**	**>10**

Note: Only constituents detected in at least one sample are reported in this table.

(1) Maximum Contaminant Level; March 2018 Edition of the Drinking Water Standards and Health Advisories (USEPA, 2018).

(2) The total of combined trihalomethanes (bromodichloromethane, dibromochloromethane, bromoform and chloroform) cannot exceed 0.08 mg/L.

J - Concentration detected equal to or greater than the method detection limit but less than the reporting limit.

J+ - Concentration considered an estimate biased high based on data validation.

J- - Concentration considered an estimate biased low based on data validation.

UJ - Not detected; quantitation limit may be inaccurate or imprecise.

< - Concentration less than the Quantitation Limit.

> - Concentration greater than the Quantitation Limit.

NA - Not analyzed.

Bolding indicates constituent detection.

Shading indicates concentration exceeds comparison criteria.

Table 3-2 - Summary of March 2021 Water Quality Results

CONSTITUENT	MCL[1]	DP-23 3/25/2021 20 - 24 ft	DP-23A 3/25/2021 51 - 55 ft	DP-23B 3/25/2021 72 - 76 ft	DP-24 3/24/2021 20 - 24 ft	DP-24A 3/24/2021 51 - 55 ft	DP-24B 3/24/2021 67 - 71 ft	DP-24B DU-21104 3/23/2021 67 - 71 ft	DP-25 3/24/2021 20 - 24 ft	DP-25A 3/24/2021 51 - 55 ft	DP-25B 3/24/2021 70 - 74 ft
Gases (µg/L)											
Methane	--	**8.4**	**9.0**	**6.4**	**3000**	<5.0	**23**	**24**	**710**	<5.0	<8.2
Ethane	--	< 0.075	< 0.075	**0.19 J**	**6.6**	**0.34 J**	**6.2**	**6.6**	**2.4**	**0.98 J**	**2.6**
Ethene	--	< 0.12	< 0.12	**0.18 J**	**0.22 J**	**0.35 J**	**2.9**	**3.1**	**1.2**	**0.53 J**	**0.72 J**
Volatile Organic Compounds (mg/L)											
1,1-Dichloroethane	--	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.02	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.01
1,1-Dichloroethene	0.007	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.02	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.01
1,2-Dichlorobenzene	0.6	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.02	**0.0030 J**	**0.0030 J**	< 0.0010	< 0.0050	< 0.01
1,4-Dichlorobenzene	0.075	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.02	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.01
1,2-Dichloroethane	0.005	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.02	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.01
2-Butanone	--	< 0.01	< 0.05	< 0.01	< 0.01	< 0.2	**0.2**	**0.19**	< 0.01	< 0.05	< 0.1
Acetone	--	< 0.02	< 0.1	< 0.02	< 0.02	< 0.4	**0.094 J**	**0.1**	< 0.02	< 0.1	< 0.2
Benzene	0.005	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.02	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.01
Carbon disulfide	--	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.02	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.01
Carbon tetrachloride	0.005	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.02	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.01
Chlorobenzene	0.1	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.02	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.01
Chloroethane	--	< 0.0020	< 0.01	< 0.0020	< 0.0020	< 0.04	< 0.01	< 0.01	< 0.0020	< 0.01	< 0.02
Chloroform	0.08000[(2)]	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.02	< 0.0050	< 0.0050	< 0.0010	**0.01**	< 0.01
Chloromethane	--	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.02	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.01
cis-1,2-Dichloroethene	0.07	< 0.0010	< 0.0050	< 0.0010	**0.14**	< 0.02	< 0.0050	< 0.0050	**0.036**	< 0.0050	< 0.01
Cyclohexane	--	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.02	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.01
Ethylbenzene	0.7	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.02	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.01
Isopropylbenzene (Cumene)	--	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.02	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.01
Methyl acetate	--	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.02	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.01
Methylcyclohexane	--	< 0.0050	< 0.025	< 0.0050	< 0.0050	< 0.1	< 0.025	< 0.025	< 0.0050	< 0.025	< 0.05
Methylene chloride	0.005	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.02	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.01
Styrene	0.1	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.02	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.01
Tetrachloroethene	0.005	**0.066**	**0.5**	**0.026**	**0.073**	**3.2**	**0.95**	**0.88**	**0.11**	**0.52**	**0.99**
Toluene	1	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.02	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.01
trans-1,2-Dichloroethene	0.1	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.02	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.01
Trichloroethene	0.005	< 0.0010	**0.0022 J**	< 0.0010	**0.0051**	**0.012**	**0.0069**	**0.0068**	**0.012**	< 0.0050	< 0.01
Trichlorofluoromethane (Freon 11)	--	**0.00043 J**	**0.0030 J**	**0.00074 J**	< 0.0010	< 0.02	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.01
Trichlorotrifluoroethane (Freon 113)	--	< 0.0010	< 0.0050	< 0.0010	**0.00049**	**0.021**	**0.014**	**0.014**	< 0.0010	< 0.0050	**0.0056 J**
Vinyl chloride	0.002	< 0.0010	< 0.0050	< 0.0010	**0.0015**	< 0.02	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.01
Xylenes, total	10	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.02	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.01
General Chemistry (mg/L)											
Bromide	--	**0.18 J**	< 0.20	< 0.20	**0.19**	< 0.20	**0.058**	**0.061 J**	**0.34**	**0.053 J**	< 0.20
Sulfate	--	**0.81 J-**	< 1.0 UJ	< 1.0 UJ	**0.52**	**1.1**	**0.57**	**0.79 J**	**90**	**1.4**	**2.3**
Field Parameters											
pH, Field (su)	--	**5.05**	**5.67**	**6.57**	**5.22**	**6.24**	**6.19**	NA	**4.6**	**5.46**	**6.21**
Temperature, Field (°C)	--	**17.33**	**18.25**	**18.48**	**18.03**	**20.36**	**20.6**	NA	**16.68**	**16.78**	**17.27**
Specific Conductivity, Field (µS/cm)	--	**113**	**18**	**27**	**77**	**34**	**113**	NA	**270**	**47**	**29**
Dissolved Oxygen, Field (mg/L)	--	**0**	**1.88**	**1.43**	**0**	**0**	**0**	NA	**0**	**1.96**	**0**
Oxidation Reduction Potential, Field (mV)	--	**57**	**36**	**-65**	**-145**	**-86**	**-485**	NA	**-114**	**-18**	**-223**
Turbidity, Field (NTU)	--	**482**	**>1000**	**>1000**	**369**	**>1000**	**>1000**	NA	**547**	**427**	**892**
Iron, Ferrous, Field (mg/L)	--	**1**	**0.3**	**0.3**	**1**	**1**	**5**	NA	**2**	**3**	**2**

Note: Only constituents detected in at least one sample are reported in this table.

(2) Maximum Contaminant Level; March 2018 Edition of the Drinking Water Standards and Health Advisories (USEPA, 2018).

(3) The total of combined trihalomethanes (bromodichloromethane, dibromochloromethane, bromoform and chloroform) cannot exceed 0.08 mg/L.

J - Concentration detected equal to or greater than the method detection limit but less than the reporting limit.

J+ - Concentration considered an estimate biased high based on data validation.

J- - Concentration considered an estimate biased low based on data validation.

UJ - Not detected; quantitation limit may be inaccurate or imprecise.

< - Concentration less than the Quantitation Limit.

> - Concentration greater than the Quantitation Limit.

NA - Not analyzed.

Bolding indicates constituent detection.

Shading indicates concentration exceeds comparison criteria.

Table 3-2 - Summary of March 2021 Water Quality Results

CONSTITUENT	MCL[1]	DP-26 3/23/2021 20 - 24 ft	DP-26A 3/23/2021 51 - 55 ft	DP-26B 3/23/2021 71 - 75 ft	DP-27 3/23/2021 20 - 24 ft	DP-27A 3/23/2021 51 - 55 ft	DP-27B 3/23/2021 70 - 74 ft	MG-05 3/22/2021 10 - 20 ft	MG-05A 3/22/2021 50.2 - 55.2 ft	MG-06 3/24/2021 10 - 20 ft	MG-06A 3/24/2021 50.1 - 55.1 ft
Gases (µg/L)											
Methane	--	**1400**	<5.0	<10	<5.0	<5.0	<5.0	**37**	**14**	**70**	< 2.5
Ethane	--	**2.9**	**11**	**5.6**	**0.18 J**	**0.28 J**	**0.30 J**	< 0.075	< 0.075	< 0.075	< 0.075
Ethene	--	< 0.12	**0.17 J**	**11**	**0.33 J**	**0.23 J**	**0.22 J**	**0.18 J**	**0.22 J**	< 0.12	< 0.12
Volatile Organic Compounds (mg/L)											
1,1-Dichloroethane	--	< 0.0010	< 0.05	< 0.1	< 0.01	< 0.01	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0010
1,1-Dichloroethene	0.007	< 0.0010	< 0.05	< 0.1	< 0.01	< 0.01	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0010
1,2-Dichlorobenzene	0.6	< 0.0010	< 0.05	< 0.1	< 0.01	< 0.01	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0010
1,4-Dichlorobenzene	0.075	< 0.0010	< 0.05	< 0.1	< 0.01	< 0.01	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0010
1,2-Dichloroethane	0.005	< 0.0010	< 0.05	< 0.1	< 0.01	< 0.01	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0010
2-Butanone	--	< 0.01	< 0.5	< 1	< 0.1	< 0.1	< 0.05	< 0.01	< 0.05	< 0.01	< 0.01
Acetone	--	< 0.02	< 1	< 2	< 0.2	< 0.2	< 0.1	< 0.02	< 0.1	< 0.02	< 0.02
Benzene	0.005	< 0.0010	< 0.05	< 0.1	< 0.01	< 0.01	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0010
Carbon disulfide	--	< 0.0010	< 0.05	< 0.1	< 0.01	< 0.01	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0010
Carbon tetrachloride	0.005	< 0.0010	< 0.05	< 0.1	< 0.01	< 0.01	**0.0026**	< 0.0010	< 0.0050	< 0.0010	< 0.0010
Chlorobenzene	0.1	< 0.0010	< 0.05	< 0.1	< 0.01	< 0.01	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0010
Chloroethane	--	< 0.0020	< 0.1	< 0.2	< 0.02	< 0.02	< 0.01	< 0.0020	< 0.01	< 0.0020	< 0.0020
Chloroform	0.08000[(2)]	< 0.0010	< 0.05	< 0.1	< 0.01	**0.0055 J**	**0.0038**	< 0.0010	< 0.0050	< 0.0010	< 0.0010
Chloromethane	--	< 0.0010	< 0.05	< 0.1	< 0.01	< 0.01	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0010
cis-1,2-Dichloroethene	0.07	**0.045**	< 0.05	**2.2**	< 0.01	< 0.01	< 0.0050	**0.0052**	< 0.0050	< 0.0010	< 0.0010
Cyclohexane	--	< 0.0010	< 0.05	< 0.1	< 0.01	< 0.01	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0010
Ethylbenzene	0.7	< 0.0010	< 0.05	< 0.1	< 0.01	< 0.01	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0010
Isopropylbenzene (Cumene)	--	< 0.0010	< 0.05	< 0.1	< 0.01	< 0.01	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0010
Methyl acetate	--	< 0.0010	< 0.05	< 0.1	< 0.01	< 0.01	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0010
Methylcyclohexane	--	< 0.0050	< 0.25	< 0.5	< 0.05	< 0.05	< 0.025	< 0.0050	< 0.025	< 0.0050	< 0.0050
Methylene chloride	0.005	< 0.0010	< 0.05	< 0.1	< 0.01	< 0.01	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0010
Styrene	0.1	< 0.0010	< 0.05	< 0.1	< 0.01	< 0.01	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0010
Tetrachloroethene	0.005	**0.34**	**4.5**	**8.7**	**1.3**	**1.3**	**0.55**	**0.14**	**0.31**	< 0.0010	**0.17**
Toluene	1	< 0.0010	< 0.05	< 0.1	< 0.01	< 0.01	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0010
trans-1,2-Dichloroethene	0.1	< 0.0010	< 0.05	< 0.1	< 0.01	< 0.01	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0010
Trichloroethene	0.005	**0.03**	< 0.05	**0.21**	< 0.01	< 0.01	< 0.0050	**0.01**	< 0.0050	< 0.0010	**0.00049 J**
Trichlorofluoromethane (Freon 11)	--	< 0.0010	< 0.05	< 0.1	< 0.01	< 0.01	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0010
Trichlorotrifluoroethane (Freon 113)	--	**0.00079**	< 0.05	< 0.1	< 0.01	**0.0091 J**	**0.0031**	< 0.0010	< 0.0050	< 0.0010	< 0.0010
Vinyl chloride	0.002	< 0.0010	< 0.05	< 0.1	< 0.01	< 0.01	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0010
Xylenes, total	10	< 0.0010	< 0.05	< 0.1	< 0.01	< 0.01	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0010
General Chemistry (mg/L)											
Bromide	--	**0.30**	< 0.20	**0.053**	**0.16**	< 0.20	< 0.20	**0.47**	**0.064 J**	**0.051 J**	**0.052 J**
Sulfate	--	**9.2**	**0.34**	**5.3**	**170**	**42**	**12**	**2.9 J+**	**1.2**	**21**	**1.3**
Field Parameters											
pH, Field (su)	--	**5.42**	**6.46**	**6.93**	**4.31**	**5.14**	**7.09**	**4.69**	**6.16**	**4.9**	**6.24**
Temperature, Field (°C)	--	**21.35**	**23.13**	**23.67**	**14.52**	**16.48**	**19.48**	**22.97**	**18.71**	**20.08**	**18.26**
Specific Conductivity, Field (µS/cm)	--	**126**	**17**	**82**	**363**	**102**	**69**	**111**	**64**	**50**	**66**
Dissolved Oxygen, Field (mg/L)	--	**0**	**1.14**	**0**	**1.45**	**2.74**	**4.96**	**0.99**	**4.13**	**0.03**	**1.41**
Oxidation Reduction Potential, Field (mV)	--	**507**	**-6**	**-361**	**122**	**115**	**-19**	**256**	**157**	**105**	**167**
Turbidity, Field (NTU)	--	**855**	**122**	**>1000**	**>1000**	**368**	**>1000**	**59.8**	**74.3**	**65.6**	**0**
Iron, Ferrous, Field (mg/L)	--	**0.3**	**0.1**	**2**	**3**	**2**	**0.1**	**0**	**0**	**1.5**	**0.5**

Note: Only constituents detected in at least one sample are reported in this table.

[(2)] Maximum Contaminant Level; March 2018 Edition of the Drinking Water Standards and Health Advisories (USEPA, 2018).

[(3)] The total of combined trihalomethanes (bromodichloromethane, dibromochloromethane, bromoform and chloroform) cannot exceed 0.08 mg/L.

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< - Concentration less than the Quantitation Limit.

> - Concentration greater than the Quantitation Limit.

NA - Not analyzed.

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Shading indicates concentration exceeds comparison criteria.

Table 3-2 - Summary of March 2021 Water Quality Results

CONSTITUENT	MCL[1]	MG-06B 3/24/2021 75.7 - 80.7 ft	RMW-01 3/25/2021 14.3 - 23.5 ft	RMW-02 3/24/2021 18.7 - 28.7 ft	RMW-05A 3/19/2021 50.2 - 55.2 ft	RMW-05B 3/19/2021 131.1 - 136.1 ft	RMW-06 3/16/2021 13.7 - 23.7 ft	RMW-06A 3/16/2021 49.6 - 54.6 ft	RMW-07 3/15/2021 15 - 25 ft	RMW-08 3/22/2021 10.9 - 20.9 ft	RMW-08A 3/22/2021 65.4 - 75.4 ft
Gases (µg/L)											
Methane	--	< 2.5	**16**	**170**	< 8.4	**17**	< 5.0	< 2.5	**100**	**130**	**5200**
Ethane	--	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	**2.4**	**0.59 J**	**2.7**
Ethene	--	< 0.12	< 0.12	**0.18 J**	< 0.12	**0.45 J**	< 0.12	< 0.12	**0.16 J**	**2.1**	**1.4**
Volatile Organic Compounds (mg/L)											
1,1-Dichloroethane	--	< 0.0010	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0050
1,1-Dichloroethene	0.007	< 0.0010	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0050
1,2-Dichlorobenzene	0.6	< 0.0010	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0050
1,4-Dichlorobenzene	0.075	< 0.0010	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0050
1,2-Dichloroethane	0.005	< 0.0010	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0050
2-Butanone	--	< 0.01	< 0.01	< 0.05	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	**0.34**
Acetone	--	< 0.02	< 0.02	**0.064 J**	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	**0.15**
Benzene	0.005	< 0.0010	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0050
Carbon disulfide	--	< 0.0010	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	**0.0024 J**
Carbon tetrachloride	0.005	< 0.0010	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0050
Chlorobenzene	0.1	< 0.0010	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0050
Chloroethane	--	< 0.0020	< 0.0020	< 0.01	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.01
Chloroform	0.08000[(2)]	< 0.0010	< 0.0010	< 0.0050	**0.011**	**0.012**	< 0.0010	**0.00093 J**	< 0.0010	< 0.0010	< 0.0050
Chloromethane	--	< 0.0010	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0050
cis-1,2-Dichloroethene	0.07	**0.00061 J**	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.0010	**0.023**	**0.013**	**0.88**
Cyclohexane	--	< 0.0010	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0050
Ethylbenzene	0.7	< 0.0010	< 0.0010	**0.35**	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0050
Isopropylbenzene (Cumene)	--	< 0.0010	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0050
Methyl acetate	--	< 0.0010	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0050
Methylcyclohexane	--	< 0.0050	< 0.0050	< 0.025	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.025
Methylene chloride	0.005	< 0.0010	< 0.0010	**0.0021 J**	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0050
Styrene	0.1	< 0.0010	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0050
Tetrachloroethene	0.005	**0.39**	**0.00081 J**	**0.0049 J**	< 0.0010	< 0.0010	**0.022**	**0.15**	**0.076**	**0.17**	**0.25**
Toluene	1	< 0.0010	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0050
trans-1,2-Dichloroethene	0.1	< 0.0010	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0050
Trichloroethene	0.005	**0.0014**	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.0010	**0.0015**	**0.0028**	**0.021**
Trichlorofluoromethane (Freon 11)	--	< 0.0010	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.0010	**0.00088 J**	< 0.0010	< 0.0010	< 0.0050
Trichlorotrifluoroethane (Freon 113)	--	< 0.0010	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.0010	**0.00070 J**	< 0.0010	< 0.0050
Vinyl chloride	0.002	< 0.0010	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0050
Xylenes, total	10	< 0.0010	< 0.0010	**1.1**	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0050
General Chemistry (mg/L)											
Bromide	--	**0.061 J**	**0.14 J**	**0.22**	< 0.20	< 0.20	**0.080 J**	**0.055 J**	**0.33**	**0.19 J**	**0.51**
Sulfate	--	**9.1**	**77**	**12**	< 1.0	< 1.0	**16**	< 1.0	**0.64 J**	**4.9**	< 1.0
Field Parameters											
pH, Field (su)	--	**6.45**	**4.8**	**11.83**	**5.26**	**6.8**	**4.68**	**4.35**	**4**	**4.81**	**6.07**
Temperature, Field (°C)	--	**19.29**	**18.89**	**19.02**	**20.03**	**19.49**	**16.6**	**16.58**	**18.46**	**21.08**	**19.73**
Specific Conductivity, Field (µS/cm)	--	**93**	**199**	**3450**	**23**	**36**	**69**	**23**	**80**	**73**	**778**
Dissolved Oxygen, Field (mg/L)	--	**1.43**	**0.23**	**0**	**1.71**	**0.57**	**4.89**	**2.12**	**0.31**	**0.35**	**7.44**
Oxidation Reduction Potential, Field (mV)	--	**75**	**187**	**-84**	**168**	**32**	**350**	**285**	**559**	**274**	**-57**
Turbidity, Field (NTU)	--	**2.8**	**0**	**0**	**0**	**25.1**	**0**	**0**	**0.3**	**3.4**	**4.7**
Iron, Ferrous, Field (mg/L)	--	**0**	**0**	**0**	**0**	**0**	**0.1**	**0**	**0**	**0**	**>10**

Note: Only constituents detected in at least one sample are reported in this table.

[(2)] Maximum Contaminant Level; March 2018 Edition of the Drinking Water Standards and Health Advisories (USEPA, 2018).

[(3)] The total of combined trihalomethanes (bromodichloromethane, dibromochloromethane, bromoform and chloroform) cannot exceed 0.08 mg/L.

J - Concentration detected equal to or greater than the method detection limit but less than the reporting limit.

J+ - Concentration considered an estimate biased high based on data validation.

J- - Concentration considered an estimate biased low based on data validation.

UJ - Not detected; quantitation limit may be inaccurate or imprecise.

< - Concentration less than the Quantitation Limit.

> - Concentration greater than the Quantitation Limit.

NA - Not analyzed.

Bolding indicates constituent detection.

Shading indicates concentration exceeds comparison criteria.

Table 3-2 - Summary of March 2021 Water Quality Results

CONSTITUENT	MCL[1]	RMW-09 3/12/2021 8.9 - 18.9 ft	RMW-10 3/11/2021 14.8 - 24.8 ft	RMW-10A 3/11/2021 50.3 - 55.3 ft	RMW-10B 2021-03-11 106.8 - 111.8 ft	RMW-10C 2021-03-11 118 - 123 ft	RMW-10C DU-21101 2021-03-11 118 - 123 ft	RMW-11 3/25/2021 11.1 - 21.1 ft	RMW-13 3/16/2021 10.1 - 18.5 ft	RMW-13A 3/16/2021 50.3 - 55.3 ft	RMW-14 3/15/2021 11.5 - 21 ft
Gases (µg/L)											
Methane	--	**79**	**20**	< 5.0	< 5.0	< 2.5	< 5.0	**2.6 J**	< 5.0	< 5.0	< 5.0
Ethane	--	**0.36 J**	**1.1**	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075	< 0.075
Ethene	--	< 0.12	**0.27 J**	**0.31 J**	< 0.12	< 0.12	< 0.12	< 0.12	**0.68 J**	< 0.12	**0.23 J**
Volatile Organic Compounds (mg/L)											
1,1-Dichloroethane	--	< 0.0010	< 0.0050	< 0.01	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
1,1-Dichloroethene	0.007	< 0.0010	< 0.0050	< 0.01	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
1,2-Dichlorobenzene	0.6	< 0.0010	< 0.0050	< 0.01	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
1,4-Dichlorobenzene	0.075	< 0.0010	< 0.0050	< 0.01	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
1,2-Dichloroethane	0.005	< 0.0010	< 0.0050	< 0.01	< 0.0010	< 0.0010	< 0.0010	**0.00075 J**	**0.00048 J**	< 0.0010	< 0.0010
2-Butanone	--	< 0.01	< 0.05	< 0.1	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Acetone	--	< 0.02	< 0.1	< 0.2	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
Benzene	0.005	< 0.0010	< 0.0050	< 0.01	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Carbon disulfide	--	< 0.0010	< 0.0050	< 0.01	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Carbon tetrachloride	0.005	< 0.0010	< 0.0050	< 0.01	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Chlorobenzene	0.1	< 0.0010	< 0.0050	< 0.01	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Chloroethane	--	< 0.0020	< 0.01	< 0.02	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020
Chloroform	0.08000[(2)]	< 0.0010	< 0.0050	< 0.01	< 0.0010	< 0.0010	< 0.0010	**0.0016**	**0.00053 J**	< 0.0010	< 0.0010
Chloromethane	--	< 0.0010	< 0.0050	< 0.01	**0.00058 J**	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
cis-1,2-Dichloroethene	0.07	**0.0071**	**0.034**	< 0.01	**0.021**	**0.0020**	**0.0020**	< 0.0010	**0.00041 J**	< 0.0010	< 0.0010
Cyclohexane	--	< 0.0010	< 0.0050	< 0.01	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Ethylbenzene	0.7	< 0.0010	< 0.0050	< 0.01	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Isopropylbenzene (Cumene)	--	< 0.0010	< 0.0050	< 0.01	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Methyl acetate	--	< 0.0010	< 0.0050	< 0.01	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Methylcyclohexane	--	< 0.0050	< 0.025	< 0.05	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Methylene chloride	0.005	< 0.0010	< 0.0050	< 0.01	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Styrene	0.1	< 0.0010	< 0.0050	< 0.01	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Tetrachloroethene	0.005	**0.16**	**0.36**	**1.4**	**0.15**	**0.095**	**0.091**	**0.087**	**0.16**	< 0.0010	**0.022**
Toluene	1	< 0.0010	< 0.0050	< 0.01	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
trans-1,2-Dichloroethene	0.1	< 0.0010	< 0.0050	< 0.01	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Trichloroethene	0.005	**0.0019**	**0.0048 J**	< 0.01	**0.0070**	**0.0012**	**0.0012**	< 0.0010	**0.00043 J**	< 0.0010	< 0.0010
Trichlorofluoromethane (Freon 11)	--	< 0.0010	< 0.0050	< 0.01	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Trichlorotrifluoroethane (Freon 113)	--	< 0.0010	< 0.0050	**0.0089 J**	< 0.0010	< 0.0010	< 0.0010	< 0.0010	**0.00046 J**	< 0.0010	< 0.0010
Vinyl chloride	0.002	< 0.0010	< 0.0050 UJ	< 0.01	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
Xylenes, total	10	< 0.0010	< 0.0050	< 0.01	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010
General Chemistry (mg/L)											
Bromide	--	**0.18 J**	**0.44 J**	< 0.20	**0.054 J**	**0.051 J**	**0.052 J**	**0.12 J**	< 0.20	< 0.20	< 0.20
Sulfate	--	**9.8**	**850**	**1.4**	**2.0**	**1.9**	**2.0**	**90**	**110**	**0.99 J**	**97**
Field Parameters											
pH, Field (su)	--	**4.33**	**3.74**	**4.9**	**6.52**	**9.1**	NA	**3.84**	**3.84**	**5.44**	**3.95**
Temperature, Field (°C)	--	**23.27**	**21.79**	**19.96**	**21.45**	**22.53**	NA	**18.37**	**15.14**	**15.53**	**20.92**
Specific Conductivity, Field (µS/cm)	--	**51**	**745**	**16**	**62**	**64**	NA	**216**	**197**	**11**	**149**
Dissolved Oxygen, Field (mg/L)	--	**0**	**1.49**	**2.56**	**0**	**1.89**	NA	**3.13**	**4.31**	**10.07**	**7.27**
Oxidation Reduction Potential, Field (mV)	--	**543**	**352**	**279**	**30**	**129**	NA	**303**	**247**	**289**	**425**
Turbidity, Field (NTU)	--	**0.6**	**31**	**10.2**	**37.3**	**3.8**	NA	**0**	**1.5**	**0**	**9.9**
Iron, Ferrous, Field (mg/L)	--	**0**	**7**	**0**	**0.2**	**0.05**	NA	**0**	**0**	**0**	**0**

Note: Only constituents detected in at least one sample are reported in this table.

[(2)] Maximum Contaminant Level; March 2018 Edition of the Drinking Water Standards and Health Advisories (USEPA, 2018).

[(3)] The total of combined trihalomethanes (bromodichloromethane, dibromochloromethane, bromoform and chloroform) cannot exceed 0.08 mg/L.

J - Concentration detected equal to or greater than the method detection limit but less than the reporting limit.

J+ - Concentration considered an estimate biased high based on data validation.

J- - Concentration considered an estimate biased low based on data validation.

UJ - Not detected; quantitation limit may be inaccurate or imprecise.

< - Concentration less than the Quantitation Limit.

> - Concentration greater than the Quantitation Limit.

NA - Not analyzed.

Bolding indicates constituent detection.

Shading indicates concentration exceeds comparison criteria.

Table 3-2 - Summary of March 2021 Water Quality Results

CONSTITUENT	MCL[1]	RMW-14A 3/15/2021 50.2 - 55.2 ft	RMW-14B 3/15/2021 126.8 - 131.8 ft	RMW-14C 3/15/2021 137.8 - 142.8 ft	RMW-16 3/16/2021 5.2 - 15 ft	RMW-16A 3/16/2021 49.8 - 54.8 ft	RMW-16A DU-21102 3/12/2021 49.8 - 54.8 ft	RMW-17 3/12/2021 7.1 - 16.8 ft	RMW-17A 3/12/2021 51 - 56 ft	RMW-18 3/25/2021 15 - 25 ft	RMW-18A 3/23/2021 50 - 55 ft
Gases (µg/L)											
Methane	--	< 5.0	< 5.0	< 2.5	**5800**	**36**	**34**	**3200**	< 2.5	**1600**	**340**
Ethane	--	< 0.075	< 0.075	< 0.075	**0.22 J**	< 0.075	< 0.075	**0.34 J**	**0.10 J**	**3.5**	< 0.075
Ethene	--	< 0.12	**0.24 J**	**0.14 J**	< 0.12	< 0.12	< 0.12	< 0.12	< 0.12	**0.18 J**	< 0.12
Volatile Organic Compounds (mg/L)											
1,1-Dichloroethane	--	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.1	< 0.05	< 0.0010	< 0.05	< 0.0010	< 0.0010
1,1-Dichloroethene	0.007	**0.0050**	< 0.0010	< 0.0010	< 0.0010	< 0.1	< 0.05	< 0.0010	< 0.05	**0.00073 J**	< 0.0010
1,2-Dichlorobenzene	0.6	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.1	< 0.05	< 0.0010	< 0.05	< 0.0010	< 0.0010
1,4-Dichlorobenzene	0.075	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.1	< 0.05	< 0.0010	< 0.05	< 0.0010	< 0.0010
1,2-Dichloroethane	0.005	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.1	< 0.05	< 0.0010	< 0.05	< 0.0010	< 0.0010
2-Butanone	--	< 0.05	< 0.01	< 0.01	< 0.01	< 1	< 0.5	< 0.01	< 0.5	< 0.01	< 0.01
Acetone	--	< 0.1	< 0.02	< 0.02	< 0.02	< 2	< 1	< 0.02	< 1	< 0.02	< 0.02
Benzene	0.005	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.1	< 0.05	< 0.0010	< 0.05	< 0.0010	< 0.0010
Carbon disulfide	--	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.1	< 0.05	< 0.0010	< 0.05	< 0.0010	< 0.0010
Carbon tetrachloride	0.005	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.1	< 0.05	< 0.0010	< 0.05	< 0.0010	< 0.0010
Chlorobenzene	0.1	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.1	< 0.05	< 0.0010	< 0.05	< 0.0010	< 0.0010
Chloroethane	--	< 0.01	< 0.0020	< 0.0020	< 0.0020	< 0.2	< 0.1	< 0.0020	< 0.1	< 0.0020	< 0.0020
Chloroform	0.08000[(2)]	**0.0052**	< 0.0010	< 0.0010	< 0.0010	< 0.1	< 0.05	< 0.0010	< 0.05	< 0.0010	< 0.0010
Chloromethane	--	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.1	< 0.05	< 0.0010	< 0.05	< 0.0010	< 0.0010
cis-1,2-Dichloroethene	0.07	< 0.0050	< 0.0010	< 0.0010	**0.021**	< 0.1	< 0.05	**0.011**	< 0.05	**0.35**	< 0.0010
Cyclohexane	--	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.1	< 0.05	< 0.0010	< 0.05	< 0.0010	< 0.0010
Ethylbenzene	0.7	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.1	< 0.05	< 0.0010	< 0.05	< 0.0010	< 0.0010
Isopropylbenzene (Cumene)	--	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.1	< 0.05	< 0.0010	< 0.05	< 0.0010	< 0.0010
Methyl acetate	--	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.1	< 0.05	< 0.0010	< 0.05	< 0.0010	< 0.0010
Methylcyclohexane	--	< 0.025	< 0.0050	< 0.0050	< 0.0050	< 0.5	< 0.25	< 0.0050	< 0.25	< 0.0050	< 0.0050
Methylene chloride	0.005	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.1	< 0.05	< 0.0010	< 0.05	< 0.0010	< 0.0010
Styrene	0.1	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.1	< 0.05	< 0.0010	< 0.05	< 0.0010	< 0.0010
Tetrachloroethene	0.005	**0.6**	**0.0043**	**0.016**	**0.15**	**10**	**8.9**	**0.079**	**4.1**	**0.28**	**0.015**
Toluene	1	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.1	< 0.05	< 0.0010	< 0.05	< 0.0010	< 0.0010
trans-1,2-Dichloroethene	0.1	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.1	< 0.05	< 0.0010	< 0.05	< 0.0010	< 0.0010
Trichloroethene	0.005	< 0.0050	< 0.0010	< 0.0010	**0.014**	**0.056 J**	**0.054**	**0.0077**	**0.26**	**0.022**	< 0.0010
Trichlorofluoromethane (Freon 11)	--	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.1	< 0.05	< 0.0010	< 0.05	< 0.0010	< 0.0010
Trichlorotrifluoroethane (Freon 113)	--	**0.0022 J**	< 0.0010	< 0.0010	< 0.0010	< 0.1	< 0.05	< 0.0010	< 0.05	< 0.0010	< 0.0010
Vinyl chloride	0.002	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.1	< 0.05	< 0.0010	< 0.05	**0.00090 J**	< 0.0010
Xylenes, total	10	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.1	< 0.05	< 0.0010	< 0.05	< 0.0010	< 0.0010
General Chemistry (mg/L)											
Bromide	--	< 0.20	< 0.20	< 0.20	**0.27**	**0.089 J**	**0.088 J**	**0.096 J**	**0.35**	**0.37**	< 0.20
Sulfate	--	**140**	**0.36 J**	**0.55 J**	**6.8**	**2.5**	**2.6**	**43**	**22**	**65**	**120**
Field Parameters											
pH, Field (su)	--	**5.15**	**6.24**	**7.89**	**5.47**	**5.74**	NA	**5.53**	**5.7**	**5.11**	**5.1**
Temperature, Field (°C)	--	**19.18**	**19.94**	**18.68**	**12.7**	**13.85**	NA	**21.63**	**22.75**	**19.37**	**20.6**
Specific Conductivity, Field (µS/cm)	--	**217**	**42**	**58**	**104**	**66**	NA	**110**	**91**	**288**	**280**
Dissolved Oxygen, Field (mg/L)	--	**2.39**	**5.62**	**8.47**	**0**	**2.84**	NA	**0.03**	**0.53**	**0.45**	**0**
Oxidation Reduction Potential, Field (mV)	--	**255**	**231**	**114**	**-7**	**194**	NA	**537**	**334**	**226**	**150**
Turbidity, Field (NTU)	--	**0.7**	**14.3**	**18.4**	**2.1**	**0**	NA	**9.5**	**6**	**5.4**	**0**
Iron, Ferrous, Field (mg/L)	--	**0**	**0**	**0**	**2.5**	**0**	NA	**0**	**0**	**0.3**	**0.05**

Note: Only constituents detected in at least one sample are reported in this table.

[(2)] Maximum Contaminant Level; March 2018 Edition of the Drinking Water Standards and Health Advisories (USEPA, 2018).

[(3)] The total of combined trihalomethanes (bromodichloromethane, dibromochloromethane, bromoform and chloroform) cannot exceed 0.08 mg/L.

J - Concentration detected equal to or greater than the method detection limit but less than the reporting limit.

J+ - Concentration considered an estimate biased high based on data validation.

J- - Concentration considered an estimate biased low based on data validation.

UJ - Not detected; quantitation limit may be inaccurate or imprecise.

< - Concentration less than the Quantitation Limit.

> - Concentration greater than the Quantitation Limit.

NA - Not analyzed.

Bolding indicates constituent detection.

Shading indicates concentration exceeds comparison criteria.

Table 3-2 - Summary of March 2021 Water Quality Results

CONSTITUENT	MCL[1]	RMW-19 3/19/2021 15.9 - 25.9 ft	RMW-19A 3/19/2021 49.9 - 54.9 ft	RMW-20 3/22/2021 13.5 - 23 ft	RMW-20A 3/22/2021 50.2 - 55.2 ft	RMW-20B 3/23/2021 103 - 108 ft	RMW-20C 3/23/2021 113.8 - 118.8 ft	RMW-21 3/19/2021 17.2 - 24 ft	RMW-21A 3/19/2021 50 - 55 ft	RMW-22 3/18/2021 8.6 - 18.6 ft	RMW-22A 3/18/2021 50.1 - 55.1 ft
Gases (µg/L)											
Methane	--	< 2.5	< 2.5	**1200**	**16000**	**18000**	**1400**	**110**	**210 J-**	**5600**	**11000**
Ethane	--	< 0.075	< 0.075	**0.25 J**	**1.8**	**1.6**	< 0.075	< 0.075	**1.6 J-**	**3.2**	**2.1**
Ethene	--	< 0.12	< 0.12	**0.45 J**	**4.6**	**0.16 J**	**0.69 J**	< 0.12	**0.65 J**	**0.38 J**	**1.8**
Volatile Organic Compounds (mg/L)											
1,1-Dichloroethane	--	< 0.0010	< 0.01	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.02	< 0.0010	< 0.0010
1,1-Dichloroethene	0.007	< 0.0010	< 0.01	< 0.0010	**0.0027**	< 0.0010	< 0.0010	< 0.0010	< 0.02	< 0.0010	< 0.0010
1,2-Dichlorobenzene	0.6	< 0.0010	< 0.01	< 0.0010	**0.00054 J**	< 0.0010	< 0.0010	< 0.0010	< 0.02	< 0.0010	< 0.0010
1,4-Dichlorobenzene	0.075	< 0.0010	< 0.01	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.02	< 0.0010	< 0.0010
1,2-Dichloroethane	0.005	< 0.0010	< 0.01	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.02	< 0.0010	< 0.0010
2-Butanone	--	< 0.01	< 0.1	< 0.01	**0.18**	< 0.01	**0.0032 J**	< 0.01	**0.11 J**	< 0.01	**0.025**
Acetone	--	< 0.02	< 0.2	< 0.02	< 1	< 0.02	< 0.02	< 0.02	< 0.4 UJ	**0.011 J**	**0.0058 J**
Benzene	0.005	< 0.0010	< 0.01	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.02	< 0.0010	< 0.0010
Carbon disulfide	--	< 0.0010	< 0.01	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	**0.011 J**	< 0.0010	< 0.0010
Carbon tetrachloride	0.005	< 0.0010	< 0.01	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.02	< 0.0010	< 0.0010
Chlorobenzene	0.1	< 0.0010	< 0.01	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.02	< 0.0010	< 0.0010
Chloroethane	--	< 0.0020	< 0.02	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.04	< 0.0020	< 0.0020
Chloroform	0.08000[(2)]	< 0.0010	**0.0075 J**	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.02	< 0.0010	< 0.0010
Chloromethane	--	< 0.0010	< 0.01	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.02	< 0.0010	< 0.0010
cis-1,2-Dichloroethene	0.07	< 0.0010	< 0.01	**0.00078 J**	**2.6**	< 0.0010	< 0.0010	**0.0024**	**0.023**	**0.083**	**0.046**
Cyclohexane	--	< 0.0010	< 0.01	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.02	< 0.0010	< 0.0010
Ethylbenzene	0.7	< 0.0010	< 0.01	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.02	< 0.0010	< 0.0010
Isopropylbenzene (Cumene)	--	< 0.0010	< 0.01	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.02	< 0.0010	< 0.0010
Methyl acetate	--	< 0.0010	< 0.01	< 0.0010	**0.01 J+**	< 0.0010	< 0.0010	< 0.0010	**0.0097 J**	< 0.0010	< 0.0010
Methylcyclohexane	--	< 0.0050	< 0.05	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.1	< 0.0050	< 0.0050
Methylene chloride	0.005	< 0.0010	< 0.01	< 0.0010	**0.00062 J**	< 0.0010	< 0.0010	< 0.0010	< 0.02	< 0.0010	< 0.0010
Styrene	0.1	< 0.0010	< 0.01	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.02	< 0.0010	< 0.0010
Tetrachloroethene	0.005	**0.0073**	**1.2**	**0.019**	**0.026**	< 0.0010	**0.0030**	**0.11**	**2 J-**	**0.054**	**0.091**
Toluene	1	< 0.0010	< 0.01	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.02	< 0.0010	< 0.0010
trans-1,2-Dichloroethene	0.1	< 0.0010	< 0.01	< 0.0010	**0.0013**	< 0.0010	< 0.0010	< 0.0010	< 0.02	< 0.0010	< 0.0010
Trichloroethene	0.005	< 0.0010	< 0.01	< 0.0010	**0.0074**	< 0.0010	< 0.0010	**0.0017**	**0.02**	**0.011**	**0.0018**
Trichlorofluoromethane (Freon 11)	--	**0.0034**	< 0.01	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.02	< 0.0010	< 0.0010
Trichlorotrifluoroethane (Freon 113)	--	< 0.0010	< 0.01	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.02	< 0.0010	< 0.0010
Vinyl chloride	0.002	< 0.0010	< 0.01	< 0.0010	**0.016**	< 0.0010	< 0.0010	< 0.0010	< 0.02	**0.00064 J**	< 0.0010
Xylenes, total	10	< 0.0010	< 0.01	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.02	< 0.0010	< 0.0010
General Chemistry (mg/L)											
Bromide	--	**0.22**	**0.056 J**	**0.15 J**	< 0.20	**0.051 J**	**0.050 J**	**0.16 J**	**0.32**	**0.60**	**0.12 J**
Sulfate	--	**29**	< 1.0	**66**	< 1.0 UJ	< 1.0	**1.1 J+**	**11**	**61**	**5.8**	< 1.0
Field Parameters											
pH, Field (su)	--	**4.58**	**4.89**	**4.51**	**6.74**	**7**	**11.25**	**4.92**	**5.56**	**5.13**	**6.39**
Temperature, Field (°C)	--	**18.75**	**18.54**	**21.3**	**21.76**	**21.32**	**23.86**	**18.78**	**19.04**	**19.04**	**21.97**
Specific Conductivity, Field (µS/cm)	--	**142**	**30**	**183**	**412**	**216**	**358**	**100**	**620**	**161**	**121**
Dissolved Oxygen, Field (mg/L)	--	**6.5**	**1.76**	**0**	**0.98**	**2.16**	**0.38**	**0.77**	**0**	**0**	**0.28**
Oxidation Reduction Potential, Field (mV)	--	**234**	**253**	**221**	**-128**	**-163**	**-175**	**332**	**-37**	**511**	**-70**
Turbidity, Field (NTU)	--	**18.8**	**30.5**	**0.3**	**50.7**	**16.3**	**19.6**	**9.8**	**6.5**	**4**	**35.4**
Iron, Ferrous, Field (mg/L)	--	**0**	**0**	**0.65**	**>10**	**>10**	**0**	**0**	**>10**	**0**	**>10**

Note: Only constituents detected in at least one sample are reported in this table.

[(2)] Maximum Contaminant Level; March 2018 Edition of the Drinking Water Standards and Health Advisories (USEPA, 2018).

[(3)] The total of combined trihalomethanes (bromodichloromethane, dibromochloromethane, bromoform and chloroform) cannot exceed 0.08 mg/L.

J - Concentration detected equal to or greater than the method detection limit but less than the reporting limit.

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J- - Concentration considered an estimate biased low based on data validation.

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< - Concentration less than the Quantitation Limit.

> - Concentration greater than the Quantitation Limit.

NA - Not analyzed.

Bolding indicates constituent detection.

Shading indicates concentration exceeds comparison criteria.

Table 3-2 - Summary of March 2021 Water Quality Results

CONSTITUENT	MCL[1]	RMW-23 3/18/2021 7.2 - 16 ft	RMW-23A 3/18/2021 50.1 - 55.1 ft	RMW-23B 3/18/2021 86.8 - 91.8 ft	RMW-23C 3/18/2021 92.8 - 97.8 ft	RMW-24 3/24/2021 15.1 - 25.1 ft	RMW-26 3/12/2021 14.2 - 24.2 ft	RMW-27 3/23/2021 15.3 - 25.3 ft	RMW-27A 3/23/2021 50 - 55 ft	RMW-27B 3/23/2021 91.5 - 96.5 ft	RMW-27B DU-21103 3/23/2021 91.5 - 96.5 ft
Gases (µg/L)											
Methane	--	**20000**	**15000**	**3400**	**16000**	**24**	**460**	**8200**	**14000**	**17 J**	**8.6 J**
Ethane	--	**0.54 J**	**210**	**0.25 J**	**2.4**	**0.16 J**	< 0.075	**3.1**	**1.4**	< 0.075	< 0.075
Ethene	--	**0.18 J**	**23**	**1.4**	**3.6**	**0.18 J**	**0.91 J**	**4.3**	< 0.12	**0.19 J**	**0.12 J**
Volatile Organic Compounds (mg/L)											
1,1-Dichloroethane	--	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	**0.0025**	< 0.01	< 0.0010	< 0.0050	< 0.0050
1,1-Dichloroethene	0.007	< 0.0010	< 0.0010	**0.0012**	**0.00099 J**	< 0.0010	**0.00072 J**	< 0.01	< 0.0010	< 0.0050	< 0.0050
1,2-Dichlorobenzene	0.6	< 0.0010	< 0.0010	< 0.0010	< 0.0010	**0.0041**	< 0.0010	< 0.01	< 0.0010	< 0.0050	< 0.0050
1,4-Dichlorobenzene	0.075	< 0.0010	< 0.0010	< 0.0010	< 0.0010	**0.00050 J**	< 0.0010	< 0.01	< 0.0010	< 0.0050	< 0.0050
1,2-Dichloroethane	0.005	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.01	< 0.0010	< 0.0050	< 0.0050
2-Butanone	--	< 0.01J	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.1	< 0.01	< 0.05	< 0.05
Acetone	--	**0.018 J-**	< 0.02	< 0.02	< 0.02	**0.0088 J**	< 0.02	< 0.2	< 0.02	< 0.1	< 0.1
Benzene	0.005	< 0.0010	< 0.0010	< 0.0010	< 0.0010	**0.0094**	**0.0064**	< 0.01	< 0.0010	< 0.0050	< 0.0050
Carbon disulfide	--	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.01	< 0.0010	< 0.0050	< 0.0050
Carbon tetrachloride	0.005	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.01	< 0.0010	< 0.0050	< 0.0050
Chlorobenzene	0.1	< 0.0010	< 0.0010	< 0.0010	< 0.0010	**0.00065 J**	< 0.0010	< 0.01	< 0.0010	< 0.0050	< 0.0050
Chloroethane	--	< 0.0020	**0.00092 J**	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.02	< 0.0020	< 0.01	< 0.01
Chloroform	0.08000[(2)]	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.01	< 0.0010	< 0.0050	< 0.0050
Chloromethane	--	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.01	< 0.0010	< 0.0050	< 0.0050
cis-1,2-Dichloroethene	0.07	**0.0023**	**0.13**	**0.68**	**0.82**	< 0.0010	**0.0011**	**0.37**	< 0.0010	< 0.0050	< 0.0050
Cyclohexane	--	< 0.0010	< 0.0010	< 0.0010	< 0.0010	**0.02**	< 0.0010	< 0.01	< 0.0010	< 0.0050	< 0.0050
Ethylbenzene	0.7	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	**0.02**	< 0.01	< 0.0010	< 0.0050	< 0.0050
Isopropylbenzene (Cumene)	--	< 0.0010	< 0.0010	< 0.0010	< 0.0010	**0.033**	**0.0027**	< 0.01	< 0.0010	< 0.0050	< 0.0050
Methyl acetate	--	< 0.0010 UJ	**0.011**	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.01	< 0.0010	< 0.0050	< 0.0050
Methylcyclohexane	--	< 0.0050	< 0.0050	< 0.0050	< 0.0050	**0.0083**	< 0.0050	< 0.05	< 0.0050	< 0.025	< 0.025
Methylene chloride	0.005	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.01	< 0.0010	< 0.0050	< 0.0050
Styrene	0.1	< 0.0010	< 0.0010	< 0.0010	< 0.0010	**0.0011**	< 0.0010	< 0.01	< 0.0010	< 0.0050	< 0.0050
Tetrachloroethene	0.005	**0.00062 J**	**0.00059 J**	**0.39**	**0.29**	< 0.0010	< 0.0010	**0.9**	< 0.0010	**0.28**	**0.26**
Toluene	1	< 0.0010	< 0.0010	< 0.0010	< 0.0010	**0.0061**	< 0.0010	< 0.01	< 0.0010	< 0.0050	< 0.0050
trans-1,2-Dichloroethene	0.1	< 0.0010	< 0.0010	**0.0024**	**0.0026**	< 0.0010	< 0.0010	< 0.01	< 0.0010	< 0.0050	< 0.0050
Trichloroethene	0.005	< 0.0010	< 0.0010	**0.0084**	**0.0093**	< 0.0010	**0.00051 J**	**0.12**	< 0.0010	< 0.0050	< 0.0050
Trichlorofluoromethane (Freon 11)	--	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.01	< 0.0010	< 0.0050	< 0.0050
Trichlorotrifluoroethane (Freon 113)	--	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.0010	< 0.01	< 0.0010	< 0.0050	< 0.0050
Vinyl chloride	0.002	< 0.0010	**0.0022**	**0.00096 J**	**0.0026**	< 0.0010	**0.0019**	< 0.01	< 0.0010	< 0.0050	< 0.0050
Xylenes, total	10	< 0.0010	< 0.0010	< 0.0010	< 0.0010	**0.00066 J**	**0.13**	< 0.01	< 0.0010	< 0.0050	< 0.0050
General Chemistry (mg/L)											
Bromide	--	**0.065 J**	**0.41**	**0.10 J**	**0.090 J**	**0.26**	**0.98**	**0.37**	**0.051 J**	**0.050 J**	**0.052 J**
Sulfate	--	**5.9**	< 1.0	**0.46 J**	**0.34 J**	**67**	**9.8**	**63**	< 1.0	**3.2**	**3.0**
Field Parameters											
pH, Field (su)	--	**6.49**	**6.71**	**6.4**	**6.72**	**6.55**	**6.22**	**6.57**	**6.63**	**6.81**	NA
Temperature, Field (°C)	--	**14.77**	**17.99**	**18.5**	**19.84**	**20.53**	**23.34**	**22.45**	**19.81**	**20.1**	NA
Specific Conductivity, Field (µS/cm)	--	**329**	**218**	**91**	**128**	**1520**	**181**	**325**	**131**	**94**	NA
Dissolved Oxygen, Field (mg/L)	--	**4.84**	**0.54**	**1.19**	**0.75**	**0**	**0.4**	**0.15**	**0.38**	**0**	NA
Oxidation Reduction Potential, Field (mV)	--	**-161**	**-497**	**-109**	**-134**	**-69**	**14**	**-63**	**-124**	**68**	NA
Turbidity, Field (NTU)	--	**54.8**	**14.3**	**122**	**25.2**	**5.2**	**8.1**	**22.5**	**6.9**	**0**	NA
Iron, Ferrous, Field (mg/L)	--	**>10**	**>10**	**10**	**8**	**1.5**	**2**	**4**	**>10**	**0**	NA

Note: Only constituents detected in at least one sample are reported in this table.

[(2)] Maximum Contaminant Level; March 2018 Edition of the Drinking Water Standards and Health Advisories (USEPA, 2018).

[(3)] The total of combined trihalomethanes (bromodichloromethane, dibromochloromethane, bromoform and chloroform) cannot exceed 0.08 mg/L.

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> - Concentration greater than the Quantitation Limit.

NA - Not analyzed.

Bolding indicates constituent detection.

Shading indicates concentration exceeds comparison criteria.

Table 3-2 - Summary of March 2021 Water Quality Results

CONSTITUENT	MCL[1]	RMW-28A 3/11/2021 50.2 - 55.2 ft	RMW-28B 3/11/2021 92.8 - 97.8 ft
Gases (µg/L)			
Methane	--	< 2.5	< 5.0
Ethane	--	< 0.075	**0.30 J**
Ethene	--	**0.14 J**	< 0.12
Volatile Organic Compounds (mg/L)			
1,1-Dichloroethane	--	< 0.0050	< 0.05
1,1-Dichloroethene	0.007	< 0.0050	< 0.05
1,2-Dichlorobenzene	0.6	< 0.0050	< 0.05
1,4-Dichlorobenzene	0.075	< 0.0050	< 0.05
1,2-Dichloroethane	0.005	< 0.0050	< 0.05
2-Butanone	--	< 0.05	< 0.5
Acetone	--	< 0.1	< 1
Benzene	0.005	< 0.0050	< 0.05
Carbon disulfide	--	< 0.0050	< 0.05
Carbon tetrachloride	0.005	< 0.0050	< 0.05
Chlorobenzene	0.1	< 0.0050	< 0.05
Chloroethane	--	< 0.01	< 0.1
Chloroform	0.08000[(2)]	< 0.0050	< 0.05
Chloromethane	--	< 0.0050	< 0.05
cis-1,2-Dichloroethene	0.07	< 0.0050	< 0.05
Cyclohexane	--	< 0.0050	< 0.05
Ethylbenzene	0.7	< 0.0050	< 0.05
Isopropylbenzene (Cumene)	--	< 0.0050	< 0.05
Methyl acetate	--	< 0.0050	< 0.05
Methylcyclohexane	--	< 0.025	< 0.25
Methylene chloride	0.005	< 0.0050	< 0.05
Styrene	0.1	< 0.0050	< 0.05
Tetrachloroethene	0.005	**0.56**	**9**
Toluene	1	< 0.0050	< 0.05
trans-1,2-Dichloroethene	0.1	< 0.0050	< 0.05
Trichloroethene	0.005	< 0.0050	< 0.05
Trichlorofluoromethane (Freon 11)	--	< 0.0050	< 0.05
Trichlorotrifluoroethane (Freon 113)	--	< 0.0050	< 0.05
Vinyl chloride	0.002	< 0.0050	< 0.05
Xylenes, total	10	< 0.0050	< 0.05
General Chemistry (mg/L)			
Bromide	--	**0.12 J**	**0.054 J**
Sulfate	--	**4.5**	**1.1**
Field Parameters			
pH, Field (su)	--	**4.84**	**6.37**
Temperature, Field (°C)	--	**20.04**	**20.38**
Specific Conductivity, Field (µS/cm)	--	**52**	**37**
Dissolved Oxygen, Field (mg/L)	--	**3.64**	**1.72**
Oxidation Reduction Potential, Field (mV)	--	**306**	**289**
Turbidity, Field (NTU)	--	**11.7**	**11.1**
Iron, Ferrous, Field (mg/L)	--	**0**	**0**

Note: Only constituents detected in at least one sample are reported in this table.

[(2)] Maximum Contaminant Level; March 2018 Edition of the Drinking Water Standards and Health Advisories (USEPA, 2018).

[(3)] The total of combined trihalomethanes (bromodichloromethane, dibromochloromethane, bromoform and chloroform) cannot exceed 0.08 mg/L.

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Bolding indicates constituent detection.

Shading indicates concentration exceeds comparison criteria.

Table 3-3 - Summary of Microbial Data

CONSTITUENT[1]	LOCATION/SAMPLE DATE								
	RMW-18A			RMW-20B			RMW-27		
	01/24/2019	3/31/2020	3/22/2021	01/24/2019	3/31/2020	3/22/2021	01/22/2019	3/31/2020	3/22/2021
Dehalococcoides spp.	< 0.5	< 0.5	< 0.5	< 0.5	**0.9**	**7.4**	**17.5**	< 0.6	< 0.5
bvcA Reductase	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	**1.40 J**	< 0.6	< 0.5
tceA Reductase	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 3.8	< 0.6	< 0.5
Vinyl Chloride Reductase	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 0.5	< 3.8	< 0.6	< 0.5

[1] Results are reported in cells per milliliter (cells/ml).

Section 4
Discussion of Pilot Study Results

The expanded ABC+® pilot study was initiated on May 13, 2019, and the injections were completed on July 12, 2019. The final round of semiannual performance monitoring was completed in March 2021. The original schedule for completion of the ABC+® pilot study was extended by over 6 months due to the project hiatus caused by the global COVID-19 pandemic and its associated quarantines and lockdowns. This amounted to an overall project timeframe of slightly more than 20 months, from the onset of ABC+® injections to the completion of performance monitoring. In the end, the overall impact and influence of these project delays was not problematic, as ABC+® treatment was able to continue unabated and TRC has been able to collect and evaluate various data sets and lines of evidence over a longer timeframe. The technical discussion that follows is intended to highlight those aspects of the expanded ABC+® pilot study that have led us to conclude that the application of ABC+® represents a reasonable and cost-effective option for remediation of PCE in the groundwater of this Site.

4.1 Changes in PCE Concentration and Distribution

Sitewide groundwater monitoring performed in January and February 2019 is used in this report as the baseline for demonstrating the robust changes in groundwater quality achieved during the Expanded ABC+® Pilot Study. These data are summarized in the comprehensive data table provided in Appendix B. It should be noted that the 2019 data revealed notable reductions in PCE concentrations and distribution attributable to the 2016 pilot study despite the relatively small amount of ABC+® injected during that pilot study. These changes can best be observed by comparing the pre-injection data for the initial pilot study (July 2014, June 2015 for newly installed wells) to the February 2017 final sampling event for the 2016 pilot study and the 2019 pre-injection data (January-February 2019) for the expanded pilot study.

The following are key observations regarding continued influences and treatment effects from the 2016 ABC+® pilot study:

- Within the two pilot study areas (RMW-27 well nest for the upgradient plume, RMW-23 well nest for the downgradient plume) PCE concentrations remained lower in several of the sampling intervals. Likewise, reducing conditions persisted in these sampling intervals.
- Based on isoconcentration figures for the 2019 pre-injection PCE data, the locations of the 2016 pilot study continue to exhibit lower concentrations of PCE than neighboring areas. Irregularities in the isoconcentration contours also suggest lower than expected PCE concentrations at DP-21 and RMW-20 in the shallow groundwater, at DP-23 in the intermediate zone and at RMW-20B in the

transition zone. These lower-than-expected concentrations likely represent treatment effects from the 2016 pilot study injections.

- The presence of metabolic gases (i.e. ethane, ethene, and methane) is a useful indicator of the dechlorination of chlorinated ethenes such as PCE. Metabolic gas results from the sitewide sampling prior to the 2019 expanded pilot study revealed the presence of metabolic gases in locations farther from the two 2016 pilot study locations than would be assumed from typical advective dispersion of treatment chemicals or treatment effects. Prior to the expanded pilot study, detected metabolic gases reached as far downgradient as RMW-13 in the shallow groundwater, as far downgradient as DP-27A in the intermediate zone, as far downgradient as RMW-14B in the transition zone, and as far downgradient as RMW-10C in the bedrock zone. The well locations with metabolic gas detections were not contiguous. These observations suggest the presence of preferential flow pathways throughout the site that are occasionally intercepted by a monitoring point.

Figures 4-1 through 4-3 provide PCE distribution maps for the 2019 data at the top of the figure and for the 2021 data at the bottom of the figure. The data are presented for the shallow (water table) zone, the intermediate zone, and the transition zone. These figures show significant reductions in PCE within the targeted treatment zone. Figure 4-4 provides a PCE distribution cross-section map of the upgradient plume area. This figure, likewise, shows significant reductions in PCE concentrations within the ABC+® treatment zone. Figure 4-5 provides a PCE distribution cross-section map of the downgradient plume area. Note how this figure likely reveals continuing treatment effects from the 2016 pilot study, although effects from the Expanded Pilot Study are also likely superimposed on these results.

Figures 4-6 through 4-8 provide distribution maps for PCE daughter product cis-1,2-DCE in the shallow, intermediate, and transition groundwater zones, respectively. Each figure shows the distribution based on pre-injection groundwater samples collected in January and February 2019 at the top of the page and the distribution based on March 2021 performance monitoring at the bottom of the page. Notable in this set of figures is the evidence in the 2019 figure of continuing ERD effects from the 2016 pilot study. The 2021 distribution for each depth shows the enhancement of ERD effects from the Expanded ABC+® Pilot Study ABC+® injections. Although the ZVI portion of the ABC+® also dechlorinates PCE through the daughter products, complete dechlorination often happens quickly enough that daughter products are not observed in performance monitoring. Thus, locations within the treatment zone with minimal observed cis-1,2-DCE concentrations may indicate areas where ZVI treatment is dominant.

Molarity graphs can be used to observe groundwater quality changes at specific locations. Figures 4-9 through 4-12 are molarity graphs of PCE and its daughter products trichloroethene (TCE), cis-1,2-dichloroethene (cis-1,2-DCE), and vinyl chloride (VC). The top graph shows concentration in mg/L over time. The lower graph shows the same data converted to nanomoles per liter. Converting the concentration data into molar data is helpful in evaluating ERD progress because it corrects for the fact

that a molecule of PCE has much more mass (165.82 grams/mole) than a molecule of VC (62.50 grams/mole).

Figure 4-9 provides the molarity graph for RMW-27A, the upgradient plume location for the first pilot study. This graph shows that PCE decreased from the beginning of the initial pilot study to the final pilot study sampling event in 2017, then decreased to non-detect by the beginning of the expanded pilot study. PCE concentrations at that location have remained non-detect during the expanded ABC+® pilot study monitoring events conducted in March 2020 and March 2021. TCE was detected during the final sampling event for the initial pilot study (March 2017). The presence of TCE could be attributable to the ERD effects of ABC or the abiotic effects of ZVI (or both). The continuation of non-detect conditions indicates that PCE (if any) in groundwater upgradient of that location is treated prior to reaching monitoring well RMW-27A.

Figure 4-10 provides the molarity graph for RMW-23A, the downgradient plume location for the first pilot study. This graph shows that PCE decreased from the beginning of the initial pilot study to the final pilot study sampling event in 2017 without detection of daughter products. However, by the pre-injection sampling event for the expanded pilot study, the molarity had increased in that location (migration of affected groundwater from upgradient of the well), but conversion of daughter products, especially cis-1,2-DCE, had also occurred. During the expanded pilot study, molarity decreased substantially in this well, demonstrating ERD treatment effects caused by the application of ABC+®. Although RMW-23A is a downgradient plume monitoring well, the expanded pilot study included injections in locations at the north ends of injection Rows F and G (refer to Figure 3-1), an area expected to be upgradient of that monitoring well.

Figure 4-11 provides the molarity graph for DP-21A as an example of a sampling location demonstrating ERD effects from the expanded pilot study. At the time of the first semiannual performance monitoring event in March 2020, a small decrease in PCE concentration was observed, but daughter products were not detected. A year later, in March 2021, a substantial decrease in molarity had occurred in that location and the remaining molarity was relatively equally divided between PCE, TCE, and cis-1,2-DCE, with a very low detection of VC. This demonstrates the increased extent of ERD conditions in 2021, as the injected ABC continued to disperse within the treatment area.

Figure 4-12 provides the molarity graph for RMW-18A as an example of a sampling location demonstrating ZVI-dominated treatment effects. Substantial decreases in PCE concentration have occurred with no PCE daughter products detected.

4.2 Other Indicators of Pilot Study Performance

The Expanded ABC+® Pilot Study Workplan included a table of performance monitoring criteria that were requested by SC DHEC for evaluating ABC+® performance during the pilot study. In addition to the

observed changes in contaminant concentration discussed in Section 4.1 above, the workplan also included 11 other indicators related to reductive dechlorination. These supplemental indicator parameters are discussed in this section.

It is a widely accepted premise that reducing groundwater conditions are necessary for biologically mediated reductive dichlorination to occur and be sustained. Low dissolved oxygen (DO <0.5 mg/L) concentrations and low oxidation-reduction potential (ORP < 50 mV) can be useful indicators of reducing conditions. The presence of reduced iron and a decrease in sulfate concentrations can also be an indication of reducing conditions. The targeted treatment area of the Site experienced pronounced reducing conditions that were sustained during the expanded pilot study. At the end of the 2016 pilot study, reducing conditions were mostly confined to the immediate vicinity of the 2016 pilot study injections. Reducing conditions have subsequently been expanded across a much broader portion of the Site, as documented by the March 2021 performance monitoring data. Figures 4-13 through 4-15 indicate the areas of pronounced reducing conditions within the shallow groundwater, intermediate zone, transition zone, and bedrock zone, respectively, based on the 2019 pre-injection monitoring results and 2021 performance monitoring results. For each monitoring location within each groundwater zone (shallow, intermediate, and transition), the reducing condition parameters were considered together, and reducing conditions are indicated as pronounced for a given location depicted in the figure if more than two indicators are positive.

Groundwater pH in the range of 5 to 9 is generally considered optimal for reductive dichlorination to occur. A review of pH results observed during the March 2021 performance monitoring event indicates that most pH results fall within this optimal range. Within the ABC+® treatment zones, the addition of a pH buffer in the injectate appears to be maintaining pH within the optimal range.

Dissolved metabolic gases (i.e. ethane, ethene, and methane) are another useful indication of ongoing degradation of PCE. As discussed in Section 4.1, dissolved gases were observed in some unexpected locations during the 2019 pre-pilot groundwater sampling event. However, the extent and concentrations of dissolved gases were much wider in samples collected in March 2021. It should be noted that metabolic gases can be ephemeral and tend to dissipate readily from the aquifer once they are formed.

Increases in specific conductance, the presence of a lactate peak on ion chromatograms, and the presence of specific biological markers in qPCR testing can all serve as useful indicators of the active presence and/or ongoing activity of the ABC+® treatment chemicals applied to induce reductive dechlorination. However, as the injected treatment chemicals disperse over time, many of these indicators can become more difficult to discern. Overall, TRC did not find that these indicators provided useful information about treatment activity within the aquifer over the extended timeframe and distance from the injection locations.

Nitrate and chloride were originally requested by SC DHEC for inclusion in the initial list of monitoring parameters. In lab studies, nitrate can serve as an indicator of reducing conditions and chloride as an indirect measure of dechlorination. As discussed in the summary report for the March 2020 performance monitoring event submitted to SC DHEC in December 2020, TRC did not observe these parameters provided any useful indications when evaluating the March 2020 data. Subsequently, the continued requirements for nitrate and chloride monitoring were deleted from the sampling protocols utilized for the March 2021 monitoring event, as approved by SC DHEC in December 2020.

Bromide tracer was included in the injected material at eight locations during the expanded pilot study injections. The locations for tracer injections were selected in hopes of identifying possible hydrogeologic, preferred-migration pathways. During the March 2021 sampling event, increases in bromide above baseline levels were not observed in any downgradient monitoring wells. This is not an altogether unexpected phenomena, given bromide's pronounced solubility in water.

4.3 Implications for the Focused Feasibility Study

The initial, small-scale pilot study was conducted in 2016 to support selection criteria for a suitable remedial action alternative as set forth presented in the August 2017 Focused Feasibility Study (FFS; TRC 2017). While the small-scale 2016 pilot study successfully demonstrated the feasibility of using direct push technology to inject ABC+® into the subsurface to a depth associated with the top of the transition zone and demonstrated that ABC+® could impart ERD/ZVI-mediated treatment influence into the aquifer, the amount of ABC+® treatment chemical injected and the duration of the pilot study monitoring period did not provide the desired level of treatment response anticipated by SC DHEC. On this basis, the Department deemed the 2016 pilot study results to be inconclusive. The Expanded ABC+® Pilot Study has subsequently addressed SC DHEC's concerns by introducing a much larger volume of ABC+® injectate across a much broader treatment zone and over a much longer performance monitoring period. As a consequence of the expanded ABC+® pilot study, substantial and pronounced long-term decreases in PCE concentrations have now been demonstrated.

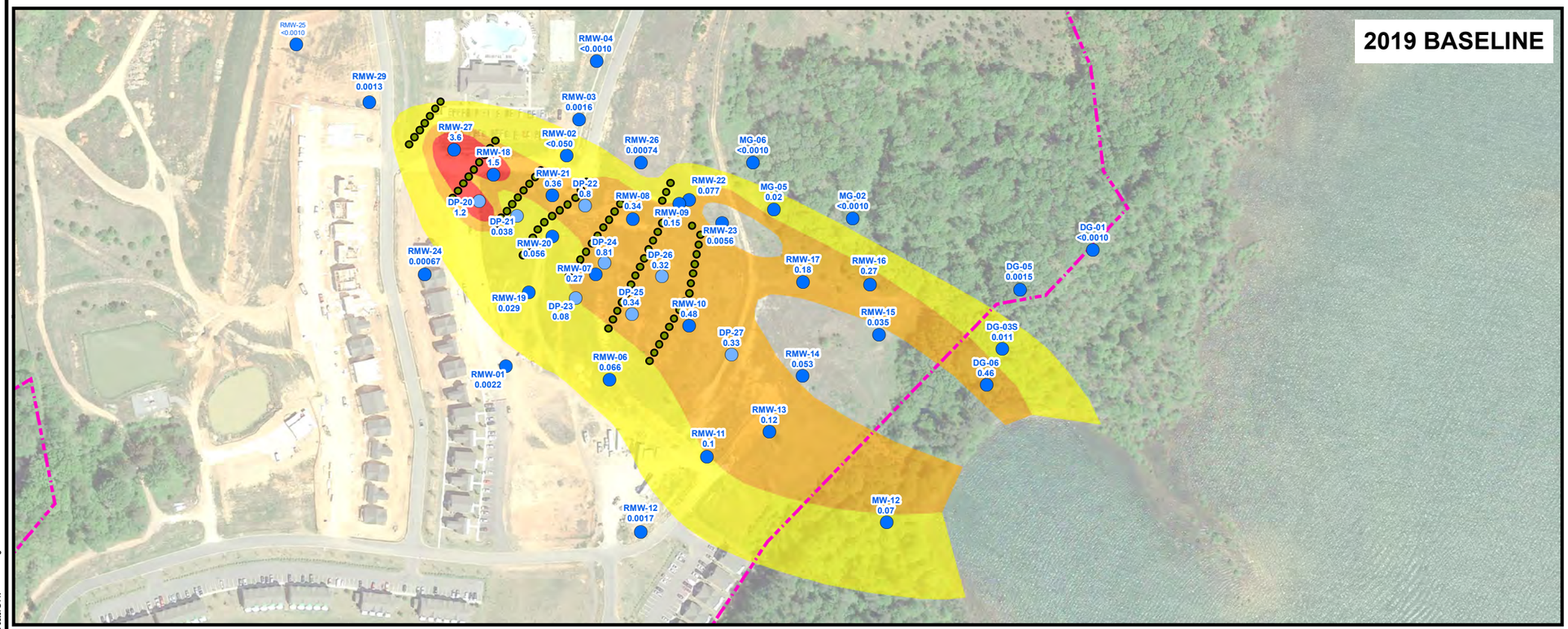
The 2017 FFS included the following in situ treatment alternatives for SC DHEC consideration as the preferred remedy for the upgradient and downgradient VOC plumes identified at the Site:

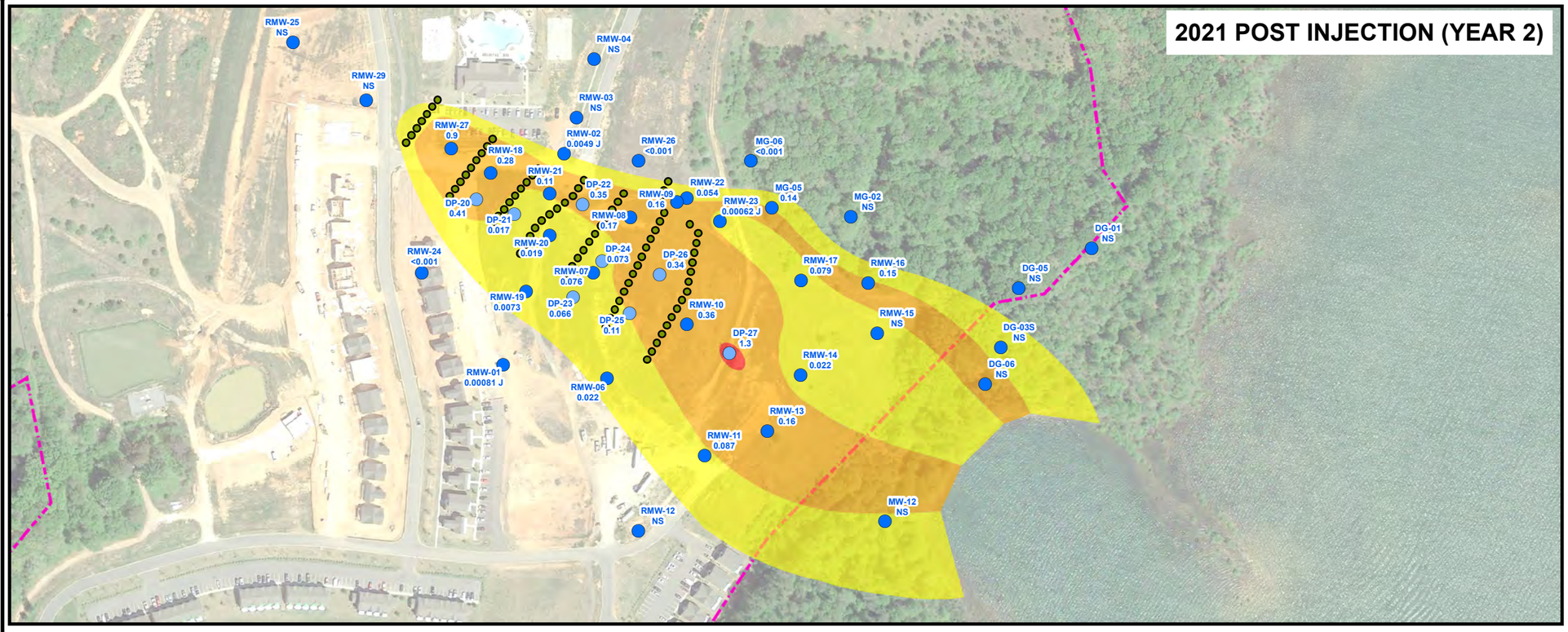
- *In situ* chemical oxidation (ISCO) - a widely accepted and aggressive treatment strategy for degrading chlorinated VOCs in the groundwater of the Site. Because the Site is the focus of ongoing residential and light commercial construction (i.e. student and single-family housing), the application of ISCO in proximity to a residential community setting creates unnecessary safety and health concerns/hazards.
- Enhanced Reductive Dechlorination (ERD) – this treatment strategy represents another widely accepted remedial approach that relies upon stimulation/augmentation of naturally occurring anaerobes that possess the unique ability of degrading VOCs via dehalogenation of the chlorinated ethenes. For a site like the former WPH facility, ERD would require introduction of suitable

nutrients and organic substrates to facilitate this anaerobic transformation and ultimately facilitate transition into monitored natural attenuation (MNA). This remedial alternative was viewed favorably with regards to application within a residential community setting.

- Zero Valent Iron (ZVI) - Similar to ISCO, ZVI represents a physical-chemical approach to inducing reductive dechlorination of chlorinated ethenes. ZVI functions best in a reducing environment and has demonstrated success in a wide variety of different environments and flow regimes. ZVI is best applied in manner involving a permeable reaction barrier (PRB), in which the VOC-impacted groundwater is allowed to migrate through the treatment media. The heterogenous geology of the former WPH Site precludes installation of a suitable PRB that would not allow migration of VOC-impacted beneath the treatment wall.
- Anaerobic BioChem Plus (ABC^{+}) – ABC^{+} represents a useful and appealing hybrid of the ERD and ZVI treatment technologies. As demonstrated by the Expanded ABC+® Pilot Study, it is possible for ERD and ZVI to work together in a synergistic manner to influence the groundwater geochemistry, promote a reducing environment and achieve meaningful and sustainable reductions in VOC levels, over time. TRC views the use and application of ABC+® as a unique, cost-effective, and efficient treatment strategy for addressing the Site conditions observed at the former WPH Site.

On the basis of the Expanded ABC+®Pilot Study, TRC now believes that there is sufficient and suitable information available to enable SC DHEC to conduct and finalize their review of the 2017 FFS.





LEGEND

- Water Table Monitoring Well
- Direct-Push Groundwater Sample
- Property Boundary (Approximate)
- ABC+ Injection Locations

PCE Concentration Key

- > 0.005 to 0.1 mg/L
- > 0.1 to 1.0 mg/L
- > 1.0 mg/L

NOTES

Aerial Photograph Source: Google Earth (2018).

PCE concentrations are posted in mg/L.

PCE - Tetrachloroethene

NS - Not Sampled

J - Estimated Concentration

J+ - Estimated, high bias indicated

For wells not sampled in March 2021 the PCE configuration is presumed to remain unchanged from the 2019 sampling event.

ABC+ Injections Conducted
May 14 - July 10, 2019.

N

0 250 500 Feet

1 " = 250 '

1:3,000

PROJECT:

FORMER WESTPOINT HOME, INC.
CLEMSON, SOUTH CAROLINA

TITLE:

TETRACHLOROETHENE DISTRIBUTION IN SHALLOW GROUNDWATER

DRAWN BY:	SZYNAL D	PROJ. NO.:	300688.0.0.4
CHECKED BY:	CLARK L		
APPROVED BY:	WEBB S		**FIGURE 4-1**
DATE:	MAY 2021		

TRC

50 International Drive, Suite 150
Patewood Plaza Three
Greenville, SC 29615
Phone: 864.281.0030
www.TRCcompanies.com

FILE NO.: Fig 6 - PCE_2019-2021_Shallow_Plume.mxd

Plot Date: 5/28/2021, 11:41:54 AM by DSZYNAL -- LAYOUT: ANSI B(11"x17")
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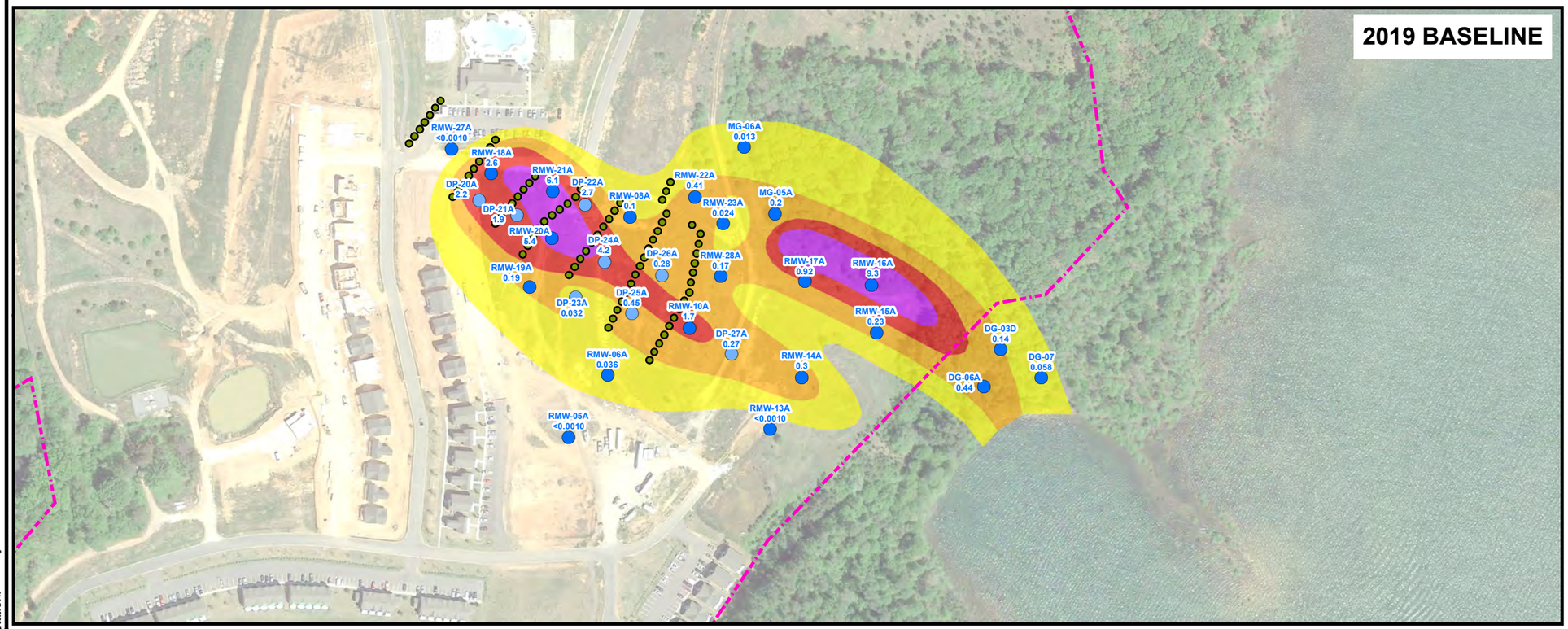
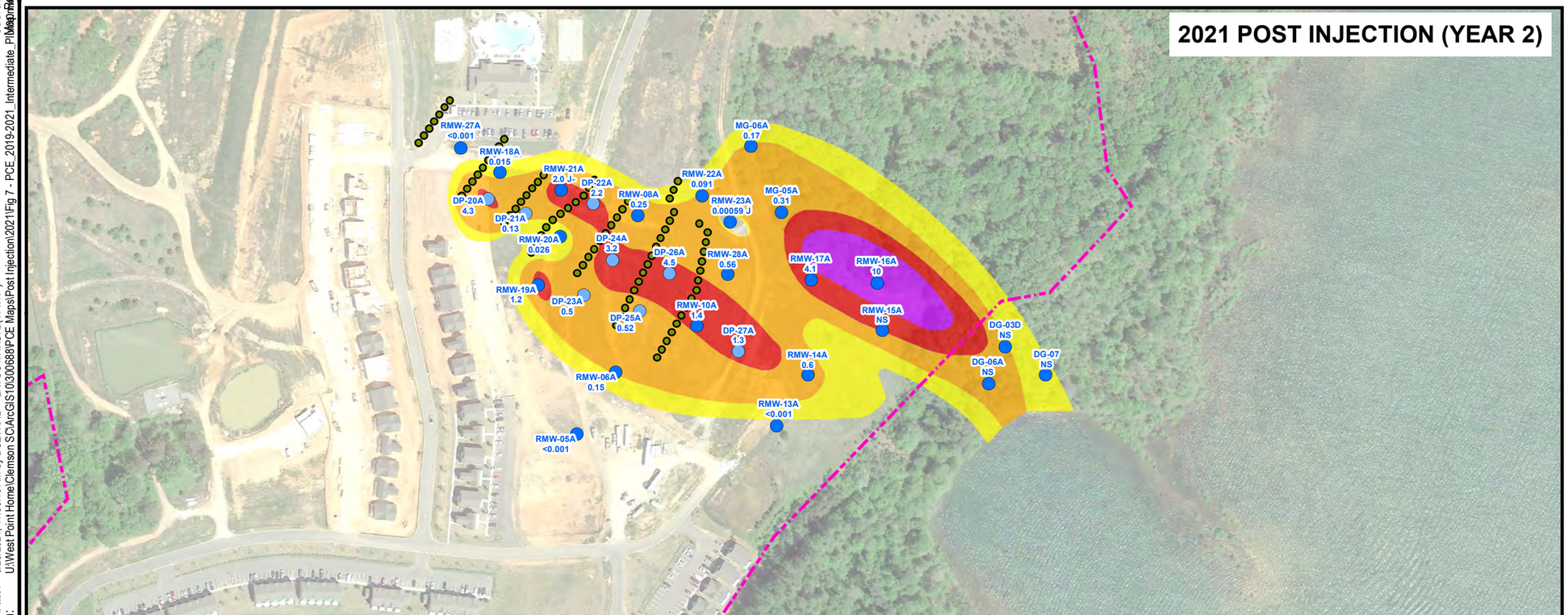
Map Rotation: 0
TRC - GIS





LEGEND

- Intermediate Monitoring Well
- Direct-Push Groundwater Sample
- Property Boundary (Approximate)
- ABC+ Injection Locations

PCE Concentration Key

- > 0.005 to 0.1 mg/L
- > 0.1 to 1.0 mg/L
- > 1.0 to 5.0 mg/L
- > 5.0 mg/L

NOTES

Aerial Photograph Source: Google Earth (2018).

PCE concentrations are posted in mg/L.

PCE - Tetrachloroethene

NS - Not Sampled

J - Estimated Concentration

J- - Estimated, low bias indicated

For wells not sampled in March 2021 the PCE configuration is presumed to remain unchanged from the 2019 sampling event.

ABC+ Injections Conducted
May 14 - July 10, 2019.

N

0 250 500 Feet

1 " = 250 '

1:3,000

PROJECT:

FORMER WESTPOINT HOME, INC.
CLEMSON, SOUTH CAROLINA

TITLE:

TETRACHLOROETHENE DISTRIBUTION IN INTERMEDIATE AQUIFER WELLS

DRAWN BY:	SZYNAL D	PROJ. NO.:	300688.0.0.4
CHECKED BY:	CLARK L		
APPROVED BY:	WEBB S		**FIGURE 4-2**
DATE:	MAY 2021		

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Greenville, SC 29615
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FILE NO.: Fig 7 - PCE_2019-2021_Intermediate_Plume.mxd

Plot Date: 5/28/2021, 11:38:15 AM by DSZYNAL -- LAYOUT:ANSI B(11"x17")
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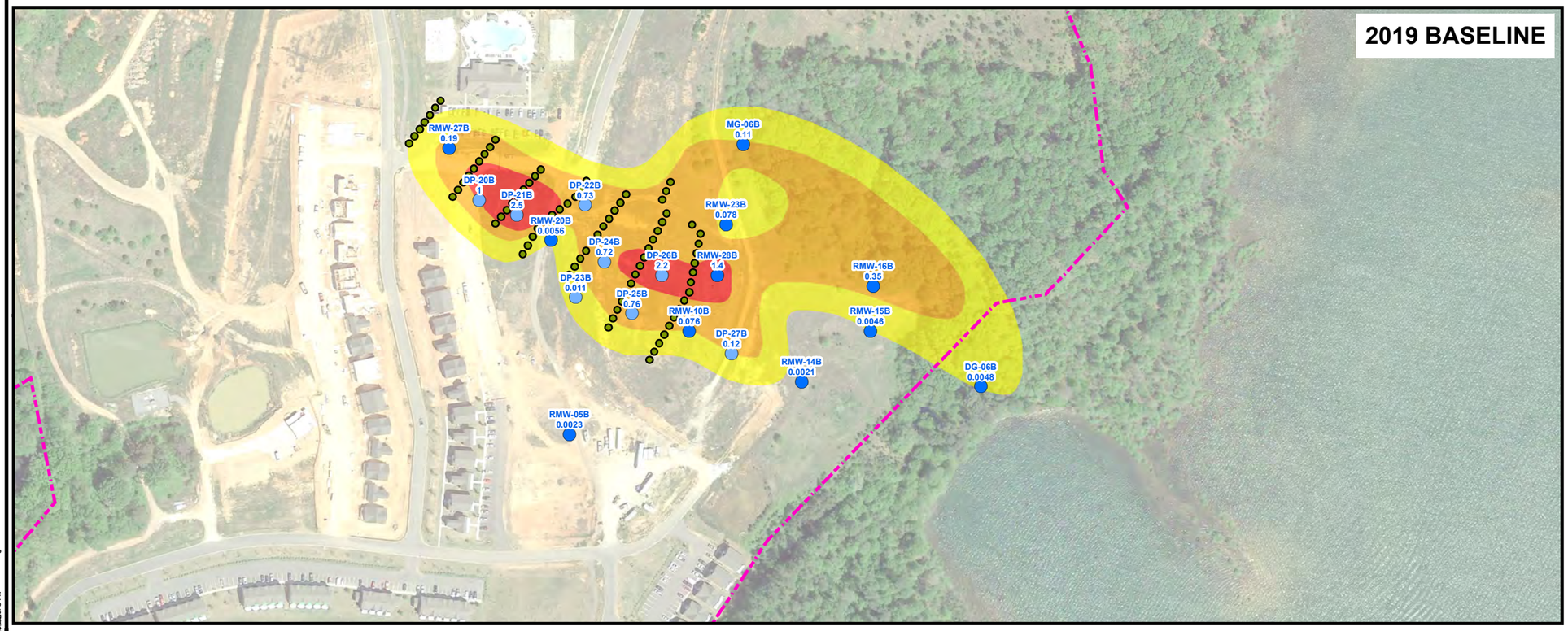
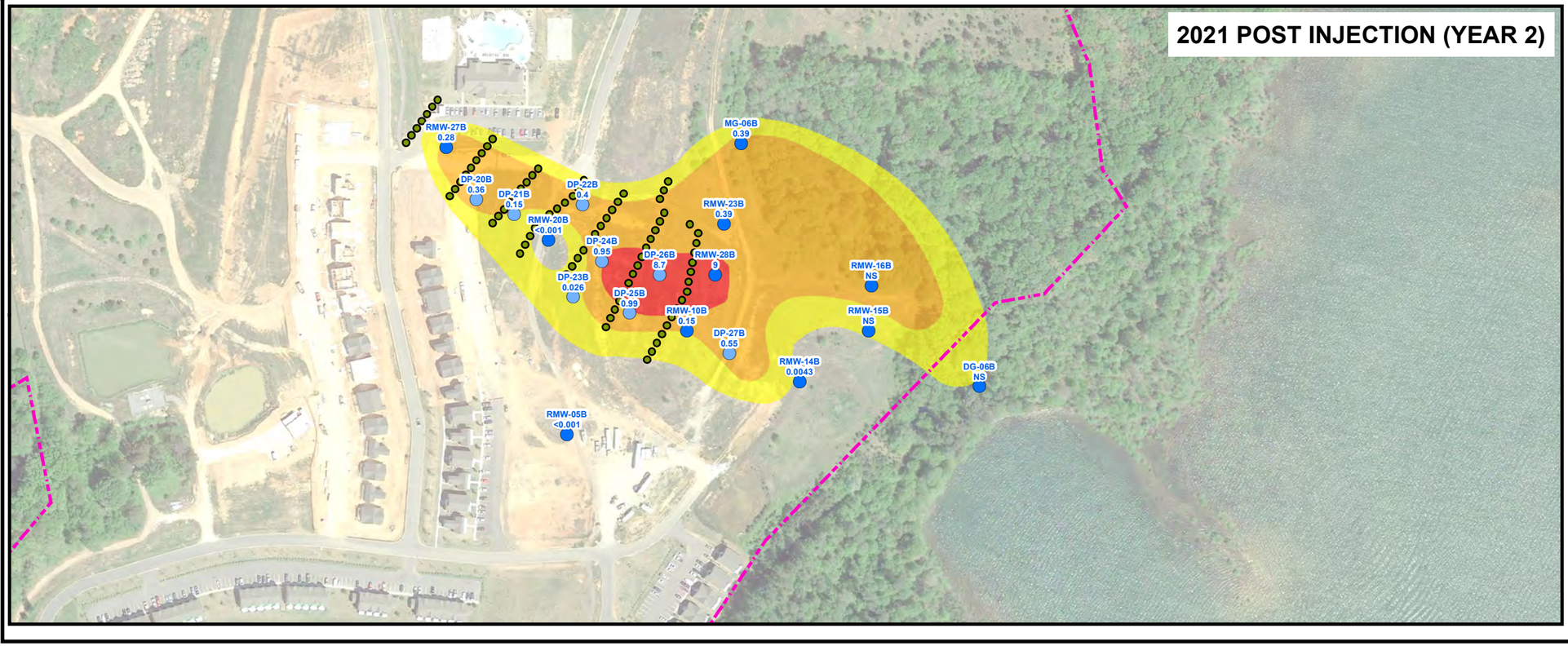
Coordinate System: NAD 1983 StatePlane South Carolina FIPS 3900 Feet (Foot US)
Map Rotation: 0
TRC - GIS





LEGEND

- Transition Zone Monitoring Well
- Direct-Push Groundwater Sample
- Property Boundary (Approximate)
- ABC+ Injection Locations

PCE Concentration Key

- > 0.005 to 0.1 mg/L
- > 0.1 to 1.0 mg/L
- > 1.0 mg/L

NOTES

Aerial Photograph Source: Google Earth (2018).

PCE concentrations are posted in mg/L.

PCE - Tetrachloroethene

NS - Not Sampled

J - Estimated Concentration

For wells not sampled in March 2021 the PCE configuration is presumed to remain unchanged from the 2020 sampling event.

ABC+ Injections Conducted
May 14 - July 10, 2019.

N

0 250 500 Feet

1 " = 250 '
1:3,000

PROJECT:
FORMER WESTPOINT HOME, INC.
CLEMSON, SOUTH CAROLINA

TITLE:
TETRACHLOROETHENE DISTRIBUTION IN TRANSITION ZONE WELLS

DRAWN BY:	SZYNAL D	PROJ. NO.:	300688.0.0.4
CHECKED BY:	CLARK L		
APPROVED BY:	WEBB S		**FIGURE 4-3**
DATE:	MAY 2021		

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50 International Drive, Suite 150
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Greenville, SC 29615
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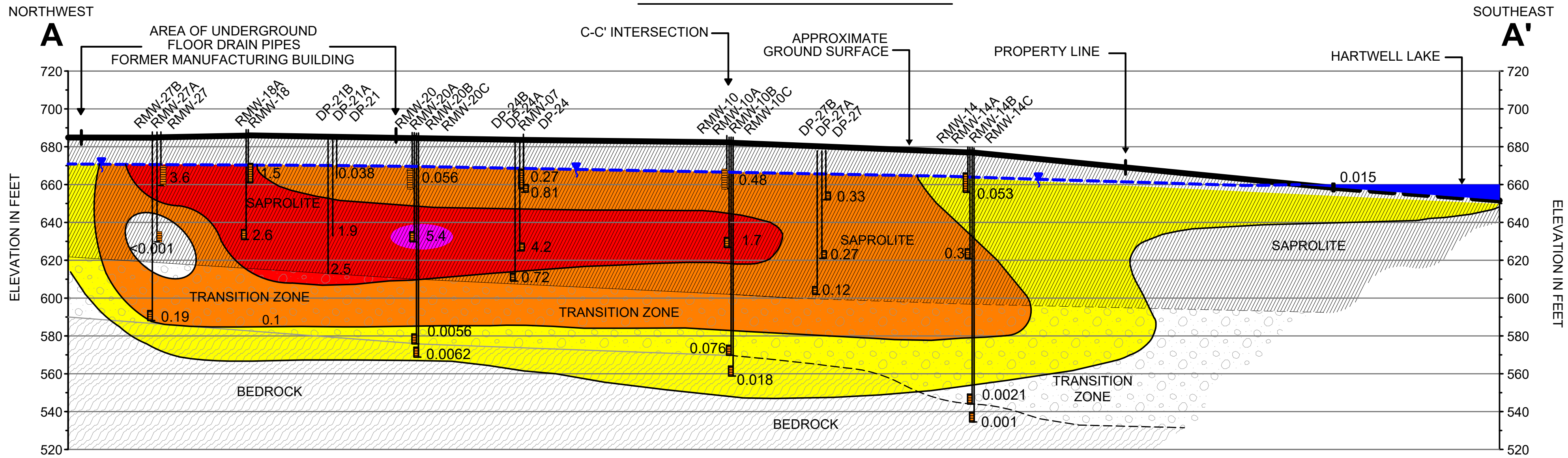
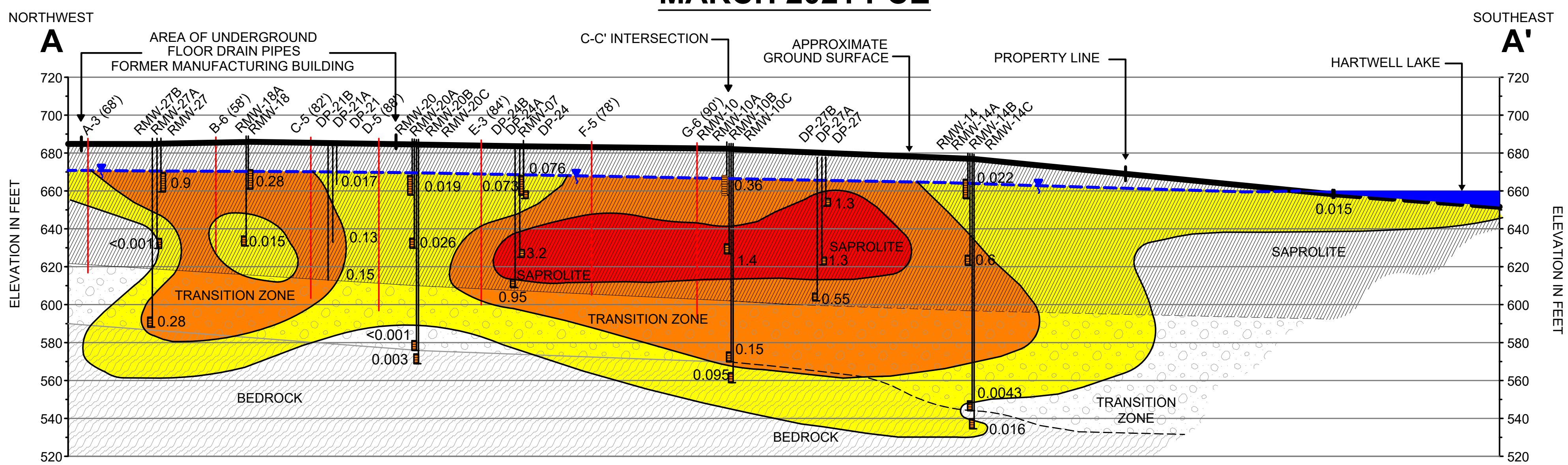
FILE NO.: Fig 8 - PCE_2019-2021_TransitionZone_Plume.mxd

Plot Date: 5/28/2021, 11:36:20 AM by DSZYNAL - LAYOUT: ANSI B(11"x17")
Path: U:\West Point Home\Clemson SC\ArcGIS\10\300688\PCE Maps\Post Injection\2021\Fig 8 - PCE_2019-2021_TransitionZone_Plume.mxd
Coordinate System: NAD 1983 StatePlane South Carolina FIPS 3900 Feet (Foot US)
Map Rotation: 0
TRC - GIS

2019 PCE BASELINE



MARCH 2021 PCE



LEGEND

- SAPROLITE
- TRANSITION ZONE
- BEDROCK
- WELL
- WELL SCREEN
- WATER TABLE (MARCH 8, 2021)
- TEMPORARY DIRECT PUSH DP WELL
- WELL SCREEN
- ABC+ INJECTION LOCATION

PCE CONCENTRATION KEY

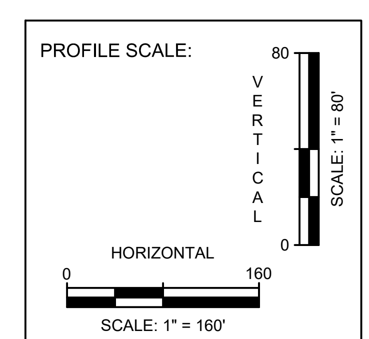
- > 5.0 mg/L
- > 1.0 mg/L - 5.0 mg/L
- > 0.1 mg/L - 1.0 mg/L
- > 0.005 mg/L - 0.1 mg/L

NOTES

A-3 (68') - MAXIMUM DEPTH OF ABC+ INJECTION AT LOCATION A-3 PROVIDED IN FEET BELOW GRADE.

TETRACHLOROETHENE (PCE) CONCENTRATIONS ARE IN MG/L.

CROSS SECTION LOCATOR MAP



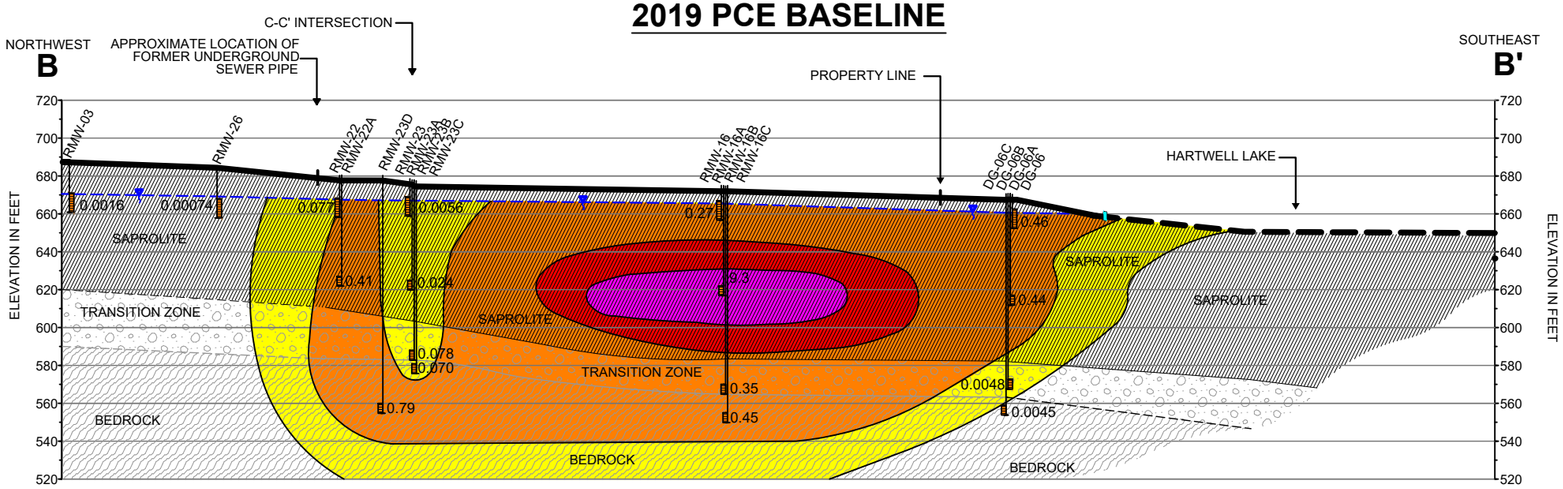
VERTICAL EXAGGERATION = 2X

PROJECT:	WESTPOINT HOME, INC CLEMSON, SOUTH CAROLINA
TITLE:	TETRACHLOROETHENE (PCE) DISTRIBUTION CROSS SECTION A - A'
DRAWN BY: S. HAMWAY	PROJ NO.: 300688.0000.0000
CHECKED BY: L. CLARK	FIGURE 4-4
APPROVED BY: S. WEBB	
DATE: MAY 2021	

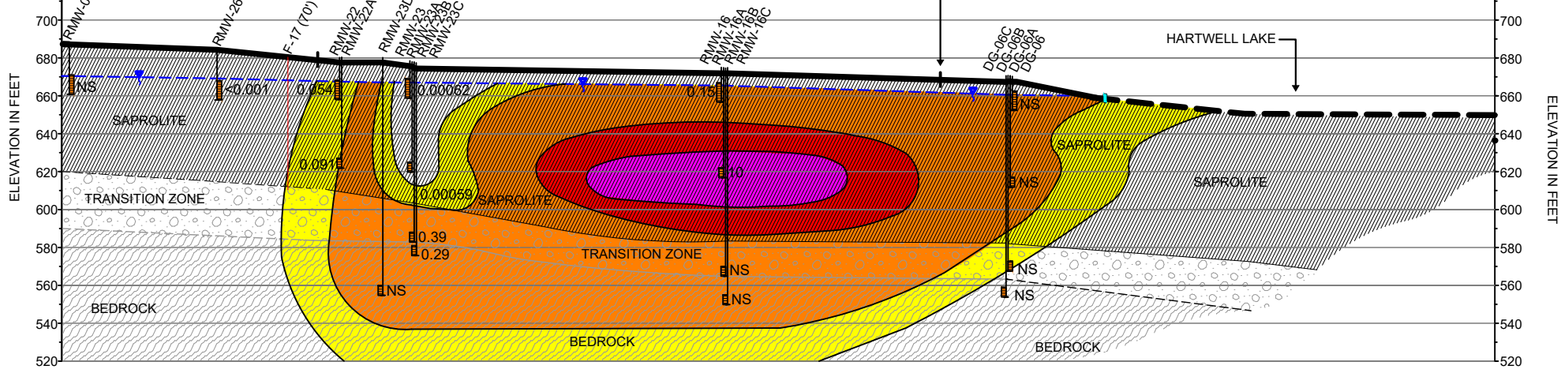
TRC
650 Suffolk Street
Suite 200
Lowell, MA 01854
Phone: 978.970.5600

FILE NO.: 300688 - FIG10_XSECTA_PCE_11x17.dwg

2019 PCE BASELINE



MARCH 2021 PCE



CROSS SECTION LOCATOR MAP

PROFILE SCALE:

VERTICAL 80 0 SCALE: 1" = 80'

HORIZONTAL 0 160 SCALE: 1" = 160'

VERTICAL EXAGGERATION = 2X

LEGEND

- SAPROLITE
- TRANSITION ZONE
- BEDROCK
- WELL
- WELL SCREEN
- WATER TABLE (MARCH 8, 2021)
- TEMPORARY DIRECT PUSH DP WELL
- WELL SCREEN
- ABC+ INJECTION LOCATION

PCE CONCENTRATION KEY

- > 5.0 mg/L
- > 1.0 mg/L - 5.0 mg/L
- > 0.1 mg/L - 1.0 mg/L
- > 0.005 mg/L - 0.1 mg/L

NOTES

F-17 (70') - MAXIMUM DEPTH OF ABC+ INJECTION AT LOCATION F-17 PROVIDED IN FEET BELOW GRADE.

TETRACHLOROETHENE (PCE) CONCENTRATIONS ARE IN MG/L.

NS - NOT SAMPLED

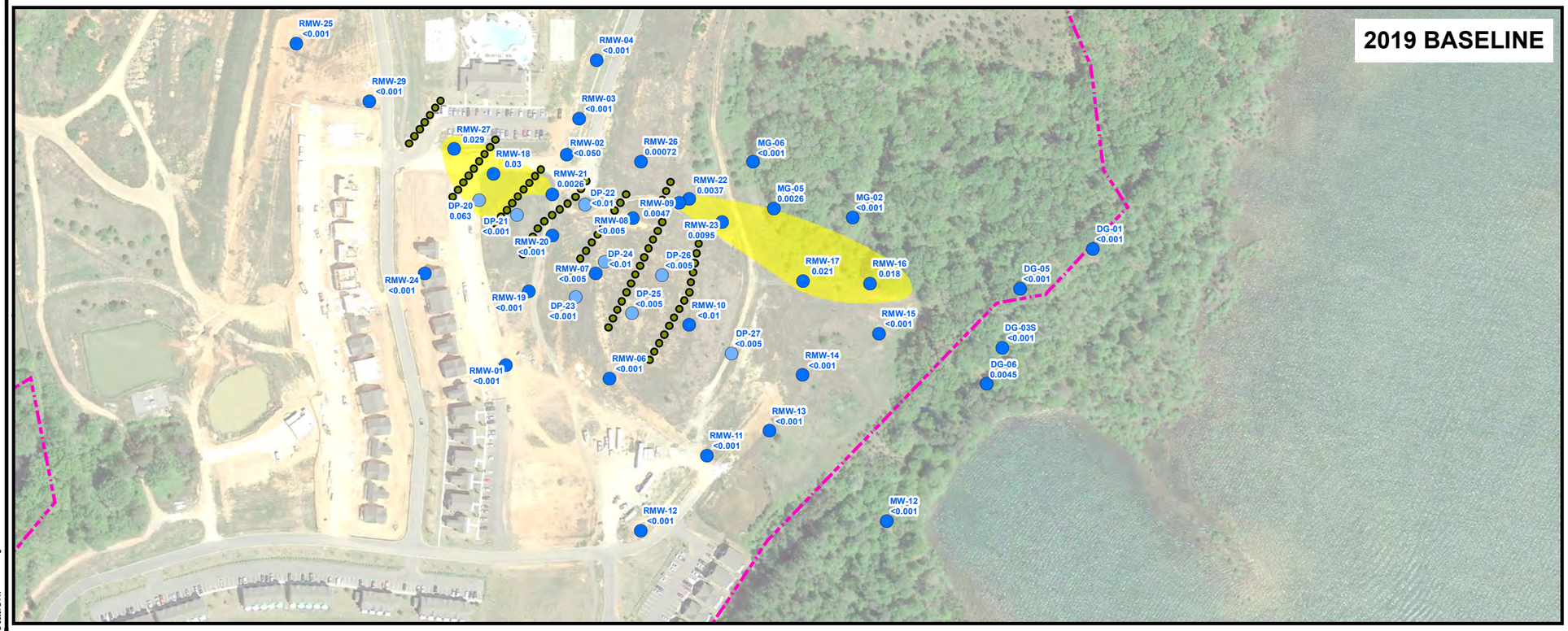
PROJECT:
WESTPOINT HOME, INC
CLEMSON, SOUTH CAROLINA

TITLE:
TETRACHLOROETHENE (PCE) DISTRIBUTION
CROSS SECTION B - B'

DRAWN BY:	S. HAMWAY	PROJ NO.:	300688.0000.0000
CHECKED BY:	L. CLARK		
APPROVED BY:	S. WEBB		**FIGURE 4-5**
DATE:	MAY 2021		

650 Suffolk Street
Suite 200
Lowell, MA 01854
Phone: 978.970.5600

FILE NO.: 300688 - FIG11_XSECTB_PCE_11x17.dwg



LEGEND

- Water Table Monitoring Well
- Direct-Push Groundwater Sample
- Property Boundary (Approximate)
- ABC+ Injection Locations

Cis-1,2-DCE Concentration Key

- > 0.005 to 0.1 mg/L
- > 0.1 to 1.0 mg/L
- > 1.0 mg/L

NOTES

Aerial Photograph Source: Google Earth (2018).

Cis-1,2-DCE concentrations are posted in mg/L.

Cis-1,2-DCE - Cis-1,2-Dichloroethene

NS - Not Sampled

For wells not sampled in March 2021 the Cis-1,2-DCE configuration is presumed to remain unchanged from the 2019 sampling event.

ABC+ Injections Conducted
May 14 - July 10, 2019.

N

0 250 500 Feet

1 " = 250 '
1:3,000

PROJECT:
FORMER WESTPOINT HOME, INC.
CLEMSON, SOUTH CAROLINA

TITLE:
CIS-1,2-DCE DISTRIBUTION IN SHALLOW GROUNDWATER

DRAWN BY:	SZYNAL D	PROJ. NO.:	300688.0.0.4
CHECKED BY:	CLARK L		
APPROVED BY:	WEBB S		**FIGURE 4-6**
DATE:	MAY 2021		

TRC
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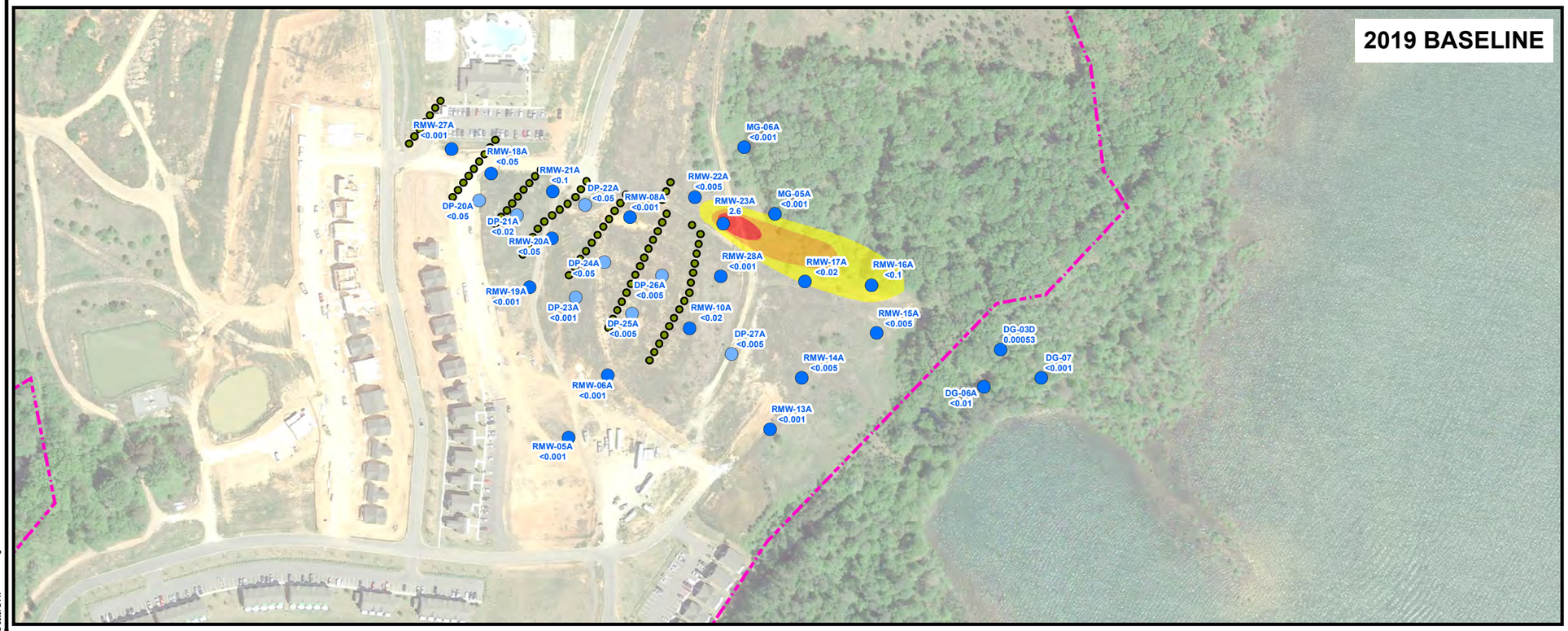
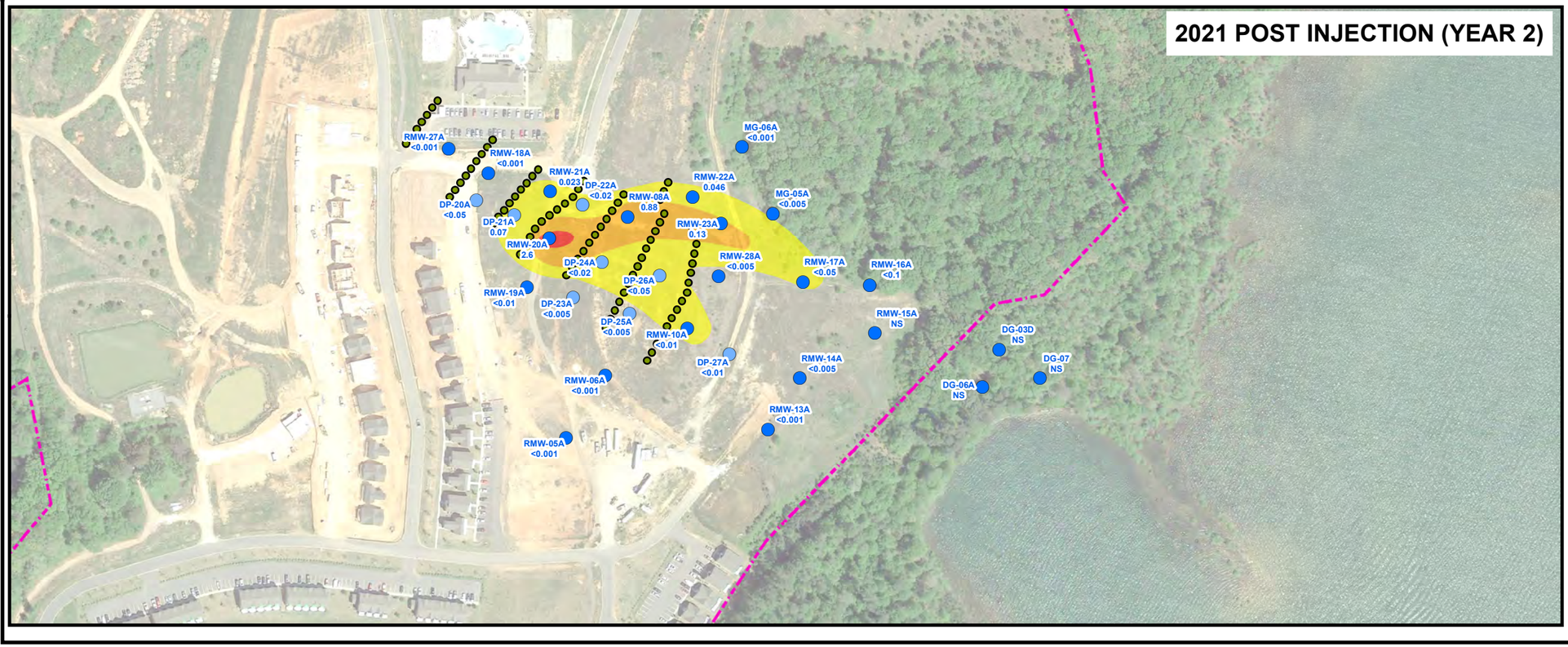
FILE NO.: Fig 6 - CIS_2019-2021_Shallow_Plume.mxd

Plot Date: 5/28/2021, 11:06:21 AM by DSZYNAL – LAYOUT: ANSI B (11"x17")
Path: U:\West Point Home\Clemson SC\ArcGIS\0300688\CIS Maps\2021\Fig 7 - CIS_2019-2021_Intermediate_Plume.mxd
Coordinate System: NAD 1983 StatePlane South Carolina FIPS 3900 Feet (Foot US)
Map Rotation: 0





LEGEND

- Intermediate Monitoring Well
- Direct-Push Groundwater Sample
- Property Boundary (Approximate)
- ABC+ Injection Locations

Cis-1,2-DCE Concentration Key

- > 0.005 to 0.1 mg/L
- > 0.1 to 1.0 mg/L
- > 1.0 mg/L

NOTES

Aerial Photograph Source: Google Earth (2018).

Cis-1,2-DCE concentrations are posted in mg/L.

Cis-1,2-DCE - Cis-1,2-Dichloroethene

NS - Not Sampled

For wells not sampled in March 2021 the Cis-1,2-DCE configuration is presumed to remain unchanged from the 2019 sampling event.

ABC+ Injections Conducted
May 14 - July 10, 2019.

N

0 250 500 Feet

1 " = 250 '
1:3,000

PROJECT:
FORMER WESTPOINT HOME, INC.
CLEMSON, SOUTH CAROLINA

TITLE:
CIS-1,2-DCE DISTRIBUTION IN INTERMEDIATE AQUIFER WELLS

DRAWN BY:	SZYNAL D	PROJ. NO.:	300688.0.0.4
CHECKED BY:	CLARK L		
APPROVED BY:	WEBB S		**FIGURE 4-7**
DATE:	MAY 2021		

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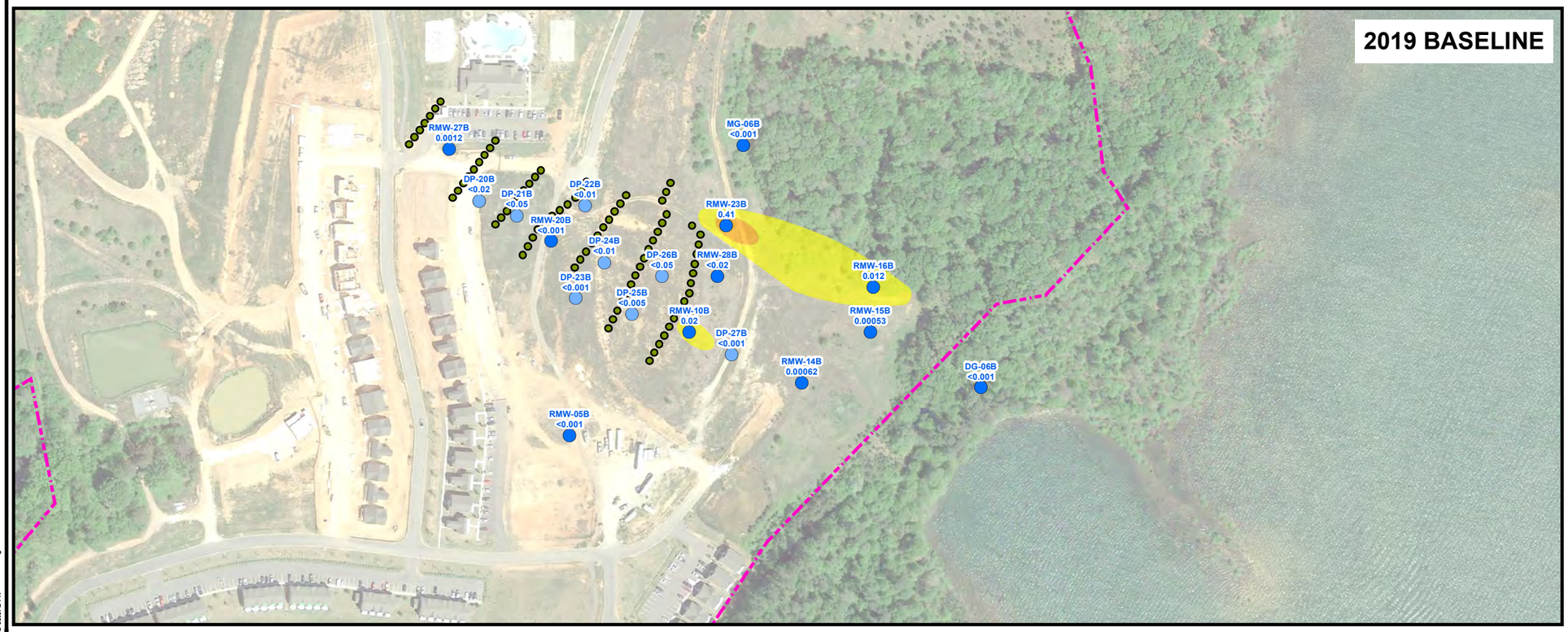
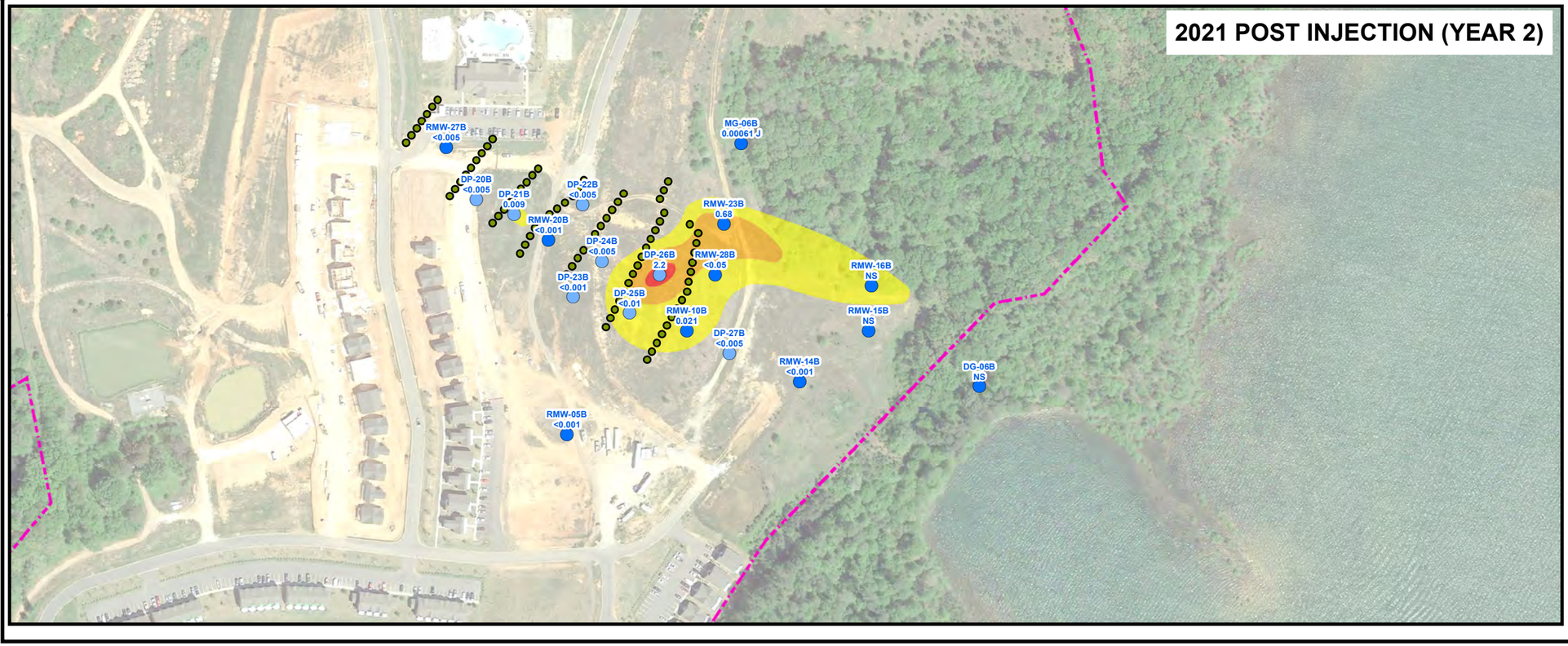
FILE NO.: Fig 7 - CIS_2019-2021_Intermediate_Plume.mxd





LEGEND

- Transition Monitoring Well
- Direct-Push Groundwater Sample
- Property Boundary (Approximate)
- ABC+ Injection Locations

Cis-1,2-DCE Concentration Key

- > 0.005 to 0.1 mg/L
- > 0.1 to 1.0 mg/L
- > 1.0 mg/L

NOTES

Aerial Photograph Source: Google Earth (2018).

Cis-1,2-DCE concentrations are posted in mg/L.

Cis-1,2-DCE - Cis-1,2-Dichloroethene

NS - Not Sampled

For wells not sampled in March 2021 the Cis-1,2-DCE configuration is presumed to remain unchanged from the 2019 sampling event.

ABC+ Injections Conducted
May 14 - July 10, 2019.

N

0 250 500 Feet

1 " = 250 '
1:3,000

PROJECT:
FORMER WESTPOINT HOME, INC.
CLEMSON, SOUTH CAROLINA

TITLE:
CIS-1,2-DCE DISTRIBUTION TRANSITION ZONE WELLS

DRAWN BY:	SZYNAL D	PROJ. NO.:	300688.0.0.4
CHECKED BY:	CLARK L		
APPROVED BY:	WEBB S		**FIGURE 4-8**
DATE:	MAY 2021		

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FILE NO.: Fig 8 - CIS_2019-2021_Transition_Plume.mxd

Figure 4-9 - Molarity Graphs RMW-27A

Figure 4-10 - Molarity Graphs - RMW-23A

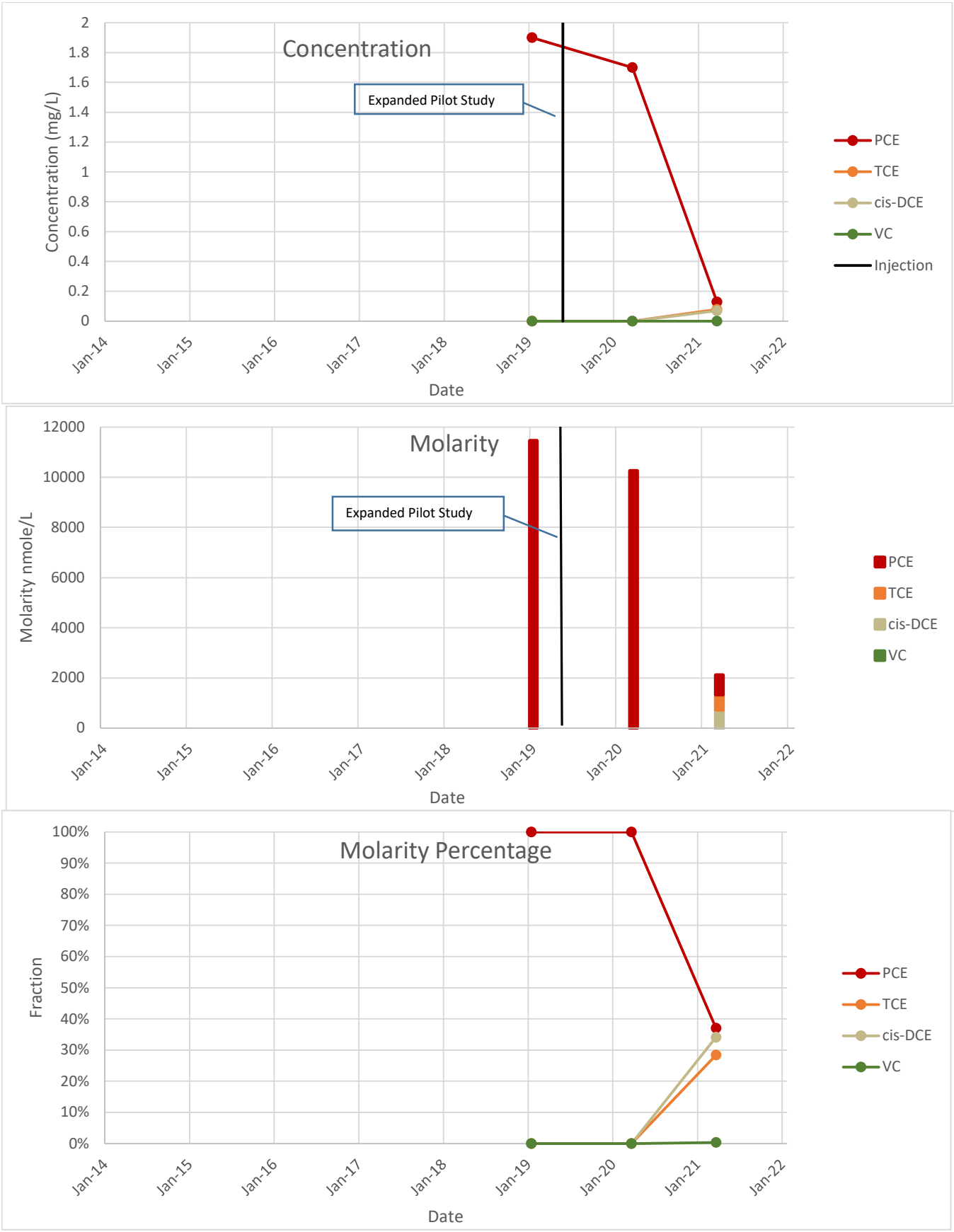
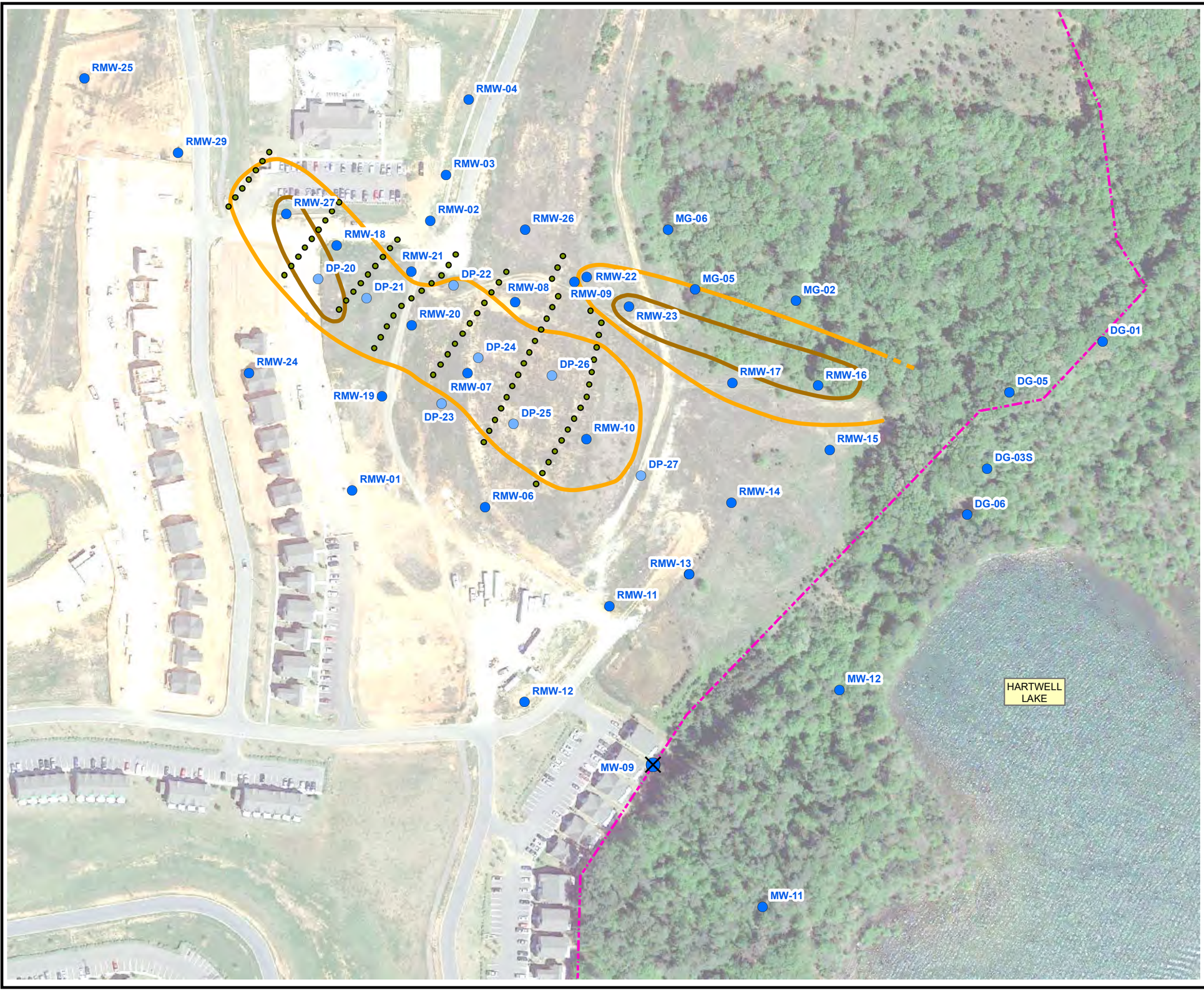


Figure 4-11 - Molarity Graphs - DP-21A

Figure 4-12 - Molarity Graphs - RMW-18A



LEGEND

- Direct-Push Groundwater Sample
- Water Table Monitoring Well
- ABC+ Injection Points
- Destroyed Water Table Monitoring Well
- Property Boundary (Approximate)

NOTES

Aerial Photograph Source: Google Earth (2018).

Outlined areas are based on an aggregation of ERD field and laboratory indicator parameters.

Dashed areas indicate an inferrence.

Burnt orange outlined areas are from 2019.

Orange outlined areas are from 2021.

N

0 130 260 Feet

1 " = 150 '

1:1,800

PROJECT:

FORMER WESTPOINT HOME, INC.
CLEMSON, SOUTH CAROLINA

TITLE:

AREA OF ROBUST ERD CONDITIONS IN SHALLOW GROUNDWATER

DRAWN BY:	S. RAY	PROJ. NO.:	300688.0.0
CHECKED BY:			
APPROVED BY:			**FIGURE 4-13**
DATE:	JUNE 2021		

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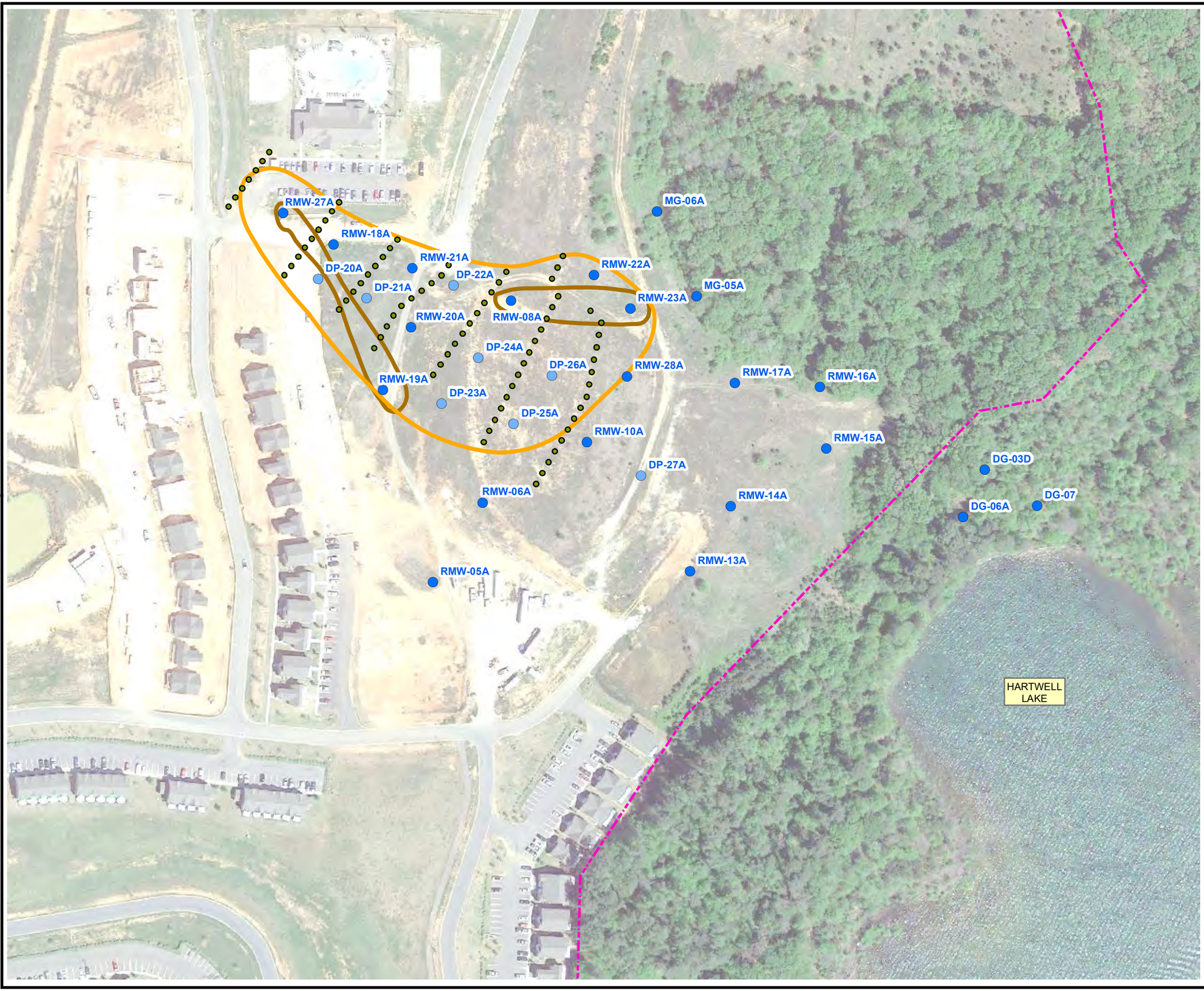
FILE NO.: Fig 4-13 - Area of Robust ERD Conditions Shallow GW.mxd

Plot Date: 6/8/2021, 17:01:35 PM by SRAY -- LAYOUT: ANSI B (11"x17")
Path: S:\1-PROJECTS\West Point Home\Clemson SC\GIS\300688\PCE Maps\Fig 4-13 - Area of Robust ERD Conditions Shallow GW.mxd
Coordinate System: NAD 1983 StatePlane South Carolina FIPS 3900 Feet (Foot US)
Map Rotation: 0
TRC - GIS



LEGEND

- Direct-Push Groundwater Sample
- Intermediate Aquifer Monitoring Well
- ABC+ Injection Points
- Property Boundary (Approximate)

NOTES

Aerial Photograph Source: Google Earth (2018).

Outlined areas are based on an aggregation of ERD field and laboratory indicator parameters.

Dashed areas indicate an inferrence.

Burnt orange outlined areas are from 2019.

Orange outlined areas are from 2021.

N

0 130 260 Feet

1 " = 150 '

1:1,800

PROJECT:

FORMER WESTPOINT HOME, INC.
CLEMSON, SOUTH CAROLINA

TITLE:

AREA OF ROBUST ERD CONDITIONS IN INTERMEDIATE AQUIFER WELLS

DRAWN BY:	S. RAY	PROJ. NO.:	300688
CHECKED BY:			
APPROVED BY:			**FIGURE 4-14**
DATE:	JUNE 2021		

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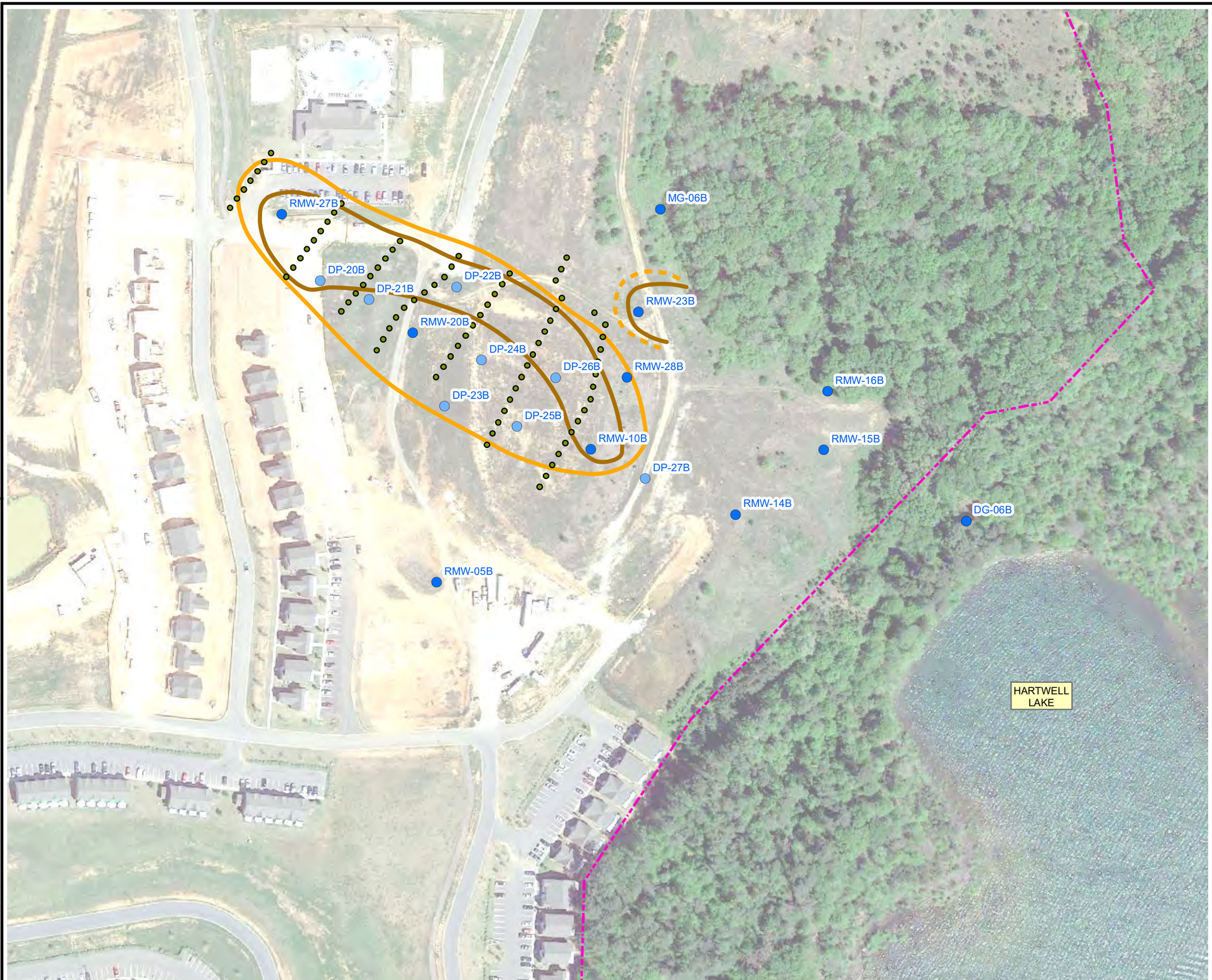
FILE NO.: Fig 4-14 - Area of Robust ERD Conditions Intermediate AW.mxd

Plot Date: 6/8/2021, 15:50:20 PM by SRAY -- LAYOUT: ANSI B (11"x17")
Path: S:\1-PROJECTS\West Point Home\Clemson SC\GIS\300688\PCE Maps\Fig 4-14 - Area of Robust ERD Conditions Intermediate AW.mxd
Coordinate System: NAD 1983 StatePlane South Carolina FIPS 3900 Feet (Foot US)
Map Rotation: 0
TRC - GIS



LEGEND

- Direct-Push Groundwater Sample
- Transition Zone Monitoring Well
- ABC+ Injection Points
- Property Boundary (Approximate)

NOTES

Aerial Photograph Source: Google Earth (2018).

Outlined areas are based on an aggregation of ERD field and laboratory indicator parameters.

Dashed areas indicate an inferrence.

Burnt orange outlined areas are from 2019.

Orange outlined areas are from 2021.

N

0 130 260 Feet

1 " = 150 '

1:1,800

PROJECT:

FORMER WESTPOINT HOME, INC.
CLEMSON, SOUTH CAROLINA

TITLE:

AREA OF ROBUST ER CONDITIONS IN TRANSITION ZONE WELLS

DRAWN BY:	S. RAY	PROJ. NO.:	300688
CHECKED BY:			
APPROVED BY:			**FIGURE 4-15**
DATE:	JUNE 2021		

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Greenville, SC 29615
Phone: 864.281.0030
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FILE NO.: Fig 4-15 - Area of Robust ERD Conditions Transition Zone Wells.mxd

Plot Date: 6/8/2021, 17:22:55 PM by SRAY -- LAYOUT: ANSI B (11"x17")
Path: S:\1-PROJECTS\West Point Home\Clemson SC\GIS\300688\PCE Maps\Fig 4-15 - Area of Robust ERD Conditions Transition Zone Wells.mxd
Coordinate System: NAD 1983 StatePlane South Carolina FIPS 3900 Feet (Foot US)
Map Rotation: 0

TRC - GIS

Section 5
Findings, Conclusions, and Recommendations

The Expanded ABC+® Pilot Study consisted of targeted injections of ABC+® at 80 locations within the 0.1 mg/L PCE isocontour of the upgradient VOC plume area. These injections were completed in July 2019. Subsequent performance monitoring activities were conducted across the targeted treatment area and completed in March 2021. The performance monitoring results are summarized in this report and demonstrate that the treatment influence and effects of the ABC+® injections were significant and sustainable. In fact, the ongoing effects of the much smaller 2016 pilot study can still be discerned in the 2019 pre-injection data, the March 2020 data, and the March 2021 data. The data and observations presented in this report conclusively document and demonstrate the long-lasting treatment effects and pronounced influence of ABC+® treatment.

Based on the observed reduction in PCE isoconcentration contours across the targeted treatment zone, and the continued and expanded adjustments to the overall geochemistry and establishment of aquifer conditions conducive to ERD, ABC+® can be documented as an effective, appropriate and cost-efficient method of conducting in situ treatment of PCE in groundwater across the Site.

As discussed in Section 4.1 of this report, molarity graphs suggest that there has been a significant contribution by both the ERD and ZVI components of ABC+® in promoting PCE degradation. The synergistic contributions of ERD and ZVI make ABC+® an ideal and useful remedial alternative for hastening the removal of PCE from the Site aquifer. The use of ABC+® at the former WPH Site also reveals promise in reducing the overall timeframe for completing active treatment measures and transitioning to monitored natural attenuation. On this basis, TRC concludes that there is now sufficient data and lines of evidence to support selection of this remedial treatment measures as the preferred remedial alternative for the Site.

The 2019 Expanded ABC+® Pilot Study injections targeted the area within the 0.1 mg/L PCE isoconcentration contour for the upgradient VOC plume. Since that time, TRC has documented significant reductions in observed PCE concentrations within this area. With the Department's approval, it will be possible to consider expansion of ABC+® treatment efforts further downgradient in the upgradient VOC plume and within the downgradient VOC plume. For these future treatment measures to occur, it will be necessary for SC DHEC to resume consideration of the August 2017 FFS and select a preferred treatment remedy. Once Department approval is received, additional discussion can begin for expanded ABC+® injection activities within areas not previously targeted within PCE-affected groundwater areas.

Appendix A
Redox Tech Injection Report

REDOX TECH, LLC

"Providing Innovative In Situ Soil and Groundwater Treatment"

Field Summary Report for Seneca, SC

Prepared by Geoff Ives on July 23, 2019			
Project Name	TRC - Clemson, SC	**Start and End Date**	May 13 – July 12, 2019
City and State	Clemson (Seneca), SC	**Address**	The Pier 918 Queens Park Loop, Seneca SC 29678
Contaminant of Concern	Tetrachloroethene (PCE) and daughter products	**Contaminated Media**	Groundwater
Field Contractor	Redox Tech, LLC	**Client**	Steve W. Webb T: 864.234.9363 | C: 864.787.8453 | F: 864.281.0288
Address	200 Quade Drive Cary, NC	**Address**	30 Patewood Drive, Suite 300, Greenville, SC 29615
Field Lead	Robert Sullivan	**Oversight**	David Szynal
Phone Number	770-778-9787	**Phone Number**	864-420-3976
Email	Sullivan@redox-tech.com	**Email**	Dszynal@trccompanies.com
Crew Members	Robert Sullivan, Geoff Ives, Daniel Villegas, Bradford Bailiff, Jonathan Sawyer, Chris Lacko, Wes Rivett, Sergio Navarro, Gary Meyers, Mike Podany, Ethan Lee, Kyle Clarke, Blair Mitchell, Ivan Blackman	**Number of Points and Depths**	80 locations – varied depths between 12 and 90 feet – 2 foot intervals
Chemical	ABC+ with RTB-1	**Mass or Volume**	255,400 lbs
Concentration of Chemical	50 gal slurry/hopper 50 lbs ZVI/hopper 50 lbs ABC/hopper 2 lbs guar/hopper 0.05 liters DHC (concentrated ×4)/hopper 5 lbs magnesium oxide/hopper 0.5 lbs sodium tripolyphosphate/hopper	**Volume of Solution or Slurry**	127,700 gal

Brief Narrative

Between May 13 and July 12, 2019, Redox Tech performed direct-push technology (DPT) injections of Anaerobic Biochem Plus (ABC^{+}) with RTB-1 at a total of 80 injection locations (see Figure 1), targeting a 140,000 ft^2 area within the VOC plume identified at the West Point Home Facility in Seneca, South Carolina. Injections were conducted in seven transects perpendicular to the direction of groundwater flow.

Redox Tech advanced direct push borings using Geoprobe 6610, 6620, and 8040 track-mounted rigs. The maximum vertical interval of injection ranged from 12 ft to 90 ft below ground surface (bgs), but actual vertical intervals varied on a point-by-point basis depending on subsurface characteristics. The top of the interval, the shallowest injection depth, for each injection point (IP) was set by the depth to water measured by TRC in adjacent monitoring wells. The refusal depth reached by the Geoprobe 8040 determined the bottom of the vertical injection interval, the deepest injection depth, for each injection point. To ensure proper vertical distribution of amendment, bottom-up injections were conducted at two-foot increments while care was taken to inject no more than five intervals per boring for most of the injection locations. This necessitated multiple borings per location, so injections began with the shallowest boring and worked down to the deepest boring at each location. Any changes made to the planned injections are documented in Table 1.

To maximize viability of the DHC bacterial culture, injectate water was deoxygenated in 4,000 and 5,000 gal pillow tanks. A minimum of twelve hours elapsed prior to injection by combining water with sugar and yeast at a ratio of 100 lbs sugar and 0.5 lbs yeast per 1,000 gal water. Both 1,500 and 2,500 gal polymer (poly) tanks were used to prepare ABC solution for injection.

To yield the desired concentration of amendment, 1,500 lbs ABC (173.6 gal) and 1.5 L concentrated (4x) DHC culture were combined with approximately 1,326 gal deoxygenated water to mix a batch in the 1,500 gal poly tank, or 2,500 lbs ABC (289.4 gal) and 2.5 L concentrated (x4) DHC culture were combined with approximately 2,211 gal deoxygenated water to mix a batch in the 2,500 gal poly tank. Injections were performed using mobile ChemGrout units where ABC solution from the poly tanks was combined with guar, 50 lbs ZVI, 5 lbs magnesium oxide, and 0.5 lbs sodium tripolyphosphate to

form 50 gallons of slurry. Piston pumps on the ChemGrouts were used to inject the slurry into the DPT borings. Each ChemGrout was equipped with a set of data loggers that continuously recorded injection pressures and flow rates.

Redox Tech injected a total of 127,700 gal of ABC$^+$ slurry to complete 2,554 depths. The total slurry volume contained 255,400 lbs ABC$^+$ (127,700 lbs ABC, 127,700 lbs ZVI), 12,770 lbs magnesium oxide, 1,277 lbs sodium tripolyphosphate, and 130 L DHC concentrated bacteria (x4). On July 2, 2019, three depths (72, 74, and 76 ft) were accidently injected a second time.

Each injection depth received 50 lbs ABC, 50 lbs ZVI, 0.05 L concentrated (x4) DHC culture, 5 lbs magnesium oxide, 0.5 lbs sodium tripolyphosphate, approximately 2 lbs guar, and 44 gal deoxygenated water. Eight injection locations received a sodium bromide (NaBr) tracer at a concentration of approximately 40 mg/L (about 8 grams NaBr per 50 gal slurry). The locations that received the tracer were C4, C5, E1, E2, F13, F14, G6, and G7. A total of 2,232 g NaBr was injected between the eight locations selected to receive the tracer. Table 1 provides the specific amount of NaBr each injection point received.

Boreholes were sealed with HolePlug and bentonite crumbles following the completion of each location. Geoprobes were used to push down the bentonite pack and then the holes were grouted with Portland cement grout to land surface.

No major issues were encountered during the project; however, significant backpressure was common at most locations. There were five minor instances of daylighting, all of which were at relatively shallow depths. Injection flow rates were reduced to address this problem.

Redox crewmembers that participated in the remedial fieldwork included Robert Sullivan, Geoff Ives, Daniel Villegas, Bradford Bailiff, Jonathan Sawyer, Chris Lacko, Wes Rivett, Sergio Navarro, Gary Meyers, Mike Podany, Ethan Lee, Kyle Clarke, Blair Mitchell, and Ivan Blackman, with oversight provided primarily by TRC's David Szynal.

The Redox Tech crew fully demobilized on Tuesday July 16, 2019.

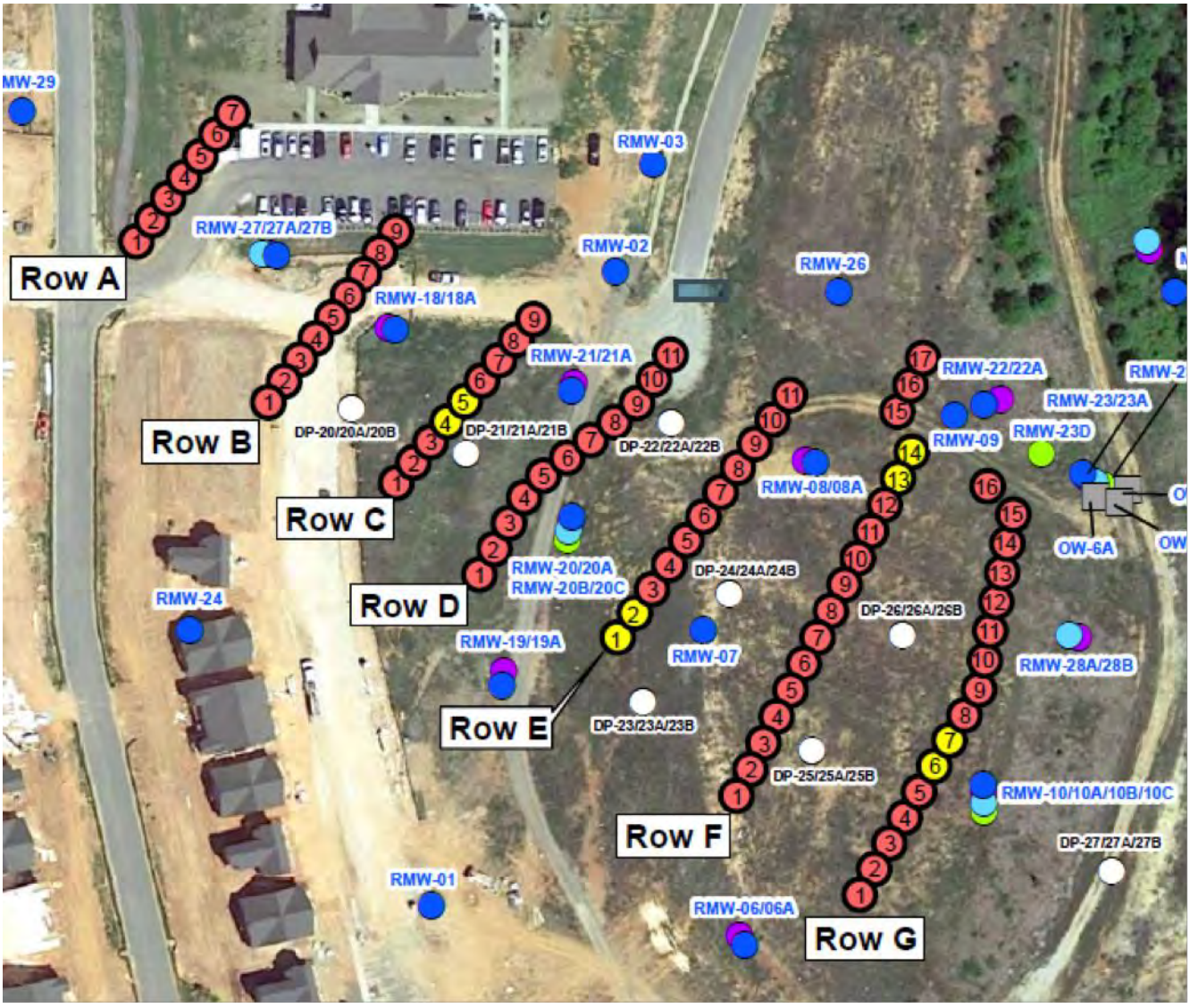

Figure 1. Injection Location Map

Table 1. Injection Logs									
Date	**Injection Point**	**Depth Interval (ft)**	**Start Time**	**Stop Time**	**Injection Pressure (psi)**	**Flow Rate (gpm)**	**Planned Volume Injected (gal)**	**Actual Volume Injected (gal)**	**Notes (flow change, etc.)**
Transect A									
5/14/19	IP-A1	20	10:10	10:15	60	10.00	50	50	
5/14/19	IP-A1	18	10:17	10:23	60	8.33	50	50	
5/14/19	IP-A1	16	10:25	10:31	40	8.33	50	50	
5/14/19	IP-A1	14	10:41	10:47	50	8.33	50	50	
5/14/19	IP-A1	30	10:50	10:58	50	6.25	50	50	
5/14/19	IP-A1	28	10:59	11:06	50	7.14	50	50	
5/14/19	IP-A1	26	11:08	11:14	60	8.33	50	50	
5/14/19	IP-A1	24	11:22	11:28	60	8.33	50	50	
5/14/19	IP-A1	22	11:29	11:37	60	6.25	50	50	
5/14/19	IP-A1	40	11:54	12:01	80	7.14	50	50	
5/14/19	IP-A1	38	12:02	12:09	80	7.14	50	50	
5/14/19	IP-A1	36	12:10	12:17	80	7.14	50	50	
5/14/19	IP-A1	34	12:32	12:40	60	6.25	50	50	
5/14/19	IP-A1	32	12:41	12:49	60	6.25	50	50	
5/14/19	IP-A1	50	13:48	13:55	60	7.14	50	50	
5/14/19	IP-A1	48	13:57	14:05	60	6.25	50	50	
5/14/19	IP-A1	46	14:06	14:14	60	6.25	50	50	
5/14/19	IP-A1	44	14:36	14:45	60	5.56	50	50	
5/14/19	IP-A1	42	14:47	14:55	50	6.25	50	50	
5/14/19	IP-A1	60	15:16	15:24	100	6.25	50	50	
5/14/19	IP-A1	58	15:26	15:34	70	6.25	50	50	
5/14/19	IP-A1	56	15:37	15:45	70	6.25	50	50	

Table 1. Injection Logs									
Date	**Injection Point**	**Depth Interval (ft)**	**Start Time**	**Stop Time**	**Injection Pressure (psi)**	**Flow Rate (gpm)**	**Planned Volume Injected (gal)**	**Actual Volume Injected (gal)**	**Notes (flow change, etc.)**
5/14/19	IP-A1	54	15:55	16:04	60	5.56	50	50	
5/14/19	IP-A1	52	16:05	16:14	60	5.56	50	50	
Transect C									
5/14/19	IP-C1	20	9:13	9:21	50	6.25	50	50	
5/14/19	IP-C1	18	9:21	9:25	15	12.50	50	50	
5/14/19	IP-C1	16	9:25	9:30	15	10.00	50	50	
5/14/19	IP-C1	30	9:54	9:57	20	16.67	50	50	
5/14/19	IP-C1	28	9:57	10:02	20	10.00	50	50	
5/14/19	IP-C1	26	10:02	10:06	15	12.50	50	50	
5/14/19	IP-C1	24	10:15	10:20	20	10.00	50	50	
5/14/19	IP-C1	22	10:20	10:23	15	16.67	50	50	
5/14/19	IP-C1	40	10:35	10:39	50	12.50	50	50	
5/14/19	IP-C1	38	10:39	10:44	30	10.00	50	50	
5/14/19	IP-C1	36	10:44	10:48	20	12.50	50	50	
5/14/19	IP-C1	34	10:55	10:58	30	16.67	50	50	
5/14/19	IP-C1	32	10:58	11:02	20	12.50	50	50	
5/14/19	IP-C1	50	11:23	11:27	80	12.50	50	50	
5/14/19	IP-C1	48	11:27	11:31	60	12.50	50	50	
5/14/19	IP-C1	46	11:31	11:36	20	10.00	50	50	
5/14/19	IP-C1	44	11:48	11:52	20	12.50	50	50	
5/14/19	IP-C1	42	11:52	11:56	20	12.50	50	50	
5/14/19	IP-C1	60	12:13	12:17	60	12.50	50	50	
5/14/19	IP-C1	58	12:17	12:22	30	10.00	50	50	
5/14/19	IP-C1	56	12:22	12:26	30	12.50	50	50	

Table 1. Injection Logs									
Date	**Injection Point**	**Depth Interval (ft)**	**Start Time**	**Stop Time**	**Injection Pressure (psi)**	**Flow Rate (gpm)**	**Planned Volume Injected (gal)**	**Actual Volume Injected (gal)**	**Notes (flow change, etc.)**
5/14/19	IP-C1	54	13:50	13:54	30	12.50	50	50	
5/14/19	IP-C1	52	13:54	14:00	30	8.33	50	50	
5/14/19	IP-C1	70	14:11	14:15	120	12.50	50	50	
5/14/19	IP-C1	68	14:15	14:20	120	10.00	50	50	
5/14/19	IP-C1	66	14:20	14:25	100	10.00	50	50	
5/14/19	IP-C1	64	14:35	14:40	100	10.00	50	50	
5/14/19	IP-C1	62	14:40	14:45	100	10.00	50	50	
Transect A									
5/15/19	IP-A2	20	8:49	8:53	80	12.50	50	50	
5/15/19	IP-A2	18	8:55	9:00	60	10.00	50	50	
5/15/19	IP-A2	16	9:02	9:07	60	10.00	50	50	
5/15/19	IP-A2	14	9:09	9:14	60	10.00	50	50	
5/15/19	IP-A2	30	9:28	9:33	70	10.00	50	50	
5/15/19	IP-A2	28	9:35	9:40	70	10.00	50	50	
5/15/19	IP-A2	26	9:41	9:46	70	10.00	50	50	
5/15/19	IP-A2	24	10:03	10:08	60	10.00	50	50	
5/15/19	IP-A2	22	10:09	10:14	60	10.00	50	50	
5/15/19	IP-A2	40	10:33	10:38	100	10.00	50	50	
5/15/19	IP-A2	38	10:39	10:44	80	10.00	50	50	
5/15/19	IP-A2	36	10:46	10:52	60	8.33	50	50	
5/15/19	IP-A2	34	11:02	11:06	60	12.50	50	50	
5/15/19	IP-A2	32	11:08	11:13	70	10.00	50	50	
5/15/19	IP-A2	50	11:24	11:29	100	10.00	50	50	

Table 1. Injection Logs

Date	Injection Point	Depth Interval (ft)	Start Time	Stop Time	Injection Pressure (psi)	Flow Rate (gpm)	Planned Volume Injected (gal)	Actual Volume Injected (gal)	Notes (flow change, etc.)
5/15/19	IP-A2	48	11:30	11:36	80	8.33	50	50	
5/15/19	IP-A2	46	11:37	11:43	100	8.33	50	50	
5/15/19	IP-A2	44	11:55	12:00	100	10.00	50	50	
5/15/19	IP-A2	42	12:01	12:06	100	10.00	50	50	
5/15/19	IP-A2	60	12:24	12:28	100	12.50	50	50	
5/15/19	IP-A2	58	12:30	12:35	80	10.00	50	50	
5/15/19	IP-A2	56	12:37	12:42	80	10.00	50	50	
5/15/19	IP-A2	54	13:02	13:07	70	10.00	50	50	
5/15/19	IP-A2	52	13:08	13:13	70	10.00	50	50	
Transect C									
5/15/19	IP-C2	20	8:54	8:58	20	12.50	50	50	
5/15/19	IP-C2	18	8:58	9:03	10	10.00	50	50	
5/15/19	IP-C2	16	9:03	9:07	10	12.50	50	50	
5/15/19	IP-C2	30	9:14	9:18	30	12.50	50	50	
5/15/19	IP-C2	28	9:18	9:22	20	12.50	50	50	
5/15/19	IP-C2	26	9:22	9:26	30	12.50	50	50	
5/15/19	IP-C2	24	9:33	9:38	20	10.00	50	50	
5/15/19	IP-C2	22	9:38	9:42	10	12.50	50	50	
5/15/19	IP-C2	40	9:49	9:54	30	10.00	50	50	
5/15/19	IP-C2	38	9:54	9:58	30	12.50	50	50	
5/15/19	IP-C2	36	9:58	10:02	20	12.50	50	50	
5/15/19	IP-C2	34	10:12	10:16	30	12.50	50	50	
5/15/19	IP-C2	32	10:16	10:21	20	10.00	50	50	
5/15/19	IP-C2	50	10:28	10:33	80	10.00	50	50	

Table 1. Injection Logs									
Date	**Injection Point**	**Depth Interval (ft)**	**Start Time**	**Stop Time**	**Injection Pressure (psi)**	**Flow Rate (gpm)**	**Planned Volume Injected (gal)**	**Actual Volume Injected (gal)**	**Notes (flow change, etc.)**
5/15/19	IP-C2	48	10:33	10:36	40	16.67	50	50	
5/15/19	IP-C2	46	10:36	10:39	40	16.67	50	50	
5/15/19	IP-C2	44	10:49	10:53	40	12.50	50	50	
5/15/19	IP-C2	42	10:53	10:56	30	16.67	50	50	
5/15/19	IP-C2	60	11:20	11:25	100	10.00	50	50	
5/15/19	IP-C2	58	11:25	11:29	80	12.50	50	50	
5/15/19	IP-C2	56	11:29	11:34	50	10.00	50	50	
5/15/19	IP-C2	54	12:12	12:16	50	12.50	50	50	
5/15/19	IP-C2	52	12:16	12:20	50	12.50	50	50	
5/15/19	IP-C2	66	12:36	12:42	100	8.33	50	50	
5/15/19	IP-C2	64	12:49	12:53	100	12.50	50	50	
5/15/19	IP-C2	62	12:53	12:57	90	12.50	50	50	
Transect A									
5/16/19	IP-A3	20	8:41	8:48	40	7.14	50	50	
5/16/19	IP-A3	18	8:48	8:54	20	8.33	50	50	
5/16/19	IP-A3	16	8:54	9:01	10	7.14	50	50	
5/16/19	IP-A3	30	9:15	9:22	30	7.14	50	50	
5/16/19	IP-A3	28	9:22	9:29	30	7.14	50	50	
5/16/19	IP-A3	26	9:29	9:36	30	7.14	50	50	
5/16/19	IP-A3	24	9:48	9:55	30	7.14	50	50	
5/16/19	IP-A3	22	9:55	10:04	30	5.56	50	50	
5/16/19	IP-A3	40	10:25	10:33	50	6.25	50	50	
5/16/19	IP-A3	38	10:33	10:40	40	7.14	50	50	

Table 1. Injection Logs									
Date	**Injection Point**	**Depth Interval (ft)**	**Start Time**	**Stop Time**	**Injection Pressure (psi)**	**Flow Rate (gpm)**	**Planned Volume Injected (gal)**	**Actual Volume Injected (gal)**	**Notes (flow change, etc.)**
5/16/19	IP-A3	36	10:40	10:50	40	5.00	50	50	
5/16/19	IP-A3	34	11:03	11:10	30	7.14	50	50	
5/16/19	IP-A3	32	11:10	11:17	30	7.14	50	50	
5/16/19	IP-A3	50	11:36	11:43	50	7.14	50	50	
5/16/19	IP-A3	48	11:43	11:50	60	7.14	50	50	
5/16/19	IP-A3	46	11:50	11:57	60	7.14	50	50	
5/16/19	IP-A3	44	12:12	12:18	50	8.33	50	50	
5/16/19	IP-A3	42	12:18	12:25	30	7.14	50	50	
5/16/19	IP-A3	54	12:28	12:34	30	8.33	50	50	
5/16/19	IP-A3	52	12:34	12:40	30	8.33	50	50	
Transect C									
5/16/19	IP-C3	20	8:16	8:18	70	25.00	50	50	
5/16/19	IP-C3	18	8:20	8:23	70	16.67	50	50	
5/16/19	IP-C3	16	8:25	8:28	70	16.67	50	50	
5/16/19	IP-C3	30	8:35	8:37	70	25.00	50	50	
5/16/19	IP-C3	28	8:39	8:42	70	16.67	50	50	
5/16/19	IP-C3	26	8:44	8:47	70	16.67	50	50	
5/16/19	IP-C3	24	9:10	9:12	70	25.00	50	50	
5/16/19	IP-C3	22	9:13	9:17	40	12.50	50	50	
5/16/19	IP-C3	40	9:30	9:34	70	12.50	50	50	
5/16/19	IP-C3	38	9:36	9:39	70	16.67	50	50	
5/16/19	IP-C3	36	9:41	9:44	70	16.67	50	50	
5/16/19	IP-C3	34	10:06	10:09	70	16.67	50	50	
5/16/19	IP-C3	32	10:11	10:15	70	12.50	50	50	

Table 1. Injection Logs									
Date	**Injection Point**	**Depth Interval (ft)**	**Start Time**	**Stop Time**	**Injection Pressure (psi)**	**Flow Rate (gpm)**	**Planned Volume Injected (gal)**	**Actual Volume Injected (gal)**	**Notes (flow change, etc.)**
5/16/19	IP-C3	50	10:28	10:32	100	12.50	50	50	
5/16/19	IP-C3	48	10:34	10:37	80	16.67	50	50	
5/16/19	IP-C3	46	10:39	10:42	70	16.67	50	50	
5/16/19	IP-C3	44	11:03	11:07	70	12.50	50	50	
5/16/19	IP-C3	42	11:08	11:11	70	16.67	50	50	
5/16/19	IP-C3	60	11:43	11:46	100	16.67	50	50	
5/16/19	IP-C3	58	11:48	11:51	100	16.67	50	50	
5/16/19	IP-C3	56	11:52	11:55	70	16.67	50	50	
5/16/19	IP-C3	54	12:14	12:17	100	16.67	50	50	
5/16/19	IP-C3	52	12:17	12:21	70	12.50	50	50	
Transect A									
5/17/19	IP-A4	20	7:48	7:54	30	8.33	50	50	
5/17/19	IP-A4	18	7:54	8:01	30	7.14	50	50	
5/17/19	IP-A4	16	8:01	8:09	20	6.25	50	50	
5/17/19	IP-A4	14	8:25	8:33	20	6.25	50	50	
5/17/19	IP-A4	30	8:44	8:51	40	7.14	50	50	
5/17/19	IP-A4	28	8:51	8:59	40	6.25	50	50	
5/17/19	IP-A4	26	8:59	9:08	30	5.56	50	50	
5/17/19	IP-A4	24	9:15	9:23	30	6.25	50	50	
5/17/19	IP-A4	22	9:23	9:30	30	7.14	50	50	
5/17/19	IP-A4	40	10:44	10:52	40	6.25	50	50	
5/17/19	IP-A4	38	10:52	10:58	40	8.33	50	50	
5/17/19	IP-A4	36	10:58	11:04	30	8.33	50	50	

Table 1. Injection Logs									
Date	**Injection Point**	**Depth Interval (ft)**	**Start Time**	**Stop Time**	**Injection Pressure (psi)**	**Flow Rate (gpm)**	**Planned Volume Injected (gal)**	**Actual Volume Injected (gal)**	**Notes (flow change, etc.)**
5/17/19	IP-A4	34	11:22	11:29	30	7.14	50	50	
5/17/19	IP-A4	32	11:29	11:37	30	6.25	50	50	
5/17/19	IP-A4	48	11:44	11:52	50	6.25	50	50	
5/17/19	IP-A4	46	11:52	11:59	40	7.14	50	50	
5/17/19	IP-A4	44	12:36	12:42	30	8.33	50	50	
5/17/19	IP-A4	42	12:42	12:50	30	6.25	50	50	
Transect C									
5/17/19	IP-C4	20	7:35	7:38	70	16.67	50	50	8 grams NaBr tracer added to hopper
5/17/19	IP-C4	18	7:39	7:42	40	16.67	50	50	8 grams NaBr tracer added to hopper
5/17/19	IP-C4	16	7:43	7:46	70	16.67	50	50	8 grams NaBr tracer added to hopper
5/17/19	IP-C4	30	7:55	7:58	70	16.67	50	50	8 grams NaBr tracer added to hopper
5/17/19	IP-C4	28	7:59	8:02	70	16.67	50	50	8 grams NaBr tracer added to hopper
5/17/19	IP-C4	26	8:04	8:07	60	16.67	50	50	8 grams NaBr tracer added to hopper
5/17/19	IP-C4	24	8:21	8:24	60	16.67	50	50	8 grams NaBr tracer added to hopper
5/17/19	IP-C4	22	8:25	8:28	60	16.67	50	50	8 grams NaBr tracer added to hopper
5/17/19	IP-C4	40	8:35	8:38	70	16.67	50	50	8 grams NaBr tracer added to hopper
5/17/19	IP-C4	38	8:39	8:42	70	16.67	50	50	8 grams NaBr tracer added to hopper
5/17/19	IP-C4	36	8:43	8:46	70	16.67	50	50	8 grams NaBr tracer added to hopper
5/17/19	IP-C4	34	8:55	8:58	70	16.67	50	50	8 grams NaBr tracer added to hopper
5/17/19	IP-C4	32	8:59	9:02	70	16.67	50	50	8 grams NaBr tracer added to hopper
5/17/19	IP-C4	50	9:21	9:24	70	16.67	50	50	8 grams NaBr tracer added to hopper
5/17/19	IP-C4	48	9:25	9:28	70	16.67	50	50	8 grams NaBr tracer added to hopper
5/17/19	IP-C4	46	9:29	9:32	60	16.67	50	50	8 grams NaBr tracer added to hopper
5/17/19	IP-C4	44	10:42	10:45	60	16.67	50	50	8 grams NaBr tracer added to hopper

Table 1. Injection Logs

Date	Injection Point	Depth Interval (ft)	Start Time	Stop Time	Injection Pressure (psi)	Flow Rate (gpm)	Planned Volume Injected (gal)	Actual Volume Injected (gal)	Notes (flow change, etc.)
5/17/19	IP-C4	42	10:46	10:50	60	12.50	50	50	8 grams NaBr tracer added to hopper
5/17/19	IP-C4	60	11:07	11:10	100	16.67	50	50	8 grams NaBr tracer added to hopper
5/17/19	IP-C4	58	11:11	11:14	100	16.67	50	50	8 grams NaBr tracer added to hopper
5/17/19	IP-C4	56	11:15	11:18	80	16.67	50	50	8 grams NaBr tracer added to hopper
5/17/19	IP-C4	54	11:34	11:37	80	16.67	50	50	8 grams NaBr tracer added to hopper
5/17/19	IP-C4	52	11:37	11:40	80	16.67	50	50	8 grams NaBr tracer added to hopper
Transect A									
5/20/19	IP-A5	24	8:15	8:23	30	6.25	50	50	
5/20/19	IP-A5	22	8:23	8:30	20	7.14	50	50	
5/20/19	IP-A5	20	8:30	8:40	20	5.00	50	50	
5/20/19	IP-A5	18	8:49	8:56	20	7.14	50	50	
5/20/19	IP-A5	16	8:56	9:05	20	5.56	50	50	
5/20/19	IP-A5	14	9:15	9:23	20	6.25	50	50	
5/20/19	IP-A5	34	9:28	9:36	40	6.25	50	50	
5/20/19	IP-A5	32	9:36	9:44	30	6.25	50	50	
5/20/19	IP-A5	30	9:44	9:52	30	6.25	50	50	
5/20/19	IP-A5	28	10:08	10:14	30	8.33	50	50	
5/20/19	IP-A5	26	10:14	10:22	30	6.25	50	50	
5/20/19	IP-A5	44	10:49	10:56	60	7.14	50	50	
5/20/19	IP-A5	42	10:56	11:02	50	8.33	50	50	
5/20/19	IP-A5	40	11:02	11:07	50	10.00	50	50	
5/20/19	IP-A5	38	11:25	11:32	30	7.14	50	50	
5/20/19	IP-A5	36	11:32	11:39	30	7.14	50	50	
5/20/19	IP-A5	54	11:44	11:50	60	8.33	50	50	

Table 1. Injection Logs

Date	Injection Point	Depth Interval (ft)	Start Time	Stop Time	Injection Pressure (psi)	Flow Rate (gpm)	Planned Volume Injected (gal)	Actual Volume Injected (gal)	Notes (flow change, etc.)
5/20/19	IP-A5	52	11:50	11:57	40	7.14	50	50	
5/20/19	IP-A5	50	11:57	12:04	40	7.14	50	50	
5/20/19	IP-A5	48	12:14	12:20	30	8.33	50	50	
5/20/19	IP-A5	46	12:20	12:27	30	7.14	50	50	
Transect C									
5/20/19	IP-C5	20	7:50	7:53	80	16.67	50	50	8 grams NaBr tracer injected
5/20/19	IP-C5	18	7:54	7:56	80	25.00	50	50	8 grams NaBr tracer injected
5/20/19	IP-C5	16	7:57	8:00	80	16.67	50	50	8 grams NaBr tracer injected
5/20/19	IP-C5	30	8:05	8:08	80	16.67	50	50	8 grams NaBr tracer injected
5/20/19	IP-C5	28	8:09	8:11	100	25.00	50	50	8 grams NaBr tracer injected
5/20/19	IP-C5	26	8:12	8:14	80	25.00	50	50	8 grams NaBr tracer injected
5/20/19	IP-C5	24	8:19	8:21	80	25.00	50	50	8 grams NaBr tracer injected
5/20/19	IP-C5	22	8:22	8:24	80	25.00	50	50	8 grams NaBr tracer injected
5/20/19	IP-C5	40	8:29	8:31	60	25.00	50	50	8 grams NaBr tracer injected
5/20/19	IP-C5	38	8:32	8:34	60	25.00	50	50	8 grams NaBr tracer injected
5/20/19	IP-C5	36	8:35	8:38	80	16.67	50	50	8 grams NaBr tracer injected
5/20/19	IP-C5	34	8:43	8:46	80	16.67	50	50	8 grams NaBr tracer injected
5/20/19	IP-C5	32	8:47	8:49	80	25.00	50	50	8 grams NaBr tracer injected
5/20/19	IP-C5	50	8:54	8:57	80	16.67	50	50	8 grams NaBr tracer injected
5/20/19	IP-C5	48	8:58	9:00	80	25.00	50	50	8 grams NaBr tracer injected
5/20/19	IP-C5	46	9:01	9:04	80	16.67	50	50	8 grams NaBr tracer injected
5/20/19	IP-C5	44	9:12	9:14	80	25.00	50	50	8 grams NaBr tracer injected
5/20/19	IP-C5	42	9:15	9:18	80	16.67	50	50	8 grams NaBr tracer injected
5/20/19	IP-C5	60	9:25	9:28	100	16.67	50	50	8 grams NaBr tracer injected

Table 1. Injection Logs

Date	Injection Point	Depth Interval (ft)	Start Time	Stop Time	Injection Pressure (psi)	Flow Rate (gpm)	Planned Volume Injected (gal)	Actual Volume Injected (gal)	Notes (flow change, etc.)
5/20/19	IP-C5	58	9:29	9:31	100	25.00	50	50	8 grams NaBr tracer injected
5/20/19	IP-C5	56	9:32	9:34	100	25.00	50	50	8 grams NaBr tracer injected
5/20/19	IP-C5	54	9:41	9:44	100	16.67	50	50	8 grams NaBr tracer injected
5/20/19	IP-C5	52	9:45	9:47	100	25.00	50	50	8 grams NaBr tracer injected
Transect A									
5/21/19	IP-A6	24	7:44	7:51	30	7.14	50	50	
5/21/19	IP-A6	22	7:51	7:56	20	10.00	50	50	
5/21/19	IP-A6	20	7:56	8:02	20	8.33	50	50	
5/21/19	IP-A6	18	8:29	8:34	20	10.00	50	50	
5/21/19	IP-A6	16	8:34	8:39	20	10.00	50	50	
5/21/19	IP-A6	14	8:39	8:46	20	7.14	50	50	
5/21/19	IP-A6	34	8:54	8:59	40	10.00	50	50	
5/21/19	IP-A6	32	8:59	9:05	20	8.33	50	50	
5/21/19	IP-A6	30	9:05	9:11	20	8.33	50	50	
5/21/19	IP-A6	28	9:19	9:25	20	8.33	50	50	
5/21/19	IP-A6	26	9:27	9:34	20	7.14	50	50	
5/21/19	IP-A6	44	9:47	9:53	50	8.33	50	50	
5/21/19	IP-A6	42	9:53	10:00	40	7.14	50	50	
5/21/19	IP-A6	40	10:00	10:07	30	7.14	50	50	
5/21/19	IP-A6	38	10:19	10:25	30	8.33	50	50	
5/21/19	IP-A6	36	10:25	10:32	20	7.14	50	50	
5/21/19	IP-A6	54	10:57	11:03	60	8.33	50	50	
5/21/19	IP-A6	52	11:03	11:09	40	8.33	50	50	
5/21/19	IP-A6	50	11:09	11:17	30	6.25	50	50	

Table 1. Injection Logs

Date	Injection Point	Depth Interval (ft)	Start Time	Stop Time	Injection Pressure (psi)	Flow Rate (gpm)	Planned Volume Injected (gal)	Actual Volume Injected (gal)	Notes (flow change, etc.)
5/21/19	IP-A6	48	11:24	11:31	40	7.14	50	50	
5/21/19	IP-A6	46	11:31	11:35	40	12.50	50	50	
Transect C									
5/21/19	IP-C6	20	7:30	7:35	80	10.00	50	50	
5/21/19	IP-C6	18	7:36	7:38	80	25.00	50	50	
5/21/19	IP-C6	16	7:39	7:40	80	50.00	50	50	
5/21/19	IP-C6	30	7:45	7:48	80	16.67	50	50	
5/21/19	IP-C6	28	7:49	7:51	80	25.00	50	50	
5/21/19	IP-C6	26	7:52	7:55	80	16.67	50	50	
5/21/19	IP-C6	24	7:58	8:01	80	16.67	50	50	
5/21/19	IP-C6	22	8:02	8:04	80	25.00	50	50	Minor daylighting (approx. 1-2 gal)
5/21/19	IP-C6	40	8:10	8:13	80	16.67	50	50	
5/21/19	IP-C6	38	8:14	8:16	80	25.00	50	50	
5/21/19	IP-C6	36	8:17	8:19	80	25.00	50	50	
5/21/19	IP-C6	34	8:25	8:28	80	16.67	50	50	
5/21/19	IP-C6	32	8:29	8:30	80	50.00	50	50	
5/21/19	IP-C6	50	8:39	8:41	80	25.00	50	50	
5/21/19	IP-C6	48	8:42	8:45	80	16.67	50	50	
5/21/19	IP-C6	46	8:46	8:47	80	50.00	50	50	
5/21/19	IP-C6	44	8:55	8:57	80	25.00	50	50	
5/21/19	IP-C6	42	8:58	9:01	80	16.67	50	50	
5/21/19	IP-C6	60	9:11	9:14	100	16.67	50	50	
5/21/19	IP-C6	58	9:15	9:17	100	25.00	50	50	
5/21/19	IP-C6	56	9:18	9:20	100	25.00	50	50	

Table 1. Injection Logs									
Date	**Injection Point**	**Depth Interval (ft)**	**Start Time**	**Stop Time**	**Injection Pressure (psi)**	**Flow Rate (gpm)**	**Planned Volume Injected (gal)**	**Actual Volume Injected (gal)**	**Notes (flow change, etc.)**
5/21/19	IP-C6	54	9:27	9:29	100	25.00	50	50	
5/21/19	IP-C6	52	9:30	9:32	100	25	50	50	
Transect A									
5/22/19	IP-A7	24	7:39	7:45	20	8.33	50	50	
5/22/19	IP-A7	22	7:45	7:49	20	12.50	50	50	
5/22/19	IP-A7	20	7:49	7:54	20	10.00	50	50	
5/22/19	IP-A7	18	8:05	8:10	20	10.00	50	50	
5/22/19	IP-A7	16	8:10	8:16	20	8.33	50	50	
5/22/19	IP-A7	14	8:16	8:21	20	10.00	50	50	
5/22/19	IP-A7	34	8:29	8:35	30	8.33	50	50	
5/22/19	IP-A7	32	8:35	8:42	20	7.14	50	50	
5/22/19	IP-A7	30	8:42	8:48	20	8.33	50	50	
5/22/19	IP-A7	28	9:00	9:05	30	10.00	50	50	
5/22/19	IP-A7	26	9:05	9:12	20	7.14	50	50	
5/22/19	IP-A7	44	9:16	9:23	40	7.14	50	50	
5/22/19	IP-A7	42	9:23	9:29	30	8.33	50	50	
5/22/19	IP-A7	40	9:29	9:53	30	2.08	50	50	
5/22/19	IP-A7	38	9:53	10:01	30	6.25	50	50	
5/22/19	IP-A7	36	10:01	10:07	30	8.33	50	50	
5/22/19	IP-A7	54	10:18	10:29	20	4.55	50	50	
5/22/19	IP-A7	52	10:29	10:36	20	7.14	50	50	
5/22/19	IP-A7	50	10:36	10:44	20	6.25	50	50	
5/22/19	IP-A7	48	10:53	10:59	30	8.33	50	50	
5/22/19	IP-A7	46	10:59	11:04	30	10.00	50	50	

Table 1. Injection Logs									
Date	**Injection Point**	**Depth Interval (ft)**	**Start Time**	**Stop Time**	**Injection Pressure (psi)**	**Flow Rate (gpm)**	**Planned Volume Injected (gal)**	**Actual Volume Injected (gal)**	**Notes (flow change, etc.)**
Transect C									
5/22/19	IP-C7	20	7:25	7:27	80	25.00	50	50	
5/22/19	IP-C7	18	7:28	7:30	80	25.00	50	50	
5/22/19	IP-C7	16	7:31	7:33	80	25.00	50	50	
5/22/19	IP-C7	30	7:39	7:41	80	25.00	50	50	
5/22/19	IP-C7	28	7:42	7:44	80	25.00	50	50	
5/22/19	IP-C7	26	7:45	7:48	80	16.67	50	50	
5/22/19	IP-C7	24	7:52	7:55	80	16.67	50	50	
5/22/19	IP-C7	22	7:56	7:58	80	25.00	50	50	
5/22/19	IP-C7	40	8:03	8:06	80	16.67	50	50	
5/22/19	IP-C7	38	8:07	8:10	80	16.67	50	50	
5/22/19	IP-C7	36	8:11	8:13	80	25.00	50	50	
5/22/19	IP-C7	34	8:18	8:21	80	16.67	50	50	
5/22/19	IP-C7	32	8:22	8:24	80	25.00	50	50	
5/22/19	IP-C7	50	8:30	8:34	80	12.50	50	50	
5/22/19	IP-C7	48	8:35	8:37	80	25.00	50	50	
5/22/19	IP-C7	46	8:38	8:41	80	16.67	50	50	
5/22/19	IP-C7	44	8:48	8:51	80	16.67	50	50	
5/22/19	IP-C7	42	8:52	8:55	80	16.67	50	50	
5/22/19	IP-C7	60	9:13	9:17	100	12.50	50	50	
5/22/19	IP-C7	58	9:18	9:20	100	25.00	50	50	
5/22/19	IP-C7	56	9:20	9:24	100	12.50	50	50	
5/22/19	IP-C7	54	9:34	9:37	80	16.67	50	50	
5/22/19	IP-C7	52	9:38	9:40	80	25.00	50	50	

Table 1. Injection Logs									
Date	**Injection Point**	**Depth Interval (ft)**	**Start Time**	**Stop Time**	**Injection Pressure (psi)**	**Flow Rate (gpm)**	**Planned Volume Injected (gal)**	**Actual Volume Injected (gal)**	**Notes (flow change, etc.)**
Transect B									
5/23/19	IP-B9	18	7:50	7:56	30	8.33	50	50	
5/23/19	IP-B9	16	7:56	8:02	20	8.33	50	50	
5/23/19	IP-B9	14	8:02	8:13	10	4.55	50	50	
5/23/19	IP-B9	28	8:14	8:20	30	8.33	50	50	
5/23/19	IP-B9	26	8:20	8:28	30	6.25	50	50	
5/23/19	IP-B9	24	8:28	8:35	20	7.14	50	50	
5/23/19	IP-B9	22	8:45	8:50	30	10.00	50	50	
5/23/19	IP-B9	20	8:50	8:56	30	8.33	50	50	
5/23/19	IP-B9	38	10:44	10:47	80	16.67	50	50	
5/23/19	IP-B9	36	10:48	10:50	80	25.00	50	50	
5/23/19	IP-B9	34	10:51	10:53	80	25.00	50	50	
5/23/19	IP-B9	32	10:57	11:00	80	16.67	50	50	
5/23/19	IP-B9	30	11:01	11:03	80	25.00	50	50	
5/23/19	IP-B9	48	11:09	11:12	100	16.67	50	50	
5/23/19	IP-B9	46	11:13	11:15	100	25.00	50	50	
5/23/19	IP-B9	44	11:16	11:20	100	12.50	50	50	
5/23/19	IP-B9	42	11:25	11:28	200	16.67	50	50	
5/23/19	IP-B9	40	11:29	11:30	150	50.00	50	50	
5/23/19	IP-B9	58	13:10	13:13	300	16.67	50	50	
5/23/19	IP-B9	56	14:00	14:03	300	16.67	50	50	
5/23/19	IP-B9	54	14:10	14:12	300	25.00	50	50	
5/23/19	IP-B9	52	14:13	14:15	200	25.00	50	50	
5/23/19	IP-B9	50	14:17	14:20	200	16.67	50	50	

Table 1. Injection Logs									
Date	**Injection Point**	**Depth Interval (ft)**	**Start Time**	**Stop Time**	**Injection Pressure (psi)**	**Flow Rate (gpm)**	**Planned Volume Injected (gal)**	**Actual Volume Injected (gal)**	**Notes (flow change, etc.)**
Transect C									
5/23/19	IP-C8	20	7:50	7:53	80	16.67	50	50	
5/23/19	IP-C8	18	7:54	7:56	80	25.00	50	50	
5/23/19	IP-C8	16	7:57	7:59	80	25.00	50	50	
5/23/19	IP-C8	30	8:05	8:08	80	16.67	50	50	
5/23/19	IP-C8	28	8:09	8:11	80	25.00	50	50	
5/23/19	IP-C8	26	8:12	8:15	80	16.67	50	50	
5/23/19	IP-C8	24	8:20	8:23	80	16.67	50	50	
5/23/19	IP-C8	22	8:24	8:26	80	25.00	50	50	
5/23/19	IP-C8	40	8:41	8:44	80	16.67	50	50	
5/23/19	IP-C8	38	8:45	8:47	80	25.00	50	50	
5/23/19	IP-C8	36	8:48	8:50	80	25.00	50	50	
5/23/19	IP-C8	34	9:00	9:03	100	16.67	50	50	
5/23/19	IP-C8	32	9:04	9:06	100	25.00	50	50	
5/23/19	IP-C8	50	9:17	9:20	100	16.67	50	50	
5/23/19	IP-C8	48	9:21	9:25	100	12.50	50	50	
5/23/19	IP-C8	46	9:26	9:27	100	50.00	50	50	
5/23/19	IP-C8	44	9:39	9:42	100	16.67	50	50	
5/23/19	IP-C8	42	9:43	9:46	100	16.67	50	50	
5/23/19	IP-C8	60	9:53	9:56	100	16.67	50	50	
5/23/19	IP-C8	58	9:57	9:59	100	25.00	50	50	
5/23/19	IP-C8	56	10:01	10:04	100	16.67	50	50	
5/23/19	IP-C8	54	10:11	10:14	100	16.67	50	50	
5/23/19	IP-C8	52	10:15	10:18	100	16.67	50	50	

Table 1. Injection Logs

Date	Injection Point	Depth Interval (ft)	Start Time	Stop Time	Injection Pressure (psi)	Flow Rate (gpm)	Planned Volume Injected (gal)	Actual Volume Injected (gal)	Notes (flow change, etc.)
Transect A									
5/23/19	IP-A4D	62	15:54	16:06	150	4.17	50	50	
5/23/19	IP-A4D	60	16:14	16:19	120	10.00	50	50	
5/23/19	IP-A4D	58	16:19	16:25	50	8.33	50	50	
5/23/19	IP-A4D	56	16:32	16:37	50	10.00	50	50	
5/23/19	IP-A4D	54	16:37	16:42	30	10.00	50	50	
5/23/19	IP-A4D	52	16:42	16:47	30	10.00	50	50	
5/23/19	IP-A4D	50	16:58	17:03	30	10.00	50	50	
5/24/19	IP-A3D	68	8:08	8:12	50	12.50	50	50	
5/24/19	IP-A3D	66	8:18	8:22	50	12.50	50	50	
5/24/19	IP-A3D	64	8:22	8:27	30	10.00	50	50	
5/24/19	IP-A3D	62	8:43	8:47	40	12.50	50	50	
5/24/19	IP-A3D	60	8:47	8:52	30	10.00	50	50	
5/24/19	IP-A3D	58	9:00	9:05	30	10.00	50	50	
5/24/19	IP-A3D	56	9:05	9:09	20	12.50	50	50	
5/24/19	IP-A2D	65	9:29	9:37	180	6.25	50	50	
5/24/19	IP-A2D	63	9:37	9:42	40	10.00	50	50	
5/24/19	IP-A1D	63	9:51	9:56	50	10.00	50	50	
5/24/19	IP-A5D	60	10:48	10:52	60	12.50	50	50	
5/24/19	IP-A5D	58	10:52	10:56	30	12.50	50	50	
5/24/19	IP-A5D	56	10:56	11:00	30	12.50	50	50	
5/24/19	IP-A6D	56	11:33	11:38	100	10.00	50	50	
Transect C									

Table 1. Injection Logs

Date	Injection Point	Depth Interval (ft)	Start Time	Stop Time	Injection Pressure (psi)	Flow Rate (gpm)	Planned Volume Injected (gal)	Actual Volume Injected (gal)	Notes (flow change, etc.)
5/24/19	IP-C9	20	7:56	7:58	80	25.00	50	50	
5/24/19	IP-C9	18	7:59	8:00	80	50.00	50	50	
5/24/19	IP-C9	16	8:01	8:03	80	25.00	50	50	
5/24/19	IP-C9	30	8:07	8:09	80	25.00	50	50	
5/24/19	IP-C9	28	8:10	8:12	80	25.00	50	50	
5/24/19	IP-C9	26	8:13	8:15	80	25.00	50	50	
5/24/19	IP-C9	24	8:24	8:26	80	25.00	50	50	
5/24/19	IP-C9	22	8:26	8:29	80	16.67	50	50	
5/24/19	IP-C9	40	8:35	8:38	150	16.67	50	50	
5/24/19	IP-C9	38	8:38	8:40	150	25.00	50	50	
5/24/19	IP-C9	36	8:40	8:43	150	16.67	50	50	
5/24/19	IP-C9	34	8:48	8:50	150	25.00	50	50	
5/24/19	IP-C9	32	8:50	8:52	150	25.00	50	50	
5/24/19	IP-C9	50	9:00	9:03	150	16.67	50	50	
5/24/19	IP-C9	48	9:05	9:08	100	16.67	50	50	
5/24/19	IP-C9	46	9:17	9:20	100	16.67	50	50	
5/24/19	IP-C9	44	9:20	9:22	100	25.00	50	50	
5/24/19	IP-C9	42	9:22	9:25	100	16.67	50	50	
5/24/19	IP-C9	60	9:35	9:37	150	25.00	50	50	
5/24/19	IP-C9	58	9:37	9:40	100	16.67	50	50	
5/24/19	IP-C9	56	9:40	9:42	150	25.00	50	50	
5/24/19	IP-C9	54	9:45	9:48	200	16.67	50	50	
5/24/19	IP-C9	52	9:48	9:50	200	25.00	50	50	
Transect B									

Table 1. Injection Logs

Date	Injection Point	Depth Interval (ft)	Start Time	Stop Time	Injection Pressure (psi)	Flow Rate (gpm)	Planned Volume Injected (gal)	Actual Volume Injected (gal)	Notes (flow change, etc.)
5/24/19	IP-B8	24	14:18	14:22	30	12.50	50	50	
5/24/19	IP-B8	22	14:22	14:26	20	12.50	50	50	
5/24/19	IP-B8	20	14:34	14:37	20	16.67	50	50	
5/24/19	IP-B8	18	14:37	14:41	20	12.50	50	50	
5/24/19	IP-B8	16	14:41	14:45	20	12.50	50	50	
5/24/19	IP-B8	14	14:45	14:49	20	12.50	50	50	
5/28/19	IP-B8	34	9:16	9:20	30	12.50	50	50	
5/28/19	IP-B8	32	9:20	9:24	20	12.50	50	50	
5/28/19	IP-B8	30	9:24	9:29	20	10.00	50	50	
5/28/19	IP-B8	28	9:39	9:45	30	8.33	50	50	
5/28/19	IP-B8	26	9:45	9:50	30	10.00	50	50	
5/28/19	IP-B8	44	10:18	10:23	80	10.00	50	50	
5/28/19	IP-B8	42	10:23	10:27	50	12.50	50	50	
5/28/19	IP-B8	40	10:27	10:32	50	10.00	50	50	
5/28/19	IP-B8	38	10:32	10:37	50	10.00	50	50	
5/28/19	IP-B8	36	10:54	11:00	50	8.33	50	50	
5/28/19	IP-B8	54	11:56	12:01	60	10.00	50	50	
5/28/19	IP-B8	52	12:01	12:08	70	7.14	50	50	
5/28/19	IP-B8	50	12:08	12:12	70	12.50	50	50	
5/28/19	IP-B8	48	12:27	12:32	40	10.00	50	50	
5/28/19	IP-B8	46	12:32	12:38	40	8.33	50	50	
5/28/19	IP-B5	28	13:02	13:05	100	16.67	50	50	
5/28/19	IP-B5	26	13:06	13:09	80	16.67	50	50	

Table 1. Injection Logs									
Date	**Injection Point**	**Depth Interval (ft)**	**Start Time**	**Stop Time**	**Injection Pressure (psi)**	**Flow Rate (gpm)**	**Planned Volume Injected (gal)**	**Actual Volume Injected (gal)**	**Notes (flow change, etc.)**
5/28/19	IP-B5	24	13:19	13:23	60	12.50	50	50	
5/28/19	IP-B5	22	13:24	13:26	80	25.00	50	50	
5/28/19	IP-B5	20	13:27	13:31	80	12.50	50	50	
5/28/19	IP-B5	38	13:38	13:41	100	16.67	50	50	
5/28/19	IP-B5	36	13:42	13:45	80	16.67	50	50	
5/28/19	IP-B5	34	13:51	13:54	80	16.67	50	50	
5/28/19	IP-B5	32	13:55	13:58	80	16.67	50	50	
5/28/19	IP-B5	30	14:02	14:06	80	12.50	50	50	
5/28/19	IP-B5	48	15:04	15:08	100	12.50	50	50	
5/28/19	IP-B5	46	15:09	15:12	80	16.67	50	50	
5/28/19	IP-B5	44	15:18	15:21	80	16.67	50	50	
5/28/19	IP-B5	42	15:23	15:26	80	16.67	50	50	
5/28/19	IP-B5	40	15:26	15:29	80	16.67	50	50	
5/28/19	IP-B5	58	15:52	15:56	100	12.50	50	50	
5/28/19	IP-B5	56	15:57	16:00	80	16.67	50	50	
5/28/19	IP-B5	54	16:08	16:11	80	16.67	50	50	
5/28/19	IP-B5	52	16:13	16:16	80	16.67	50	50	
5/28/19	IP-B5	50	16:17	16:21	80	12.50	50	50	
5/28/19	IP-B5	68	16:43	16:47	100	12.50	50	50	
5/28/19	IP-B5	66	16:48	16:51	80	16.67	50	50	
5/28/19	IP-B5	64	16:55	16:59	80	12.50	50	50	
5/28/19	IP-B5	62	17:01	17:04	80	16.67	50	50	
5/28/19	IP-B5	60	17:05	17:09	80	12.50	50	50	
Transect C									

Table 1. Injection Logs									
Date	**Injection Point**	**Depth Interval (ft)**	**Start Time**	**Stop Time**	**Injection Pressure (psi)**	**Flow Rate (gpm)**	**Planned Volume Injected (gal)**	**Actual Volume Injected (gal)**	**Notes (flow change, etc.)**
5/28/19	IP-C9D	70	14:39	14:43	100	12.50	50	50	
5/28/19	IP-C9D	68	14:43	14:47	50	12.50	50	50	
5/28/19	IP-C9D	66	14:47	14:51	40	12.50	50	50	
5/28/19	IP-C9D	64	14:58	15:02	40	12.50	50	50	
5/28/19	IP-C9D	62	15:02	15:07	40	10.00	50	50	
5/28/19	IP-C9D	80	15:16	15:22	150	8.33	50	50	
5/28/19	IP-C9D	78	15:22	15:25	100	16.67	50	50	
5/28/19	IP-C9D	76	15:25	15:29	100	12.50	50	50	
5/28/19	IP-C9D	74	16:11	16:15	50	12.50	50	50	
5/28/19	IP-C9D	72	16:15	16:18	80	16.67	50	50	
Transect B									
5/29/19	IP-B7	24	8:14	8:16	80	25.00	50	50	
5/29/19	IP-B7	22	8:18	8:21	80	16.67	50	50	
5/29/19	IP-B7	20	8:23	8:26	60	16.67	50	50	
5/29/19	IP-B7	18	8:34	8:37	60	16.67	50	50	
5/29/19	IP-B7	34	8:47	8:50	80	16.67	50	50	
5/29/19	IP-B7	32	8:52	8:55	60	16.67	50	50	
5/29/19	IP-B7	30	9:03	9:05	60	25.00	50	50	
5/29/19	IP-B7	28	9:07	9:09	60	25.00	50	50	
5/29/19	IP-B7	26	9:12	9:15	60	16.67	50	50	
5/29/19	IP-B7	44	9:23	9:26	80	16.67	50	50	
5/29/19	IP-B7	42	9:27	9:30	60	16.67	50	50	
5/29/19	IP-B7	40	9:32	9:35	60	16.67	50	50	
5/29/19	IP-B7	38	9:41	9:43	60	25.00	50	50	

Table 1. Injection Logs									
Date	**Injection Point**	**Depth Interval (ft)**	**Start Time**	**Stop Time**	**Injection Pressure (psi)**	**Flow Rate (gpm)**	**Planned Volume Injected (gal)**	**Actual Volume Injected (gal)**	**Notes (flow change, etc.)**
5/29/19	IP-B7	36	9:44	9:47	80	16.67	50	50	
5/29/19	IP-B7	54	9:52	9:56	100	12.50	50	50	
5/29/19	IP-B7	52	9:56	9:59	80	16.67	50	50	
5/29/19	IP-B7	50	10:00	10:03	80	16.67	50	50	
5/29/19	IP-B7	48	10:10	10:14	80	12.50	50	50	
5/29/19	IP-B7	46	10:16	10:19	60	16.67	50	50	
5/29/19	IP-B6	28	13:20	13:23	80	16.67	50	50	
5/29/19	IP-B6	26	13:25	13:28	60	16.67	50	50	
5/29/19	IP-B6	24	13:30	13:34	40	12.50	50	50	
5/29/19	IP-B6	22	13:39	13:42	60	16.67	50	50	
5/29/19	IP-B6	20	13:43	13:47	60	12.50	50	50	
5/29/19	IP-B6	18	13:48	13:51	40	16.67	50	50	
5/29/19	IP-B6	38	14:00	14:04	80	12.50	50	50	
5/29/19	IP-B6	36	14:05	14:08	80	16.67	50	50	
5/29/19	IP-B6	34	14:10	14:12	80	25.00	50	50	
5/29/19	IP-B6	32	14:20	14:23	60	16.67	50	50	
5/29/19	IP-B6	30	14:25	14:29	60	12.50	50	50	
5/29/19	IP-B6	48	14:35	14:38	60	16.67	50	50	
5/29/19	IP-B6	46	14:39	14:42	60	16.67	50	50	
5/29/19	IP-B6	44	14:50	14:52	80	25.00	50	50	
5/29/19	IP-B6	42	14:53	14:56	60	16.67	50	50	
5/29/19	IP-B6	40	14:56	14:59	60	16.67	50	50	
5/29/19	IP-B6	58	15:01	15:05	100	12.50	50	50	

Table 1. Injection Logs									
Date	**Injection Point**	**Depth Interval (ft)**	**Start Time**	**Stop Time**	**Injection Pressure (psi)**	**Flow Rate (gpm)**	**Planned Volume Injected (gal)**	**Actual Volume Injected (gal)**	**Notes (flow change, etc.)**
5/29/19	IP-B6	56	15:07	15:10	80	16.67	50	50	
5/29/19	IP-B6	54	15:14	15:17	80	16.67	50	50	
5/29/19	IP-B6	52	15:18	15:22	80	12.50	50	50	
5/29/19	IP-B6	50	15:23	15:26	80	16.67	50	50	
Transect C									
5/29/19	IP-C8D	74	7:55	7:58	120	16.67	50	50	
5/29/19	IP-C8D	72	7:58	8:01	100	16.67	50	50	
5/29/19	IP-C8D	70	8:07	8:10	100	16.67	50	50	
5/29/19	IP-C8D	68	8:10	8:14	80	12.50	50	50	
5/29/19	IP-C8D	66	8:19	8:22	50	16.67	50	50	
5/29/19	IP-C8D	64	8:22	8:26	50	12.50	50	50	
5/29/19	IP-C8D	62	8:28	8:32	50	12.50	50	50	
5/29/19	IP-C8D	86	8:41	8:46	200	10.00	50	50	
5/29/19	IP-C8D	84	8:46	8:49	150	16.67	50	50	
5/29/19	IP-C8D	82	8:49	8:53	150	12.50	50	50	
5/29/19	IP-C8D	80	8:57	9:00	100	16.67	50	50	
5/29/19	IP-C8D	78	9:00	9:03	100	16.67	50	50	
5/29/19	IP-C8D	76	9:03	9:07	100	12.50	50	50	
5/29/19	IP-C7D	72	11:47	11:51	100	12.50	50	50	
5/29/19	IP-C7D	70	11:51	11:54	100	16.67	50	50	
5/29/19	IP-C7D	68	11:54	11:57	80	16.67	50	50	
5/29/19	IP-C7D	66	12:02	12:06	80	12.50	50	50	
5/29/19	IP-C7D	64	12:06	12:08	50	25.00	50	50	

Table 1. Injection Logs									
Date	**Injection Point**	**Depth Interval (ft)**	**Start Time**	**Stop Time**	**Injection Pressure (psi)**	**Flow Rate (gpm)**	**Planned Volume Injected (gal)**	**Actual Volume Injected (gal)**	**Notes (flow change, etc.)**
5/29/19	IP-C7D	62	12:08	12:12	50	12.50	50	50	
5/29/19	IP-C7D	84	12:25	12:28	150	16.67	50	50	
5/29/19	IP-C7D	82	12:32	12:37	120	10.00	50	50	
5/29/19	IP-C7D	80	12:37	12:40	120	16.67	50	50	
5/29/19	IP-C7D	78	12:40	12:44	100	12.50	50	50	
5/29/19	IP-C7D	76	12:50	12:53	100	16.67	50	50	
5/29/19	IP-C7D	74	12:53	12:57	100	12.50	50	50	
5/29/19	IP-C6D	72	14:43	14:47	150	12.50	50	50	
5/29/19	IP-C6D	70	14:47	14:51	100	12.50	50	50	
5/29/19	IP-C6D	68	14:51	14:54	100	16.67	50	50	
5/29/19	IP-C6D	66	15:01	15:05	80	12.50	50	50	
5/29/19	IP-C6D	64	15:05	15:09	80	12.50	50	50	
5/29/19	IP-C6D	62	15:09	15:12	80	16.67	50	50	
5/29/19	IP-C6D	84	16:55	16:59	150	12.50	50	50	
5/29/19	IP-C6D	82	16:59	17:02	150	16.67	50	50	
5/29/19	IP-C6D	80	17:06	17:09	100	16.67	50	50	
5/29/19	IP-C6D	78	17:09	17:13	100	12.50	50	50	
5/29/19	IP-C6D	76	17:17	17:21	100	12.50	50	50	
5/29/19	IP-C6D	74	17:21	17:25	100	12.50	50	50	
Transect B									
5/30/19	IP-B4	24	8:46	8:49	80	16.67	50	50	forgot to plug in stroke logger
5/30/19	IP-B4	22	8:50	8:53	80	16.67	50	50	forgot to plug in stroke logger
5/30/19	IP-B4	20	8:53	8:56	60	16.67	50	50	forgot to plug in stroke logger

Table 1. Injection Logs

Date	Injection Point	Depth Interval (ft)	Start Time	Stop Time	Injection Pressure (psi)	Flow Rate (gpm)	Planned Volume Injected (gal)	Actual Volume Injected (gal)	Notes (flow change, etc.)
5/30/19	IP-B4	18	9:02	9:05	60	16.67	50	50	forgot to plug in stroke logger
5/30/19	IP-B4	34	9:10	9:12	80	25.00	50	50	
5/30/19	IP-B4	32	9:13	9:16	80	16.67	50	50	
5/30/19	IP-B4	30	9:17	9:20	80	16.67	50	50	
5/30/19	IP-B4	28	9:25	9:27	80	25.00	50	50	
5/30/19	IP-B4	26	9:29	9:32	60	16.67	50	50	
5/30/19	IP-B4	44	9:38	9:40	100	25.00	50	50	
5/30/19	IP-B4	42	9:41	9:44	80	16.67	50	50	
5/30/19	IP-B4	40	9:46	9:48	80	25.00	50	50	
5/30/19	IP-B4	38	9:53	9:56	80	16.67	50	50	
5/30/19	IP-B4	36	9:56	9:59	80	16.67	50	50	
5/30/19	IP-B4	54	10:05	10:08	100	16.67	50	50	
5/30/19	IP-B4	52	10:09	10:11	80	25.00	50	50	
5/30/19	IP-B4	50	10:13	10:15	60	25.00	50	50	
5/30/19	IP-B4	48	10:20	10:23	60	16.67	50	50	
5/30/19	IP-B4	46	10:24	10:27	60	16.67	50	50	
5/30/19	IP-B4	64	10:33	10:36	100	16.67	50	50	
5/30/19	IP-B4	62	10:36	10:39	60	16.67	50	50	
5/30/19	IP-B4	60	10:40	10:43	80	16.67	50	50	
5/30/19	IP-B4	58	10:48	10:51	80	16.67	50	50	
5/30/19	IP-B4	56	10:52	10:55	80	16.67	50	50	
5/30/19	IP-B3	24	15:28	15:31	80	16.67	50	50	
5/30/19	IP-B3	22	15:32	15:34	60	25.00	50	50	

Table 1. Injection Logs

Date	Injection Point	Depth Interval (ft)	Start Time	Stop Time	Injection Pressure (psi)	Flow Rate (gpm)	Planned Volume Injected (gal)	Actual Volume Injected (gal)	Notes (flow change, etc.)
5/30/19	IP-B3	20	15:41	15:44	80	16.67	50	50	
5/30/19	IP-B3	18	15:45	15:47	60	25.00	50	50	
5/30/19	IP-B3	34	15:57	15:59	60	25.00	50	50	
5/30/19	IP-B3	32	16:01	16:04	60	16.67	50	50	
5/30/19	IP-B3	30	16:12	16:15	60	16.67	50	50	
5/30/19	IP-B3	28	16:16	16:19	60	16.67	50	50	
5/30/19	IP-B3	26	16:25	16:27	80	25.00	50	50	
5/30/19	IP-B3	44	16:34	16:37	80	16.67	50	50	
5/30/19	IP-B3	42	16:37	16:40	60	16.67	50	50	
5/30/19	IP-B3	40	16:47	16:49	80	25.00	50	50	
5/30/19	IP-B3	38	16:50	16:53	60	16.67	50	50	
5/30/19	IP-B3	36	16:59	17:02	80	16.67	50	50	
5/30/19	IP-B3	54	17:13	17:15	100	25.00	50	50	
5/30/19	IP-B3	52	17:16	17:19	80	16.67	50	50	
5/30/19	IP-B3	50	17:25	17:28	80	16.67	50	50	
5/30/19	IP-B3	48	17:29	17:31	60	25.00	50	50	
5/30/19	IP-B3	46	17:37	17:40	80	16.67	50	50	
Transect C									
5/30/19	IP-C5D	70	8:34	8:38	100	12.50	50	50	8 grams bromide added per hopper
5/30/19	IP-C5D	68	8:38	8:42	80	12.50	50	50	8 grams bromide added per hopper
5/30/19	IP-C5D	66	8:42	8:47	80	10.00	50	50	8 grams bromide added per hopper
5/30/19	IP-C5D	64	8:51	8:57	100	8.33	50	50	8 grams bromide added per hopper
5/30/19	IP-C5D	62	8:57	9:01	100	12.50	50	50	8 grams bromide added per hopper
5/30/19	IP-C5D	82	9:11	9:17	150	8.33	50	50	8 grams bromide added per hopper

Table 1. Injection Logs

Date	Injection Point	Depth Interval (ft)	Start Time	Stop Time	Injection Pressure (psi)	Flow Rate (gpm)	Planned Volume Injected (gal)	Actual Volume Injected (gal)	Notes (flow change, etc.)
5/30/19	IP-C5D	80	9:17	9:22	120	10.00	50	50	8 grams bromide added per hopper
5/30/19	IP-C5D	78	9:22	9:27	120	10.00	50	50	8 grams bromide added per hopper
5/30/19	IP-C5D	76	9:34	9:40	120	8.33	50	50	8 grams bromide added per hopper
5/30/19	IP-C5D	74	9:40	9:45	100	10.00	50	50	8 grams bromide added per hopper
5/30/19	IP-C5D	72	9:45	9:50	100	10.00	50	50	8 grams bromide added per hopper
5/30/19	IP-C4D	74	10:50	10:54	150	12.50	50	50	8 grams bromide added per hopper
5/30/19	IP-C4D	72	10:54	10:58	100	12.50	50	50	8 grams bromide added per hopper
5/30/19	IP-C4D	70	11:06	11:10	80	12.50	50	50	8 grams bromide added per hopper
5/30/19	IP-C4D	68	11:10	11:14	80	12.50	50	50	8 grams bromide added per hopper
5/30/19	IP-C4D	66	11:20	11:23	80	16.67	50	50	8 grams bromide added per hopper
5/30/19	IP-C4D	64	11:23	11:27	80	12.50	50	50	8 grams bromide added per hopper
5/30/19	IP-C4D	62	11:27	11:31	80	12.50	50	50	8 grams bromide added per hopper
5/30/19	IP-C4D	86	11:40	11:43	200	16.67	50	50	8 grams bromide added per hopper
5/30/19	IP-C4D	84	11:43	11:47	150	12.50	50	50	8 grams bromide added per hopper
5/30/19	IP-C4D	82	11:47	11:50	150	16.67	50	50	8 grams bromide added per hopper
5/30/19	IP-C4D	80	11:58	12:01	100	16.67	50	50	8 grams bromide added per hopper
5/30/19	IP-C4D	78	12:01	12:05	100	12.50	50	50	8 grams bromide added per hopper
5/30/19	IP-C4D	76	12:05	12:09	100	12.50	50	50	8 grams bromide added per hopper
5/30/19	IP-C3D	74	14:43	14:46	100	16.67	50	50	
5/30/19	IP-C3D	72	14:46	14:51	100	10.00	50	50	
5/30/19	IP-C3D	70	15:00	15:05	80	10.00	50	50	
5/30/19	IP-C3D	68	15:05	15:11	80	8.33	50	50	
5/30/19	IP-C3D	66	15:20	15:24	80	12.50	50	50	

Table 1. Injection Logs

Date	Injection Point	Depth Interval (ft)	Start Time	Stop Time	Injection Pressure (psi)	Flow Rate (gpm)	Planned Volume Injected (gal)	Actual Volume Injected (gal)	Notes (flow change, etc.)
5/30/19	IP-C3D	64	15:24	15:28	80	12.50	50	50	
5/30/19	IP-C3D	62	15:28	15:32	80	12.50	50	50	
5/30/19	IP-C3D	86	16:33	16:36	100	16.67	50	50	
5/30/19	IP-C3D	84	16:36	16:39	100	16.67	50	50	
5/30/19	IP-C3D	82	16:44	16:47	100	16.67	50	50	
5/30/19	IP-C3D	80	16:47	16:50	80	16.67	50	50	
5/30/19	IP-C3D	78	16:50	16:52	80	25.00	50	50	
5/30/19	IP-C3D	76	16:57	17:00	80	16.67	50	50	
Transect B									
5/31/19	IP-B2	24	7:51	7:53	50	25.00	50	50	
5/31/19	IP-B2	22	7:53	7:56	40	16.67	50	50	
5/31/19	IP-B2	20	7:56	7:59	40	16.67	50	50	
5/31/19	IP-B2	18	8:07	8:09	40	25.00	50	50	
5/31/19	IP-B2	34	8:20	8:23	80	16.67	50	50	
5/31/19	IP-B2	32	8:24	8:27	60	16.67	50	50	
5/31/19	IP-B2	30	8:37	8:41	40	12.50	50	50	
5/31/19	IP-B2	28	8:47	8:50	40	16.67	50	50	
5/31/19	IP-B2	26	8:50	8:54	40	12.50	50	50	
5/31/19	IP-B2	44	9:07	9:11	80	12.50	50	50	
5/31/19	IP-B2	42	9:12	9:15	80	16.67	50	50	
5/31/19	IP-B2	40	9:16	9:19	60	16.67	50	50	
5/31/19	IP-B2	38	9:34	9:39	60	10.00	50	50	
5/31/19	IP-B2	36	9:39	9:43	60	12.50	50	50	
5/31/19	IP-B2	54	9:47	9:50	100	16.67	50	50	

Table 1. Injection Logs									
Date	**Injection Point**	**Depth Interval (ft)**	**Start Time**	**Stop Time**	**Injection Pressure (psi)**	**Flow Rate (gpm)**	**Planned Volume Injected (gal)**	**Actual Volume Injected (gal)**	**Notes (flow change, etc.)**
5/31/19	IP-B2	52	9:50	9:53	100	16.67	50	50	
5/31/19	IP-B2	50	9:58	10:01	100	16.67	50	50	
5/31/19	IP-B2	48	10:12	10:16	80	12.50	50	50	
5/31/19	IP-B2	46	10:19	10:22	80	16.67	50	50	
5/31/19	IP-B1	28	12:19	12:22	60	16.67	50	50	
5/31/19	IP-B1	26	12:23	12:26	60	16.67	50	50	
5/31/19	IP-B1	24	12:38	12:41	60	16.67	50	50	
5/31/19	IP-B1	22	12:42	12:44	60	25.00	50	50	
5/31/19	IP-B1	20	12:54	12:57	60	16.67	50	50	
5/31/19	IP-B1	18	12:58	13:01	60	16.67	50	50	
5/31/19	IP-B1	38	13:08	13:11	100	16.67	50	50	
5/31/19	IP-B1	36	13:13	13:16	80	16.67	50	50	
5/31/19	IP-B1	34	13:31	13:34	80	16.67	50	50	
5/31/19	IP-B1	32	13:35	13:38	80	16.67	50	50	
5/31/19	IP-B1	30	13:53	13:56	80	16.67	50	50	
5/31/19	IP-B1	48	14:04	14:07	100	16.67	50	50	
5/31/19	IP-B1	46	14:13	14:16	80	16.67	50	50	
5/31/19	IP-B1	44	14:19	14:22	80	16.67	50	50	
5/31/19	IP-B1	42	14:31	14:34	80	16.67	50	50	
5/31/19	IP-B1	40	14:35	14:38	80	16.67	50	50	
5/31/19	IP-B1	58	14:47	14:50	100	16.67	50	50	
5/31/19	IP-B1	56	14:52	14:55	80	16.67	50	50	
5/31/19	IP-B1	54	15:17	15:21	80	12.50	50	50	

Table 1. Injection Logs									
Date	**Injection Point**	**Depth Interval (ft)**	**Start Time**	**Stop Time**	**Injection Pressure (psi)**	**Flow Rate (gpm)**	**Planned Volume Injected (gal)**	**Actual Volume Injected (gal)**	**Notes (flow change, etc.)**
5/31/19	IP-B1	52	15:21	15:24	60	16.67	50	50	
5/31/19	IP-B1	50	15:27	15:30	80	16.67	50	50	
Transect C									
5/31/19	IP-C2D	74	12:20	12:22	100	25.00	50	50	
5/31/19	IP-C2D	72	12:22	12:25	100	16.67	50	50	
5/31/19	IP-C2D	70	12:28	12:31	40	16.67	50	50	
5/31/19	IP-C2D	68	12:31	12:33	60	25.00	50	50	
5/31/19	IP-C2D	86	12:45	12:47	120	25.00	50	50	
5/31/19	IP-C2D	84	12:47	12:49	100	25.00	50	50	
5/31/19	IP-C2D	82	12:49	12:52	100	16.67	50	50	
5/31/19	IP-C2D	80	12:57	12:59	100	25.00	50	50	
5/31/19	IP-C2D	78	12:59	13:02	50	16.67	50	50	
5/31/19	IP-C2D	76	13:02	13:04	50	25.00	50	50	
5/31/19	IP-C1D	80	14:20	14:23	100	16.67	50	50	
5/31/19	IP-C1D	78	14:23	14:25	20	25.00	50	50	
5/31/19	IP-C1D	76	14:25	14:27	30	25.00	50	50	
5/31/19	IP-C1D	74	14:32	14:34	30	25.00	50	50	
5/31/19	IP-C1D	72	14:34	14:36	30	25.00	50	50	
5/31/19	IP-C1D	88	14:45	14:49	200	12.50	50	50	
5/31/19	IP-C1D	86	14:55	14:58	100	16.67	50	50	
5/31/19	IP-C1D	84	14:58	15:01	100	16.67	50	50	
5/31/19	IP-C1D	82	15:07	15:11	50	12.50	50	50	
Transect D									

Table 1. Injection Logs									
Date	**Injection Point**	**Depth Interval (ft)**	**Start Time**	**Stop Time**	**Injection Pressure (psi)**	**Flow Rate (gpm)**	**Planned Volume Injected (gal)**	**Actual Volume Injected (gal)**	**Notes (flow change, etc.)**
6/3/19	IP-D1	28	15:52	15:54	40	25.00	50	50	
6/3/19	IP-D1	26	15:55	15:57	40	25.00	50	50	
6/3/19	IP-D1	24	16:01	16:03	40	25.00	50	50	
6/3/19	IP-D1	22	16:05	16:07	40	25.00	50	50	
6/3/19	IP-D1	20	16:11	16:13	40	25.00	50	50	
6/3/19	IP-D1	18	16:16	16:18	40	25.00	50	50	
6/4/19	IP-D1	38	7:49	7:54	100	10.00	50	50	
6/4/19	IP-D1	36	7:55	7:59	70	12.50	50	50	
6/4/19	IP-D1	34	8:14	8:18	70	12.50	50	50	
6/4/19	IP-D1	32	8:19	8:22	70	16.67	50	50	
6/4/19	IP-D1	30	8:24	8:27	70	16.67	50	50	
6/4/19	IP-D1	48	8:42	8:45	80	16.67	50	50	
6/4/19	IP-D1	46	8:46	8:49	70	16.67	50	50	
6/4/19	IP-D1	44	8:56	9:00	70	12.50	50	50	
6/4/19	IP-D1	42	9:01	9:04	70	16.67	50	50	
6/4/19	IP-D1	40	9:05	9:08	70	16.67	50	50	
6/4/19	IP-D1	58	9:15	9:17	100	25.00	50	50	
6/4/19	IP-D1	56	9:18	9:21	80	16.67	50	50	
6/4/19	IP-D1	54	9:26	9:28	70	25.00	50	50	
6/4/19	IP-D1	52	9:29	9:32	60	16.67	50	50	
6/4/19	IP-D1	50	9:33	9:36	60	16.67	50	50	
6/4/19	IP-D1	68	10:25	10:28	80	16.67	50	50	
6/4/19	IP-D1	66	10:29	10:32	60	16.67	50	50	
6/4/19	IP-D1	64	10:35	10:38	60	16.67	50	50	

Table 1. Injection Logs									
Date	**Injection Point**	**Depth Interval (ft)**	**Start Time**	**Stop Time**	**Injection Pressure (psi)**	**Flow Rate (gpm)**	**Planned Volume Injected (gal)**	**Actual Volume Injected (gal)**	**Notes (flow change, etc.)**
6/4/19	IP-D1	62	10:48	10:50	60	25.00	50	50	
6/4/19	IP-D1	60	10:52	10:55	40	16.67	50	50	
6/4/19	IP-D1	78	11:11	11:13	80	25.00	50	50	
6/4/19	IP-D1	76	11:14	11:17	80	16.67	50	50	
6/4/19	IP-D1	74	11:19	11:22	60	16.67	50	50	
6/4/19	IP-D1	72	11:29	11:31	60	25.00	50	50	
6/4/19	IP-D1	70	11:33	11:36	60	16.67	50	50	
6/4/19	IP-D1	88	11:56	11:58	80	25.00	50	50	
6/4/19	IP-D1	86	12:02	12:04	80	25.00	50	50	
6/4/19	IP-D1	84	12:06	12:09	60	16.67	50	50	
6/4/19	IP-D1	82	12:14	12:17	60	16.67	50	50	
6/4/19	IP-D1	80	12:18	12:21	40	16.67	50	50	
6/4/19	IP-D2	28	8:55	8:58	80	16.67	50	50	
6/4/19	IP-D2	26	8:58	9:02	30	12.50	50	50	
6/4/19	IP-D2	24	9:06	9:09	50	16.67	50	50	
6/4/19	IP-D2	22	9:09	9:12	40	16.67	50	50	
6/4/19	IP-D2	20	9:17	9:20	30	16.67	50	50	
6/4/19	IP-D2	18	9:20	9:24	30	12.50	50	50	
6/4/19	IP-D2	38	9:32	9:35	30	16.67	50	50	
6/4/19	IP-D2	36	9:35	9:39	30	12.50	50	50	
6/4/19	IP-D2	34	9:39	9:42	40	16.67	50	50	
6/4/19	IP-D2	32	10:07	10:10	60	16.67	50	50	
6/4/19	IP-D2	30	10:10	10:13	50	16.67	50	50	

Table 1. Injection Logs									
Date	**Injection Point**	**Depth Interval (ft)**	**Start Time**	**Stop Time**	**Injection Pressure (psi)**	**Flow Rate (gpm)**	**Planned Volume Injected (gal)**	**Actual Volume Injected (gal)**	**Notes (flow change, etc.)**
6/4/19	IP-D2	48	10:18	10:21	100	16.67	50	50	
6/4/19	IP-D2	46	10:21	10:24	80	16.67	50	50	
6/4/19	IP-D2	44	10:30	10:33	50	16.67	50	50	
6/4/19	IP-D2	42	10:33	10:38	30	10.00	50	50	
6/4/19	IP-D2	40	10:38	10:41	20	16.67	50	50	
6/4/19	IP-D2	58	10:53	10:56	100	16.67	50	50	
6/4/19	IP-D2	56	10:56	11:00	100	12.50	50	50	
6/4/19	IP-D2	54	11:08	11:11	100	16.67	50	50	
6/4/19	IP-D2	52	11:13	11:17	60	12.50	50	50	
6/4/19	IP-D2	50	11:17	11:20	60	16.67	50	50	
6/4/19	IP-D2D	68	15:57	15:59	100	25.00	50	50	
6/4/19	IP-D2D	66	16:00	16:03	30	16.67	50	50	
6/4/19	IP-D2D	64	16:04	16:06	20	25.00	50	50	
6/4/19	IP-D2D	62	16:15	16:19	20	12.50	50	50	
6/4/19	IP-D2D	60	16:20	16:23	50	16.67	50	50	
6/4/19	IP-D2D	78	16:40	16:44	120	12.50	50	50	
6/4/19	IP-D2D	76	16:51	16:54	80	16.67	50	50	
6/4/19	IP-D2D	74	16:55	16:58	50	16.67	50	50	
6/4/19	IP-D2D	72	17:08	17:12	50	12.50	50	50	
6/4/19	IP-D2D	70	17:12	17:15	30	16.67	50	50	
6/4/19	IP-D2D	88	17:26	17:30	100	12.50	50	50	
6/4/19	IP-D2D	86	17:38	17:42	100	12.50	50	50	
6/4/19	IP-D2D	84	17:42	17:46	80	12.50	50	50	

Table 1. Injection Logs									
Date	**Injection Point**	**Depth Interval (ft)**	**Start Time**	**Stop Time**	**Injection Pressure (psi)**	**Flow Rate (gpm)**	**Planned Volume Injected (gal)**	**Actual Volume Injected (gal)**	**Notes (flow change, etc.)**
6/4/19	IP-D2D	82	17:52	17:55	100	16.67	50	50	
6/4/19	IP-D2D	80	17:55	17:58	50	16.67	50	50	
6/4/19	IP-D3	28	14:22	14:24	80	25.00	50	50	
6/4/19	IP-D3	26	14:26	14:28	60	25.00	50	50	
6/4/19	IP-D3	24	14:32	14:35	60	16.67	50	50	
6/4/19	IP-D3	22	14:35	14:38	60	16.67	50	50	
6/4/19	IP-D3	20	14:40	14:42	60	25.00	50	50	
6/4/19	IP-D3	18	14:47	14:49	80	25.00	50	50	
6/4/19	IP-D3	38	14:50	14:53	60	16.67	50	50	
6/4/19	IP-D3	36	14:54	14:56	60	25.00	50	50	
6/4/19	IP-D3	34	15:01	15:03	60	25.00	50	50	
6/4/19	IP-D3	32	15:06	15:09	60	16.67	50	50	
6/4/19	IP-D3	30	15:10	15:13	60	16.67	50	50	
6/4/19	IP-D3	48	15:25	15:27	100	25.00	50	50	
6/4/19	IP-D3	46	15:29	15:32	80	16.67	50	50	
6/4/19	IP-D3	44	15:37	15:40	60	16.67	50	50	
6/4/19	IP-D3	42	15:41	15:44	60	16.67	50	50	
6/4/19	IP-D3	40	15:45	15:48	60	16.67	50	50	
6/5/19	IP-D3D	58'	13:57	14:00	30	16.67	50	50	
6/5/19	IP-D3D	56'	14:07	14:10	20	16.67	50	50	
6/5/19	IP-D3D	54'	14:25	14:28	20	16.67	50	50	
6/5/19	IP-D3D	52'	14:39	14:42	20	16.67	50	50	
6/5/19	IP-D3D	50'	14:42	14:46	20	12.50	50	50	

Table 1. Injection Logs									
Date	**Injection Point**	**Depth Interval (ft)**	**Start Time**	**Stop Time**	**Injection Pressure (psi)**	**Flow Rate (gpm)**	**Planned Volume Injected (gal)**	**Actual Volume Injected (gal)**	**Notes (flow change, etc.)**
6/5/19	IP-D3D	68	15:01	15:05	20	12.50	50	50	
6/5/19	IP-D3D	66	15:19	15:23	60	12.50	50	50	
6/5/19	IP-D3D	64	15:24	15:28	30	12.50	50	50	
6/5/19	IP-D3D	62	15:40	15:43	30	16.67	50	50	
6/5/19	IP-D3D	60	15:44	15:47	30	16.67	50	50	
6/5/19	IP-D4	28	7:45	7:48	100	16.67	50	50	
6/5/19	IP-D4	26	7:49	7:51	80	25.00	50	50	
6/5/19	IP-D4	24	7:54	7:57	60	16.67	50	50	
6/5/19	IP-D4	22	8:01	8:04	60	16.67	50	50	
6/5/19	IP-D4	20	8:05	8:08	60	16.67	50	50	
6/5/19	IP-D4	18	8:12	8:15	60	16.67	50	50	
6/5/19	IP-D4	38	8:19	8:21	80	25.00	50	50	
6/5/19	IP-D4	36	8:22	8:25	60	16.67	50	50	
6/5/19	IP-D4	34	8:29	8:32	60	16.67	50	50	
6/5/19	IP-D4	32	8:33	8:35	60	25.00	50	50	
6/5/19	IP-D4	30	8:36	8:39	60	16.67	50	50	
6/5/19	IP-D4	48	8:43	8:45	80	25.00	50	50	
6/5/19	IP-D4	46	8:46	8:49	80	16.67	50	50	
6/5/19	IP-D4	44	8:55	8:58	80	16.67	50	50	
6/5/19	IP-D4	42	9:00	9:02	80	25.00	50	50	
6/5/19	IP-D4	40	9:03	9:05	60	25.00	50	50	
6/5/19	IP-D4	58	9:09	9:12	100	16.67	50	50	
6/5/19	IP-D4	56	9:13	9:16	80	16.67	50	50	

Table 1. Injection Logs

Date	Injection Point	Depth Interval (ft)	Start Time	Stop Time	Injection Pressure (psi)	Flow Rate (gpm)	Planned Volume Injected (gal)	Actual Volume Injected (gal)	Notes (flow change, etc.)
6/5/19	IP-D4	54	9:31	9:34	80	16.67	50	50	
6/5/19	IP-D4	52	9:35	9:38	80	16.67	50	50	
6/5/19	IP-D4	50	9:39	9:43	80	12.50	50	50	
6/5/19	IP-D5	20	11:25	11:30	50	10.00	50	50	
6/5/19	IP-D5	18	11:33	11:37	50	12.50	50	50	
6/5/19	IP-D5	30	11:42	11:45	50	16.67	50	50	
6/5/19	IP-D5	28	11:46	11:49	60	16.67	50	50	
6/5/19	IP-D5	26	11:50	11:52	60	25.00	50	50	
6/5/19	IP-D5	24	11:57	11:59	60	25.00	50	50	
6/5/19	IP-D5	22	12:00	12:03	40	16.67	50	50	
6/5/19	IP-D5	40	12:11	12:14	100	16.67	50	50	
6/5/19	IP-D5	38	12:15	12:18	80	16.67	50	50	
6/5/19	IP-D5	36	12:19	12:22	80	16.67	50	50	
6/5/19	IP-D5	34	12:28	12:31	70	16.67	50	50	
6/5/19	IP-D5	32	12:32	12:35	70	16.67	50	50	
6/5/19	IP-D5	50	12:40	12:43	100	16.67	50	50	
6/5/19	IP-D5	48	12:44	12:47	60	16.67	50	50	
6/5/19	IP-D5	46	12:49	12:51	80	25.00	50	50	
6/5/19	IP-D5	44	12:56	12:59	60	16.67	50	50	
6/5/19	IP-D5	42	12:59	13:03	60	12.50	50	50	
6/5/19	IP-D5	60	13:09	13:12	100	16.67	50	50	
6/5/19	IP-D5	58	13:13	13:16	80	16.67	50	50	
6/5/19	IP-D5	56	13:17	13:20	70	16.67	50	50	

Table 1. Injection Logs									
Date	**Injection Point**	**Depth Interval (ft)**	**Start Time**	**Stop Time**	**Injection Pressure (psi)**	**Flow Rate (gpm)**	**Planned Volume Injected (gal)**	**Actual Volume Injected (gal)**	**Notes (flow change, etc.)**
6/5/19	IP-D5	54	13:34	13:37	70	16.67	50	50	
6/5/19	IP-D5	52	13:37	13:40	60	16.67	50	50	
6/5/19	IP-D6	28	15:26	15:28	80	25.00	50	50	
6/5/19	IP-D6	26	15:30	15:32	70	25.00	50	50	
6/5/19	IP-D6	24	15:34	15:36	70	25.00	50	50	
6/5/19	IP-D6	22	15:37	15:41	70	12.50	50	50	
6/5/19	IP-D6	20	15:45	15:48	60	16.67	50	50	
6/5/19	IP-D6	18	15:52	15:54	60	25.00	50	50	
6/6/19	IP-D6	38	7:39	7:42	100	16.67	50	50	
6/6/19	IP-D6	36	7:42	7:45	80	16.67	50	50	
6/6/19	IP-D6	34	7:51	7:53	70	25.00	50	50	
6/6/19	IP-D6	32	7:54	7:57	60	16.67	50	50	
6/6/19	IP-D6	30	7:57	8:00	70	16.67	50	50	
6/6/19	IP-D6	48	8:12	8:15	100	16.67	50	50	
6/6/19	IP-D6	46	8:16	8:19	80	16.67	50	50	
6/6/19	IP-D6	44	8:22	8:25	80	16.67	50	50	
6/6/19	IP-D6	42	8:26	8:29	80	16.67	50	50	
6/6/19	IP-D6	40	8:30	8:33	80	16.67	50	50	
6/6/19	IP-D6	58	8:40	8:43	80	16.67	50	50	
6/6/19	IP-D6	56	8:44	8:47	80	16.67	50	50	
6/6/19	IP-D6	54	9:02	9:05	80	16.67	50	50	
6/6/19	IP-D6	52	9:06	9:09	70	16.67	50	50	
6/6/19	IP-D6	50	9:10	9:13	60	16.67	50	50	

Table 1. Injection Logs									
Date	**Injection Point**	**Depth Interval (ft)**	**Start Time**	**Stop Time**	**Injection Pressure (psi)**	**Flow Rate (gpm)**	**Planned Volume Injected (gal)**	**Actual Volume Injected (gal)**	**Notes (flow change, etc.)**
6/6/19	IP-D7	28	10:00	10:02	80	25.00	50	50	
6/6/19	IP-D7	26	10:03	10:06	60	16.67	50	50	
6/6/19	IP-D7	24	10:15	10:18	40	16.67	50	50	
6/6/19	IP-D7	22	10:18	10:22	40	12.50	50	50	
6/6/19	IP-D7	20	10:23	10:26	40	16.67	50	50	
6/6/19	IP-D7	18	10:31	10:34	40	16.67	50	50	
6/6/19	IP-D7	38	10:36	10:39	140	16.67	50	50	
6/6/19	IP-D7	36	10:41	10:44	100	16.67	50	50	
6/6/19	IP-D7	34	10:50	10:52	100	25.00	50	50	
6/6/19	IP-D7	32	10:54	10:57	80	16.67	50	50	
6/6/19	IP-D7	30	10:57	11:00	40	16.67	50	50	
6/6/19	IP-D7	48	11:06	11:09	100	16.67	50	50	
6/6/19	IP-D7	46	11:10	11:13	80	16.67	50	50	
6/6/19	IP-D7	44	11:17	11:20	80	16.67	50	50	
6/6/19	IP-D7	42	11:21	11:24	60	16.67	50	50	
6/6/19	IP-D7	40	11:24	11:27	60	16.67	50	50	
6/6/19	IP-D7	58	11:32	11:35	100	16.67	50	50	
6/6/19	IP-D7	56	11:36	11:39	60	16.67	50	50	
6/6/19	IP-D7	54	11:46	11:49	80	16.67	50	50	
6/6/19	IP-D7	52	11:50	11:53	60	16.67	50	50	
6/6/19	IP-D7	50	11:54	11:57	60	16.67	50	50	
6/6/19	IP-D8	28	13:33	13:36	50	16.67	50	50	
6/6/19	IP-D8	26	13:37	13:40	50	16.67	50	50	

Table 1. Injection Logs									
Date	**Injection Point**	**Depth Interval (ft)**	**Start Time**	**Stop Time**	**Injection Pressure (psi)**	**Flow Rate (gpm)**	**Planned Volume Injected (gal)**	**Actual Volume Injected (gal)**	**Notes (flow change, etc.)**
6/6/19	IP-D8	24	13:44	13:47	40	16.67	50	50	
6/6/19	IP-D8	22	13:48	13:51	40	16.67	50	50	
6/6/19	IP-D8	20	13:52	13:55	40	16.67	50	50	
6/6/19	IP-D8	18	14:00	14:03	40	16.67	50	50	
6/6/19	IP-D8	38	14:58	15:01	50	16.67	50	50	
6/6/19	IP-D8	36	15:02	15:04	50	25.00	50	50	
6/6/19	IP-D8	34	15:08	15:10	50	25.00	50	50	
6/6/19	IP-D8	32	15:11	15:14	50	16.67	50	50	
6/6/19	IP-D8	30	15:15	15:18	40	16.67	50	50	
6/6/19	IP-D8	48	15:22	15:25	60	16.67	50	50	
6/6/19	IP-D8	46	15:26	15:28	60	25.00	50	50	
6/6/19	IP-D8	44	15:32	15:35	40	16.67	50	50	
6/6/19	IP-D8	42	15:36	15:40	40	12.50	50	50	
6/6/19	IP-D8	40	15:41	15:44	50	16.67	50	50	
6/6/19	IP-D8	58	15:49	15:51	70	25.00	50	50	
6/6/19	IP-D8	56	15:52	15:55	70	16.67	50	50	
6/6/19	IP-D8	54	16:13	16:17	50	12.50	50	50	
6/6/19	IP-D8	52	16:18	16:21	60	16.67	50	50	
6/6/19	IP-D8	50	16:21	16:24	60	16.67	50	50	
6/6/19	IP-D4D	68	14:16	14:21	80	10.00	50	50	
6/6/19	IP-D4D	66	14:23	14:27	80	12.50	50	50	
6/6/19	IP-D4D	64	14:31	14:36	30	10.00	50	50	
6/6/19	IP-D4D	62	14:43	14:48	40	10.00	50	50	

Table 1. Injection Logs									
Date	**Injection Point**	**Depth Interval (ft)**	**Start Time**	**Stop Time**	**Injection Pressure (psi)**	**Flow Rate (gpm)**	**Planned Volume Injected (gal)**	**Actual Volume Injected (gal)**	**Notes (flow change, etc.)**
6/6/19	IP-D4D	60	14:52	14:56	40	12.50	50	50	
6/6/19	IP-D4D	78	15:13	15:18	60	10.00	50	50	
6/6/19	IP-D4D	76	15:21	15:25	40	12.50	50	50	
6/6/19	IP-D4D	74	15:25	15:29	40	12.50	50	50	
6/6/19	IP-D4D	72	15:44	15:48	30	12.50	50	50	
6/6/19	IP-D4D	70	15:48	15:53	30	10.00	50	50	
6/6/19	IP-D4D	88	16:06	16:12	100	8.33	50	50	
6/6/19	IP-D4D	86	16:12	16:16	80	12.50	50	50	
6/6/19	IP-D4D	84	16:25	16:29	100	12.50	50	50	
6/6/19	IP-D4D	82	16:29	16:33	100	12.50	50	50	
6/6/19	IP-D4D	80	16:34	16:38	100	12.50	50	50	
6/7/19	IP-D9	30	7:45	7:48	70	16.67	50	50	
6/7/19	IP-D9	28	7:50	7:53	60	16.67	50	50	
6/7/19	IP-D9	26	7:55	7:58	60	16.67	50	50	
6/7/19	IP-D9	24	8:02	8:05	60	16.67	50	50	
6/7/19	IP-D9	22	8:06	8:08	50	25.00	50	50	
6/7/19	IP-D9	20	8:10	8:13	50	16.67	50	50	
6/7/19	IP-D9	40	8:19	8:22	70	16.67	50	50	
6/7/19	IP-D9	38	8:24	8:27	50	16.67	50	50	
6/7/19	IP-D9	36	8:29	8:32	60	16.67	50	50	
6/7/19	IP-D9	34	8:36	8:39	60	16.67	50	50	
6/7/19	IP-D9	32	8:42	8:44	70	25.00	50	50	
6/7/19	IP-D9	50	8:52	8:55	70	16.67	50	50	

Table 1. Injection Logs									
Date	**Injection Point**	**Depth Interval (ft)**	**Start Time**	**Stop Time**	**Injection Pressure (psi)**	**Flow Rate (gpm)**	**Planned Volume Injected (gal)**	**Actual Volume Injected (gal)**	**Notes (flow change, etc.)**
6/7/19	IP-D9	48	8:56	8:59	60	16.67	50	50	
6/7/19	IP-D9	44	9:00	9:03	50	16.67	50	50	
6/7/19	IP-D9	46	9:08	9:11	40	16.67	50	50	
6/7/19	IP-D9	42	9:11	9:15	50	12.50	50	50	
6/7/19	IP-D9	60	9:21	9:24	70	16.67	50	50	
6/7/19	IP-D9	58	9:25	9:28	50	16.67	50	50	
6/7/19	IP-D9	56	9:29	9:31	50	25.00	50	50	
6/7/19	IP-D9	54	9:35	9:38	40	16.67	50	50	
6/7/19	IP-D9	52	9:39	9:42	40	16.67	50	50	
6/7/19	IP-D11	30	13:48	13:51	70	16.67	50	50	
6/7/19	IP-D11	28	13:51	13:54	50	16.67	50	50	
6/7/19	IP-D11	26	13:55	13:58	50	16.67	50	50	
6/7/19	IP-D11	24	14:01	14:04	40	16.67	50	50	
6/7/19	IP-D11	22	14:04	14:07	40	16.67	50	50	
6/7/19	IP-D11	20	14:08	14:10	40	25.00	50	50	
6/7/19	IP-D11	40	14:13	14:16	60	16.67	50	50	
6/7/19	IP-D11	38	14:16	14:19	40	16.67	50	50	
6/7/19	IP-D11	36	14:20	14:23	40	16.67	50	50	
6/7/19	IP-D11	34	14:28	14:31	40	16.67	50	50	
6/7/19	IP-D11	32	14:32	14:34	40	25.00	50	50	
6/7/19	IP-D11	50	14:38	14:41	60	16.67	50	50	
6/7/19	IP-D11	48	14:41	14:44	40	16.67	50	50	
6/7/19	IP-D11	44	14:45	14:48	60	16.67	50	50	

Table 1. Injection Logs									
Date	**Injection Point**	**Depth Interval (ft)**	**Start Time**	**Stop Time**	**Injection Pressure (psi)**	**Flow Rate (gpm)**	**Planned Volume Injected (gal)**	**Actual Volume Injected (gal)**	**Notes (flow change, etc.)**
6/7/19	IP-D11	46	14:51	14:53	60	25.00	50	50	
6/7/19	IP-D11	42	14:54	14:56	50	25.00	50	50	
6/7/19	IP-D11	60	15:00	15:03	80	16.67	50	50	
6/7/19	IP-D11	58	15:03	15:06	60	16.67	50	50	
6/7/19	IP-D11	56	15:07	15:10	60	16.67	50	50	
6/7/19	IP-D11	54	15:15	15:18	70	16.67	50	50	
6/7/19	IP-D11	52	15:19	15:22	70	16.67	50	50	
6/7/19	IP-D10	30	9:20	9:24	50	12.50	50	50	
6/7/19	IP-D10	28	9:24	9:28	50	12.50	50	50	
6/7/19	IP-D10	26	9:28	9:31	30	16.67	50	50	
6/7/19	IP-D10	24	9:36	9:40	40	12.50	50	50	
6/7/19	IP-D10	22	9:40	9:43	30	16.67	50	50	
6/7/19	IP-D10	20	9:43	9:49	20	8.33	50	50	
6/7/19	IP-D10	40	10:40	10:44	80	12.50	50	50	
6/7/19	IP-D10	38	10:44	10:48	50	12.50	50	50	
6/7/19	IP-D10	36	10:48	10:53	20	10.00	50	50	
6/7/19	IP-D10	34	10:57	11:02	30	10.00	50	50	
6/7/19	IP-D10	32	11:02	11:06	30	12.50	50	50	
6/7/19	IP-D10	50	11:16	11:20	80	12.50	50	50	
6/7/19	IP-D10	48	11:20	11:24	60	12.50	50	50	
6/7/19	IP-D10	44	11:24	11:26	50	25.00	50	50	
6/7/19	IP-D10	46	11:34	11:39	50	10.00	50	50	
6/7/19	IP-D10	42	11:39	11:42	50	16.67	50	50	

Table 1. Injection Logs

Date	Injection Point	Depth Interval (ft)	Start Time	Stop Time	Injection Pressure (psi)	Flow Rate (gpm)	Planned Volume Injected (gal)	Actual Volume Injected (gal)	Notes (flow change, etc.)
6/7/19	IP-D10	60	12:43	12:46	100	16.67	50	50	
6/7/19	IP-D10	58	12:47	12:50	80	16.67	50	50	
6/7/19	IP-D10	56	12:50	12:54	60	12.50	50	50	
6/7/19	IP-D10	54	12:58	13:01	180	16.67	50	50	
6/7/19	IP-D10	52	13:02	13:05	80	16.67	50	50	
6/10/19	IP-D5D	68	9:41	9:45	100	12.50	50	50	
6/10/19	IP-D5D	66	9:45	9:49	100	12.50	50	50	
6/10/19	IP-D5D	64	9:55	9:59	100	12.50	50	50	
6/10/19	IP-D5D	62	9:59	10:03	80	12.50	50	50	
6/10/19	IP-D5D	78	10:17	10:21	100	12.50	50	50	
6/10/19	IP-D5D	76	10:31	10:35	50	12.50	50	50	
6/10/19	IP-D5D	74	10:35	10:39	80	12.50	50	50	
6/10/19	IP-D5D	72	10:39	10:43	30	12.50	50	50	
6/10/19	IP-D5D	70	10:47	10:51	50	12.50	50	50	
6/10/19	IP-D5D	88	11:06	11:10	120	12.50	50	50	
6/10/19	IP-D5D	86	11:15	11:19	100	12.50	50	50	
6/10/19	IP-D5D	84	11:19	11:23	100	12.50	50	50	
6/10/19	IP-D5D	82	11:23	11:27	80	12.50	50	50	
6/10/19	IP-D5D	80	11:31	11:35	80	12.50	50	50	
6/10/19	IP-D6D	66	13:50	13:54	100	12.50	50	50	
6/10/19	IP-D6D	64	13:54	13:59	100	10.00	50	50	
6/10/19	IP-D6D	62	13:59	14:04	80	10.00	50	50	
6/10/19	IP-D6D	60	14:07	14:11	40	12.50	50	50	

Table 1. Injection Logs									
Date	**Injection Point**	**Depth Interval (ft)**	**Start Time**	**Stop Time**	**Injection Pressure (psi)**	**Flow Rate (gpm)**	**Planned Volume Injected (gal)**	**Actual Volume Injected (gal)**	**Notes (flow change, etc.)**
6/10/19	IP-D6D	76	14:18	14:22	80	12.50	50	50	
6/10/19	IP-D6D	74	14:22	14:26	30	12.50	50	50	
6/10/19	IP-D6D	72	14:26	14:30	50	12.50	50	50	
6/10/19	IP-D6D	70	14:35	14:39	80	12.50	50	50	
6/10/19	IP-D6D	68	14:39	14:43	50	12.50	50	50	
6/10/19	IP-D6D	86	14:53	14:58	150	10.00	50	50	
6/10/19	IP-D6D	84	14:58	15:02	100	12.50	50	50	
6/10/19	IP-D6D	82	15:02	15:06	80	12.50	50	50	
6/10/19	IP-D6D	80	15:11	15:14	80	16.67	50	50	
6/10/19	IP-D6D	78	15:14	15:18	80	12.50	50	50	
Transect E									
6/10/19	IP-E11	18	9:38	9:40	100	25.00	50	50	
6/10/19	IP-E11	16	9:41	9:42	100	50.00	50	50	
6/10/19	IP-E11	14	9:42	9:45	100	16.67	50	50	
6/10/19	IP-E11	28	10:24	10:25	100	50.00	50	50	
6/10/19	IP-E11	26	10:26	10:28	100	25.00	50	50	
6/10/19	IP-E11	24	10:35	10:36	100	50.00	50	50	
6/10/19	IP-E11	22	10:36	10:37	100	50.00	50	50	
6/10/19	IP-E11	20	10:38	10:41	100	16.67	50	50	
6/10/19	IP-E11	38	10:59	11:01	100	25.00	50	50	
6/10/19	IP-E11	36	11:01	11:04	100	16.67	50	50	
6/10/19	IP-E11	34	11:08	11:10	100	25.00	50	50	
6/10/19	IP-E11	32	11:10	11:12	100	25.00	50	50	
6/10/19	IP-E11	30	11:12	11:15	100	16.67	50	50	

Table 1. Injection Logs									
Date	**Injection Point**	**Depth Interval (ft)**	**Start Time**	**Stop Time**	**Injection Pressure (psi)**	**Flow Rate (gpm)**	**Planned Volume Injected (gal)**	**Actual Volume Injected (gal)**	**Notes (flow change, etc.)**
6/10/19	IP-E11	48	11:19	11:21	100	25.00	50	50	
6/10/19	IP-E11	46	11:21	11:22	100	50.00	50	50	
6/10/19	IP-E11	44	11:29	11:31	100	25.00	50	50	
6/10/19	IP-E11	42	11:31	11:33	100	25.00	50	50	
6/10/19	IP-E11	40	11:33	11:35	100	25.00	50	50	
6/10/19	IP-E11	58	11:41	11:42	100	50.00	50	50	
6/10/19	IP-E11	56	11:42	11:45	100	16.67	50	50	
6/10/19	IP-E11	54	11:51	11:53	100	25.00	50	50	
6/10/19	IP-E11	52	11:53	11:56	100	16.67	50	50	
6/10/19	IP-E11	50	11:56	11:58	100	25.00	50	50	
6/10/19	IP-E11	68	12:01	12:08	150	7.14	50	50	
6/10/19	IP-E11	66	12:08	12:11	150	16.67	50	50	
6/10/19	IP-E11	64	12:14	12:17	150	16.67	50	50	
6/10/19	IP-E11	62	12:17	12:20	150	16.67	50	50	
6/10/19	IP-E11	60	12:21	12:23	150	25.00	50	50	
6/10/19	IP-E8	20	13:34	13:37	100	16.67	50	50	
6/10/19	IP-E8	18	13:37	13:39	100	25.00	50	50	
6/10/19	IP-E8	16	13:40	13:42	100	25.00	50	50	
6/10/19	IP-E8	14	13:44	13:46	100	25.00	50	50	
6/10/19	IP-E8	30	13:47	13:49	150	25.00	50	50	
6/10/19	IP-E8	28	13:49	13:51	150	25.00	50	50	
6/10/19	IP-E8	26	13:51	13:53	150	25.00	50	50	
6/10/19	IP-E8	24	13:55	13:57	100	25.00	50	50	

Table 1. Injection Logs									
Date	**Injection Point**	**Depth Interval (ft)**	**Start Time**	**Stop Time**	**Injection Pressure (psi)**	**Flow Rate (gpm)**	**Planned Volume Injected (gal)**	**Actual Volume Injected (gal)**	**Notes (flow change, etc.)**
6/10/19	IP-E8	22	13:57	13:59	100	25.00	50	50	
6/10/19	IP-E8	40	14:03	14:05	100	25.00	50	50	
6/10/19	IP-E8	38	14:06	14:08	100	25.00	50	50	
6/10/19	IP-E8	36	14:08	14:10	100	25.00	50	50	Minor daylighting
6/10/19	IP-E8	34	14:13	14:15	100	25.00	50	50	
6/10/19	IP-E8	32	14:17	14:20	100	16.67	50	50	
6/10/19	IP-E8	50	15:02	15:04	100	25.00	50	50	
6/10/19	IP-E8	48	15:04	15:06	100	25.00	50	50	
6/10/19	IP-E8	46	15:06	15:09	100	16.67	50	50	
6/10/19	IP-E8	44	15:15	15:17	100	25.00	50	50	
6/10/19	IP-E8	42	15:17	15:19	100	25.00	50	50	
6/10/19	IP-E8	60	15:29	15:31	100	25.00	50	50	
6/10/19	IP-E8	58	15:31	15:34	100	16.67	50	50	
6/10/19	IP-E8	56	15:34	15:37	100	16.67	50	50	
6/10/19	IP-E8	54	15:53	15:55	100	25.00	50	50	
6/10/19	IP-E8	52	15:55	15:57	100	25.00	50	50	
6/10/19	IP-E8	70	16:09	16:11	150	25.00	50	50	
6/10/19	IP-E8	68	16:30	16:32	150	25.00	50	50	
6/10/19	IP-E8	66	16:32	16:33	150	50.00	50	50	
6/10/19	IP-E8	64	16:37	16:40	150	16.67	50	50	
6/10/19	IP-E8	62	16:40	16:42	150	25.00	50	50	
6/11/19	IP-E10	20	9:00	9:02	100	25.00	50	50	
6/11/19	IP-E10	18	9:02	9:04	100	25.00	50	50	

Table 1. Injection Logs									
Date	**Injection Point**	**Depth Interval (ft)**	**Start Time**	**Stop Time**	**Injection Pressure (psi)**	**Flow Rate (gpm)**	**Planned Volume Injected (gal)**	**Actual Volume Injected (gal)**	**Notes (flow change, etc.)**
6/11/19	IP-E10	16	9:04	9:07	100	16.67	50	50	
6/11/19	IP-E10	14	9:07	9:09	100	25.00	50	50	
6/11/19	IP-E10	30	9:16	9:18	150	25.00	50	50	
6/11/19	IP-E10	28	9:18	9:20	150	25.00	50	50	
6/11/19	IP-E10	26	9:20	9:22	150	25.00	50	50	
6/11/19	IP-E10	24	9:26	9:28	150	25.00	50	50	
6/11/19	IP-E10	22	9:28	9:31	150	16.67	50	50	
6/11/19	IP-E10	40	9:39	9:41	150	25.00	50	50	
6/11/19	IP-E10	38	9:41	9:43	150	25.00	50	50	
6/11/19	IP-E10	36	9:43	9:46	150	16.67	50	50	
6/11/19	IP-E10	34	9:48	9:51	150	16.67	50	50	
6/11/19	IP-E10	32	9:51	9:53	150	25.00	50	50	
6/11/19	IP-E10	50	10:11	10:13	150	25.00	50	50	
6/11/19	IP-E10	48	10:13	10:15	150	25.00	50	50	
6/11/19	IP-E10	46	10:15	10:18	150	16.67	50	50	
6/11/19	IP-E10	44	10:21	10:23	150	25.00	50	50	
6/11/19	IP-E10	42	10:23	10:26	150	16.67	50	50	
6/11/19	IP-E10	60	10:31	10:33	150	25.00	50	50	
6/11/19	IP-E10	58	10:33	10:35	150	25.00	50	50	
6/11/19	IP-E10	56	10:35	10:38	150	16.67	50	50	
6/11/19	IP-E10	54	10:44	10:46	150	25.00	50	50	
6/11/19	IP-E10	52	10:46	10:48	150	25.00	50	50	
6/11/19	IP-E10	70	11:00	11:02	150	25.00	50	50	
6/11/19	IP-E10	68	11:02	11:04	150	25.00	50	50	

Table 1. Injection Logs									
Date	**Injection Point**	**Depth Interval (ft)**	**Start Time**	**Stop Time**	**Injection Pressure (psi)**	**Flow Rate (gpm)**	**Planned Volume Injected (gal)**	**Actual Volume Injected (gal)**	**Notes (flow change, etc.)**
6/11/19	IP-E10	66	11:04	11:07	150	16.67	50	50	
6/11/19	IP-E10	64	11:15	11:17	150	25.00	50	50	
6/11/19	IP-E10	62	11:17	11:19	150	25.00	50	50	
6/11/19	IP-E7	18	11:27	11:29	150	25.00	50	50	
6/11/19	IP-E7	16	11:29	11:31	150	25.00	50	50	
6/11/19	IP-E7	14	11:33	11:35	150	25.00	50	50	
6/11/19	IP-E7	28	11:44	11:45	150	50.00	50	50	
6/11/19	IP-E7	26	11:45	11:47	150	25.00	50	50	
6/11/19	IP-E7	24	11:49	11:51	150	25.00	50	50	
6/11/19	IP-E7	22	11:51	11:53	150	25.00	50	50	
6/11/19	IP-E7	20	11:54	11:56	150	25.00	50	50	
6/11/19	IP-E7	38	11:59	12:00	150	50.00	50	50	
6/11/19	IP-E7	36	13:00	13:03	150	16.67	50	50	
6/11/19	IP-E7	34	13:03	13:05	150	25.00	50	50	
6/11/19	IP-E7	32	13:05	13:07	150	25.00	50	50	
6/11/19	IP-E7	30	13:08	13:10	150	25.00	50	50	
6/11/19	IP-E7	48	13:19	13:21	150	25.00	50	50	
6/11/19	IP-E7	46	13:21	13:24	150	16.67	50	50	
6/11/19	IP-E7	44	13:29	13:31	150	25.00	50	50	
6/11/19	IP-E7	42	13:31	13:33	150	25.00	50	50	
6/11/19	IP-E7	40	13:33	13:35	150	25.00	50	50	
6/11/19	IP-E7	58	14:22	14:24	150	25.00	50	50	
6/11/19	IP-E7	56	14:24	14:26	150	25.00	50	50	

Table 1. Injection Logs									
Date	**Injection Point**	**Depth Interval (ft)**	**Start Time**	**Stop Time**	**Injection Pressure (psi)**	**Flow Rate (gpm)**	**Planned Volume Injected (gal)**	**Actual Volume Injected (gal)**	**Notes (flow change, etc.)**
6/11/19	IP-E7	54	14:28	14:31	150	16.67	50	50	
6/11/19	IP-E7	52	14:31	14:33	150	25.00	50	50	
6/11/19	IP-E7	50	14:33	14:35	150	25.00	50	50	
6/11/19	IP-E7	68	14:38	14:41	150	16.67	50	50	
6/11/19	IP-E7	66	14:41	14:43	150	25.00	50	50	
6/11/19	IP-E7	64	14:47	14:49	150	25.00	50	50	
6/11/19	IP-E7	62	14:49	14:52	150	16.67	50	50	
6/11/19	IP-E7	60	14:52	14:56	150	12.50	50	50	
Transect D									
6/11/19	IP-D7D	64	7:47	7:52	80	10.00	50	50	
6/11/19	IP-D7D	62	7:52	7:56	60	12.50	50	50	
6/11/19	IP-D7D	60	7:56	8:00	50	12.50	50	50	
6/11/19	IP-D7D	74	8:12	8:23	120	4.55	50	50	packing started leaking on piston pump
6/11/19	IP-D7D	72	8:23	8:27	80	12.50	50	50	
6/11/19	IP-D7D	70	8:32	8:36	50	12.50	50	50	
6/11/19	IP-D7D	68	8:36	8:42	80	8.33	50	50	
6/11/19	IP-D7D	66	8:42	8:46	80	12.50	50	50	
6/11/19	IP-D7D	84	8:56	9:01	150	10.00	50	50	
6/11/19	IP-D7D	82	9:01	9:06	100	10.00	50	50	
6/11/19	IP-D7D	80	9:12	9:17	50	10.00	50	50	
6/11/19	IP-D7D	78	9:17	9:21	50	12.50	50	50	
6/11/19	IP-D7D	76	9:21	9:25	80	12.50	50	50	
6/11/19	IP-D8D	70	11:29	11:33	100	12.50	50	50	

Table 1. Injection Logs

Date	Injection Point	Depth Interval (ft)	Start Time	Stop Time	Injection Pressure (psi)	Flow Rate (gpm)	Planned Volume Injected (gal)	Actual Volume Injected (gal)	Notes (flow change, etc.)
6/11/19	IP-D8D	68	11:33	11:37	50	12.50	50	50	
6/11/19	IP-D8D	66	11:37	11:40	30	16.67	50	50	
6/11/19	IP-D8D	64	11:45	11:49	30	12.50	50	50	
6/11/19	IP-D8D	62	11:49	11:54	40	10.00	50	50	
6/11/19	IP-D8D	60	11:58	12:02	50	12.50	50	50	
6/11/19	IP-D8D	82	12:12	12:16	100	12.50	50	50	
6/11/19	IP-D8D	80	12:16	12:20	60	12.50	50	50	
6/11/19	IP-D8D	78	12:20	12:23	40	16.67	50	50	
6/11/19	IP-D8D	76	12:30	12:33	50	16.67	50	50	
6/11/19	IP-D8D	74	12:33	12:37	30	12.50	50	50	
6/11/19	IP-D8D	72	12:37	12:40	40	16.67	50	50	
6/12/19	IP-D9D	72	8:18	8:23	150	10.00	50	50	
6/12/19	IP-D9D	70	8:23	8:28	50	10.00	50	50	
6/12/19	IP-D9D	68	8:38	8:43	50	10.00	50	50	
6/12/19	IP-D9D	66	8:43	8:48	50	10.00	50	50	
6/12/19	IP-D9D	64	8:53	8:58	50	10.00	50	50	
6/12/19	IP-D9D	62	8:58	9:03	40	10.00	50	50	
6/12/19	IP-D9D	82	9:18	9:24	180	8.33	50	50	
6/12/19	IP-D9D	80	9:24	9:30	120	8.33	50	50	
6/12/19	IP-D9D	78	9:40	9:51	60	4.55	50	50	CHI chemgrout injection pump down
6/12/19	IP-D9D	76	10:09	10:17	100	6.25	50	50	
6/12/19	IP-D9D	74	11:32	11:36	60	12.50	50	50	
6/12/19	IP-D10D	70	14:20	14:24	80	12.50	50	50	

Table 1. Injection Logs									
Date	**Injection Point**	**Depth Interval (ft)**	**Start Time**	**Stop Time**	**Injection Pressure (psi)**	**Flow Rate (gpm)**	**Planned Volume Injected (gal)**	**Actual Volume Injected (gal)**	**Notes (flow change, etc.)**
6/12/19	IP-D10D	68	14:24	14:28	50	12.50	50	50	
6/12/19	IP-D10D	66	14:34	14:38	50	12.50	50	50	
6/12/19	IP-D10D	64	14:38	14:42	40	12.50	50	50	
6/12/19	IP-D10D	62	14:42	14:48	50	8.33	50	50	
6/12/19	IP-D10D	80	15:02	15:07	180	10.00	50	50	
6/12/19	IP-D10D	78	15:07	15:12	80	10.00	50	50	
6/12/19	IP-D10D	76	15:19	15:24	50	10.00	50	50	
6/12/19	IP-D10D	74	15:24	15:29	50	10.00	50	50	
6/12/19	IP-D10D	72	15:29	15:33	50	12.50	50	50	
Transect E									
6/12/19	IP-E9	24	7:25	7:28	100	16.67	50	50	
6/12/19	IP-E9	22	7:28	7:31	100	16.67	50	50	
6/12/19	IP-E9	20	7:31	7:33	50	25.00	50	50	
6/12/19	IP-E9	18	7:37	7:39	50	25.00	50	50	
6/12/19	IP-E9	16	7:39	7:41	50	25.00	50	50	
6/12/19	IP-E9	14	7:41	7:44	50	16.67	50	50	daylighting
6/12/19	IP-E9	34	7:50	7:57	20	7.14	50	50	
6/12/19	IP-E9	32	7:57	8:02	20	10.00	50	50	
6/12/19	IP-E9	30	8:02	8:09	20	7.14	50	50	
6/12/19	IP-E9	28	8:14	8:20	20	8.33	50	50	
6/12/19	IP-E9	26	8:21	8:28	20	7.14	50	50	
6/12/19	IP-E9	44	8:37	8:39	100	25.00	50	50	
6/12/19	IP-E9	42	8:40	8:43	50	16.67	50	50	
6/12/19	IP-E9	40	8:43	8:45	50	25.00	50	50	

Table 1. Injection Logs									
Date	**Injection Point**	**Depth Interval (ft)**	**Start Time**	**Stop Time**	**Injection Pressure (psi)**	**Flow Rate (gpm)**	**Planned Volume Injected (gal)**	**Actual Volume Injected (gal)**	**Notes (flow change, etc.)**
6/12/19	IP-E9	38	8:48	8:50	100	25.00	50	50	
6/12/19	IP-E9	36	8:51	8:53	100	25.00	50	50	
6/12/19	IP-E9	54	8:57	8:59	100	25.00	50	50	
6/12/19	IP-E9	52	8:59	9:02	100	16.67	50	50	
6/12/19	IP-E9	50	9:02	9:06	100	12.50	50	50	
6/12/19	IP-E9	48	9:15	9:20	100	10.00	50	50	
6/12/19	IP-E9	46	9:20	9:24	100	12.50	50	50	
6/12/19	IP-E9	64	9:29	9:32	100	16.67	50	50	
6/12/19	IP-E9	62	9:32	9:36	100	12.50	50	50	
6/12/19	IP-E9	60	9:36	9:40	100	12.50	50	50	
6/12/19	IP-E9	58	9:43	9:46	100	16.67	50	50	
6/12/19	IP-E9	56	9:46	9:48	100	25.00	50	50	
6/12/19	IP-E6	20	10:21	10:24	50	16.67	50	50	
6/12/19	IP-E6	18	10:24	10:27	50	16.67	50	50	
6/12/19	IP-E6	16	10:27	10:29	50	25.00	50	50	
6/12/19	IP-E6	14	10:31	10:34	50	16.67	50	50	
6/12/19	IP-E6	30	10:37	10:39	100	25.00	50	50	
6/12/19	IP-E6	28	10:39	10:41	100	25.00	50	50	
6/12/19	IP-E6	26	10:42	10:44	100	25.00	50	50	
6/12/19	IP-E6	24	10:46	10:48	100	25.00	50	50	
6/12/19	IP-E6	22	10:48	10:50	100	25.00	50	50	
6/12/19	IP-E6	40	10:53	10:55	100	25.00	50	50	
6/12/19	IP-E6	38	10:55	10:57	100	25.00	50	50	

Table 1. Injection Logs									
Date	**Injection Point**	**Depth Interval (ft)**	**Start Time**	**Stop Time**	**Injection Pressure (psi)**	**Flow Rate (gpm)**	**Planned Volume Injected (gal)**	**Actual Volume Injected (gal)**	**Notes (flow change, etc.)**
6/12/19	IP-E6	36	10:57	11:00	100	16.67	50	50	
6/12/19	IP-E6	34	11:03	11:05	100	25.00	50	50	
6/12/19	IP-E6	32	11:05	11:08	100	16.67	50	50	
6/12/19	IP-E6	50	11:10	11:13	100	16.67	50	50	
6/12/19	IP-E6	48	11:13	11:15	100	25.00	50	50	
6/12/19	IP-E6	46	11:15	11:18	100	16.67	50	50	
6/12/19	IP-E6	44	11:23	11:25	100	25.00	50	50	
6/12/19	IP-E6	42	11:25	11:28	100	16.67	50	50	
6/12/19	IP-E6	60	11:30	11:32	150	25.00	50	50	
6/12/19	IP-E6	58	11:32	11:34	150	25.00	50	50	
6/12/19	IP-E6	56	11:34	11:37	150	16.67	50	50	
6/12/19	IP-E6	54	11:40	11:42	150	25.00	50	50	
6/12/19	IP-E6	52	11:42	11:45	150	16.67	50	50	
6/12/19	IP-E5	24	13:09	13:13	20	12.50	50	50	
6/12/19	IP-E5	22	13:13	13:18	20	10.00	50	50	
6/12/19	IP-E5	20	13:18	13:20	50	25.00	50	50	
6/12/19	IP-E5	18	13:24	13:27	50	16.67	50	50	
6/12/19	IP-E5	16	13:27	13:30	50	16.67	50	50	
6/12/19	IP-E5	14	13:30	13:34	50	12.50	50	50	
6/12/19	IP-E5	34	13:36	13:38	100	25.00	50	50	
6/12/19	IP-E5	32	13:38	13:40	100	25.00	50	50	
6/12/19	IP-E5	30	13:40	13:43	100	16.67	50	50	
6/12/19	IP-E5	28	13:44	13:46	100	25.00	50	50	

Table 1. Injection Logs									
Date	**Injection Point**	**Depth Interval (ft)**	**Start Time**	**Stop Time**	**Injection Pressure (psi)**	**Flow Rate (gpm)**	**Planned Volume Injected (gal)**	**Actual Volume Injected (gal)**	**Notes (flow change, etc.)**
6/12/19	IP-E5	26	13:46	13:48	100	25.00	50	50	
6/12/19	IP-E5	44	13:50	13:53	100	16.67	50	50	
6/12/19	IP-E5	42	13:53	13:55	100	25.00	50	50	
6/12/19	IP-E5	40	13:55	13:58	100	16.67	50	50	
6/12/19	IP-E5	38	13:58	14:00	100	25.00	50	50	
6/12/19	IP-E5	36	14:00	14:04	100	12.50	50	50	
6/12/19	IP-E5	54	14:07	14:09	100	25.00	50	50	
6/12/19	IP-E5	52	14:09	14:11	100	25.00	50	50	
6/12/19	IP-E5	50	14:11	14:13	100	25.00	50	50	
6/12/19	IP-E5	48	14:14	14:16	100	25.00	50	50	
6/12/19	IP-E5	46	14:16	14:19	100	16.67	50	50	
6/12/19	IP-E5	64	14:20	14:22	150	25.00	50	50	
6/12/19	IP-E5	62	14:22	14:24	150	25.00	50	50	
6/12/19	IP-E5	60	14:24	14:27	150	16.67	50	50	
6/12/19	IP-E5	58	14:27	14:30	150	16.67	50	50	
6/12/19	IP-E5	56	14:30	14:33	150	16.67	50	50	
6/13/19	IP-E4	20	7:25	7:27	100	25.00	50	50	
6/13/19	IP-E4	18	7:27	7:29	100	25.00	50	50	
6/13/19	IP-E4	16	7:32	7:35	100	16.67	50	50	
6/13/19	IP-E4	14	7:37	7:39	100	25.00	50	50	
6/13/19	IP-E4	30	7:40	7:42	100	25.00	50	50	
6/13/19	IP-E4	28	7:42	7:44	100	25.00	50	50	
6/13/19	IP-E4	26	7:44	7:46	100	25.00	50	50	

REDOX TECH, LLC

"Providing Innovative In Situ Soil and Groundwater Treatment"

Table 1. Injection Logs									
Date	**Injection Point**	**Depth Interval (ft)**	**Start Time**	**Stop Time**	**Injection Pressure (psi)**	**Flow Rate (gpm)**	**Planned Volume Injected (gal)**	**Actual Volume Injected (gal)**	**Notes (flow change, etc.)**
6/13/19	IP-E4	24	7:47	7:49	100	25.00	50	50	
6/13/19	IP-E4	22	7:49	7:52	100	16.67	50	50	
6/13/19	IP-E4	40	8:16	8:18	100	25.00	50	50	
6/13/19	IP-E4	38	8:18	8:20	100	25.00	50	50	
6/13/19	IP-E4	36	8:20	8:22	100	25.00	50	50	
6/13/19	IP-E4	34	8:22	8:25	100	16.67	50	50	
6/13/19	IP-E4	32	8:26	8:28	100	25.00	50	50	
6/13/19	IP-E4	50	8:29	8:31	100	25.00	50	50	
6/13/19	IP-E4	48	8:31	8:34	100	16.67	50	50	
6/13/19	IP-E4	46	8:34	8:36	100	25.00	50	50	
6/13/19	IP-E4	44	8:36	8:38	100	25.00	50	50	
6/13/19	IP-E4	42	8:38	8:40	100	25.00	50	50	
6/13/19	IP-E3	22	9:07	9:09	100	25.00	50	50	
6/13/19	IP-E3	20	9:09	9:11	100	25.00	50	50	
6/13/19	IP-E3	18	9:13	9:15	100	25.00	50	50	
6/13/19	IP-E3	16	9:15	9:17	100	25.00	50	50	
6/13/19	IP-E3	14	9:17	9:19	100	25.00	50	50	
6/13/19	IP-E3	32	9:26	9:28	100	25.00	50	50	
6/13/19	IP-E3	30	9:28	9:31	100	16.67	50	50	
6/13/19	IP-E3	28	9:31	9:33	100	25.00	50	50	
6/13/19	IP-E3	26	9:33	9:35	100	25.00	50	50	
6/13/19	IP-E3	24	9:35	9:37	100	25.00	50	50	
6/13/19	IP-E3	42	9:39	9:42	100	16.67	50	50	

Table 1. Injection Logs									
Date	**Injection Point**	**Depth Interval (ft)**	**Start Time**	**Stop Time**	**Injection Pressure (psi)**	**Flow Rate (gpm)**	**Planned Volume Injected (gal)**	**Actual Volume Injected (gal)**	**Notes (flow change, etc.)**
6/13/19	IP-E3	40	9:42	9:44	100	25.00	50	50	
6/13/19	IP-E3	38	9:52	9:54	100	25.00	50	50	
6/13/19	IP-E3	36	9:54	9:57	100	16.67	50	50	
6/13/19	IP-E3	34	9:57	9:59	100	25.00	50	50	
6/13/19	IP-E3	52	10:00	10:03	100	16.67	50	50	
6/13/19	IP-E3	50	10:03	10:05	100	25.00	50	50	
6/13/19	IP-E3	48	10:09	10:11	100	25.00	50	50	
6/13/19	IP-E3	46	10:11	10:13	100	25.00	50	50	
6/13/19	IP-E3	44	10:13	10:16	100	16.67	50	50	
6/13/19	IP-E3	62	10:17	10:20	100	16.67	50	50	
6/13/19	IP-E3	60	10:22	10:24	100	25.00	50	50	
6/13/19	IP-E3	58	10:25	10:27	100	25.00	50	50	
6/13/19	IP-E3	56	10:27	10:29	100	25.00	50	50	
6/13/19	IP-E3	54	10:29	10:32	100	16.67	50	50	
6/13/19	IP-E3	72	10:35	10:37	150	25.00	50	50	
6/13/19	IP-E3	70	10:37	10:39	150	25.00	50	50	
6/13/19	IP-E3	68	10:42	10:44	150	25.00	50	50	
6/13/19	IP-E3	66	10:44	10:47	150	16.67	50	50	
6/13/19	IP-E3	64	10:47	10:49	150	25.00	50	50	
6/13/19	IP-E2	20	12:45	12:47	100	25.00	50	50	8 grams NaBr added per hopper
6/13/19	IP-E2	18	12:47	12:51	100	12.50	50	50	8 grams NaBr added per hopper
6/13/19	IP-E2	16	12:51	12:53	100	25.00	50	50	8 grams NaBr added per hopper
6/13/19	IP-E2	14	12:53	12:55	100	25.00	50	50	8 grams NaBr added per hopper

Table 1. Injection Logs									
Date	**Injection Point**	**Depth Interval (ft)**	**Start Time**	**Stop Time**	**Injection Pressure (psi)**	**Flow Rate (gpm)**	**Planned Volume Injected (gal)**	**Actual Volume Injected (gal)**	**Notes (flow change, etc.)**
6/13/19	IP-E2	30	13:20	13:23	100	16.67	50	50	8 grams NaBr added per hopper
6/13/19	IP-E2	28	13:24	13:25	100	50.00	50	50	8 grams NaBr added per hopper
6/13/19	IP-E2	26	13:25	13:28	100	16.67	50	50	8 grams NaBr added per hopper
6/13/19	IP-E2	24	13:28	13:30	100	25.00	50	50	8 grams NaBr added per hopper
6/13/19	IP-E2	22	13:30	13:32	100	25.00	50	50	8 grams NaBr added per hopper
6/13/19	IP-E2	40	14:03	14:04	100	50.00	50	50	8 grams NaBr added per hopper
6/13/19	IP-E2	38	14:04	14:06	100	25.00	50	50	8 grams NaBr added per hopper
6/13/19	IP-E2	36	14:06	14:08	100	25.00	50	50	8 grams NaBr added per hopper
6/13/19	IP-E2	34	14:08	14:11	100	16.67	50	50	8 grams NaBr added per hopper
6/13/19	IP-E2	32	14:11	14:13	100	25.00	50	50	8 grams NaBr added per hopper
6/13/19	IP-E2	50	14:45	14:48	100	16.67	50	50	8 grams NaBr added per hopper
6/13/19	IP-E2	48	14:48	14:50	100	25.00	50	50	8 grams NaBr added per hopper
6/13/19	IP-E2	46	14:50	14:52	100	25.00	50	50	8 grams NaBr added per hopper
6/13/19	IP-E2	44	14:52	14:54	100	25.00	50	50	8 grams NaBr added per hopper
6/13/19	IP-E2	42	14:54	14:57	100	16.67	50	50	8 grams NaBr added per hopper
6/13/19	IP-E2	60	14:58	15:00	150	25.00	50	50	8 grams NaBr added per hopper
6/13/19	IP-E2	58	15:00	15:02	150	25.00	50	50	8 grams NaBr added per hopper
6/13/19	IP-E2	56	15:02	15:04	150	25.00	50	50	8 grams NaBr added per hopper
6/13/19	IP-E2	54	15:04	15:05	150	50.00	50	50	8 grams NaBr added per hopper
6/13/19	IP-E2	52	15:05	15:08	150	16.67	50	50	8 grams NaBr added per hopper
6/13/19	IP-E2	70	15:09	15:11	150	25.00	50	50	8 grams NaBr added per hopper
6/13/19	IP-E2	68	15:11	15:13	150	25.00	50	50	8 grams NaBr added per hopper
6/13/19	IP-E2	66	15:13	15:15	150	25.00	50	50	8 grams NaBr added per hopper
6/13/19	IP-E2	64	15:15	15:18	150	16.67	50	50	8 grams NaBr added per hopper

Table 1. Injection Logs									
Date	**Injection Point**	**Depth Interval (ft)**	**Start Time**	**Stop Time**	**Injection Pressure (psi)**	**Flow Rate (gpm)**	**Planned Volume Injected (gal)**	**Actual Volume Injected (gal)**	**Notes (flow change, etc.)**
6/13/19	IP-E2	62	15:18	15:20	150	25.00	50	50	8 grams NaBr added per hopper
6/13/19	IP-E11D	70	13:27	13:32	100	10.00	50	50	
6/13/19	IP-E10D	74	14:15	14:20	100	10.00	50	50	
6/13/19	IP-E10D	72	14:20	14:24	100	12.50	50	50	
6/13/19	IP-E9D	74	15:16	15:20	100	12.50	50	50	
6/13/19	IP-E9D	72	15:20	15:25	100	10.00	50	50	
6/13/19	IP-E9D	70	15:33	15:37	80	12.50	50	50	
6/13/19	IP-E9D	68	15:37	15:41	60	12.50	50	50	
6/13/19	IP-E9D	66	15:45	15:48	50	16.67	50	50	
6/13/19	IP-E8D	82	16:40	16:44	120	12.50	50	50	
6/13/19	IP-E8D	80	16:44	16:49	80	10.00	50	50	
6/13/19	IP-E8D	78	16:52	16:56	80	12.50	50	50	
6/13/19	IP-E8D	76	17:09	17:13	80	12.50	50	50	
6/13/19	IP-E8D	74	17:13	17:16	60	16.67	50	50	
6/13/19	IP-E8D	72	17:16	17:20	50	12.50	50	50	
Transect D									
6/13/19	IP-D11D	68	7:51	7:55	50	12.50	50	50	
6/13/19	IP-D11D	66	7:55	7:59	50	12.50	50	50	
6/13/19	IP-D11D	64	8:03	8:06	40	16.67	50	50	
6/13/19	IP-D11D	62	8:06	8:10	40	12.50	50	50	
6/13/19	IP-D11D	76	8:20	8:24	60	12.50	50	50	
6/13/19	IP-D11D	74	8:24	8:28	50	12.50	50	50	
6/13/19	IP-D11D	72	8:41	8:46	50	10.00	50	50	

Table 1. Injection Logs									
Date	**Injection Point**	**Depth Interval (ft)**	**Start Time**	**Stop Time**	**Injection Pressure (psi)**	**Flow Rate (gpm)**	**Planned Volume Injected (gal)**	**Actual Volume Injected (gal)**	**Notes (flow change, etc.)**
6/13/19	IP-D11D	70	8:46	8:51	50	10.00	50	50	
Transect E									
6/14/19	IP-E7D	78	8:23	8:27	100	12.50	50	50	
6/14/19	IP-E7D	76	8:27	8:32	80	10.00	50	50	
6/14/19	IP-E7D	74	8:42	8:46	80	12.50	50	50	
6/14/19	IP-E7D	72	8:46	8:50	50	12.50	50	50	
6/14/19	IP-E7D	70	8:50	8:53	50	16.67	50	50	
6/14/19	IP-E7D	88	9:07	9:10	80	16.67	50	50	
6/14/19	IP-E7D	86	9:10	9:13	20	16.67	50	50	
6/14/19	IP-E7D	84	9:19	9:22	10	16.67	50	50	
6/14/19	IP-E7D	82	9:22	9:24	10	25.00	50	50	
6/14/19	IP-E7D	80	9:24	9:26	5	25.00	50	50	
6/14/19	IP-E6D	68	11:32	11:36	100	12.50	50	50	
6/14/19	IP-E6D	66	11:36	11:39	80	16.67	50	50	
6/14/19	IP-E6D	64	11:46	11:48	50	25.00	50	50	
6/14/19	IP-E6D	62	11:48	11:51	50	16.67	50	50	
6/14/19	IP-E6D	78	12:01	12:05	150	12.50	50	50	
6/14/19	IP-E6D	76	12:05	12:08	50	16.67	50	50	
6/14/19	IP-E6D	74	12:15	12:18	50	16.67	50	50	
6/14/19	IP-E6D	72	12:18	12:21	50	16.67	50	50	
6/14/19	IP-E6D	70	12:27	12:31	50	12.50	50	50	
6/14/19	IP-E1	24	7:39	7:42	50	16.67	50	50	8 grams NaBr added per hopper
6/14/19	IP-E1	22	7:42	7:46	50	12.50	50	50	8 grams NaBr added per hopper

Table 1. Injection Logs									
Date	**Injection Point**	**Depth Interval (ft)**	**Start Time**	**Stop Time**	**Injection Pressure (psi)**	**Flow Rate (gpm)**	**Planned Volume Injected (gal)**	**Actual Volume Injected (gal)**	**Notes (flow change, etc.)**
6/14/19	IP-E1	20	7:46	7:50	50	12.50	50	50	8 grams NaBr added per hopper
6/14/19	IP-E1	18	7:52	7:55	50	16.67	50	50	8 grams NaBr added per hopper
6/14/19	IP-E1	16	7:55	7:58	50	16.67	50	50	8 grams NaBr added per hopper
6/14/19	IP-E1	14	7:58	8:03	50	10.00	50	50	8 grams NaBr added per hopper
6/14/19	IP-E1	34	8:07	8:10	100	16.67	50	50	8 grams NaBr added per hopper
6/14/19	IP-E1	32	8:10	8:14	100	12.50	50	50	8 grams NaBr added per hopper
6/14/19	IP-E1	30	8:16	8:20	100	12.50	50	50	8 grams NaBr added per hopper
6/14/19	IP-E1	28	8:20	8:23	100	16.67	50	50	8 grams NaBr added per hopper
6/14/19	IP-E1	26	8:23	8:27	100	12.50	50	50	8 grams NaBr added per hopper
6/14/19	IP-E1	44	8:28	8:31	100	16.67	50	50	8 grams NaBr added per hopper
6/14/19	IP-E1	42	8:31	8:35	100	12.50	50	50	8 grams NaBr added per hopper
6/14/19	IP-E1	40	8:35	8:38	100	16.67	50	50	8 grams NaBr added per hopper
6/14/19	IP-E1	38	8:38	8:42	100	12.50	50	50	8 grams NaBr added per hopper
6/14/19	IP-E1	36	8:42	8:46	100	12.50	50	50	8 grams NaBr added per hopper
6/14/19	IP-E1	54	8:47	8:51	100	12.50	50	50	8 grams NaBr added per hopper
6/14/19	IP-E1	52	8:51	8:54	100	16.67	50	50	8 grams NaBr added per hopper
6/14/19	IP-E1	50	8:54	8:58	100	12.50	50	50	8 grams NaBr added per hopper
6/14/19	IP-E1	48	8:59	9:03	100	12.50	50	50	8 grams NaBr added per hopper
6/14/19	IP-E1	46	9:03	9:06	100	16.67	50	50	8 grams NaBr added per hopper
6/14/19	IP-E1	64	9:08	9:12	100	12.50	50	50	8 grams NaBr added per hopper
6/14/19	IP-E1	62	9:26	9:29	100	16.67	50	50	8 grams NaBr added per hopper
6/14/19	IP-E1	60	9:30	9:34	100	12.50	50	50	8 grams NaBr added per hopper
6/14/19	IP-E1	58	9:34	9:40	100	8.33	50	50	8 grams NaBr added per hopper
6/14/19	IP-E1	56	9:40	9:43	100	16.67	50	50	8 grams NaBr added per hopper

Table 1. Injection Logs									
Date	**Injection Point**	**Depth Interval (ft)**	**Start Time**	**Stop Time**	**Injection Pressure (psi)**	**Flow Rate (gpm)**	**Planned Volume Injected (gal)**	**Actual Volume Injected (gal)**	**Notes (flow change, etc.)**
Transect F									
6/14/19	IP-F1	20	10:13	10:15	50	25.00	50	50	
6/14/19	IP-F1	18	10:21	10:24	50	16.67	50	50	
6/14/19	IP-F1	16	10:28	10:31	50	16.67	50	50	
6/14/19	IP-F1	30	10:33	10:36	50	16.67	50	50	
6/14/19	IP-F1	28	10:36	10:39	50	16.67	50	50	
6/14/19	IP-F1	26	10:39	10:42	50	16.67	50	50	
6/14/19	IP-F1	24	10:43	10:47	100	12.50	50	50	
6/14/19	IP-F1	22	10:47	10:51	100	12.50	50	50	
6/14/19	IP-F1	40	10:53	10:55	100	25.00	50	50	
6/14/19	IP-F1	38	10:55	10:58	100	16.67	50	50	
6/14/19	IP-F1	36	11:05	11:09	100	12.50	50	50	
6/14/19	IP-F1	34	11:09	11:12	100	16.67	50	50	
6/14/19	IP-F1	32	11:12	11:15	100	16.67	50	50	
6/14/19	IP-F1	50	11:16	11:19	100	16.67	50	50	
6/14/19	IP-F1	48	11:19	11:22	100	16.67	50	50	
6/14/19	IP-F1	46	11:25	11:28	100	16.67	50	50	
6/14/19	IP-F1	44	11:28	11:33	100	10.00	50	50	
6/14/19	IP-F1	42	11:33	11:37	100	12.50	50	50	
6/14/19	IP-F1	60	11:40	11:43	100	16.67	50	50	
6/14/19	IP-F1	58	11:44	11:48	100	12.50	50	50	
6/14/19	IP-F1	56	11:50	11:54	100	12.50	50	50	
6/14/19	IP-F1	54	11:54	11:58	100	12.50	50	50	
6/14/19	IP-F1	52	11:58	12:04	100	8.33	50	50	

Table 1. Injection Logs

Date	Injection Point	Depth Interval (ft)	Start Time	Stop Time	Injection Pressure (psi)	Flow Rate (gpm)	Planned Volume Injected (gal)	Actual Volume Injected (gal)	Notes (flow change, etc.)
6/14/19	IP-F1	70	12:04	12:08	150	12.50	50	50	
6/14/19	IP-F1	68	12:08	12:14	150	8.33	50	50	
6/14/19	IP-F1	66	12:16	12:20	150	12.50	50	50	
6/14/19	IP-F1	64	12:20	12:24	150	12.50	50	50	
6/14/19	IP-F1	62	12:24	12:29	150	10.00	50	50	
6/17/19	IP-F2	20	7:36	7:38	100	25.00	50	50	
6/17/19	IP-F2	18	7:38	7:41	100	16.67	50	50	
6/17/19	IP-F2	16	7:41	7:44	100	16.67	50	50	
6/17/19	IP-F2	14	7:44	7:46	100	25.00	50	50	
6/17/19	IP-F2	30	7:51	7:53	100	25.00	50	50	
6/17/19	IP-F2	28	7:53	7:56	100	16.67	50	50	
6/17/19	IP-F2	26	7:56	7:58	100	25.00	50	50	
6/17/19	IP-F2	24	8:00	8:05	100	10.00	50	50	
6/17/19	IP-F2	22	8:05	8:08	100	16.67	50	50	
6/17/19	IP-F2	40	8:11	8:15	150	12.50	50	50	
6/17/19	IP-F2	38	8:15	8:20	150	10.00	50	50	
6/17/19	IP-F2	36	8:20	8:24	150	12.50	50	50	
6/17/19	IP-F2	34	8:24	8:28	150	12.50	50	50	
6/17/19	IP-F2	32	8:31	8:35	150	12.50	50	50	
6/17/19	IP-F2	50	8:41	8:45	150	12.50	50	50	
6/17/19	IP-F2	48	8:45	8:49	150	12.50	50	50	
6/17/19	IP-F2	46	8:49	8:53	150	12.50	50	50	
6/17/19	IP-F2	44	8:56	9:00	150	12.50	50	50	

Table 1. Injection Logs									
Date	**Injection Point**	**Depth Interval (ft)**	**Start Time**	**Stop Time**	**Injection Pressure (psi)**	**Flow Rate (gpm)**	**Planned Volume Injected (gal)**	**Actual Volume Injected (gal)**	**Notes (flow change, etc.)**
6/17/19	IP-F2	42	9:00	9:04	150	12.50	50	50	
6/17/19	IP-F2	60	9:10	9:13	150	16.67	50	50	
6/17/19	IP-F2	58	9:13	9:17	150	12.50	50	50	
6/17/19	IP-F2	56	9:17	9:20	150	16.67	50	50	
6/17/19	IP-F2	54	9:23	9:26	150	16.67	50	50	
6/17/19	IP-F2	52	9:27	9:31	150	12.50	50	50	
6/17/19	IP-F2	70	9:36	9:40	150	12.50	50	50	
6/17/19	IP-F2	68	9:40	9:43	150	16.67	50	50	
6/17/19	IP-F2	66	9:45	9:49	150	12.50	50	50	
6/17/19	IP-F2	64	9:49	9:53	150	12.50	50	50	
6/17/19	IP-F2	62	9:53	9:58	150	10.00	50	50	
6/17/19	IP-F3	20	10:28	10:32	50	12.50	50	50	
6/17/19	IP-F3	18	10:33	10:36	100	16.67	50	50	
6/17/19	IP-F3	16	10:36	10:39	50	16.67	50	50	
6/17/19	IP-F3	30	10:45	10:48	100	16.67	50	50	
6/17/19	IP-F3	28	10:48	10:52	100	12.50	50	50	
6/17/19	IP-F3	26	10:56	10:59	100	16.67	50	50	
6/17/19	IP-F3	24	11:03	11:06	100	16.67	50	50	
6/17/19	IP-F3	22	11:06	11:09	100	16.67	50	50	
6/17/19	IP-F3	40	11:15	11:17	100	25.00	50	50	
6/17/19	IP-F3	38	11:18	11:22	150	12.50	50	50	
6/17/19	IP-F3	36	11:23	11:27	100	12.50	50	50	
6/17/19	IP-F3	34	11:29	11:32	100	16.67	50	50	

Table 1. Injection Logs									
Date	**Injection Point**	**Depth Interval (ft)**	**Start Time**	**Stop Time**	**Injection Pressure (psi)**	**Flow Rate (gpm)**	**Planned Volume Injected (gal)**	**Actual Volume Injected (gal)**	**Notes (flow change, etc.)**
6/17/19	IP-F3	32	11:33	11:37	100	12.50	50	50	
6/17/19	IP-F3	50	11:40	11:43	100	16.67	50	50	
6/17/19	IP-F3	48	11:44	11:48	100	12.50	50	50	
6/17/19	IP-F3	46	11:48	11:51	100	16.67	50	50	
6/17/19	IP-F3	44	11:56	11:59	100	16.67	50	50	
6/17/19	IP-F3	42	12:00	12:03	100	16.67	50	50	
6/17/19	IP-F3	60	12:37	12:41	100	12.50	50	50	
6/17/19	IP-F3	58	12:42	12:45	100	16.67	50	50	
6/17/19	IP-F3	56	12:46	12:50	100	12.50	50	50	
6/17/19	IP-F3	54	12:52	12:56	150	12.50	50	50	
6/17/19	IP-F3	52	12:57	13:01	150	12.50	50	50	
6/17/19	IP-F3	70	13:04	13:08	150	12.50	50	50	
6/17/19	IP-F3	68	13:08	13:12	100	12.50	50	50	
6/17/19	IP-F3	66	13:13	13:17	150	12.50	50	50	
6/17/19	IP-F3	64	13:20	13:24	100	12.50	50	50	
6/17/19	IP-F3	62	13:24	13:28	150	12.50	50	50	
6/17/19	IP-F4	20	13:30	13:33	100	16.67	50	50	
6/17/19	IP-F4	18	13:34	13:37	50	16.67	50	50	
6/17/19	IP-F4	16	13:37	13:41	50	12.50	50	50	
6/17/19	IP-F4	30	13:46	13:49	100	16.67	50	50	
6/17/19	IP-F4	28	13:50	13:55	100	10.00	50	50	
6/17/19	IP-F4	26	13:58	14:02	100	12.50	50	50	
6/17/19	IP-F4	24	14:02	14:05	50	16.67	50	50	

Table 1. Injection Logs									
Date	**Injection Point**	**Depth Interval (ft)**	**Start Time**	**Stop Time**	**Injection Pressure (psi)**	**Flow Rate (gpm)**	**Planned Volume Injected (gal)**	**Actual Volume Injected (gal)**	**Notes (flow change, etc.)**
6/17/19	IP-F4	22	14:06	14:09	50	16.67	50	50	
6/17/19	IP-F4	40	14:10	14:15	100	10.00	50	50	
6/17/19	IP-F4	38	14:17	14:21	100	12.50	50	50	
6/17/19	IP-F4	36	14:25	14:29	100	12.50	50	50	
6/17/19	IP-F4	34	14:29	14:32	100	16.67	50	50	
6/17/19	IP-F4	32	14:33	14:37	100	12.50	50	50	
6/17/19	IP-F4	50	14:40	14:43	100	16.67	50	50	
6/17/19	IP-F4	48	14:44	14:48	100	12.50	50	50	
6/17/19	IP-F4	46	14:50	14:55	100	10.00	50	50	
6/17/19	IP-F4	44	14:55	14:59	50	12.50	50	50	
6/17/19	IP-F4	42	15:00	15:02	100	25.00	50	50	
6/17/19	IP-F4	60	15:17	15:21	100	12.50	50	50	
6/17/19	IP-F4	58	15:21	15:25	100	12.50	50	50	
6/17/19	IP-F4	56	15:25	15:29	100	12.50	50	50	
6/17/19	IP-F4	54	15:32	15:35	100	16.67	50	50	
6/17/19	IP-F4	52	15:35	15:41	100	8.33	50	50	
6/17/19	IP-F4	70	15:44	15:50	100	8.33	50	50	
6/17/19	IP-F4	68	15:50	15:56	100	8.33	50	50	
6/17/19	IP-F4	66	15:56	16:07	100	4.55	50	50	
6/17/19	IP-F4	64	16:11	16:18	100	7.14	50	50	
6/17/19	IP-F4	62	16:18	16:26	100	6.25	50	50	
Transect E									
6/17/19	IP-E5D	76	8:26	8:28	120	25.00	50	50	
6/17/19	IP-E5D	74	8:28	8:31	80	16.67	50	50	

Table 1. Injection Logs									
Date	**Injection Point**	**Depth Interval (ft)**	**Start Time**	**Stop Time**	**Injection Pressure (psi)**	**Flow Rate (gpm)**	**Planned Volume Injected (gal)**	**Actual Volume Injected (gal)**	**Notes (flow change, etc.)**
6/17/19	IP-E5D	72	8:31	8:34	80	16.67	50	50	
6/17/19	IP-E5D	70	8:34	8:37	80	16.67	50	50	
6/17/19	IP-E5D	68	8:44	8:46	60	25.00	50	50	
6/17/19	IP-E5D	66	8:46	8:50	50	12.50	50	50	
6/17/19	IP-E4D	62	11:08	11:10	150	25.00	50	50	
6/17/19	IP-E4D	60	11:10	11:12	150	25.00	50	50	
6/17/19	IP-E4D	58	11:17	11:19	100	25.00	50	50	
6/17/19	IP-E4D	56	11:19	11:21	100	25.00	50	50	
6/17/19	IP-E4D	54	11:30	11:33	50	16.67	50	50	
6/17/19	IP-E4D	52	11:33	11:36	50	16.67	50	50	
6/17/19	IP-E4D	72	12:52	12:55	120	16.67	50	50	
6/17/19	IP-E4D	70	12:55	12:58	80	16.67	50	50	
6/17/19	IP-E4D	68	13:06	13:09	80	16.67	50	50	
6/17/19	IP-E4D	66	13:13	13:16	50	16.67	50	50	
6/17/19	IP-E4D	64	13:18	13:21	50	16.67	50	50	
6/17/19	IP-E4D	82	13:32	13:35	150	16.67	50	50	
6/17/19	IP-E4D	80	13:35	13:39	100	12.50	50	50	
6/17/19	IP-E4D	78	13:43	13:46	80	16.67	50	50	
6/17/19	IP-E4D	76	13:51	13:54	100	16.67	50	50	
6/17/19	IP-E4D	74	13:54	13:57	80	16.67	50	50	
6/17/19	IP-E3D	84	15:45	15:48	120	16.67	50	50	
6/17/19	IP-E3D	82	15:52	15:55	100	16.67	50	50	
6/17/19	IP-E3D	80	15:55	15:57	100	25.00	50	50	

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Table 1. Injection Logs									
Date	**Injection Point**	**Depth Interval (ft)**	**Start Time**	**Stop Time**	**Injection Pressure (psi)**	**Flow Rate (gpm)**	**Planned Volume Injected (gal)**	**Actual Volume Injected (gal)**	**Notes (flow change, etc.)**
6/17/19	IP-E3D	78	15:59	16:01	100	25.00	50	50	
6/17/19	IP-E3D	76	16:07	16:10	100	16.67	50	50	
6/17/19	IP-E3D	74	16:10	16:12	100	25.00	50	50	
6/18/19	IP-E2D	82	9:40	9:44	120	12.50	50	50	8 grams NaBr added per hopper
6/18/19	IP-E2D	80	9:44	9:48	100	12.50	50	50	8 grams NaBr added per hopper
6/18/19	IP-E2D	78	9:53	9:56	100	16.67	50	50	8 grams NaBr added per hopper
6/18/19	IP-E2D	76	9:56	9:59	50	16.67	50	50	8 grams NaBr added per hopper
6/18/19	IP-E2D	74	10:06	10:09	50	16.67	50	50	8 grams NaBr added per hopper
6/18/19	IP-E2D	72	10:09	10:12	50	16.67	50	50	8 grams NaBr added per hopper
6/18/19	IP-E1D	74	10:56	11:00	100	12.50	50	50	8 grams NaBr added per hopper
6/18/19	IP-E1D	72	11:04	11:07	80	16.67	50	50	8 grams NaBr added per hopper
6/18/19	IP-E1D	70	11:07	11:10	50	16.67	50	50	8 grams NaBr added per hopper
6/18/19	IP-E1D	68	11:18	11:20	50	25.00	50	50	8 grams NaBr added per hopper
6/18/19	IP-E1D	66	11:20	11:23	50	16.67	50	50	8 grams NaBr added per hopper
6/18/19	IP-E1D	82	11:41	11:44	100	16.67	50	50	8 grams NaBr added per hopper
6/18/19	IP-E1D	80	11:44	11:47	50	16.67	50	50	8 grams NaBr added per hopper
6/18/19	IP-E1D	78	11:53	11:57	50	12.50	50	50	8 grams NaBr added per hopper
6/18/19	IP-E1D	76	11:57	12:01	30	12.50	50	50	8 grams NaBr added per hopper
Transect F									
6/18/19	IP-F5	20	9:02	9:04	100	25.00	50	50	
6/18/19	IP-F5	18	9:04	9:07	100	16.67	50	50	
6/18/19	IP-F5	16	9:07	9:11	100	12.50	50	50	
6/18/19	IP-F5	30	13:35	13:39	100	12.50	50	50	

Table 1. Injection Logs									
Date	**Injection Point**	**Depth Interval (ft)**	**Start Time**	**Stop Time**	**Injection Pressure (psi)**	**Flow Rate (gpm)**	**Planned Volume Injected (gal)**	**Actual Volume Injected (gal)**	**Notes (flow change, etc.)**
6/18/19	IP-F5	28	13:39	13:42	100	16.67	50	50	
6/18/19	IP-F5	26	13:45	13:48	100	16.67	50	50	
6/18/19	IP-F5	24	13:48	13:51	100	16.67	50	50	
6/18/19	IP-F5	22	13:52	13:54	100	25.00	50	50	
6/18/19	IP-F5	40	13:56	13:59	100	16.67	50	50	
6/18/19	IP-F5	38	13:59	14:03	100	12.50	50	50	
6/18/19	IP-F5	36	14:05	1408	100	-0.06	50	50	
6/18/19	IP-F5	34	14:09	14:14	100	10.00	50	50	
6/18/19	IP-F5	32	14:14	14:18	100	12.50	50	50	
6/18/19	IP-F5	50	14:19	14:22	100	16.67	50	50	
6/18/19	IP-F5	48	14:22	14:26	100	12.50	50	50	
6/18/19	IP-F5	46	14:29	14:32	100	16.67	50	50	
6/18/19	IP-F5	44	14:33	14:37	100	12.50	50	50	
6/18/19	IP-F5	42	14:37	14:42	100	10.00	50	50	
6/18/19	IP-F5	60	15:13	15:15	100	25.00	50	50	
6/18/19	IP-F5	58	15:15	15:17	100	25.00	50	50	
6/18/19	IP-F5	56	15:19	15:21	100	25.00	50	50	
6/18/19	IP-F5	54	15:21	15:23	100	25.00	50	50	
6/18/19	IP-F5	52	15:33	15:35	100	25.00	50	50	
6/18/19	IP-F5	70	15:37	15:39	100	25.00	50	50	
6/18/19	IP-F5	68	15:39	15:42	100	16.67	50	50	
6/18/19	IP-F5	66	15:44	15:46	100	25.00	50	50	
6/18/19	IP-F5	64	15:48	15:50	100	25.00	50	50	

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Table 1. Injection Logs									
Date	**Injection Point**	**Depth Interval (ft)**	**Start Time**	**Stop Time**	**Injection Pressure (psi)**	**Flow Rate (gpm)**	**Planned Volume Injected (gal)**	**Actual Volume Injected (gal)**	**Notes (flow change, etc.)**
6/18/19	IP-F5	62	15:50	15:54	100	12.50	50	50	
6/18/19	IP-F6	20	9:51	9:54	100	16.67	50	50	
6/18/19	IP-F6	18	9:54	9:56	100	25.00	50	50	
6/18/19	IP-F6	16	9:56	10:00	100	12.50	50	50	
6/18/19	IP-F6	30	10:04	10:06	100	25.00	50	50	
6/18/19	IP-F6	28	10:07	10:10	100	16.67	50	50	
6/18/19	IP-F6	26	10:12	10:15	100	16.67	50	50	
6/18/19	IP-F6	24	10:15	10:18	100	16.67	50	50	
6/18/19	IP-F6	22	10:18	10:21	100	16.67	50	50	
6/18/19	IP-F6	40	10:25	10:27	100	25.00	50	50	
6/18/19	IP-F6	38	10:27	10:31	100	12.50	50	50	
6/18/19	IP-F6	36	10:33	10:36	100	16.67	50	50	
6/18/19	IP-F6	34	10:36	10:39	100	16.67	50	50	
6/18/19	IP-F6	32	10:39	10:42	100	16.67	50	50	
6/18/19	IP-F6	50	10:44	10:47	100	16.67	50	50	
6/18/19	IP-F6	48	11:45	11:47	100	25.00	50	50	
6/18/19	IP-F6	46	11:51	11:53	100	25.00	50	50	
6/18/19	IP-F6	44	11:53	11:56	100	16.67	50	50	
6/18/19	IP-F6	42	11:56	11:59	100	16.67	50	50	
6/18/19	IP-F6	60	12:03	12:06	100	16.67	50	50	
6/18/19	IP-F6	58	12:06	12:09	100	16.67	50	50	
6/18/19	IP-F6	56	12:11	12:14	100	16.67	50	50	
6/18/19	IP-F6	54	12:14	12:17	100	16.67	50	50	

Table 1. Injection Logs									
Date	**Injection Point**	**Depth Interval (ft)**	**Start Time**	**Stop Time**	**Injection Pressure (psi)**	**Flow Rate (gpm)**	**Planned Volume Injected (gal)**	**Actual Volume Injected (gal)**	**Notes (flow change, etc.)**
6/18/19	IP-F6	52	12:17	12:20	100	16.67	50	50	
6/18/19	IP-F6	70	12:23	12:29	100	8.33	50	50	
6/18/19	IP-F6	68	13:20	13:23	100	16.67	50	50	
6/18/19	IP-F6	66	13:25	13:28	100	16.67	50	50	
6/18/19	IP-F6	64	13:28	13:30	100	25.00	50	50	
6/18/19	IP-F6	62	13:30	13:33	100	16.67	50	50	
6/19/19	IP-F7	20	7:20	7:23	100	16.67	50	50	
6/19/19	IP-F7	18	7:23	7:25	100	25.00	50	50	
6/19/19	IP-F7	16	7:25	7:27	100	25.00	50	50	
6/19/19	IP-F7	30	7:31	7:33	100	25.00	50	50	
6/19/19	IP-F7	28	7:33	7:35	100	25.00	50	50	
6/19/19	IP-F7	26	7:35	7:37	100	25.00	50	50	
6/19/19	IP-F7	24	7:39	7:41	100	25.00	50	50	
6/19/19	IP-F7	22	7:41	7:43	100	25.00	50	50	
6/19/19	IP-F7	40	7:47	7:49	100	25.00	50	50	
6/19/19	IP-F7	38	7:49	7:51	100	25.00	50	50	
6/19/19	IP-F7	36	7:51	7:54	100	16.67	50	50	
6/19/19	IP-F7	34	7:55	7:57	100	25.00	50	50	
6/19/19	IP-F7	32	7:58	8:00	100	25.00	50	50	
6/19/19	IP-F7	50	8:04	8:06	100	25.00	50	50	
6/19/19	IP-F7	48	8:06	8:09	100	16.67	50	50	
6/19/19	IP-F7	46	8:10	8:13	100	16.67	50	50	
6/19/19	IP-F7	44	8:16	8:19	100	16.67	50	50	

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Table 1. Injection Logs									
Date	**Injection Point**	**Depth Interval (ft)**	**Start Time**	**Stop Time**	**Injection Pressure (psi)**	**Flow Rate (gpm)**	**Planned Volume Injected (gal)**	**Actual Volume Injected (gal)**	**Notes (flow change, etc.)**
6/19/19	IP-F7	42	8:19	8:21	100	25.00	50	50	
6/19/19	IP-F7	60	8:25	8:27	100	25.00	50	50	
6/19/19	IP-F7	58	8:27	8:30	100	16.67	50	50	
6/19/19	IP-F7	56	8:30	8:33	100	16.67	50	50	
6/19/19	IP-F7	54	8:35	8:37	100	25.00	50	50	
6/19/19	IP-F7	52	8:37	8:40	100	16.67	50	50	
6/19/19	IP-F7	70	8:43	8:45	150	25.00	50	50	
6/19/19	IP-F7	68	8:45	8:48	150	16.67	50	50	
6/19/19	IP-F7	66	8:48	8:50	150	25.00	50	50	
6/19/19	IP-F7	64	8:53	8:54	150	50.00	50	50	
6/19/19	IP-F7	62	8:54	9:00	150	8.33	50	50	
6/19/19	IP-F8	20	9:10	9:11	100	50.00	50	50	
6/19/19	IP-F8	18	9:11	9:13	100	25.00	50	50	
6/19/19	IP-F8	16	9:18	9:20	100	25.00	50	50	
6/19/19	IP-F8	30	9:22	9:24	100	25.00	50	50	
6/19/19	IP-F8	28	9:24	9:26	100	25.00	50	50	
6/19/19	IP-F8	26	9:27	9:29	100	25.00	50	50	
6/19/19	IP-F8	24	9:29	9:32	100	16.67	50	50	
6/19/19	IP-F8	22	9:32	9:34	100	25.00	50	50	
6/19/19	IP-F8	40	9:35	9:37	100	25.00	50	50	
6/19/19	IP-F8	38	9:37	9:40	100	16.67	50	50	
6/19/19	IP-F8	36	9:42	9:44	100	25.00	50	50	
6/19/19	IP-F8	34	9:44	9:46	100	25.00	50	50	

Table 1. Injection Logs									
Date	**Injection Point**	**Depth Interval (ft)**	**Start Time**	**Stop Time**	**Injection Pressure (psi)**	**Flow Rate (gpm)**	**Planned Volume Injected (gal)**	**Actual Volume Injected (gal)**	**Notes (flow change, etc.)**
6/19/19	IP-F8	32	9:46	9:48	100	25.00	50	50	
6/19/19	IP-F8	50	9:51	9:53	100	25.00	50	50	
6/19/19	IP-F8	48	9:53	9:55	100	25.00	50	50	
6/19/19	IP-F8	46	9:57	9:59	100	25.00	50	50	
6/19/19	IP-F8	44	9:59	10:01	100	25.00	50	50	
6/19/19	IP-F8	42	10:01	10:04	100	16.67	50	50	
6/19/19	IP-F8	60	10:08	10:10	100	25.00	50	50	
6/19/19	IP-F8	58	10:10	10:12	100	25.00	50	50	
6/19/19	IP-F8	56	10:14	10:16	100	25.00	50	50	
6/19/19	IP-F8	54	10:16	10:19	100	16.67	50	50	
6/19/19	IP-F8	52	10:19	10:21	100	25.00	50	50	
6/19/19	IP-F8	70	10:24	10:26	100	25.00	50	50	
6/19/19	IP-F8	68	10:26	10:29	100	16.67	50	50	
6/19/19	IP-F8	66	10:31	10:33	100	25.00	50	50	
6/19/19	IP-F8	64	10:33	10:36	100	16.67	50	50	
6/19/19	IP-F8	62	10:36	10:38	100	25.00	50	50	
6/19/19	IP-F9	20	13:57	13:59	100	25.00	50	50	
6/19/19	IP-F9	18	14:00	14:02	100	25.00	50	50	
6/19/19	IP-F9	16	14:03	14:05	100	25.00	50	50	
6/19/19	IP-F9	30	14:07	14:09	100	25.00	50	50	
6/19/19	IP-F9	28	14:09	14:12	100	16.67	50	50	
6/19/19	IP-F9	26	14:14	14:16	100	25.00	50	50	
6/19/19	IP-F9	24	14:16	14:19	100	16.67	50	50	

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"Providing Innovative In Situ Soil and Groundwater Treatment"

Table 1. Injection Logs									
Date	**Injection Point**	**Depth Interval (ft)**	**Start Time**	**Stop Time**	**Injection Pressure (psi)**	**Flow Rate (gpm)**	**Planned Volume Injected (gal)**	**Actual Volume Injected (gal)**	**Notes (flow change, etc.)**
6/19/19	IP-F9	22	14:20	14:22	100	25.00	50	50	
6/19/19	IP-F9	40	14:24	14:26	150	25.00	50	50	
6/19/19	IP-F9	38	14:27	14:29	150	25.00	50	50	
6/19/19	IP-F9	36	14:33	14:35	100	25.00	50	50	
6/19/19	IP-F9	34	14:35	14:37	100	25.00	50	50	
6/19/19	IP-F9	32	14:38	14:40	100	25.00	50	50	
6/19/19	IP-F9	50	14:44	14:46	150	25.00	50	50	
6/19/19	IP-F9	48	14:46	14:49	150	16.67	50	50	
6/19/19	IP-F9	46	14:51	14:53	100	25.00	50	50	
6/19/19	IP-F9	44	14:55	14:57	100	25.00	50	50	
6/19/19	IP-F9	42	14:57	15:00	100	16.67	50	50	
6/19/19	IP-F9	60	15:03	15:05	150	25.00	50	50	
6/19/19	IP-F9	58	15:06	15:08	150	25.00	50	50	
6/19/19	IP-F9	56	15:11	15:14	150	16.67	50	50	
6/19/19	IP-F9	54	15:15	15:18	150	16.67	50	50	
6/19/19	IP-F9	52	15:18	15:20	150	25.00	50	50	
6/19/19	IP-F9	70	15:23	15:25	150	25.00	50	50	
6/19/19	IP-F9	68	15:25	15:28	150	16.67	50	50	
6/19/19	IP-F9	66	15:31	15:34	150	16.67	50	50	
6/19/19	IP-F9	64	15:34	15:36	150	25.00	50	50	
6/19/19	IP-F9	62	15:36	15:39	150	16.67	50	50	
6/19/19	IP-F1D	80	9:13	9:17	100	12.50	50	50	
6/19/19	IP-F1D	78	9:17	9:25	100	6.25	50	50	High backpressure

Table 1. Injection Logs									
Date	**Injection Point**	**Depth Interval (ft)**	**Start Time**	**Stop Time**	**Injection Pressure (psi)**	**Flow Rate (gpm)**	**Planned Volume Injected (gal)**	**Actual Volume Injected (gal)**	**Notes (flow change, etc.)**
6/19/19	IP-F1D	76	9:52	9:59	100	7.14	50	50	
6/19/19	IP-F1D	74	9:59	10:08	50	5.56	50	50	
6/19/19	IP-F1D	72	10:08	10:14	50	8.33	50	50	
6/19/19	IP-F1D	88	10:38	10:47	50	5.56	50	50	
6/19/19	IP-F1D	86	10:52	11:00	100	6.25	50	50	
6/19/19	IP-F1D	84	11:12	11:21	100	5.56	50	50	
6/19/19	IP-F1D	82	11:21	11:28	100	7.14	50	50	
6/19/19	IP-F2D	76	14:23	14:25	100	25.00	50	50	
6/19/19	IP-F2D	74	14:28	14:30	100	25.00	50	50	
6/19/19	IP-F2D	72	14:31	14:33	100	25.00	50	50	
6/19/19	IP-F2D	86	14:44	14:46	150	25.00	50	50	
6/19/19	IP-F2D	84	14:46	14:49	150	16.67	50	50	
6/19/19	IP-F2D	82	14:51	14:54	150	16.67	50	50	
6/19/19	IP-F2D	80	15:00	15:02	150	25.00	50	50	
6/19/19	IP-F2D	78	15:03	15:05	150	25.00	50	50	
6/20/19	IP-F3D	82	7:25	7:27	150	25.00	50	50	
6/20/19	IP-F3D	80	7:27	7:29	100	25.00	50	50	
6/20/19	IP-F3D	78	7:33	7:35	100	25.00	50	50	
6/20/19	IP-F3D	76	7:35	7:37	50	25.00	50	50	
6/20/19	IP-F3D	74	7:42	7:44	100	25.00	50	50	
6/20/19	IP-F3D	72	7:44	7:47	100	16.67	50	50	
6/20/19	IP-F4D	80	8:21	8:24	150	16.67	50	50	
6/20/19	IP-F4D	78	8:24	8:26	100	25.00	50	50	

Table 1. Injection Logs									
Date	**Injection Point**	**Depth Interval (ft)**	**Start Time**	**Stop Time**	**Injection Pressure (psi)**	**Flow Rate (gpm)**	**Planned Volume Injected (gal)**	**Actual Volume Injected (gal)**	**Notes (flow change, etc.)**
6/20/19	IP-F4D	76	8:31	8:34	150	16.67	50	50	
6/20/19	IP-F4D	74	8:34	8:36	100	25.00	50	50	
6/20/19	IP-F4D	72	8:38	8:41	150	16.67	50	50	
6/20/19	IP-F5D	78	9:19	9:21	150	25.00	50	50	
6/20/19	IP-F5D	76	9:21	9:24	150	16.67	50	50	
6/20/19	IP-F5D	74	9:32	9:34	150	25.00	50	50	
6/20/19	IP-F5D	72	9:34	9:38	150	12.50	50	50	
6/20/19	IP-F6D	80	10:49	10:52	150	16.67	50	50	
6/20/19	IP-F6D	78	10:52	10:54	150	25.00	50	50	
6/20/19	IP-F6D	76	10:57	10:59	150	25.00	50	50	
6/20/19	IP-F6D	74	10:59	11:02	150	16.67	50	50	
6/20/19	IP-F6D	72	11:02	11:04	150	25.00	50	50	
6/20/19	IP-F6D	90	11:29	11:31	150	25.00	50	50	
6/20/19	IP-F6D	88	11:31	11:34	150	16.67	50	50	
6/20/19	IP-F6D	86	11:40	11:42	150	25.00	50	50	
6/20/19	IP-F6D	84	11:42	11:44	150	25.00	50	50	
6/20/19	IP-F6D	82	11:44	11:47	150	16.67	50	50	
6/20/19	IP-F10	20	7:16	7:18	100	25.00	50	50	
6/20/19	IP-F10	18	7:18	7:20	100	25.00	50	50	minor daylighting, flow rate reduced
6/20/19	IP-F10	16	7:30	7:36	50	8.33	50	50	
6/20/19	IP-F10	30	7:38	7:42	50	12.50	50	50	
6/20/19	IP-F10	28	7:42	7:46	50	12.50	50	50	
6/20/19	IP-F10	26	7:46	7:51	50	10.00	50	50	

Table 1. Injection Logs

Date	Injection Point	Depth Interval (ft)	Start Time	Stop Time	Injection Pressure (psi)	Flow Rate (gpm)	Planned Volume Injected (gal)	Actual Volume Injected (gal)	Notes (flow change, etc.)
6/20/19	IP-F10	24	7:52	7:56	50	12.50	50	50	
6/20/19	IP-F10	22	7:56	8:00	50	12.50	50	50	
6/20/19	IP-F10	40	8:02	8:04	150	25.00	50	50	no more daylighting, flow rate increased
6/20/19	IP-F10	38	8:04	8:07	150	16.67	50	50	
6/20/19	IP-F10	36	8:07	8:09	150	25.00	50	50	
6/20/19	IP-F10	34	8:11	8:13	150	25.00	50	50	
6/20/19	IP-F10	32	8:13	8:15	150	25.00	50	50	
6/20/19	IP-F10	50	8:17	8:19	150	25.00	50	50	
6/20/19	IP-F10	48	8:19	8:21	150	25.00	50	50	
6/20/19	IP-F10	46	8:23	8:25	150	25.00	50	50	
6/20/19	IP-F10	44	8:25	8:28	150	16.67	50	50	
6/20/19	IP-F10	42	8:28	8:30	150	25.00	50	50	
6/20/19	IP-F10	60	8:32	8:34	150	25.00	50	50	
6/20/19	IP-F10	58	8:34	8:36	150	25.00	50	50	
6/20/19	IP-F10	56	8:38	8:41	150	16.67	50	50	
6/20/19	IP-F10	54	8:41	8:43	150	25.00	50	50	
6/20/19	IP-F10	52	8:43	8:45	150	25.00	50	50	
6/20/19	IP-F10	70	8:46	8:49	150	16.67	50	50	
6/20/19	IP-F10	68	8:49	8:51	150	25.00	50	50	
6/20/19	IP-F10	66	8:53	8:55	150	25.00	50	50	
6/20/19	IP-F10	64	8:56	8:58	150	25.00	50	50	
6/20/19	IP-F10	62	8:58	9:00	150	25.00	50	50	
6/20/19	IP-F11	20	9:03	9:05	100	25.00	50	50	

Table 1. Injection Logs									
Date	**Injection Point**	**Depth Interval (ft)**	**Start Time**	**Stop Time**	**Injection Pressure (psi)**	**Flow Rate (gpm)**	**Planned Volume Injected (gal)**	**Actual Volume Injected (gal)**	**Notes (flow change, etc.)**
6/20/19	IP-F11	18	9:06	9:08	100	25.00	50	50	
6/20/19	IP-F11	16	9:08	9:10	100	25.00	50	50	
6/20/19	IP-F11	30	9:11	9:13	150	25.00	50	50	
6/20/19	IP-F11	28	9:14	9:16	150	25.00	50	50	
6/20/19	IP-F11	26	9:17	9:19	150	25.00	50	50	
6/20/19	IP-F11	24	9:20	9:23	150	16.67	50	50	
6/20/19	IP-F11	22	9:23	9:26	150	16.67	50	50	
6/20/19	IP-F11	40	9:26	9:28	150	25.00	50	50	
6/20/19	IP-F11	38	9:28	9:30	150	25.00	50	50	
6/20/19	IP-F11	36	9:32	9:34	150	25.00	50	50	
6/20/19	IP-F11	34	9:34	9:36	150	25.00	50	50	
6/20/19	IP-F11	32	9:36	9:38	150	25.00	50	50	
6/20/19	IP-F11	50	9:42	9:44	150	25.00	50	50	
6/20/19	IP-F11	48	9:44	9:46	150	25.00	50	50	
6/20/19	IP-F11	46	9:49	9:51	150	25.00	50	50	
6/20/19	IP-F11	44	9:53	9:54	150	50.00	50	50	
6/20/19	IP-F11	42	9:54	9:56	150	25.00	50	50	
6/20/19	IP-F11	60	9:59	10:01	150	25.00	50	50	
6/20/19	IP-F11	58	10:01	10:03	150	25.00	50	50	
6/20/19	IP-F11	56	10:06	10:08	150	25.00	50	50	
6/20/19	IP-F11	54	10:08	10:10	150	25.00	50	50	
6/20/19	IP-F11	52	10:11	10:13	150	25.00	50	50	
6/20/19	IP-F11	70	10:15	10:17	150	25.00	50	50	
6/20/19	IP-F11	68	10:17	10:19	150	25.00	50	50	

Table 1. Injection Logs									
Date	**Injection Point**	**Depth Interval (ft)**	**Start Time**	**Stop Time**	**Injection Pressure (psi)**	**Flow Rate (gpm)**	**Planned Volume Injected (gal)**	**Actual Volume Injected (gal)**	**Notes (flow change, etc.)**
6/20/19	IP-F11	66	10:21	10:23	150	25.00	50	50	
6/20/19	IP-F11	64	10:23	10:26	150	16.67	50	50	
6/20/19	IP-F11	62	10:26	10:28	150	25.00	50	50	
6/20/19	IP-F12	20	10:50	10:52	150	25.00	50	50	daylighted
6/20/19	IP-F12	18	10:52	10:54	50	25.00	50	50	
6/20/19	IP-F12	16	10:55	10:57	50	25.00	50	50	
6/20/19	IP-F12	30	10:58	11:00	50	25.00	50	50	
6/20/19	IP-F12	28	11:01	11:05	50	12.50	50	50	
6/20/19	IP-F12	26	11:06	11:09	50	16.67	50	50	
6/20/19	IP-F12	24	11:09	11:13	50	12.50	50	50	
6/20/19	IP-F12	22	11:14	11:17	50	16.67	50	50	daylighted
6/20/19	IP-F12	40	11:18	11:24	50	8.33	50	50	
6/20/19	IP-F12	38	11:24	11:28	50	12.50	50	50	
6/20/19	IP-F12	36	11:35	11:38	50	16.67	50	50	
6/20/19	IP-F12	34	11:38	11:40	50	25.00	50	50	
6/20/19	IP-F12	32	11:40	11:43	50	16.67	50	50	
6/20/19	IP-F12	50	11:48	11:50	150	25.00	50	50	
6/20/19	IP-F12	48	11:50	11:52	150	25.00	50	50	
6/20/19	IP-F12	46	11:54	11:57	150	16.67	50	50	
6/20/19	IP-F12	44	11:57	11:59	150	25.00	50	50	
6/20/19	IP-F12	42	12:00	12:02	150	25.00	50	50	
6/20/19	IP-F12	60	13:11	13:14	150	16.67	50	50	
6/20/19	IP-F12	58	13:14	13:16	150	25.00	50	50	

Table 1. Injection Logs									
Date	**Injection Point**	**Depth Interval (ft)**	**Start Time**	**Stop Time**	**Injection Pressure (psi)**	**Flow Rate (gpm)**	**Planned Volume Injected (gal)**	**Actual Volume Injected (gal)**	**Notes (flow change, etc.)**
6/20/19	IP-F12	56	13:21	13:23	150	25.00	50	50	
6/20/19	IP-F12	54	13:23	13:25	150	25.00	50	50	
6/20/19	IP-F12	52	13:25	13:28	150	16.67	50	50	
6/20/19	IP-F12	70	13:30	13:32	150	25.00	50	50	
6/20/19	IP-F12	68	13:32	13:34	150	25.00	50	50	
6/20/19	IP-F12	66	13:38	13:40	150	25.00	50	50	
6/20/19	IP-F12	64	13:40	13:43	150	16.67	50	50	
6/20/19	IP-F12	62	13:44	13:47	150	16.67	50	50	
6/20/19	IP-F13	24	14:18	14:21	50	16.67	50	50	8 grams NaBr added per hopper
6/20/19	IP-F13	22	14:21	14:24	50	16.67	50	50	8 grams NaBr added per hopper
6/20/19	IP-F13	20	14:29	14:34	50	10.00	50	50	8 grams NaBr added per hopper
6/20/19	IP-F13	18	14:34	14:40	50	8.33	50	50	8 grams NaBr added per hopper
6/20/19	IP-F13	16	14:41	14:44	50	16.67	50	50	8 grams NaBr added per hopper
6/20/19	IP-F13	14	14:45	14:49	50	12.50	50	50	8 grams NaBr added per hopper
6/20/19	IP-F13	34	14:53	14:56	50	16.67	50	50	8 grams NaBr added per hopper
6/20/19	IP-F13	32	14:56	15:01	50	10.00	50	50	8 grams NaBr added per hopper
6/20/19	IP-F13	30	15:03	15:10	50	7.14	50	50	8 grams NaBr added per hopper
6/20/19	IP-F13	28	15:10	15:15	50	10.00	50	50	8 grams NaBr added per hopper
6/20/19	IP-F13	26	15:16	15:20	50	12.50	50	50	8 grams NaBr added per hopper
6/20/19	IP-F13	44	15:25	15:27	100	25.00	50	50	8 grams NaBr added per hopper
6/20/19	IP-F13	42	15:27	15:30	100	16.67	50	50	8 grams NaBr added per hopper
6/20/19	IP-F13	40	15:32	15:34	100	25.00	50	50	8 grams NaBr added per hopper
6/20/19	IP-F13	38	15:34	15:37	100	16.67	50	50	8 grams NaBr added per hopper

Table 1. Injection Logs

Date	Injection Point	Depth Interval (ft)	Start Time	Stop Time	Injection Pressure (psi)	Flow Rate (gpm)	Planned Volume Injected (gal)	Actual Volume Injected (gal)	Notes (flow change, etc.)
6/20/19	IP-F13	36	15:37	15:39	100	25.00	50	50	8 grams NaBr added per hopper
6/20/19	IP-F13	54	15:40	15:44	150	12.50	50	50	8 grams NaBr added per hopper
6/20/19	IP-F13	52	15:43	15:45	150	25.00	50	50	8 grams NaBr added per hopper
6/20/19	IP-F13	50	15:47	15:48	150	50.00	50	50	8 grams NaBr added per hopper
6/20/19	IP-F13	48	15:50	15:53	150	16.67	50	50	8 grams NaBr added per hopper
6/20/19	IP-F13	46	15:53	15:55	150	25.00	50	50	8 grams NaBr added per hopper
6/20/19	IP-F13	64	15:58	16:00	150	25.00	50	50	8 grams NaBr added per hopper
6/20/19	IP-F13	62	16:00	16:04	150	12.50	50	50	8 grams NaBr added per hopper
6/20/19	IP-F13	60	16:04	16:06	150	25.00	50	50	8 grams NaBr added per hopper
6/20/19	IP-F13	58	16:09	16:11	150	25.00	50	50	8 grams NaBr added per hopper
6/20/19	IP-F13	56	16:11	16:13	150	25.00	50	50	8 grams NaBr added per hopper
6/21/19	IP-F14	20	7:50	7:53	50	16.67	50	50	8 grams NaBr added per hopper
6/21/19	IP-F14	18	7:53	7:56	50	16.67	50	50	8 grams NaBr added per hopper
6/21/19	IP-F14	16	7:56	7:58	50	25.00	50	50	8 grams NaBr added per hopper
6/21/19	IP-F14	14	7:59	8:02	50	16.67	50	50	8 grams NaBr added per hopper
6/21/19	IP-F14	30	8:04	8:06	50	25.00	50	50	8 grams NaBr added per hopper
6/21/19	IP-F14	28	8:07	8:09	50	25.00	50	50	8 grams NaBr added per hopper
6/21/19	IP-F14	26	8:12	8:15	50	16.67	50	50	8 grams NaBr added per hopper
6/21/19	IP-F14	24	8:16	8:18	50	25.00	50	50	8 grams NaBr added per hopper
6/21/19	IP-F14	22	8:18	8:21	50	16.67	50	50	8 grams NaBr added per hopper
6/21/19	IP-F14	40	8:22	8:26	100	12.50	50	50	8 grams NaBr added per hopper
6/21/19	IP-F14	38	8:26	8:28	100	25.00	50	50	8 grams NaBr added per hopper
6/21/19	IP-F14	36	8:28	8:30	100	25.00	50	50	8 grams NaBr added per hopper

Table 1. Injection Logs

Date	Injection Point	Depth Interval (ft)	Start Time	Stop Time	Injection Pressure (psi)	Flow Rate (gpm)	Planned Volume Injected (gal)	Actual Volume Injected (gal)	Notes (flow change, etc.)
6/21/19	IP-F14	34	8:33	8:35	100	25.00	50	50	8 grams NaBr added per hopper
6/21/19	IP-F14	32	8:35	8:37	100	25.00	50	50	8 grams NaBr added per hopper
6/21/19	IP-F14	50	8:40	8:43	150	16.67	50	50	8 grams NaBr added per hopper
6/21/19	IP-F14	48	8:44	8:47	150	16.67	50	50	8 grams NaBr added per hopper
6/21/19	IP-F14	46	8:48	8:50	150	25.00	50	50	8 grams NaBr added per hopper
6/21/19	IP-F14	44	8:55	8:57	150	25.00	50	50	8 grams NaBr added per hopper
6/21/19	IP-F14	42	8:57	9:00	150	16.67	50	50	8 grams NaBr added per hopper
6/21/19	IP-F14	60	9:03	9:05	150	25.00	50	50	8 grams NaBr added per hopper
6/21/19	IP-F14	58	9:05	9:07	150	25.00	50	50	8 grams NaBr added per hopper
6/21/19	IP-F14	56	9:08	9:11	150	16.67	50	50	8 grams NaBr added per hopper
6/21/19	IP-F14	54	9:13	9:15	150	25.00	50	50	8 grams NaBr added per hopper
6/21/19	IP-F14	52	9:16	9:20	150	12.50	50	50	8 grams NaBr added per hopper
6/21/19	IP-F15	20	9:53	9:55	50	25.00	50	50	
6/21/19	IP-F15	18	9:55	9:58	50	16.67	50	50	
6/21/19	IP-F15	16	9:58	10:00	50	25.00	50	50	
6/21/19	IP-F15	14	10:00	10:02	50	25.00	50	50	
6/21/19	IP-F15	30	10:06	10:08	100	25.00	50	50	
6/21/19	IP-F15	28	10:08	10:11	100	16.67	50	50	
6/21/19	IP-F15	26	10:11	10:13	100	25.00	50	50	
6/21/19	IP-F15	24	10:21	10:23	100	25.00	50	50	
6/21/19	IP-F15	22	10:23	10:25	100	25.00	50	50	
6/21/19	IP-F15	40	10:28	10:30	100	25.00	50	50	
6/21/19	IP-F15	38	10:30	10:32	100	25.00	50	50	

Table 1. Injection Logs									
Date	**Injection Point**	**Depth Interval (ft)**	**Start Time**	**Stop Time**	**Injection Pressure (psi)**	**Flow Rate (gpm)**	**Planned Volume Injected (gal)**	**Actual Volume Injected (gal)**	**Notes (flow change, etc.)**
6/21/19	IP-F15	36	10:32	10:35	100	16.67	50	50	
6/21/19	IP-F15	34	10:38	10:40	100	25.00	50	50	
6/21/19	IP-F15	32	10:40	10:43	100	16.67	50	50	
6/21/19	IP-F15	50	10:46	10:48	150	25.00	50	50	
6/21/19	IP-F15	48	10:48	10:50	150	25.00	50	50	
6/21/19	IP-F15	46	10:50	10:53	150	16.67	50	50	
6/21/19	IP-F15	44	10:55	10:58	150	16.67	50	50	
6/21/19	IP-F15	42	10:58	11:00	150	25.00	50	50	
6/21/19	IP-F15	60	11:03	11:05	150	25.00	50	50	
6/21/19	IP-F15	58	11:05	11:08	150	16.67	50	50	
6/21/19	IP-F15	56	11:08	11:10	150	25.00	50	50	
6/21/19	IP-F15	54	11:14	11:16	150	25.00	50	50	
6/21/19	IP-F15	52	11:16	11:19	150	16.67	50	50	
6/21/19	IP-F15	70	11:22	11:24	150	25.00	50	50	
6/21/19	IP-F15	68	11:24	11:26	150	25.00	50	50	
6/21/19	IP-F15	66	11:27	11:29	150	25.00	50	50	
6/21/19	IP-F15	64	11:32	11:34	150	25.00	50	50	
6/21/19	IP-F15	62	11:34	11:37	150	16.67	50	50	
6/21/19	IP-F7D	82	7:21	7:25	100	12.50	50	50	
6/21/19	IP-F7D	80	7:25	7:28	50	16.67	50	50	
6/21/19	IP-F7D	78	7:28	7:32	50	12.50	50	50	
6/21/19	IP-F7D	76	7:46	7:49	50	16.67	50	50	
6/21/19	IP-F7D	74	7:49	7:53	80	12.50	50	50	

Table 1. Injection Logs									
Date	**Injection Point**	**Depth Interval (ft)**	**Start Time**	**Stop Time**	**Injection Pressure (psi)**	**Flow Rate (gpm)**	**Planned Volume Injected (gal)**	**Actual Volume Injected (gal)**	**Notes (flow change, etc.)**
6/21/19	IP-F7D	72	7:53	7:56	80	16.67	50	50	
6/21/19	IP-F8D	76	8:37	8:40	150	16.67	50	50	
6/21/19	IP-F8D	74	8:49	8:53	100	12.50	50	50	
6/21/19	IP-F8D	72	8:53	8:57	50	12.50	50	50	
6/21/19	IP-F9D	82	9:31	9:34	100	16.67	50	50	
6/21/19	IP-F9D	80	9:34	9:37	100	16.67	50	50	
6/21/19	IP-F9D	78	9:37	9:40	80	16.67	50	50	
6/21/19	IP-F9D	76	9:48	9:50	80	25.00	50	50	
6/21/19	IP-F9D	74	9:50	9:53	50	16.67	50	50	
6/21/19	IP-F9D	72	9:53	9:56	50	16.67	50	50	
6/24/19	IP-F16	20	7:41	7:44	100	16.67	50	50	
6/24/19	IP-F16	18	7:44	7:47	100	16.67	50	50	
6/24/19	IP-F16	16	7:47	7:51	150	12.50	50	50	
6/24/19	IP-F16	14	7:52	7:55	100	16.67	50	50	
6/24/19	IP-F16	30	7:58	8:01	100	16.67	50	50	
6/24/19	IP-F16	28	8:01	8:04	100	16.67	50	50	
6/24/19	IP-F16	26	8:04	8:07	100	16.67	50	50	
6/24/19	IP-F16	24	8:13	8:17	50	12.50	50	50	
6/24/19	IP-F16	22	8:17	8:20	50	16.67	50	50	
6/24/19	IP-F16	40	8:35	8:38	100	16.67	50	50	
6/24/19	IP-F16	38	8:38	8:41	50	16.67	50	50	
6/24/19	IP-F16	36	8:41	8:44	50	16.67	50	50	
6/24/19	IP-F16	34	8:49	8:51	50	25.00	50	50	

Table 1. Injection Logs									
Date	**Injection Point**	**Depth Interval (ft)**	**Start Time**	**Stop Time**	**Injection Pressure (psi)**	**Flow Rate (gpm)**	**Planned Volume Injected (gal)**	**Actual Volume Injected (gal)**	**Notes (flow change, etc.)**
6/24/19	IP-F16	32	8:51	8:55	50	12.50	50	50	
6/24/19	IP-F16	50	8:58	9:00	150	25.00	50	50	
6/24/19	IP-F16	48	9:01	9:05	100	12.50	50	50	
6/24/19	IP-F16	46	9:05	9:09	100	12.50	50	50	
6/24/19	IP-F16	44	9:16	9:19	100	16.67	50	50	
6/24/19	IP-F16	42	9:19	9:22	100	16.67	50	50	
6/24/19	IP-F16	60	9:32	9:35	120	16.67	50	50	
6/24/19	IP-F16	58	9:35	9:41	100	8.33	50	50	
6/24/19	IP-F16	56	9:42	9:47	100	10.00	50	50	
6/24/19	IP-F16	54	9:52	9:55	100	16.67	50	50	
6/24/19	IP-F16	52	9:55	9:58	80	16.67	50	50	
6/24/19	IP-F17	20	10:21	10:23	100	25.00	50	50	
6/24/19	IP-F17	18	10:23	10:26	100	16.67	50	50	
6/24/19	IP-F17	16	10:26	10:29	50	16.67	50	50	
6/24/19	IP-F17	14	10:33	10:35	50	25.00	50	50	
6/24/19	IP-F17	30	10:42	10:44	100	25.00	50	50	
6/24/19	IP-F17	28	10:44	10:47	100	16.67	50	50	
6/24/19	IP-F17	26	10:47	10:50	100	16.67	50	50	
6/24/19	IP-F17	24	10:56	10:58	50	25.00	50	50	
6/24/19	IP-F17	22	10:58	11:01	50	16.67	50	50	
6/24/19	IP-F17	40	11:07	11:10	100	16.67	50	50	
6/24/19	IP-F17	38	11:11	11:13	100	25.00	50	50	
6/24/19	IP-F17	36	11:13	11:16	50	16.67	50	50	

Table 1. Injection Logs									
Date	**Injection Point**	**Depth Interval (ft)**	**Start Time**	**Stop Time**	**Injection Pressure (psi)**	**Flow Rate (gpm)**	**Planned Volume Injected (gal)**	**Actual Volume Injected (gal)**	**Notes (flow change, etc.)**
6/24/19	IP-F17	34	11:28	11:31	50	16.67	50	50	
6/24/19	IP-F17	32	11:31	11:34	50	16.67	50	50	
6/24/19	IP-F17	50	11:50	11:53	100	16.67	50	50	
6/24/19	IP-F17	48	11:53	11:56	50	16.67	50	50	
6/24/19	IP-F17	46	11:56	11:59	50	16.67	50	50	
6/24/19	IP-F17	44	12:11	12:14	50	16.67	50	50	
6/24/19	IP-F17	42	12:14	12:17	50	16.67	50	50	
6/24/19	IP-F17	60	12:24	12:27	100	16.67	50	50	
6/24/19	IP-F17	58	12:27	12:30	100	16.67	50	50	
6/24/19	IP-F17	56	12:30	12:33	50	16.67	50	50	
6/24/19	IP-F17	54	12:35	12:38	100	16.67	50	50	
6/24/19	IP-F17	52	12:38	12:41	100	16.67	50	50	
Transect G									
6/24/19	IP-G16	24	14:07	14:11	50	12.50	50	50	
6/24/19	IP-G16	22	14:11	14:14	50	16.67	50	50	
6/24/19	IP-G16	20	14:14	14:18	50	12.50	50	50	
6/24/19	IP-G16	18	14:24	14:28	50	12.50	50	50	
6/24/19	IP-G16	16	14:28	14:31	50	16.67	50	50	
6/24/19	IP-G16	14	14:31	14:33	50	25.00	50	50	
6/24/19	IP-G16	12	14:34	14:37	50	16.67	50	50	
6/24/19	IP-G16	34	14:42	14:44	100	25.00	50	50	
6/24/19	IP-G16	32	14:44	14:47	100	16.67	50	50	
6/24/19	IP-G16	30	14:47	14:50	100	16.67	50	50	
6/24/19	IP-G16	28	14:53	14:55	50	25.00	50	50	

Table 1. Injection Logs									
Date	**Injection Point**	**Depth Interval (ft)**	**Start Time**	**Stop Time**	**Injection Pressure (psi)**	**Flow Rate (gpm)**	**Planned Volume Injected (gal)**	**Actual Volume Injected (gal)**	**Notes (flow change, etc.)**
6/24/19	IP-G16	26	14:56	14:59	50	16.67	50	50	
6/24/19	IP-G16	44	15:05	15:07	100	25.00	50	50	
6/24/19	IP-G16	42	15:08	15:11	100	16.67	50	50	
6/24/19	IP-G16	40	15:11	15:14	100	16.67	50	50	
6/24/19	IP-G16	38	15:18	15:22	100	12.50	50	50	
6/24/19	IP-G16	36	15:22	15:25	100	16.67	50	50	
6/24/19	IP-G16	54	15:31	15:35	100	12.50	50	50	
6/24/19	IP-G16	52	15:35	15:38	100	16.67	50	50	
6/24/19	IP-G16	50	15:38	15:42	100	12.50	50	50	
6/24/19	IP-G16	48	15:46	15:49	150	16.67	50	50	
6/24/19	IP-G16	46	15:49	15:53	50	12.50	50	50	
6/24/19	IP-G16	64	16:01	16:04	100	16.67	50	50	
6/24/19	IP-G16	62	16:05	16:08	100	16.67	50	50	
6/24/19	IP-G16	60	16:08	16:12	100	12.50	50	50	
6/24/19	IP-G16	58	16:17	16:20	100	16.67	50	50	
6/24/19	IP-G16	56	16:20	16:24	100	12.50	50	50	
6/25/19	IP-G15	24	7:12	7:15	50	16.67	50	50	
6/25/19	IP-G15	22	7:15	7:18	50	16.67	50	50	
6/25/19	IP-G15	20	7:18	7:21	50	16.67	50	50	
6/25/19	IP-G15	18	7:24	7:27	50	16.67	50	50	
6/25/19	IP-G15	16	7:27	7:30	50	16.67	50	50	
6/25/19	IP-G15	14	7:30	7:34	50	12.50	50	50	
6/25/19	IP-G15	12	7:34	7:44	50	5.00	50	50	unclogged the piston

Table 1. Injection Logs									
Date	**Injection Point**	**Depth Interval (ft)**	**Start Time**	**Stop Time**	**Injection Pressure (psi)**	**Flow Rate (gpm)**	**Planned Volume Injected (gal)**	**Actual Volume Injected (gal)**	**Notes (flow change, etc.)**
6/25/19	IP-G15	34	7:53	7:56	100	16.67	50	50	
6/25/19	IP-G15	32	7:56	7:59	100	16.67	50	50	
6/25/19	IP-G15	30	7:59	8:02	100	16.67	50	50	
6/25/19	IP-G15	28	8:05	8:08	100	16.67	50	50	
6/25/19	IP-G15	26	8:08	8:11	50	16.67	50	50	
6/25/19	IP-G15	44	8:24	8:27	50	16.67	50	50	
6/25/19	IP-G15	42	8:27	8:30	50	16.67	50	50	
6/25/19	IP-G15	40	8:30	8:33	50	16.67	50	50	
6/25/19	IP-G15	38	8:48	8:51	50	16.67	50	50	
6/25/19	IP-G15	36	8:51	8:55	50	12.50	50	50	
6/25/19	IP-G15	54	10:08	10:10	50	25.00	50	50	clogged rods, redrill
6/25/19	IP-G15	52	10:10	10:13	50	16.67	50	50	
6/25/19	IP-G15	50	10:13	10:16	50	16.67	50	50	
6/25/19	IP-G15	48	10:23	10:26	50	16.67	50	50	
6/25/19	IP-G15	46	10:26	10:30	50	12.50	50	50	
6/25/19	IP-G15	64	10:39	10:42	100	16.67	50	50	
6/25/19	IP-G15	62	10:42	10:45	100	16.67	50	50	
6/25/19	IP-G15	60	10:45	10:49	100	12.50	50	50	
6/25/19	IP-G15	58	10:51	10:56	50	10.00	50	50	
6/25/19	IP-G15	56	10:56	11:10	100	3.57	50	50	clogged pump
6/25/19	IP-G14	20	11:33	11:37	100	12.50	50	50	
6/25/19	IP-G14	18	11:37	11:41	100	12.50	50	50	
6/25/19	IP-G14	16	11:41	11:45	50	12.50	50	50	

Table 1. Injection Logs									
Date	**Injection Point**	**Depth Interval (ft)**	**Start Time**	**Stop Time**	**Injection Pressure (psi)**	**Flow Rate (gpm)**	**Planned Volume Injected (gal)**	**Actual Volume Injected (gal)**	**Notes (flow change, etc.)**
6/25/19	IP-G14	14	11:49	11:53	50	12.50	50	50	
6/25/19	IP-G14	30	12:05	12:11	100	8.33	50	50	
6/25/19	IP-G14	28	12:11	12:16	50	10.00	50	50	
6/25/19	IP-G14	26	12:16	12:21	50	10.00	50	50	
6/25/19	IP-G14	24	12:27	12:32	50	10.00	50	50	
6/25/19	IP-G14	22	12:32	12:38	50	8.33	50	50	
6/25/19	IP-G14	40	12:59	13:06	100	7.14	50	50	
6/25/19	IP-G14	38	13:06	13:10	100	12.50	50	50	
6/25/19	IP-G14	36	13:10	13:16	100	8.33	50	50	
6/25/19	IP-G14	34	13:25	13:31	50	8.33	50	50	
6/25/19	IP-G14	32	13:31	13:37	20	8.33	50	50	
6/25/19	IP-G14	50	13:45	13:50	100	10.00	50	50	
6/25/19	IP-G14	48	13:50	13:55	50	10.00	50	50	
6/25/19	IP-G14	46	13:55	14:01	50	8.33	50	50	
6/25/19	IP-G14	44	14:09	14:14	50	10.00	50	50	
6/25/19	IP-G14	42	14:14	14:19	50	10.00	50	50	
6/25/19	IP-G14	60	14:32	14:37	100	10.00	50	50	
6/25/19	IP-G14	58	14:37	14:42	50	10.00	50	50	
6/25/19	IP-G14	56	14:42	14:48	50	8.33	50	50	
6/25/19	IP-G14	54	14:51	14:56	50	10.00	50	50	
6/25/19	IP-G14	52	14:56	15:01	50	10.00	50	50	
6/25/19	IP-G13	20	15:30	15:33	50	16.67	50	50	
6/25/19	IP-G13	18	15:33	15:36	50	16.67	50	50	

Table 1. Injection Logs									
Date	**Injection Point**	**Depth Interval (ft)**	**Start Time**	**Stop Time**	**Injection Pressure (psi)**	**Flow Rate (gpm)**	**Planned Volume Injected (gal)**	**Actual Volume Injected (gal)**	**Notes (flow change, etc.)**
6/25/19	IP-G13	16	15:37	15:40	30	16.67	50	50	
6/25/19	IP-G13	30	15:44	15:47	100	16.67	50	50	
6/25/19	IP-G13	28	15:56	15:59	100	16.67	50	50	
6/25/19	IP-G13	26	15:59	16:03	100	12.50	50	50	
6/25/19	IP-G13	24	16:03	16:07	100	12.50	50	50	
6/25/19	IP-G13	22	16:09	16:12	100	16.67	50	50	
6/25/19	IP-G13	40	16:20	16:22	100	25.00	50	50	
6/25/19	IP-G13	38	16:22	16:26	100	12.50	50	50	
6/25/19	IP-G13	36	16:26	16:29	100	16.67	50	50	
6/25/19	IP-G13	34	16:31	16:34	100	16.67	50	50	
6/25/19	IP-G13	32	16:34	16:38	100	12.50	50	50	
6/25/19	IP-G13	50	16:42	16:45	100	16.67	50	50	
6/25/19	IP-G13	48	16:45	16:48	100	16.67	50	50	
6/25/19	IP-G13	46	16:56	17:01	100	10.00	50	50	
6/25/19	IP-G13	44	17:08	17:11	100	16.67	50	50	
6/25/19	IP-G13	42	17:11	17:16	100	10.00	50	50	
6/26/19	IP-G13	60	7:12	7:16	100	12.50	50	50	
6/26/19	IP-G13	58	7:17	7:21	100	12.50	50	50	
6/26/19	IP-G13	56	7:21	7:24	100	16.67	50	50	
6/26/19	IP-G13	54	7:30	7:34	100	12.50	50	50	
6/26/19	IP-G13	52	7:34	7:38	100	12.50	50	50	
6/26/19	IP-G13	70	7:44	7:48	150	12.50	50	50	
6/26/19	IP-G13	68	7:48	7:52	100	12.50	50	50	
6/26/19	IP-G13	66	7:52	7:57	100	10.00	50	50	

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"Providing Innovative In Situ Soil and Groundwater Treatment"

Table 1. Injection Logs									
Date	**Injection Point**	**Depth Interval (ft)**	**Start Time**	**Stop Time**	**Injection Pressure (psi)**	**Flow Rate (gpm)**	**Planned Volume Injected (gal)**	**Actual Volume Injected (gal)**	**Notes (flow change, etc.)**
6/26/19	IP-G13	64	8:01	8:06	100	10.00	50	50	
6/26/19	IP-G13	62	8:06	8:10	100	12.50	50	50	
6/26/19	IP-G12	20	8:36	8:40	50	12.50	50	50	
6/26/19	IP-G12	18	8:40	8:44	50	12.50	50	50	
6/26/19	IP-G12	16	8:49	8:53	50	12.50	50	50	
6/26/19	IP-G12	30	9:04	9:07	50	16.67	50	50	
6/26/19	IP-G12	28	9:07	9:11	50	12.50	50	50	
6/26/19	IP-G12	26	9:11	9:14	50	16.67	50	50	
6/26/19	IP-G12	24	9:17	9:21	50	12.50	50	50	
6/26/19	IP-G12	22	9:21	9:25	40	12.50	50	50	
6/26/19	IP-G12	40	9:47	9:52	80	10.00	50	50	
6/26/19	IP-G12	38	9:52	9:55	50	16.67	50	50	
6/26/19	IP-G12	36	9:55	9:59	50	12.50	50	50	
6/26/19	IP-G12	34	10:03	10:07	50	12.50	50	50	
6/26/19	IP-G12	32	10:07	10:11	50	12.50	50	50	
6/26/19	IP-G12	50	10:23	10:27	80	12.50	50	50	
6/26/19	IP-G12	48	10:27	10:31	50	12.50	50	50	
6/26/19	IP-G12	46	10:31	10:34	50	16.67	50	50	
6/26/19	IP-G12	44	10:40	10:44	80	12.50	50	50	
6/26/19	IP-G12	42	10:44	10:48	80	12.50	50	50	
6/26/19	IP-G12	60	11:00	11:05	100	10.00	50	50	
6/26/19	IP-G12	58	11:05	11:09	80	12.50	50	50	
6/26/19	IP-G12	56	11:09	11:13	80	12.50	50	50	

Table 1. Injection Logs									
Date	**Injection Point**	**Depth Interval (ft)**	**Start Time**	**Stop Time**	**Injection Pressure (psi)**	**Flow Rate (gpm)**	**Planned Volume Injected (gal)**	**Actual Volume Injected (gal)**	**Notes (flow change, etc.)**
6/26/19	IP-G12	54	11:16	11:20	80	12.50	50	50	
6/26/19	IP-G12	52	11:20	11:24	60	12.50	50	50	
6/26/19	IP-G12	70	11:30	11:38	100	6.25	50	50	rods broke downhole (bad threads) but 65 ft recovered
6/26/19	IP-G12	68	11:38	11:42	100	12.50	50	50	
6/26/19	IP-G12	66	11:42	11:46	100	12.50	50	50	
6/26/19	IP-G12	64	11:48	11:51	100	16.67	50	50	
6/26/19	IP-G12	62	11:51	11:54	100	16.67	50	50	
6/26/19	IP-G11	20	12:06	12:09	50	16.67	50	50	
6/26/19	IP-G11	18	12:09	12:11	50	25.00	50	50	
6/26/19	IP-G11	30	12:24	12:27	100	16.67	50	50	
6/26/19	IP-G11	28	12:27	12:31	50	12.50	50	50	
6/26/19	IP-G11	26	12:31	12:35	50	12.50	50	50	
6/26/19	IP-G11	24	12:39	12:42	100	16.67	50	50	
6/26/19	IP-G11	22	12:42	12:44	50	25.00	50	50	
6/26/19	IP-G11	40	12:53	12:56	50	16.67	50	50	
6/26/19	IP-G11	38	12:56	13:00	50	12.50	50	50	
6/26/19	IP-G11	36	13:00	13:03	50	16.67	50	50	
6/26/19	IP-G11	34	13:07	13:10	50	16.67	50	50	
6/26/19	IP-G11	32	13:10	13:13	50	16.67	50	50	
6/26/19	IP-G11	50	13:28	13:31	50	16.67	50	50	
6/26/19	IP-G11	48	13:31	13:34	50	16.67	50	50	
6/26/19	IP-G11	46	13:35	13:39	50	12.50	50	50	
6/26/19	IP-G11	44	13:44	13:48	50	12.50	50	50	

Table 1. Injection Logs									
Date	**Injection Point**	**Depth Interval (ft)**	**Start Time**	**Stop Time**	**Injection Pressure (psi)**	**Flow Rate (gpm)**	**Planned Volume Injected (gal)**	**Actual Volume Injected (gal)**	**Notes (flow change, etc.)**
6/26/19	IP-G11	42	13:48	13:52	50	12.50	50	50	
6/26/19	IP-G11	60	14:11	14:14	100	16.67	50	50	
6/26/19	IP-G11	58	14:14	14:17	100	16.67	50	50	
6/26/19	IP-G11	56	14:19	14:23	50	12.50	50	50	
6/26/19	IP-G11	54	14:26	14:29	50	16.67	50	50	
6/26/19	IP-G11	52	14:29	14:33	50	12.50	50	50	
6/26/19	IP-G11	70	14:39	14:42	50	16.67	50	50	
6/26/19	IP-G11	68	14:42	14:46	50	12.50	50	50	
6/26/19	IP-G11	66	14:46	14:50	50	12.50	50	50	
6/26/19	IP-G11	64	14:59	15:01	50	25.00	50	50	
6/26/19	IP-G11	62	15:01	15:04	50	16.67	50	50	
6/26/19	IP-G10	30	15:20	15:23	100	16.67	50	50	
6/26/19	IP-G10	28	15:23	15:26	50	16.67	50	50	
6/26/19	IP-G10	26	15:27	15:30	50	16.67	50	50	
6/26/19	IP-G10	24	15:33	15:36	50	16.67	50	50	
6/26/19	IP-G10	22	15:36	15:39	50	16.67	50	50	
6/26/19	IP-G10	20	15:40	15:43	50	16.67	50	50	
6/26/19	IP-G10	40	15:51	15:54	50	16.67	50	50	
6/26/19	IP-G10	38	15:54	15:57	50	16.67	50	50	
6/26/19	IP-G10	36	15:58	16:01	50	16.67	50	50	
6/26/19	IP-G10	34	16:05	16:08	50	16.67	50	50	
6/26/19	IP-G10	32	16:08	16:11	50	16.67	50	50	
6/27/19	IP-G10	50	7:20	7:23	100	16.67	50	50	

REDOX TECH, LLC

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Table 1. Injection Logs									
Date	**Injection Point**	**Depth Interval (ft)**	**Start Time**	**Stop Time**	**Injection Pressure (psi)**	**Flow Rate (gpm)**	**Planned Volume Injected (gal)**	**Actual Volume Injected (gal)**	**Notes (flow change, etc.)**
6/27/19	IP-G10	48	7:23	7:26	50	16.67	50	50	
6/27/19	IP-G10	46	7:27	7:31	50	12.50	50	50	
6/27/19	IP-G10	44	7:35	7:38	50	16.67	50	50	
6/27/19	IP-G10	42	7:38	7:41	50	16.67	50	50	
6/27/19	IP-G10	60	7:48	7:51	100	16.67	50	50	
6/27/19	IP-G10	58	7:51	7:54	100	16.67	50	50	
6/27/19	IP-G10	56	7:56	7:59	50	16.67	50	50	
6/27/19	IP-G10	54	8:06	8:10	50	12.50	50	50	
6/27/19	IP-G10	52	8:10	8:14	50	12.50	50	50	
6/27/19	IP-G9	30	8:22	8:25	50	16.67	50	50	
6/27/19	IP-G9	28	8:25	8:29	50	12.50	50	50	
6/27/19	IP-G9	26	8:30	8:33	50	16.67	50	50	
6/27/19	IP-G9	24	8:38	8:41	50	16.67	50	50	
6/27/19	IP-G9	22	8:41	8:45	50	12.50	50	50	
6/27/19	IP-G9	20	8:47	8:51	50	12.50	50	50	
6/27/19	IP-G9	40	9:04	9:07	50	16.67	50	50	
6/27/19	IP-G9	38	9:07	9:11	50	12.50	50	50	
6/27/19	IP-G9	36	9:11	9:15	50	12.50	50	50	
6/27/19	IP-G9	34	9:18	9:23	50	10.00	50	50	
6/27/19	IP-G9	32	9:23	9:28	50	10.00	50	50	
6/27/19	IP-G9	50	9:39	9:43	100	12.50	50	50	
6/27/19	IP-G9	48	9:43	9:47	100	12.50	50	50	
6/27/19	IP-G9	46	9:47	9:50	100	16.67	50	50	

Table 1. Injection Logs

Date	Injection Point	Depth Interval (ft)	Start Time	Stop Time	Injection Pressure (psi)	Flow Rate (gpm)	Planned Volume Injected (gal)	Actual Volume Injected (gal)	Notes (flow change, etc.)
6/27/19	IP-G9	44	9:52	9:55	100	16.67	50	50	
6/27/19	IP-G9	42	9:55	9:59	100	12.50	50	50	
6/27/19	IP-G9	60	10:02	10:05	100	16.67	50	50	
6/27/19	IP-G9	58	10:05	10:08	50	16.67	50	50	
6/27/19	IP-G9	56	10:08	10:11	50	16.67	50	50	
6/27/19	IP-G9	54	10:15	10:18	50	16.67	50	50	
6/27/19	IP-G9	52	10:18	10:21	50	16.67	50	50	
6/27/19	IP-G8	30	10:25	10:27	100	25.00	50	50	
6/27/19	IP-G8	28	10:27	10:31	100	12.50	50	50	
6/27/19	IP-G8	26	10:31	10:34	50	16.67	50	50	
6/27/19	IP-G8	24	10:37	10:40	50	16.67	50	50	
6/27/19	IP-G8	22	10:40	10:43	50	16.67	50	50	
6/27/19	IP-G8	20	10:43	10:46	50	16.67	50	50	
6/27/19	IP-G8	40	10:57	11:00	50	16.67	50	50	
6/27/19	IP-G8	38	11:00	11:04	50	12.50	50	50	
6/27/19	IP-G8	36	11:04	11:08	50	12.50	50	50	
6/27/19	IP-G8	34	11:14	11:17	50	16.67	50	50	
6/27/19	IP-G8	32	11:17	11:21	50	12.50	50	50	
6/27/19	IP-G8	50	11:43	11:47	100	12.50	50	50	
6/27/19	IP-G8	48	11:47	11:51	50	12.50	50	50	
6/27/19	IP-G8	46	11:52	11:56	50	12.50	50	50	
6/27/19	IP-G8	44	12:03	12:07	50	12.50	50	50	
6/27/19	IP-G8	42	12:07	12:12	50	10.00	50	50	

Table 1. Injection Logs									
Date	**Injection Point**	**Depth Interval (ft)**	**Start Time**	**Stop Time**	**Injection Pressure (psi)**	**Flow Rate (gpm)**	**Planned Volume Injected (gal)**	**Actual Volume Injected (gal)**	**Notes (flow change, etc.)**
6/27/19	IP-G8	60	12:27	12:31	100	12.50	50	50	
6/27/19	IP-G8	58	12:31	12:35	50	12.50	50	50	
6/27/19	IP-G8	56	12:35	12:38	50	16.67	50	50	
6/27/19	IP-G8	54	12:38	12:42	50	12.50	50	50	
6/27/19	IP-G8	52	12:42	12:46	50	12.50	50	50	
6/27/19	IP-G7	30	14:17	14:22	50	10.00	50	50	8 grams NaBr added per hopper
6/27/19	IP-G7	28	14:22	14:26	50	12.50	50	50	8 grams NaBr added per hopper
6/27/19	IP-G7	26	14:26	14:30	50	12.50	50	50	8 grams NaBr added per hopper
6/27/19	IP-G7	24	14:32	14:35	50	16.67	50	50	8 grams NaBr added per hopper
6/27/19	IP-G7	22	14:38	14:42	50	12.50	50	50	8 grams NaBr added per hopper
6/27/19	IP-G7	20	14:42	14:46	50	12.50	50	50	8 grams NaBr added per hopper
6/27/19	IP-G7	18	14:46	14:50	50	12.50	50	50	8 grams NaBr added per hopper
6/27/19	IP-G7	40	15:00	15:04	80	12.50	50	50	8 grams NaBr added per hopper
6/27/19	IP-G7	38	15:04	15:08	50	12.50	50	50	8 grams NaBr added per hopper
6/27/19	IP-G7	36	15:08	15:12	50	12.50	50	50	8 grams NaBr added per hopper
6/27/19	IP-G7	34	15:17	15:21	50	12.50	50	50	8 grams NaBr added per hopper
6/27/19	IP-G7	32	15:21	15:25	50	12.50	50	50	8 grams NaBr added per hopper
6/27/19	IP-G7	50	15:38	15:42	100	12.50	50	50	8 grams NaBr added per hopper
6/27/19	IP-G7	48	15:42	15:45	50	16.67	50	50	8 grams NaBr added per hopper
6/27/19	IP-G7	46	15:47	15:52	50	10.00	50	50	8 grams NaBr added per hopper
6/27/19	IP-G7	44	15:57	16:01	50	12.50	50	50	8 grams NaBr added per hopper
6/27/19	IP-G7	42	16:01	16:05	50	12.50	50	50	8 grams NaBr added per hopper
6/27/19	IP-G7	60	16:19	16:24	100	10.00	50	50	8 grams NaBr added per hopper

Table 1. Injection Logs

Date	Injection Point	Depth Interval (ft)	Start Time	Stop Time	Injection Pressure (psi)	Flow Rate (gpm)	Planned Volume Injected (gal)	Actual Volume Injected (gal)	Notes (flow change, etc.)
6/27/19	IP-G7	58	16:24	16:28	50	12.50	50	50	8 grams NaBr added per hopper
6/27/19	IP-G7	56	16:28	16:32	50	12.50	50	50	8 grams NaBr added per hopper
6/27/19	IP-G7	54	16:32	16:37	50	10.00	50	50	8 grams NaBr added per hopper
6/27/19	IP-G7	52	16:37	16:41	50	12.50	50	50	8 grams NaBr added per hopper
6/28/19	IP-G6	24	7:33	7:36	50	16.67	50	50	8 grams NaBr added per hopper
6/28/19	IP-G6	22	7:36	7:40	50	12.50	50	50	8 grams NaBr added per hopper
6/28/19	IP-G6	20	7:42	7:46	50	12.50	50	50	8 grams NaBr added per hopper
6/28/19	IP-G6	18	7:46	7:50	50	12.50	50	50	8 grams NaBr added per hopper
6/28/19	IP-G6	34	7:56	8:01	50	10.00	50	50	8 grams NaBr added per hopper
6/28/19	IP-G6	32	8:01	8:05	50	12.50	50	50	8 grams NaBr added per hopper
6/28/19	IP-G6	30	8:05	8:09	50	12.50	50	50	8 grams NaBr added per hopper
6/28/19	IP-G6	28	8:21	8:24	50	16.67	50	50	8 grams NaBr added per hopper
6/28/19	IP-G6	26	8:24	8:28	50	12.50	50	50	8 grams NaBr added per hopper
6/28/19	IP-G6	44	8:39	8:43	100	12.50	50	50	8 grams NaBr added per hopper
6/28/19	IP-G6	42	8:43	8:47	50	12.50	50	50	8 grams NaBr added per hopper
6/28/19	IP-G6	40	8:47	8:51	50	12.50	50	50	8 grams NaBr added per hopper
6/28/19	IP-G6	38	8:58	9:02	50	12.50	50	50	8 grams NaBr added per hopper
6/28/19	IP-G6	36	9:02	9:06	50	12.50	50	50	8 grams NaBr added per hopper
6/28/19	IP-G6	54	9:18	9:22	100	12.50	50	50	8 grams NaBr added per hopper
6/28/19	IP-G6	52	9:22	9:26	50	12.50	50	50	8 grams NaBr added per hopper
6/28/19	IP-G6	50	9:26	9:30	50	12.50	50	50	8 grams NaBr added per hopper
6/28/19	IP-G6	48	9:40	9:45	50	10.00	50	50	8 grams NaBr added per hopper
6/28/19	IP-G6	46	9:45	9:50	50	10.00	50	50	8 grams NaBr added per hopper

Table 1. Injection Logs									
Date	**Injection Point**	**Depth Interval (ft)**	**Start Time**	**Stop Time**	**Injection Pressure (psi)**	**Flow Rate (gpm)**	**Planned Volume Injected (gal)**	**Actual Volume Injected (gal)**	**Notes (flow change, etc.)**
6/28/19	IP-G5	30	9:52	9:56	100	12.50	50	50	
6/28/19	IP-G5	28	9:56	10:02	50	8.33	50	50	
6/28/19	IP-G5	26	10:03	10:07	50	12.50	50	50	
6/28/19	IP-G5	24	10:08	10:11	100	16.67	50	50	
6/28/19	IP-G5	22	10:17	10:20	50	16.67	50	50	
6/28/19	IP-G5	20	10:20	10:24	50	12.50	50	50	
6/28/19	IP-G5	18	10:24	10:28	50	12.50	50	50	
6/28/19	IP-G5	40	10:38	10:42	100	12.50	50	50	
6/28/19	IP-G5	38	10:42	10:46	50	12.50	50	50	
6/28/19	IP-G5	36	10:46	10:51	100	10.00	50	50	
6/28/19	IP-G5	34	11:02	11:06	100	12.50	50	50	
6/28/19	IP-G5	32	11:06	11:11	100	10.00	50	50	
6/28/19	IP-G5	50	11:13	11:17	100	12.50	50	50	
6/28/19	IP-G5	48	11:17	11:22	50	10.00	50	50	
6/28/19	IP-G5	46	11:22	11:26	50	12.50	50	50	
6/28/19	IP-G5	44	11:31	11:35	100	12.50	50	50	
6/28/19	IP-G5	42	11:35	11:39	50	12.50	50	50	
6/28/19	IP-G5	60	11:42	11:46	100	12.50	50	50	
6/28/19	IP-G5	58	11:46	11:50	50	12.50	50	50	
6/28/19	IP-G5	56	11:50	11:54	50	12.50	50	50	
6/28/19	IP-G5	54	12:00	12:03	50	16.67	50	50	
6/28/19	IP-G5	52	12:03	12:06	50	16.67	50	50	
7/1/19	IP-G4	30	10:01	10:06	80	10.00	50	50	

Table 1. Injection Logs									
Date	**Injection Point**	**Depth Interval (ft)**	**Start Time**	**Stop Time**	**Injection Pressure (psi)**	**Flow Rate (gpm)**	**Planned Volume Injected (gal)**	**Actual Volume Injected (gal)**	**Notes (flow change, etc.)**
7/1/19	IP-G4	28	10:06	10:09	50	16.67	50	50	
7/1/19	IP-G4	26	10:09	10:13	50	12.50	50	50	
7/1/19	IP-G4	24	10:17	10:22	50	10.00	50	50	
7/1/19	IP-G4	22	10:22	10:27	50	10.00	50	50	
7/1/19	IP-G4	20	10:27	10:32	50	10.00	50	50	
7/1/19	IP-G4	18	10:38	10:42	50	12.50	50	50	
7/1/19	IP-G4	40	10:47	10:51	100	12.50	50	50	
7/1/19	IP-G4	38	10:51	10:55	100	12.50	50	50	
7/1/19	IP-G4	36	10:55	11:00	80	10.00	50	50	
7/1/19	IP-G4	34	11:10	11:14	100	12.50	50	50	
7/1/19	IP-G4	32	11:14	11:18	50	12.50	50	50	
7/1/19	IP-G4	50	12:18	12:23	50	10.00	50	50	clogged rod, redrilled point
7/1/19	IP-G4	48	12:23	12:28	50	10.00	50	50	
7/1/19	IP-G4	46	12:28	12:32	50	12.50	50	50	
7/1/19	IP-G4	44	12:38	12:42	50	12.50	50	50	
7/1/19	IP-G4	42	12:42	12:47	50	10.00	50	50	
7/1/19	IP-G4	60	13:37	13:41	80	12.50	50	50	
7/1/19	IP-G4	58	13:41	13:44	100	16.67	50	50	
7/1/19	IP-G4	56	13:44	13:48	100	12.50	50	50	
7/1/19	IP-G4	54	13:52	13:55	100	16.67	50	50	
7/1/19	IP-G4	52	13:55	13:59	100	12.50	50	50	
7/1/19	IP-G3	30	14:17	14:21	100	12.50	50	50	
7/1/19	IP-G3	28	14:21	14:24	50	16.67	50	50	

Table 1. Injection Logs									
Date	**Injection Point**	**Depth Interval (ft)**	**Start Time**	**Stop Time**	**Injection Pressure (psi)**	**Flow Rate (gpm)**	**Planned Volume Injected (gal)**	**Actual Volume Injected (gal)**	**Notes (flow change, etc.)**
7/1/19	IP-G3	26	14:42	14:45	50	16.67	50	50	
7/1/19	IP-G3	24	14:45	14:49	50	12.50	50	50	
7/1/19	IP-G3	22	14:49	14:54	50	10.00	50	50	
7/1/19	IP-G3	20	15:00	15:05	50	10.00	50	50	
7/1/19	IP-G3	18	15:05	15:09	50	12.50	50	50	
7/1/19	IP-G3	38	15:16	15:20	50	12.50	50	50	
7/1/19	IP-G3	36	15:20	15:25	50	10.00	50	50	
7/1/19	IP-G3	34	15:29	15:33	50	12.50	50	50	
7/1/19	IP-G3	32	15:33	15:37	50	12.50	50	50	
7/1/19	IP-G3	50	15:41	15:46	50	10.00	50	50	
7/1/19	IP-G3	48	15:47	15:52	50	10.00	50	50	
7/1/19	IP-G3	46	15:54	15:58	50	12.50	50	50	
7/1/19	IP-G3	44	16:04	16:08	50	12.50	50	50	
7/1/19	IP-G3	42	16:10	16:14	50	12.50	50	50	
7/1/19	IP-G3	60	16:37	16:40	100	16.67	50	50	
7/1/19	IP-G3	58	16:44	16:47	100	16.67	50	50	
7/1/19	IP-G3	56	16:51	16:54	100	16.67	50	50	
7/1/19	IP-G3	54	16:55	16:58	100	16.67	50	50	
7/1/19	IP-G3	40	15:12	15:16	100	12.50	50	50	
7/1/19	IP-G3	52	17:01	17:05	100	12.50	50	50	
Transect F									
7/1/19	IP-F8D	76'	16:54	16:58	150	12.50	50	50	
7/1/19	IP-F8D	74'	16:58	17:01	50	16.67	50	50	
7/1/19	IP-F8D	72'	17:01	17:06	50	10.00	50	50	

Table 1. Injection Logs									
Date	**Injection Point**	**Depth Interval (ft)**	**Start Time**	**Stop Time**	**Injection Pressure (psi)**	**Flow Rate (gpm)**	**Planned Volume Injected (gal)**	**Actual Volume Injected (gal)**	**Notes (flow change, etc.)**
7/1/19	IP-F8D	86	17:13	17:16	150	16.67	50	50	
7/1/19	IP-F8D	84	17:16	17:19	100	16.67	50	50	
7/1/19	IP-F8D	82	17:19	17:22	100	16.67	50	50	
7/1/19	IP-F8D	80	17:29	17:32	100	16.67	50	50	
7/1/19	IP-F8D	78	17:32	17:41	100	5.56	50	50	Compressor overheated (Doosan #10754190)
7/2/19	IP-F10D	84	8:50	9:00	100	5.00	50	50	took very high pressure to pop rod tip out
7/2/19	IP-F10D	82	9:00	9:03	100	16.67	50	50	
7/2/19	IP-F10D	78	9:12	9:16	100	12.50	50	50	
7/2/19	IP-F10D	80	9:03	9:08	100	10.00	50	50	
7/2/19	IP-F10D	76	9:16	9:20	100	12.50	50	50	
7/2/19	IP-F10D	74	9:20	9:25	50	10.00	50	50	
7/2/19	IP-F10D	72	9:30	9:34	50	12.50	50	50	
7/2/19	IP-F11D	82	10:08	10:11	100	16.67	50	50	
7/2/19	IP-F11D	80	10:11	10:14	100	16.67	50	50	
7/2/19	IP-F11D	78	10:14	10:19	50	10.00	50	50	
7/2/19	IP-F11D	76	10:23	10:27	50	12.50	50	50	
7/2/19	IP-F11D	74	10:36	10:39	50	16.67	50	50	
7/2/19	IP-F11D	72	10:39	10:43	30	12.50	50	50	
7/2/19	IP-F12D	82	14:24	14:28	100	12.50	50	50	
7/2/19	IP-F12D	80	14:28	14:31	100	16.67	50	50	
7/2/19	IP-F12D	78	14:31	14:35	100	12.50	50	50	
7/2/19	IP-F12D	76	14:41	14:44	100	16.67	50	50	
7/2/19	IP-F12D	74	14:44	14:47	50	16.67	50	50	

Table 1. Injection Logs									
Date	**Injection Point**	**Depth Interval (ft)**	**Start Time**	**Stop Time**	**Injection Pressure (psi)**	**Flow Rate (gpm)**	**Planned Volume Injected (gal)**	**Actual Volume Injected (gal)**	**Notes (flow change, etc.)**
7/2/19	IP-F12D	72	14:47	14:50	50	16.67	50	50	
7/2/19	IP-F13D	74	16:12	16:15	200	16.67	50	50	8 grams NaBr added per hopper
7/2/19	IP-F13D	72	16:15	16:20	150	10.00	50	50	8 grams NaBr added per hopper, Compressor overheated (Doosan)
7/2/19	IP-F13D	70	16:30	16:33	100	16.67	50	50	8 grams NaBr added per hopper
7/2/19	IP-F13D	68	16:33	16:37	100	12.50	50	50	8 grams NaBr added per hopper
7/2/19	IP-F13D	66	16:41	16:45	100	12.50	50	50	8 grams NaBr added per hopper
7/2/19	IP-F13D	82	16:53	16:58	150	10.00	50	50	8 grams NaBr added per hopper
7/2/19	IP-F13D	80	16:58	17:01	100	16.67	50	50	8 grams NaBr added per hopper
7/2/19	IP-F13D	78	17:01	17:05	100	12.50	50	50	8 grams NaBr added per hopper
7/2/19	IP-F13D	76	17:13	17:16	100	16.67	50	50	8 grams NaBr added per hopper
Transect G									
7/2/19	IP-G2	30	8:26	8:30	50	12.50	50	50	
7/2/19	IP-G2	28	8:33	8:35	50	25.00	50	50	
7/2/19	IP-G2	26	8:36	8:39	50	16.67	50	50	
7/2/19	IP-G2	24	8:42	8:46	50	12.50	50	50	
7/2/19	IP-G2	22	8:46	8:49	50	16.67	50	50	
7/2/19	IP-G2	20	8:50	8:52	50	25.00	50	50	
7/2/19	IP-G2	18	8:53	8:56	50	16.67	50	50	
7/2/19	IP-G2	40	9:00	9:04	100	12.50	50	50	
7/2/19	IP-G2	38	9:05	9:08	100	16.67	50	50	
7/2/19	IP-G2	36	9:09	9:13	50	12.50	50	50	
7/2/19	IP-G2	34	9:16	9:20	100	12.50	50	50	
7/2/19	IP-G2	32	9:20	9:24	50	12.50	50	50	

Table 1. Injection Logs									
Date	**Injection Point**	**Depth Interval (ft)**	**Start Time**	**Stop Time**	**Injection Pressure (psi)**	**Flow Rate (gpm)**	**Planned Volume Injected (gal)**	**Actual Volume Injected (gal)**	**Notes (flow change, etc.)**
7/2/19	IP-G2	50	9:32	9:37	50	10.00	50	50	
7/2/19	IP-G2	48	9:37	9:41	50	12.50	50	50	
7/2/19	IP-G2	46	9:41	9:44	100	16.67	50	50	
7/2/19	IP-G2	44	9:48	9:52	50	12.50	50	50	
7/2/19	IP-G2	42	9:52	9:56	50	12.50	50	50	
7/2/19	IP-G2	60	10:00	10:04	100	12.50	50	50	
7/2/19	IP-G2	58	10:05	10:09	50	12.50	50	50	
7/2/19	IP-G2	56	10:09	10:13	50	12.50	50	50	
7/2/19	IP-G2	54	10:15	10:18	50	16.67	50	50	
7/2/19	IP-G2	52	10:19	10:23	50	12.50	50	50	
7/2/19	IP-G1	30	10:40	10:45	50	10.00	50	50	
7/2/19	IP-G1	28	10:45	10:47	50	25.00	50	50	
7/2/19	IP-G1	26	10:47	10:50	50	16.67	50	50	
7/2/19	IP-G1	24	10:53	10:57	50	12.50	50	50	
7/2/19	IP-G1	22	10:58	11:02	50	12.50	50	50	
7/2/19	IP-G1	20	11:03	11:06	50	16.67	50	50	
7/2/19	IP-G1	18	11:08	11:12	50	12.50	50	50	
7/2/19	IP-G1	40	11:24	11:28	50	12.50	50	50	
7/2/19	IP-G1	38	11:28	11:32	50	12.50	50	50	
7/2/19	IP-G1	36	11:33	11:37	50	12.50	50	50	
7/2/19	IP-G1	34	11:40	11:44	50	12.50	50	50	
7/2/19	IP-G1	32	11:44	11:47	50	16.67	50	50	
7/2/19	IP-G1	50	11:53	11:57	50	12.50	50	50	

Table 1. Injection Logs									
Date	**Injection Point**	**Depth Interval (ft)**	**Start Time**	**Stop Time**	**Injection Pressure (psi)**	**Flow Rate (gpm)**	**Planned Volume Injected (gal)**	**Actual Volume Injected (gal)**	**Notes (flow change, etc.)**
7/2/19	IP-G1	48	11:57	12:00	100	16.67	50	50	
7/2/19	IP-G1	46	12:00	12:05	50	10.00	50	50	
7/2/19	IP-G1	44	13:26	13:32	50	8.33	50	50	
7/2/19	IP-G1	42	13:32	13:36	50	12.50	50	50	
7/2/19	IP-G1	60	13:48	13:53	50	10.00	50	50	
7/2/19	IP-G1	58	13:53	13:58	50	10.00	50	50	
7/2/19	IP-G1	56	13:58	14:02	50	12.50	50	50	
7/2/19	IP-G1	54	14:06	14:09	50	16.67	50	50	
7/2/19	IP-G1	52	14:11	14:16	50	10.00	50	50	
Transect F									
7/3/19	IP-F14D	72	9:08	9:12	150	12.50	50	50	8 grams NaBr added per hopper
7/3/19	IP-F14D	70	9:12	9:16	100	12.50	50	50	8 grams NaBr added per hopper
7/3/19	IP-F14D	68	9:16	9:20	100	12.50	50	50	8 grams NaBr added per hopper
7/3/19	IP-F14D	66	9:26	9:30	100	12.50	50	50	8 grams NaBr added per hopper
7/3/19	IP-F14D	64	9:30	9:33	100	16.67	50	50	8 grams NaBr added per hopper
7/3/19	IP-F14D	62	9:33	9:36	100	16.67	50	50	8 grams NaBr added per hopper
7/3/19	IP-F15D	74	10:36	10:40	120	12.50	50	50	
7/3/19	IP-F15D	72	10:40	10:44	50	12.50	50	50	
7/3/19	IP-F16D	70	12:02	12:04	50	25.00	50	50	
7/3/19	IP-F16D	68	12:04	12:09	20	10.00	50	50	
7/3/19	IP-F16D	66	12:12	12:15	20	16.67	50	50	
7/3/19	IP-F16D	64	12:15	12:19	20	12.50	50	50	
7/3/19	IP-F16D	62	12:19	12:22	50	16.67	50	50	

Table 1. Injection Logs									
Date	**Injection Point**	**Depth Interval (ft)**	**Start Time**	**Stop Time**	**Injection Pressure (psi)**	**Flow Rate (gpm)**	**Planned Volume Injected (gal)**	**Actual Volume Injected (gal)**	**Notes (flow change, etc.)**
7/3/19	IP-F17D	70	12:52	12:55	100	16.67	50	50	
7/3/19	IP-F17D	68	12:55	12:59	50	12.50	50	50	
7/3/19	IP-F17D	66	12:59	13:02	20	16.67	50	50	
7/3/19	IP-F17D	64	13:06	13:09	20	16.67	50	50	
7/3/19	IP-F17D	62	13:09	13:14	50	10.00	50	50	
Transect G									
7/8/19	IP-G8D	70	9:49	9:52	100	16.67	50	50	
7/8/19	IP-G8D	68	9:52	9:55	50	16.67	50	50	
7/8/19	IP-G8D	66	10:01	10:04	50	16.67	50	50	
7/8/19	IP-G8D	64	10:04	10:07	50	16.67	50	50	
7/8/19	IP-G8D	62	10:07	10:10	100	16.67	50	50	
7/8/19	IP-G8D	80	10:41	10:44	100	16.67	50	50	
7/8/19	IP-G8D	78	10:44	10:48	80	12.50	50	50	
7/8/19	IP-G8D	76	10:51	10:54	80	16.67	50	50	
7/8/19	IP-G8D	74	10:54	10:57	50	16.67	50	50	
7/8/19	IP-G8D	72	10:57	11:00	50	16.67	50	50	
7/8/19	IP-G8D	90	11:08	11:12	100	12.50	50	50	
7/8/19	IP-G8D	88	11:12	11:15	100	16.67	50	50	
7/8/19	IP-G8D	86	11:19	11:22	150	16.67	50	50	
7/8/19	IP-G8D	84	11:22	11:24	100	25.00	50	50	
7/8/19	IP-G8D	82	11:24	11:29	100	10.00	50	50	
7/8/19	IP-G9D	70	12:50	12:53	100	16.67	50	50	
7/8/19	IP-G9D	68	12:53	12:56	50	16.67	50	50	

Table 1. Injection Logs									
Date	**Injection Point**	**Depth Interval (ft)**	**Start Time**	**Stop Time**	**Injection Pressure (psi)**	**Flow Rate (gpm)**	**Planned Volume Injected (gal)**	**Actual Volume Injected (gal)**	**Notes (flow change, etc.)**
7/8/19	IP-G9D	66	12:59	13:01	100	25.00	50	50	
7/8/19	IP-G9D	64	13:01	13:04	50	16.67	50	50	
7/8/19	IP-G9D	62	13:04	13:08	80	12.50	50	50	
7/8/19	IP-G9D	80	14:18	14:21	200	16.67	50	50	
7/8/19	IP-G9D	78	14:21	14:24	150	16.67	50	50	
7/8/19	IP-G9D	76	14:29	14:32	100	16.67	50	50	
7/8/19	IP-G9D	74	14:32	14:35	50	16.67	50	50	
7/8/19	IP-G9D	72	14:35	14:38	100	16.67	50	50	
7/8/19	IP-G9D	90	14:45	14:48	150	16.67	50	50	
7/8/19	IP-G9D	88	14:48	14:51	100	16.67	50	50	
7/8/19	IP-G9D	86	14:54	14:56	100	25.00	50	50	
7/8/19	IP-G9D	84	14:55	14:59	100	12.50	50	50	
7/8/19	IP-G9D	82	14:59	15:01	100	25.00	50	50	
7/8/19	IP-G10D	70	16:02	16:05	100	16.67	50	50	
7/8/19	IP-G10D	68	16:05	16:07	50	25.00	50	50	
7/8/19	IP-G10D	66	16:14	16:16	50	25.00	50	50	
7/8/19	IP-G10D	64	16:16	16:19	50	16.67	50	50	
7/8/19	IP-G10D	62	16:19	16:21	100	25.00	50	50	
7/8/19	IP-G10D	82	16:28	16:31	200	16.67	50	50	
7/8/19	IP-G10D	80	16:31	16:34	100	16.67	50	50	
7/8/19	IP-G10D	78	16:38	16:40	100	25.00	50	50	
7/8/19	IP-G10D	76	16:40	16:43	80	16.67	50	50	
7/8/19	IP-G10D	74	16:43	16:46	100	16.67	50	50	

Table 1. Injection Logs									
Date	**Injection Point**	**Depth Interval (ft)**	**Start Time**	**Stop Time**	**Injection Pressure (psi)**	**Flow Rate (gpm)**	**Planned Volume Injected (gal)**	**Actual Volume Injected (gal)**	**Notes (flow change, etc.)**
7/8/19	IP-G10D	72	16:46	16:49	100	16.67	50	50	
7/9/19	IP-G11D	78	8:35	8:38	100	16.67	50	50	
7/9/19	IP-G11D	76	8:38	8:40	100	25.00	50	50	
7/9/19	IP-G11D	74	8:44	8:47	50	16.67	50	50	
7/9/19	IP-G11D	72	8:57	9:00	50	16.67	50	50	
7/9/19	IP-G11D	86	9:02	9:09	200	7.14	50	50	
7/9/19	IP-G11D	84	9:09	9:12	150	16.67	50	50	
7/9/19	IP-G11D	82	9:16	9:19	100	16.67	50	50	
7/9/19	IP-G11D	80	9:19	9:23	100	12.50	50	50	
7/9/19	IP-G12D	78	10:15	10:18	150	16.67	50	50	
7/9/19	IP-G12D	76	10:18	10:21	100	16.67	50	50	
7/9/19	IP-G12D	74	10:25	10:27	100	25.00	50	50	
7/9/19	IP-G12D	72	10:27	10:30	100	16.67	50	50	
7/9/19	IP-G12D	86	10:34	10:36	150	25.00	50	50	
7/9/19	IP-G12D	84	10:36	10:38	120	25.00	50	50	
7/9/19	IP-G12D	82	10:42	10:44	100	25.00	50	50	
7/9/19	IP-G12D	80	10:44	10:48	100	12.50	50	50	
7/9/19	IP-G13D	84	11:55	11:58	100	16.67	50	50	
7/9/19	IP-G13D	82	11:58	12:01	100	16.67	50	50	
7/9/19	IP-G13D	80	12:07	12:10	100	16.67	50	50	
7/9/19	IP-G13D	78	12:10	12:13	100	16.67	50	50	
7/9/19	IP-G13D	76	13:19	13:22	100	16.67	50	50	
7/9/19	IP-G13D	74	13:22	13:25	100	16.67	50	50	

REDOX TECH, LLC

"Providing Innovative In Situ Soil and Groundwater Treatment"

Table 1. Injection Logs									
Date	**Injection Point**	**Depth Interval (ft)**	**Start Time**	**Stop Time**	**Injection Pressure (psi)**	**Flow Rate (gpm)**	**Planned Volume Injected (gal)**	**Actual Volume Injected (gal)**	**Notes (flow change, etc.)**
7/9/19	IP-G13D	72	13:25	13:28	100	16.67	50	50	
7/9/19	IP-G14D	74	13:41	13:44	100	16.67	50	50	
7/9/19	IP-G14D	72	13:44	13:47	100	16.67	50	50	
7/9/19	IP-G14D	70	13:52	13:55	50	16.67	50	50	
7/9/19	IP-G14D	68	13:55	13:59	50	12.50	50	50	
7/9/19	IP-G14D	66	14:05	14:08	50	16.67	50	50	
7/9/19	IP-G14D	64	14:08	14:11	50	16.67	50	50	high backpressure, injection connected w/ G13 rod down @ 72'
7/9/19	IP-G14D	62	14:53	14:56	50	16.67	50	50	
7/9/19	IP-G14D	84	14:27	14:30	50	16.67	50	50	
7/9/19	IP-G14D	82	14:30	14:33	30	16.67	50	50	
7/9/19	IP-G14D	80	14:37	14:40	50	16.67	50	50	
7/9/19	IP-G14D	78	14:41	14:45	20	12.50	50	50	
7/9/19	IP-G14D	76	14:45	14:49	30	12.50	50	50	
7/9/19	IP-G15D	78	15:20	15:24	100	12.50	50	50	
7/9/19	IP-G15D	76	15:27	15:30	100	16.67	50	50	
7/9/19	IP-G15D	74	15:30	15:34	50	12.50	50	50	
7/9/19	IP-G15D	72	15:34	15:36	50	25.00	50	50	
7/9/19	IP-G15D	70	15:42	15:44	50	25.00	50	50	
7/9/19	IP-G15D	68	15:44	15:46	50	25.00	50	50	
7/9/19	IP-G15D	66	15:46	15:49	50	16.67	50	50	
7/10/19	IP-G16D	72	8:25	8:29	150	12.50	50	50	
7/10/19	IP-G16D	70	8:30	8:33	100	16.67	50	50	
7/10/19	IP-G16D	68	8:33	8:36	50	16.67	50	50	

Table 1. Injection Logs

Date	Injection Point	Depth Interval (ft)	Start Time	Stop Time	Injection Pressure (psi)	Flow Rate (gpm)	Planned Volume Injected (gal)	Actual Volume Injected (gal)	Notes (flow change, etc.)
7/10/19	IP-G16D	66	8:36	8:39	100	16.67	50	50	
7/10/19	IP-G7D	70	10:58	11:01	100	16.67	50	50	8 grams NaBr added per hopper
7/10/19	IP-G7D	68	11:01	11:04	100	16.67	50	50	8 grams NaBr added per hopper
7/10/19	IP-G7D	66	11:09	11:11	50	25.00	50	50	8 grams NaBr added per hopper
7/10/19	IP-G7D	64	11:11	11:15	50	12.50	50	50	8 grams NaBr added per hopper
7/10/19	IP-G7D	62	11:15	11:19	50	12.50	50	50	8 grams NaBr added per hopper
7/10/19	IP-G7D	80	11:27	11:30	100	16.67	50	50	8 grams NaBr added per hopper
7/10/19	IP-G7D	78	11:30	11:33	100	16.67	50	50	8 grams NaBr added per hopper
7/10/19	IP-G7D	76	11:36	11:40	100	12.50	50	50	8 grams NaBr added per hopper
7/10/19	IP-G7D	74	11:40	11:43	50	16.67	50	50	8 grams NaBr added per hopper
7/10/19	IP-G7D	72	11:43	11:46	50	16.67	50	50	8 grams NaBr added per hopper
7/10/19	IP-G7D	90	11:54	11:57	150	16.67	50	50	8 grams NaBr added per hopper
7/10/19	IP-G7D	88	11:57	12:00	100	16.67	50	50	8 grams NaBr added per hopper
7/10/19	IP-G7D	86	12:03	12:06	100	16.67	50	50	8 grams NaBr added per hopper
7/10/19	IP-G7D	84	12:06	12:09	100	16.67	50	50	8 grams NaBr added per hopper
7/10/19	IP-G7D	82	12:09	12:12	100	16.67	50	50	8 grams NaBr added per hopper
7/10/19	IP-G6D	66	14:04	14:07	50	16.67	50	50	8 grams NaBr added per hopper
7/10/19	IP-G6D	64	14:07	14:10	30	16.67	50	50	8 grams NaBr added per hopper
7/10/19	IP-G6D	62	14:15	14:18	50	16.67	50	50	8 grams NaBr added per hopper
7/10/19	IP-G6D	60	14:18	14:21	30	16.67	50	50	8 grams NaBr added per hopper
7/10/19	IP-G6D	58	14:21	14:24	20	16.67	50	50	8 grams NaBr added per hopper
7/10/19	IP-G6D	56	14:24	14:28	50	12.50	50	50	8 grams NaBr added per hopper
7/10/19	IP-G6D	78	14:39	14:42	100	16.67	50	50	8 grams NaBr added per hopper

Table 1. Injection Logs									
Date	**Injection Point**	**Depth Interval (ft)**	**Start Time**	**Stop Time**	**Injection Pressure (psi)**	**Flow Rate (gpm)**	**Planned Volume Injected (gal)**	**Actual Volume Injected (gal)**	**Notes (flow change, etc.)**
7/10/19	IP-G6D	76	14:42	14:46	100	12.50	50	50	8 grams NaBr added per hopper
7/10/19	IP-G6D	74	14:46	14:49	50	16.67	50	50	8 grams NaBr added per hopper
7/10/19	IP-G6D	72	14:53	14:55	100	25.00	50	50	8 grams NaBr added per hopper
7/10/19	IP-G6D	70	14:55	14:59	50	12.50	50	50	8 grams NaBr added per hopper
7/10/19	IP-G6D	68	14:59	15:02	50	16.67	50	50	8 grams NaBr added per hopper
7/10/19	IP-G6D	90	15:13	15:16	150	16.67	50	50	8 grams NaBr added per hopper
7/10/19	IP-G6D	88	15:16	15:20	100	12.50	50	50	8 grams NaBr added per hopper
7/10/19	IP-G6D	86	15:26	15:30	100	12.50	50	50	8 grams NaBr added per hopper
7/10/19	IP-G6D	84	15:30	15:34	100	12.50	50	50	8 grams NaBr added per hopper
7/10/19	IP-G6D	82	15:34	15:38	100	12.50	50	50	8 grams NaBr added per hopper
7/10/19	IP-G6D	80	15:38	15:42	100	12.50	50	50	8 grams NaBr added per hopper
7/11/19	IP-G5D	74	7:45	7:51	100	8.33	50	50	
7/11/19	IP-G5D	72	7:51	7:55	100	12.50	50	50	
7/11/19	IP-G5D	70	8:00	8:03	80	16.67	50	50	
7/11/19	IP-G5D	68	8:03	8:07	50	12.50	50	50	
7/11/19	IP-G5D	66	8:07	8:10	50	16.67	50	50	
7/11/19	IP-G5D	64	8:14	8:16	50	25.00	50	50	
7/11/19	IP-G5D	62	8:16	8:20	50	12.50	50	50	
7/11/19	IP-G5D	88	8:29	8:33	100	12.50	50	50	
7/11/19	IP-G5D	86	8:37	8:41	100	12.50	50	50	
7/11/19	IP-G5D	84	8:41	8:44	100	16.67	50	50	
7/11/19	IP-G5D	82	8:44	8:48	50	12.50	50	50	
7/11/19	IP-G5D	80	8:53	8:56	50	16.67	50	50	

Table 1. Injection Logs									
Date	**Injection Point**	**Depth Interval (ft)**	**Start Time**	**Stop Time**	**Injection Pressure (psi)**	**Flow Rate (gpm)**	**Planned Volume Injected (gal)**	**Actual Volume Injected (gal)**	**Notes (flow change, etc.)**
7/11/19	IP-G5D	78	8:56	8:59	50	16.67	50	50	
7/11/19	IP-G5D	76	8:59	9:05	50	8.33	50	50	
7/11/19	IP-G4D	74	10:50	10:55	80	10.00	50	50	
7/11/19	IP-G4D	72	10:59	11:02	50	16.67	50	50	
7/11/19	IP-G4D	70	11:02	11:05	50	16.67	50	50	
7/11/19	IP-G4D	68	11:05	11:09	20	12.50	50	50	
7/11/19	IP-G4D	66	11:23	11:26	20	16.67	50	50	
7/11/19	IP-G4D	64	11:26	11:30	20	12.50	50	50	
7/11/19	IP-G4D	62	11:30	11:34	20	12.50	50	50	
7/11/19	IP-G4D	88	12:36	12:40	100	12.50	50	50	
7/11/19	IP-G4D	86	12:40	12:43	50	16.67	50	50	
7/11/19	IP-G4D	84	12:43	12:46	50	16.67	50	50	
7/11/19	IP-G4D	82	13:03	13:07	50	12.50	50	50	
7/11/19	IP-G4D	80	13:07	13:12	50	10.00	50	50	
7/11/19	IP-G4D	78	13:13	13:16	50	16.67	50	50	
7/11/19	IP-G4D	76	13:17	13:22	50	10.00	50	50	
7/11/19	IP-G3D	74	15:00	15:03	20	16.67	50	50	
7/11/19	IP-G3D	72	15:03	15:07	50	12.50	50	50	
7/11/19	IP-G3D	70	15:12	15:15	30	16.67	50	50	
7/11/19	IP-G3D	68	15:15	15:19	30	12.50	50	50	
7/11/19	IP-G3D	66	15:19	15:23	20	12.50	50	50	
7/11/19	IP-G3D	64	15:32	15:35	20	16.67	50	50	
7/11/19	IP-G3D	62	15:35	15:39	20	12.50	50	50	

Table 1. Injection Logs									
Date	**Injection Point**	**Depth Interval (ft)**	**Start Time**	**Stop Time**	**Injection Pressure (psi)**	**Flow Rate (gpm)**	**Planned Volume Injected (gal)**	**Actual Volume Injected (gal)**	**Notes (flow change, etc.)**
7/11/19	IP-G3D	88	15:54	15:57	100	16.67	50	50	
7/11/19	IP-G3D	86	15:57	16:02	100	10.00	50	50	
7/11/19	IP-G3D	84	16:02	16:06	50	12.50	50	50	
7/11/19	IP-G3D	82	16:11	16:14	100	16.67	50	50	
7/11/19	IP-G3D	80	16:14	16:17	100	16.67	50	50	
7/11/19	IP-G3D	78	16:17	16:21	100	12.50	50	50	
7/11/19	IP-G3D	76	16:21	16:26	100	10.00	50	50	
7/12/19	IP-G2D	74	7:54	7:57	150	16.67	50	50	
7/12/19	IP-G2D	72	7:57	8:00	50	16.67	50	50	
7/12/19	IP-G2D	70	8:04	8:08	50	12.50	50	50	
7/12/19	IP-G2D	68	8:08	8:12	50	12.50	50	50	
7/12/19	IP-G2D	66	8:12	8:16	50	12.50	50	50	
7/12/19	IP-G2D	64	8:22	8:26	50	12.50	50	50	
7/12/19	IP-G2D	62	8:26	8:29	50	16.67	50	50	
7/12/19	IP-G2D	88	8:38	8:41	100	16.67	50	50	
7/12/19	IP-G2D	86	8:41	8:45	50	12.50	50	50	
7/12/19	IP-G2D	84	8:45	8:49	100	12.50	50	50	
7/12/19	IP-G2D	82	8:49	8:52	100	16.67	50	50	high backpressure
7/12/19	IP-G2D	80	9:12	9:14	100	25.00	50	50	
7/12/19	IP-G2D	78	9:14	9:18	100	12.50	50	50	
7/12/19	IP-G2D	76	9:18	9:21	100	16.67	50	50	
7/12/19	IP-G1D	74	10:46	10:50	100	12.50	50	50	
7/12/19	IP-G1D	72	10:50	10:54	100	12.50	50	50	

Table 1. Injection Logs

Date	Injection Point	Depth Interval (ft)	Start Time	Stop Time	Injection Pressure (psi)	Flow Rate (gpm)	Planned Volume Injected (gal)	Actual Volume Injected (gal)	Notes (flow change, etc.)
7/12/19	IP-G1D	70	10:59	11:05	50	8.33	50	50	
7/12/19	IP-G1D	68	11:05	11:09	50	12.50	50	50	
7/12/19	IP-G1D	66	10:14	10:17	50	16.67	50	50	
7/12/19	IP-G1D	64	10:17	10:19	50	25.00	50	50	
7/12/19	IP-G1D	62	10:19	10:22	50	16.67	50	50	
7/12/19	IP-G1D	88	11:37	11:40	100	16.67	50	50	
7/12/19	IP-G1D	86	11:40	11:43	100	16.67	50	50	
7/12/19	IP-G1D	84	11:43	11:50	50	7.14	50	50	injection hose camlock fitting unscrewed itself
7/12/19	IP-G1D	82	11:50	11:54	50	12.50	50	50	
7/12/19	IP-G1D	80	12:00	12:03	100	16.67	50	50	
7/12/19	IP-G1D	78	12:03	12:07	50	12.50	50	50	
7/12/19	IP-G1D	76	12:07	12:11	50	12.50	50	50	

Appendix B
Comprehensive Pilot Study Groundwater Data Summary

Appendix B - Comprehensive Summary of Analytical Results for Groundwater Samples

CONSTITUENT	MCL[1]	DG-01		DG-03D		DG-03S		DG-05		DG-06		DG-06A	
		7/23/2014	2/1/2019	7/18/2014	2/1/2019	7/18/2014	2/1/2019	7/23/2014	2/1/2019	7/14/2014	2/8/2019	7/18/2014	2/8/2019
Gases (µg/L)													
Methane	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethane	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds (mg/L)													
1,1-Dichloroethane	--	< 0.0050	< 0.0010	< 0.05	< 0.0010	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.025	< 0.01	< 0.025	< 0.01
1,1-Dichloroethene	0.007	< 0.0050	< 0.0010	**0.0053 J**	**0.0050**	**0.00066 J**	< 0.0010	< 0.0050	< 0.0010	< 0.025	< 0.01	< 0.025	< 0.01
1,2-Dichlorobenzene	0.6	< 0.0050	< 0.0010	< 0.05	< 0.0010	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.025	< 0.01	< 0.025	< 0.01
1,2-Dichloroethane	0.005	< 0.0050	< 0.0010	< 0.05	< 0.0010	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.025	< 0.01	< 0.025	< 0.01
1,2-Dichloropropane	0.005	< 0.0050	< 0.0010	< 0.05	< 0.0010	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.025	< 0.01	< 0.025	< 0.01
1,4-Dichlorobenzene	0.075	< 0.0050	< 0.0010	< 0.05	< 0.0010	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.025	< 0.01	< 0.025	< 0.01
2-Butanone	--	< 0.01	< 0.01	< 0.1	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.05	< 0.1	< 0.05	< 0.1
2-Hexanone	--	< 0.01	< 0.01	< 0.1	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.05	< 0.1	< 0.05	< 0.1
4-Methyl-2-pentanone	--	< 0.01	< 0.01	< 0.1	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.05	< 0.1	< 0.05	< 0.1
Acetone	--	< 0.02	< 0.02	< 0.2	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.1	< 0.2	< 0.1	< 0.2
Benzene	0.005	< 0.0050	< 0.0010	< 0.05	< 0.0010	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.025	< 0.01	< 0.025	< 0.01
Bromodichloromethane	0.08000[2]	< 0.0050	< 0.0010	< 0.05	< 0.0010	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.025	< 0.01	< 0.025	< 0.01
Carbon disulfide	--	< 0.0050	< 0.0010	< 0.05	< 0.0010	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.025	< 0.01	< 0.025	< 0.01
Carbon tetrachloride	0.005	< 0.0050	< 0.0010	< 0.05	< 0.0010	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.025	< 0.01	< 0.025	< 0.01
Chlorobenzene	0.1	< 0.0050	< 0.0010	< 0.05	< 0.0010	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.025	< 0.01	< 0.025	< 0.01
Chloroethane	--	< 0.0050	< 0.0020	< 0.05	< 0.0020	< 0.0050	< 0.0020	< 0.0050	< 0.0020	< 0.025	< 0.02	< 0.025	< 0.02
Chloroform	0.08000[2]	< 0.0050	< 0.0010	< 0.05	**0.00088 J**	< 0.0050	**0.00090 J**	< 0.0050	< 0.0010	< 0.025	< 0.01	< 0.025	< 0.01
Chloromethane	--	< 0.0050	< 0.0010	< 0.05	< 0.0010	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.025	< 0.01	< 0.025	< 0.01
cis-1,2-Dichloroethene	0.07	< 0.0050	< 0.0010	< 0.05	**0.00053 J**	< 0.0050	< 0.0010	< 0.0050	< 0.0010	**0.012 J**	**0.0045 J**	**0.011 J**	< 0.01
Cyclohexane	--	< 0.0050	< 0.0010	< 0.05	< 0.0010	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.025	< 0.01	< 0.025	< 0.01
Ethylbenzene	0.7	< 0.0050	< 0.0010	< 0.05	< 0.0010	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.025	< 0.01	< 0.025	< 0.01
Isopropylbenzene (Cumene)	--	< 0.0050	< 0.0010	< 0.05	< 0.0010	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.025	< 0.01	< 0.025	< 0.01
Methyl acetate	--	< 0.0050	< 0.0010	< 0.05	< 0.0010	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.025	< 0.01	< 0.025	< 0.01
Methylcyclohexane	--	< 0.0050	< 0.0050	< 0.05	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.025	< 0.05	< 0.025	< 0.05
Methylene chloride	0.005	< 0.0050	< 0.0010	< 0.05	< 0.0010	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.025	< 0.01	< 0.025	< 0.01
Styrene	0.1	< 0.0050	< 0.0010	< 0.05	< 0.0010	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.025	< 0.01	< 0.025	< 0.01
Tetrachloroethene	0.005	< 0.0050	< 0.0010	**1.1**	**0.14**	**0.029**	**0.011**	**0.00047 J**	**0.0015**	**0.29**	**0.46**	**0.35**	**0.44**
Toluene	1	< 0.0050	< 0.0010	< 0.05	< 0.0010	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.025	< 0.01	< 0.025	< 0.01
trans-1,2-Dichloroethene	0.1	< 0.0050	< 0.0010	< 0.05	< 0.0010	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.025	< 0.01	< 0.025	< 0.01
Trichloroethene	0.005	< 0.0050	< 0.0010	< 0.05	< 0.0010	< 0.0050	< 0.0010	< 0.0050	< 0.0010	**0.0016 J**	< 0.01	**0.0064 J**	< 0.01
Trichlorofluoromethane (Freon 11)	--	< 0.0050	< 0.0010	**0.019 J**	**0.037**	**0.0036 J**	**0.0016**	**0.0036 J**	**0.0014**	**0.011 J**	**0.0094 J**	**0.0055 J**	**0.02**
Trichlorotrifluoroethane (Freon 113)	--	< 0.0050	< 0.0010	< 0.05	< 0.0010	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.025	< 0.01	< 0.025	< 0.01
Vinyl chloride	0.002	< 0.0020	< 0.0010	< 0.02	< 0.0010	< 0.0020	< 0.0010	< 0.0020	< 0.0010	< 0.01	< 0.01	< 0.01	< 0.01
Xylenes, total	10	< 0.0050	< 0.0010	< 0.05	< 0.0010	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.025	< 0.01	< 0.025	< 0.01
General Chemistry (mg/L)													
Bromide	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters													
pH, Field (su)	--	**5.13**	**4.96**	**5.07**	**5.31**	**4.38**	**4.26**	**4.70**	**5.2**	**5.02**	**4.5**	**11.17**	**10.18**
Temperature, Field (°C)	--	**16.99**	**12.32**	**17.62**	**13.15**	**17.24**	**14.46**	**16.98**	**12.23**	**18.26**	**13.09**	**19.29**	**15.76**
Specific Conductivity, Field (µS/cm)	--	**31**	**14**	**48**	**39**	**41**	**71**	**53**	**30**	**73**	**53**	**367**	**97**
Dissolved Oxygen, Field (mg/L)	--	**3.17**	**5.13**	**3.26**	**5.15**	**4.65**	**0**	**0.68**	**0.73**	**1.74**	**2.01**	**0.25**	**2.88**
Oxidation Reduction Potential, Field (mV)	--	**274**	**245**	**200**	**189**	**262**	**285**	**284**	**110**	**274**	**331**	**-133**	**76**
Turbidity, Field (NTU)	--	**3.89**	**5.8**	**0**	**0**	**5.92**	**0**	**0.10**	**0**	**28.1**	**0**	**0**	**0**
Iron, Ferrous, Field (mg/L)	--	NA	**0**	NA	**0.05**	NA	**0**	NA	**2.5**	NA	**0**	NA	**0**

Note: Only constituents detected in at least one sample are reported in this table.

(1) Maximum Contaminant Level; March 2018 Edition of the Drinking Water Standards and Health Advisories (USEPA, 2018).

(2) The total of combined trihalomethanes (bromodichloromethane, dibromochloromethane, bromoform and chloroform) cannot exceed 0.08 mg/L.

J - Concentration detected equal to or greater than the method detection limit but less than the reporting limit.

J+ - Concentration considered an estimate biased high based on data validation.

J- - Concentration considered an estimate biased low based on data validation.

UJ - Not detected; quantitation limit may be inaccurate or imprecise.

< - Concentration less than the Quantitation Limit.

> - Concentration greater than the Quantitation Limit.

NA - Not analyzed.

Bolding indicates constituent detection.

Shading indicates concentration exceeds comparison criteria.

Appendix B - Comprehensive Summary of Analytical Results for Groundwater Samples

CONSTITUENT	MCL[1]	DG-06B			DG-06C		DG-07		DP-20			DP-20A	
		DU-14303 7/18/2014	7/18/2014	2/12/2019	7/18/2014	2/12/2019	7/18/2014	2/12/2019	1/18/2019	3/26/2020	3/26/2021	1/18/2019	DU-19105 1/18/2019
Gases (µg/L)													
Methane	--	NA	NA	NA	NA	NA	NA	NA	**1100**	**260**	**1600**	**17**	**16**
Ethane	--	NA	NA	NA	NA	NA	NA	NA	**0.36**	**0.14**	**8.9**	**0.18**	**0.18**
Ethene	--	NA	NA	NA	NA	NA	NA	NA	**0.15**	**0.17**	**0.42 J**	**0.10**	**0.10**
Volatile Organic Compounds (mg/L)													
1,1-Dichloroethane	--	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.02	< 0.0050	< 0.0050	< 0.05	< 0.02
1,1-Dichloroethene	0.007	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0010	**0.0067**	**0.0036**	< 0.02	< 0.0050	< 0.0050	< 0.05	< 0.02
1,2-Dichlorobenzene	0.6	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.02	< 0.0050	< 0.0050	< 0.05	< 0.02
1,2-Dichloroethane	0.005	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0050	**0.0020**	< 0.02	< 0.0050	< 0.0050	< 0.05	< 0.02
1,2-Dichloropropane	0.005	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.02	< 0.0050	< 0.0050	< 0.05	< 0.02
1,4-Dichlorobenzene	0.075	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.02	< 0.0050	< 0.0050	< 0.05	< 0.02
2-Butanone	--	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.2	< 0.05	< 0.05	< 0.5	< 0.2
2-Hexanone	--	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.2	< 0.05	< 0.05	< 0.5	< 0.2
4-Methyl-2-pentanone	--	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.2	< 0.05	< 0.05	< 0.5	< 0.2
Acetone	--	< 0.02	< 0.02	**0.0020 J**	< 0.02	**0.0025 J**	< 0.02	**0.0024 J**	< 0.4	< 0.1	**0.026 J**	< 1	< 0.4 UJ
Benzene	0.005	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.02	< 0.0050	< 0.0050	< 0.05	< 0.02
Bromodichloromethane	0.08000[2]	**0.0040 J**	**0.0044 J**	< 0.0010	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.02	< 0.0050	< 0.0050	< 0.05	< 0.02
Carbon disulfide	--	**0.00065 J**	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.02	< 0.0050	**0.0051**	< 0.05	< 0.02
Carbon tetrachloride	0.005	< 0.0050	< 0.0050	< 0.0010	**0.00065 J**	< 0.0010	< 0.0050	< 0.0010	< 0.02	< 0.0050	< 0.0050	< 0.05	< 0.02
Chlorobenzene	0.1	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.02	< 0.0050	< 0.0050	< 0.05	< 0.02
Chloroethane	--	< 0.0050	< 0.0050	< 0.0020	< 0.0050	< 0.0020	< 0.0050	< 0.0020	< 0.04	< 0.01	< 0.01	< 0.1	< 0.04
Chloroform	0.08000[2]	**0.032**	**0.035**	**0.00082 J**	**0.0023 J**	**0.00057 J**	< 0.0050	**0.00045 J**	< 0.02	< 0.0050	< 0.0050	< 0.05	< 0.02
Chloromethane	--	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.02	< 0.0050	< 0.0050	< 0.05	< 0.02
cis-1,2-Dichloroethene	0.07	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0010	**0.00080 J**	< 0.0010	**0.063**	**0.02**	**0.31**	< 0.05	< 0.02
Cyclohexane	--	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.02	< 0.0050	< 0.0050	< 0.05	< 0.02 UJ
Ethylbenzene	0.7	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.02	< 0.0050	< 0.0050	< 0.05	< 0.02
Isopropylbenzene (Cumene)	--	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.02	< 0.0050	< 0.0050	< 0.05	< 0.02
Methyl acetate	--	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.02	< 0.0050	< 0.0050	< 0.05	< 0.02
Methylcyclohexane	--	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.1	< 0.025	< 0.025	< 0.25	< 0.1
Methylene chloride	0.005	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.02	< 0.0050	< 0.0050	< 0.05	< 0.02
Styrene	0.1	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.02	< 0.0050	< 0.0050	< 0.05	< 0.02
Tetrachloroethene	0.005	**0.01**	**0.011**	**0.0048**	**0.0086**	**0.0045**	**0.057**	**0.058**	**1.2**	**0.39**	**0.41**	**2.2**	**1.8**
Toluene	1	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.02	< 0.0050	< 0.0050	< 0.05	< 0.02
trans-1,2-Dichloroethene	0.1	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.02	< 0.0050	< 0.0050	< 0.05	< 0.02
Trichloroethene	0.005	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0010	**0.00094 J**	**0.00060 J**	**0.016 J**	**0.0027 J**	**0.03**	< 0.05	< 0.02
Trichlorofluoromethane (Freon 11)	--	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0010	**0.047**	**0.032**	< 0.02	< 0.0050	< 0.0050	< 0.05	< 0.02
Trichlorotrifluoroethane (Freon 113)	--	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.02	< 0.0050	< 0.0050	< 0.05	< 0.02 UJ
Vinyl chloride	0.002	**0.00013 J**	< 0.0020	< 0.0010	< 0.0020	< 0.0010	< 0.0020	< 0.0010	< 0.02	< 0.0050	< 0.0050	< 0.05	< 0.02
Xylenes, total	10	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.02	< 0.0050	< 0.0050	< 0.05	< 0.02
General Chemistry (mg/L)													
Bromide	--	NA	NA	NA	NA	NA	NA	NA	**0.38**	**0.20**	**0.37**	**0.30**	**0.47**
Chloride	--	NA	NA	NA	NA	NA	NA	NA	**54**	**40**	NA	**85**	**84**
Nitrate	10	NA	NA	NA	NA	NA	NA	NA	**3.1**	**4.5**	NA	**2.3**	**2.3**
Sulfate	--	NA	NA	NA	NA	NA	NA	NA	**96**	**38**	**38 J-**	**62**	**62**
Field Parameters													
pH, Field (su)	--	NA	**6.11**	**6.53**	**9.01**	**6.44**	**6.57**	**6.33**	**5.7**	**6.75**	**5.8**	**5.36**	NA
Temperature, Field (°C)	--	NA	**18.68**	**15.5**	**19.04**	**13.55**	**17.32**	**12.81**	**18.4**	**19.48**	**22.63**	**19.29**	NA
Specific Conductivity, Field (µS/cm)	--	NA	**139**	**98**	**140**	**74**	**84**	**71**	**330**	**292**	**344**	**340**	NA
Dissolved Oxygen, Field (mg/L)	--	NA	**2.59**	**2.03**	**5.65**	**7.42**	**6.43**	**3.65**	**1**	**3.53**	**0**	**2.17**	NA
Oxidation Reduction Potential, Field (mV)	--	NA	**79**	**108**	**53**	**153**	**180**	**159**	**375**	**508**	**149**	**375**	NA
Turbidity, Field (NTU)	--	NA	**255**	**224**	**0**	**0**	**4.72**	**21.8**	**>1000**	**>1000**	**>1000**	**>1000**	NA
Iron, Ferrous, Field (mg/L)	--	NA	NA	**0**	NA	**0**	NA	**0**	**0.2**	**0.2**	**2**	**0.2**	NA

Note: Only constituents detected in at least one sample are reported in this table.

(2) Maximum Contaminant Level; March 2018 Edition of the Drinking Water Standards and Health Advisories (USEPA, 2018).

(3) The total of combined trihalomethanes (bromodichloromethane, dibromochloromethane, bromoform and chloroform) cannot exceed 0.08 mg/L.

J - Concentration detected equal to or greater than the method detection limit but less than the reporting limit.

J+ - Concentration considered an estimate biased high based on data validation.

J- - Concentration considered an estimate biased low based on data validation.

UJ - Not detected; quantitation limit may be inaccurate or imprecise.

< - Concentration less than the Quantitation Limit.

> - Concentration greater than the Quantitation Limit.

NA - Not analyzed.

Bolding indicates constituent detection.

Shading indicates concentration exceeds comparison criteria.

Appendix B - Comprehensive Summary of Analytical Results for Groundwater Samples

CONSTITUENT	MCL[1]	DP-20A			DP-20B			DP-21			DP-21A			DP-21B
		3/26/2020	DU-20105 3/26/2020	3/26/2021	1/18/2019	3/26/2020	3/26/2021	1/18/2019	3/26/2020	3/26/2021	1/18/2019	3/26/2020	3/26/2021	1/25/2019
Gases (µg/L)														
Methane	--	**0.37 J**	**0.44 J**	**20**	**0.82**	**0.64**	**11**	< 0.50	**110**	**7200**	**0.83**	**5.4**	**5900**	< 0.50
Ethane	--	**0.059 J**	**0.079 J**	**0.24 J**	**0.24**	**0.26**	**0.38 J**	< 0.10	**0.35**	**6.2**	**0.20**	**2.4**	**60**	< 0.10
Ethene	--	**0.036 J**	**0.047 J**	< 0.12	**0.26**	**0.13**	**0.23 J**	< 0.10	**0.98**	**6.6**	**0.16**	**1.5**	**3.9**	< 0.10
Volatile Organic Compounds (mg/L)														
1,1-Dichloroethane	--	< 0.05	< 0.05	< 0.05	< 0.02	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.02	< 0.02	< 0.0010	< 0.05
1,1-Dichloroethene	0.007	< 0.05	< 0.05	< 0.05	< 0.02	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.02	< 0.02	**0.00069 J**	< 0.05
1,2-Dichlorobenzene	0.6	< 0.05	< 0.05	< 0.05	< 0.02	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.02	< 0.02	< 0.0010	< 0.05
1,2-Dichloroethane	0.005	< 0.05	< 0.05	< 0.05	< 0.02	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.02	< 0.02	< 0.0010	< 0.05
1,2-Dichloropropane	0.005	< 0.05	< 0.05	< 0.05	< 0.02	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.02	< 0.02	< 0.0010	< 0.05
1,4-Dichlorobenzene	0.075	< 0.05	< 0.05	< 0.05	< 0.02	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.02	< 0.02	< 0.0010	< 0.05
2-Butanone	--	< 0.5	< 0.5	< 0.5	< 0.2	< 0.01	< 0.05	< 0.01	**0.0046 J**	< 0.01	< 0.2	< 0.2	**0.11**	< 0.5
2-Hexanone	--	< 0.5	< 0.5	< 0.5	< 0.2	< 0.01	< 0.05	< 0.01	< 0.01	< 0.01	< 0.2	< 0.2	< 0.01	< 0.5
4-Methyl-2-pentanone	--	< 0.5	< 0.5	< 0.5	< 0.2	< 0.01	< 0.05	< 0.01	< 0.01	< 0.01	< 0.2	< 0.2	< 0.01	< 0.5
Acetone	--	< 1	< 1	< 1	< 0.4	< 0.02	< 0.1	< 0.02	**0.0052 J**	< 0.02	< 0.4	< 0.4	**0.11**	< 1
Benzene	0.005	< 0.05	< 0.05	< 0.05	< 0.02	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.02	< 0.02	< 0.0010	< 0.05
Bromodichloromethane	0.08000[2]	< 0.05	< 0.05	< 0.05	< 0.02	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.02	< 0.02	< 0.0010	< 0.05
Carbon disulfide	--	< 0.05	< 0.05	< 0.05	< 0.02	< 0.0010	< 0.0050	< 0.0010	**0.00041 J**	< 0.0010	< 0.02	< 0.02	**0.0033**	< 0.05
Carbon tetrachloride	0.005	< 0.05	< 0.05	< 0.05	< 0.02	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.02	< 0.02	< 0.0010	< 0.05
Chlorobenzene	0.1	< 0.05	< 0.05	< 0.05	< 0.02	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.02	< 0.02	< 0.0010	< 0.05
Chloroethane	--	< 0.1	< 0.1	< 0.1	< 0.04	< 0.0020	< 0.01	< 0.0020	< 0.0020	< 0.0020	< 0.04	< 0.04	< 0.0020	< 0.1
Chloroform	0.08000[2]	< 0.05	< 0.05	< 0.05	< 0.02	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.02	< 0.02	< 0.0010	< 0.05
Chloromethane	--	< 0.05	< 0.05	< 0.05	< 0.02	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.02	< 0.02	< 0.0010	< 0.05
cis-1,2-Dichloroethene	0.07	< 0.05	< 0.05	< 0.05	< 0.02	< 0.0010	< 0.0050	< 0.0010	**0.0011**	**0.092**	< 0.02	< 0.02	**0.07**	< 0.05
Cyclohexane	--	< 0.05	< 0.05	< 0.05	< 0.02	< 0.0010	< 0.0050	< 0.0010 UJ	< 0.0010	< 0.0010	< 0.02	< 0.02	< 0.0010	< 0.05
Ethylbenzene	0.7	< 0.05	< 0.05	< 0.05	< 0.02	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.02	< 0.02	< 0.0010	< 0.05
Isopropylbenzene (Cumene)	--	< 0.05	< 0.05	< 0.05	< 0.02	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.02	< 0.02	< 0.0010	< 0.05
Methyl acetate	--	< 0.05	< 0.05	< 0.05	< 0.02	< 0.0010	< 0.0050	< 0.0010	< 0.0010	**0.0041**	< 0.02	< 0.02	**0.016**	< 0.05
Methylcyclohexane	--	< 0.25	< 0.25	< 0.25	< 0.1	< 0.0050	< 0.025	< 0.0050	< 0.0050	< 0.0050	< 0.1	< 0.1	< 0.0050	< 0.25
Methylene chloride	0.005	< 0.05	< 0.05	< 0.05	< 0.02	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.02	< 0.02	< 0.0010	< 0.05
Styrene	0.1	< 0.05	< 0.05	< 0.05	< 0.02	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.02	< 0.02	< 0.0010	< 0.05
Tetrachloroethene	0.005	**3.1**	**3**	**4.3**	**1**	**0.2**	**0.36**	**0.038**	**0.02**	**0.017**	**1.9**	**1.7**	**0.13**	**2.5**
Toluene	1	< 0.05	< 0.05	< 0.05	< 0.02	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.02	< 0.02	< 0.0010	< 0.05
trans-1,2-Dichloroethene	0.1	< 0.05	< 0.05	< 0.05	< 0.02	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.02	< 0.02	< 0.0010	< 0.05
Trichloroethene	0.005	< 0.05	< 0.05	< 0.05	< 0.02	**0.00046 J**	< 0.0050	< 0.0010	**0.0055**	**0.0010**	< 0.02	< 0.02	**0.079**	< 0.05
Trichlorofluoromethane (Freon 11)	--	< 0.05	< 0.05	< 0.05	< 0.02	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.02	< 0.02	< 0.0010	< 0.05
Trichlorotrifluoroethane (Freon 113)	--	< 0.05	< 0.05	< 0.05	< 0.02	< 0.0010	< 0.0050	< 0.0010 UJ	< 0.0010	< 0.0010	< 0.02	< 0.02	< 0.0010	< 0.05
Vinyl chloride	0.002	< 0.05	< 0.05	< 0.05	< 0.02	< 0.0010	< 0.0050	< 0.0010	< 0.0010	**0.0013**	< 0.02	< 0.02	**0.00049 J**	< 0.05
Xylenes, total	10	< 0.05	< 0.05	< 0.05	< 0.02	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.02	< 0.02	< 0.0010	< 0.05
General Chemistry (mg/L)														
Bromide	--	**0.32**	**0.32**	**0.39**	**0.32**	< 0.20	**0.083 J**	**0.22**	**0.099 J**	**0.18 J**	**1.3**	**0.94**	**0.56**	**0.14 J**
Chloride	--	**61**	**61**	NA	**71**	**20**	NA	**11**	**8.4**	NA	**12**	**89**	NA	**6.5**
Nitrate	10	**3.4**	**3.3**	NA	**4.6**	**2.0**	NA	**11**	**0.35**	NA	**7.7**	**6.6**	NA	**2.8**
Sulfate	--	**0.85 J**	**1.1**	**1.1 J-**	**17**	**6.6**	**6.8 J-**	**12**	**20**	**16 J-**	< 1.0	< 1.0	**0.51 J-**	< 1.0
Field Parameters														
pH, Field (su)	--	**7.51**	NA	**6.38**	**7.1**	**12.26**	**10.53**	**5.21**	**6.22**	**6.61**	**5.92**	**6.2**	**5.52**	**5.95**
Temperature, Field (°C)	--	**21.03**	NA	**21.76**	**18.95**	**21.54**	**23.36**	**16.13**	**18.86**	**17.54**	**15.78**	**19.8**	**19.32**	**16.21**
Specific Conductivity, Field (µS/cm)	--	**285**	NA	**270**	**319**	**242**	**213**	**147**	**116**	**263**	**116**	**356**	**501**	**55**
Dissolved Oxygen, Field (mg/L)	--	**3.27**	NA	**0.07**	**0.87**	**4.43**	**0.58**	**4.64**	**1.61**	**0**	**2.68**	**2.17**	**0**	**5.51**
Oxidation Reduction Potential, Field (mV)	--	**100**	NA	**34**	**-3**	**-85**	**-126**	**219**	**112**	**-472**	**190**	**143**	**-291**	**160**
Turbidity, Field (NTU)	--	**>1000**	NA	**863**	**>1000**	**>1000**	**305**	**>1000**	**>1000**	**585**	**>1000**	**>1000**	**>1000**	**485**
Iron, Ferrous, Field (mg/L)	--	**0**	NA	**1**	**3**	**0**	**0**	**0.6**	**10**	**>10**	**2**	**4**	**>10**	**0**

Note: Only constituents detected in at least one sample are reported in this table.

(2) Maximum Contaminant Level; March 2018 Edition of the Drinking Water Standards and Health Advisories (USEPA, 2018).

(3) The total of combined trihalomethanes (bromodichloromethane, dibromochloromethane, bromoform and chloroform) cannot exceed 0.08 mg/L.

J - Concentration detected equal to or greater than the method detection limit but less than the reporting limit.

J+ - Concentration considered an estimate biased high based on data validation.

J- - Concentration considered an estimate biased low based on data validation.

UJ - Not detected; quantitation limit may be inaccurate or imprecise.

< - Concentration less than the Quantitation Limit.

> - Concentration greater than the Quantitation Limit.

NA - Not analyzed.

Bolding indicates constituent detection.

Shading indicates concentration exceeds comparison criteria.

Appendix B - Comprehensive Summary of Analytical Results for Groundwater Samples

CONSTITUENT	MCL[1]	DP-21B			DP-22			DP-22A			DP-22B			DP-23
		3/26/2020	DU-21105 3/25/2021	3/26/2021	1/16/2019	3/25/2020	3/25/2021	1/16/2019	3/25/2020	3/25/2021	1/16/2019	3/25/2020	3/25/2021	1/16/2019
Gases (µg/L)														
Methane	--	**0.70**	**190 J**	**280 J**	< 0.50	**85**	**2100**	**1.3**	**2.4**	**11**	**1.0**	**0.40 J**	**25**	< 0.50
Ethane	--	**0.096 J**	**8.6 J**	**12 J**	< 0.10	**0.97**	**8.6**	**0.31**	**1.2**	**2.0**	**0.30**	**0.096 J**	**1.4**	< 0.10
Ethene	--	**0.052 J**	**1.6**	**2.0**	< 0.10	**1.0**	**0.55 J**	**0.22**	**0.48**	**1.1**	**0.24**	**0.060 J**	**0.93 J**	< 0.10
Volatile Organic Compounds (mg/L)														
1,1-Dichloroethane	--	< 0.0010	< 0.0010	< 0.0010	< 0.01	< 0.0010	< 0.0050	< 0.05	< 0.05	< 0.02	< 0.01	< 0.01	< 0.0050	< 0.0010
1,1-Dichloroethene	0.007	< 0.0010	< 0.0010	< 0.0010	< 0.01	< 0.0010	< 0.0050	< 0.05	< 0.05	< 0.02	< 0.01	< 0.01	< 0.0050	< 0.0010
1,2-Dichlorobenzene	0.6	< 0.0010	< 0.0010	< 0.0010	< 0.01	< 0.0010	< 0.0050	< 0.05	< 0.05	< 0.02	< 0.01	< 0.01	< 0.0050	< 0.0010
1,2-Dichloroethane	0.005	< 0.0010	< 0.0010	< 0.0010	< 0.01	< 0.0010	< 0.0050	< 0.05	< 0.05	< 0.02	< 0.01	< 0.01	< 0.0050	< 0.0010
1,2-Dichloropropane	0.005	< 0.0010	< 0.0010	< 0.0010	< 0.01	< 0.0010	< 0.0050	< 0.05	< 0.05	< 0.02	< 0.01	< 0.01	< 0.0050	< 0.0010
1,4-Dichlorobenzene	0.075	< 0.0010	< 0.0010	< 0.0010	< 0.01	< 0.0010	< 0.0050	< 0.05	< 0.05	< 0.02	< 0.01	< 0.01	< 0.0050	< 0.0010
2-Butanone	--	**0.0037 J**	**0.24**	**0.25**	< 0.1	**0.093**	**0.015 J**	< 0.5	< 0.5	< 0.2	< 0.1	< 0.1	< 0.05	< 0.01
2-Hexanone	--	< 0.01	< 0.01	< 0.01	< 0.1	< 0.01	< 0.05	< 0.5	< 0.5	< 0.2	< 0.1	< 0.1	< 0.05	< 0.01
4-Methyl-2-pentanone	--	< 0.01	< 0.01	< 0.01	< 0.1	< 0.01	< 0.05	< 0.5	< 0.5	< 0.2	< 0.1	< 0.1	< 0.05	< 0.01
Acetone	--	**0.0068 J**	**0.015 J**	**0.015 J**	< 0.2	**0.036**	< 0.1	< 1	< 1	< 0.4	< 0.2	< 0.2	< 0.1	< 0.02
Benzene	0.005	< 0.0010	< 0.0010	< 0.0010	< 0.01	< 0.0010	< 0.0050	< 0.05	< 0.05	< 0.02	< 0.01	< 0.01	< 0.0050	< 0.0010
Bromodichloromethane	0.08000[2]	< 0.0010	< 0.0010	< 0.0010	< 0.01	< 0.0010	< 0.0050	< 0.05	< 0.05	< 0.02	< 0.01	< 0.01	< 0.0050	< 0.0010
Carbon disulfide	--	< 0.0010	< 0.0010	< 0.0010	< 0.01	**0.00065 J**	< 0.0050	< 0.05	< 0.05	< 0.02	< 0.01	< 0.01	**0.0071**	< 0.0010
Carbon tetrachloride	0.005	< 0.0010	< 0.0010	< 0.0010	< 0.01	< 0.0010	< 0.0050	< 0.05	< 0.05	< 0.02	< 0.01	< 0.01	< 0.0050	< 0.0010
Chlorobenzene	0.1	< 0.0010	< 0.0010	< 0.0010	< 0.01	< 0.0010	< 0.0050	< 0.05	< 0.05	< 0.02	< 0.01	< 0.01	< 0.0050	< 0.0010
Chloroethane	--	< 0.0020	< 0.0020	< 0.0020	< 0.02	< 0.0020	< 0.01	< 0.1	< 0.1	< 0.04	< 0.02	< 0.02	< 0.01	< 0.0020
Chloroform	0.08000[2]	< 0.0010	< 0.0010	< 0.0010	< 0.01	< 0.0010	< 0.0050	< 0.05	< 0.05	< 0.02	< 0.01	< 0.01	< 0.0050	**0.00041 J**
Chloromethane	--	< 0.0010	< 0.0010	< 0.0010	< 0.01	< 0.0010	< 0.0050	< 0.05	< 0.05	< 0.02	< 0.01	< 0.01	< 0.0050	< 0.0010
cis-1,2-Dichloroethene	0.07	< 0.0010	**0.0096**	**0.0090**	< 0.01	**0.00095 J**	**0.061**	< 0.05	< 0.05	< 0.02	< 0.01	< 0.01	< 0.0050	< 0.0010
Cyclohexane	--	< 0.0010	< 0.0010	< 0.0010	< 0.01	< 0.0010	< 0.0050	< 0.05	< 0.05	< 0.02	< 0.01	< 0.01	< 0.0050	< 0.0010
Ethylbenzene	0.7	< 0.0010	< 0.0010	< 0.0010	< 0.01	< 0.0010	< 0.0050	< 0.05	< 0.05	< 0.02	< 0.01	< 0.01	< 0.0050	< 0.0010
Isopropylbenzene (Cumene)	--	< 0.0010	< 0.0010	< 0.0010	< 0.01	< 0.0010	< 0.0050	< 0.05	< 0.05	< 0.02	< 0.01	< 0.01	< 0.0050	< 0.0010
Methyl acetate	--	< 0.0010	**0.0079**	**0.0093**	< 0.01	< 0.0010	< 0.0050	< 0.05	< 0.05	< 0.02	< 0.01	< 0.01	< 0.0050	< 0.0010
Methylcyclohexane	--	< 0.0050	< 0.0050	< 0.0050	< 0.05	< 0.0050	< 0.025	< 0.25	< 0.25	< 0.1	< 0.05	< 0.05	< 0.025	< 0.0050
Methylene chloride	0.005	< 0.0010	< 0.0010	< 0.0010	< 0.01	< 0.0010	< 0.0050	< 0.05	< 0.05	< 0.02	< 0.01	< 0.01	< 0.0050	< 0.0010
Styrene	0.1	< 0.0010	< 0.0010	< 0.0010	< 0.01	< 0.0010	< 0.0050	< 0.05	< 0.05	< 0.02	< 0.01	< 0.01	< 0.0050	< 0.0010
Tetrachloroethene	0.005	**0.042**	**0.19**	**0.15**	**0.8**	**0.23**	**0.35**	**2.7**	**4.1**	**2.2**	**0.73**	**0.94**	**0.4**	**0.08**
Toluene	1	< 0.0010	< 0.0010	< 0.0010	< 0.01	< 0.0010	< 0.0050	< 0.05	< 0.05	< 0.02	< 0.01	< 0.01	< 0.0050	< 0.0010
trans-1,2-Dichloroethene	0.1	< 0.0010	< 0.0010	< 0.0010	< 0.01	< 0.0010	< 0.0050	< 0.05	< 0.05	< 0.02	< 0.01	< 0.01	< 0.0050	< 0.0010
Trichloroethene	0.005	< 0.0010	**0.0056**	**0.0049**	< 0.01	**0.00071 J**	**0.075**	< 0.05	< 0.05	**0.022**	**0.0077 J**	**0.0065 J**	**0.023**	< 0.0010
Trichlorofluoromethane (Freon 11)	--	< 0.0010	< 0.0010	< 0.0010	< 0.01	< 0.0010	< 0.0050	< 0.05	< 0.05	< 0.02	< 0.01	< 0.01	< 0.0050	< 0.0010
Trichlorotrifluoroethane (Freon 113)	--	< 0.0010	< 0.0010	< 0.0010	< 0.01	< 0.0010	< 0.0050	< 0.05	< 0.05	< 0.02	< 0.01	< 0.01	< 0.0050	< 0.0010
Vinyl chloride	0.002	< 0.0010	< 0.0010	< 0.0010	< 0.01	< 0.0010	< 0.0050	< 0.05	< 0.05	< 0.02	< 0.01	< 0.01	< 0.0050	< 0.0010
Xylenes, total	10	< 0.0010	< 0.0010	< 0.0010	< 0.01	< 0.0010	< 0.0050	< 0.05	< 0.05	< 0.02	< 0.01	< 0.01	< 0.0050	< 0.0010
General Chemistry (mg/L)														
Bromide	--	< 0.20	**0.083 J**	**0.086 J**	**0.24**	**0.15 J**	**0.21**	**3.2**	**3.5**	**2.0**	**0.45**	**0.26**	**0.18 J**	**0.26**
Chloride	--	**20**	NA	NA	**31**	**27**	NA	**220**	**220**	NA	**190**	**170**	NA	**15**
Nitrate	10	**1.7**	NA	NA	**5.1**	**0.81**	NA	**6.4**	**6.6**	NA	**1.3**	**1.6**	NA	**5.2**
Sulfate	--	< 1.0	**0.43 J-**	**0.33 J-**	**12**	**69**	**45 J-**	**1.4**	**0.28 J**	**0.37 J-**	**0.77 J**	**0.25 J**	**0.35 J-**	**0.84 J**
Field Parameters														
pH, Field (su)	--	**7.32**	NA	**7.02**	**5.53**	**6.35**	**5.56**	**5.34**	**5.68**	**5.2**	**6.12**	**6.7**	**6.25**	**5.28**
Temperature, Field (°C)	--	**19.36**	NA	**20.47**	**17.55**	**29.34**	**17.51**	**18.4**	**24.98**	**17.36**	**19.81**	**25.73**	**19.25**	**14.29**
Specific Conductivity, Field (µS/cm)	--	**119**	NA	**401**	**170**	**259**	**238**	**610**	**760**	**779**	**512**	**558**	**694**	**111**
Dissolved Oxygen, Field (mg/L)	--	**4.14**	NA	**1.27**	**3.06**	**3.19**	**0**	**1.54**	**1.25**	**0**	**1.65**	**2.87**	**0**	**3.36**
Oxidation Reduction Potential, Field (mV)	--	**79**	NA	**-79**	**228**	**234**	**-13**	**191**	**30**	**-126**	**91**	**115**	**-207**	**240**
Turbidity, Field (NTU)	--	**>1000**	NA	**>1000**	**>1000**	**>1000**	**>1000**	**661**	**115**	**>1000**	NA	**>1000**	**>1000**	**>1000**
Iron, Ferrous, Field (mg/L)	--	**0.4**	NA	**8**	**0.6**	**1**	**1**	**6**	**3**	**5**	**6**	**2**	**>10**	**0.6**

Note: Only constituents detected in at least one sample are reported in this table.

(2) Maximum Contaminant Level; March 2018 Edition of the Drinking Water Standards and Health Advisories (USEPA, 2018).

(3) The total of combined trihalomethanes (bromodichloromethane, dibromochloromethane, bromoform and chloroform) cannot exceed 0.08 mg/L.

J - Concentration detected equal to or greater than the method detection limit but less than the reporting limit.

J+ - Concentration considered an estimate biased high based on data validation.

J- - Concentration considered an estimate biased low based on data validation.

UJ - Not detected; quantitation limit may be inaccurate or imprecise.

< - Concentration less than the Quantitation Limit.

> - Concentration greater than the Quantitation Limit.

NA - Not analyzed.

Bolding indicates constituent detection.

Shading indicates concentration exceeds comparison criteria.

Appendix B - Comprehensive Summary of Analytical Results for Groundwater Samples

CONSTITUENT	MCL[1]	DP-23		DP-23A				DP-23B			DP-24			DP-24A
		3/25/2020	3/25/2021	1/16/2019	3/25/2020	DU-20104 3/25/2020	3/25/2021	1/16/2019	3/25/2020	3/25/2021	1/15/2019	3/25/2020	3/24/2021	1/15/2019
Gases (µg/L)														
Methane	--	**0.44 J**	**8.4**	< 0.50	**0.49 J**	**0.34 J**	**9.0**	< 0.50	**0.18 J**	**6.4**	< 0.50	**170**	**3000**	**0.83**
Ethane	--	**0.10**	< 0.075	< 0.10	**0.14**	**0.095 J**	< 0.075	**0.10**	**0.051 J**	**0.19 J**	< 0.10	**2.0**	**6.6**	< 0.10
Ethene	--	**0.13**	< 0.12	< 0.10	**0.061 J**	**0.033 J**	< 0.12	< 0.10	**0.044 J**	**0.18 J**	< 0.10	**0.11**	**0.22 J**	< 0.10
Volatile Organic Compounds (mg/L)														
1,1-Dichloroethane	--	< 0.0010	< 0.0010	< 0.0010	< 0.02	< 0.02	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.01	< 0.0050	< 0.0010	< 0.05
1,1-Dichloroethene	0.007	< 0.0010	< 0.0010	< 0.0010	< 0.02	< 0.02	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.01	< 0.0050	< 0.0010	< 0.05
1,2-Dichlorobenzene	0.6	< 0.0010	< 0.0010	< 0.0010	< 0.02	< 0.02	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.01	< 0.0050	< 0.0010	< 0.05
1,2-Dichloroethane	0.005	< 0.0010	< 0.0010	< 0.0010	< 0.02	< 0.02	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.01	< 0.0050	< 0.0010	< 0.05
1,2-Dichloropropane	0.005	< 0.0010	< 0.0010	< 0.0010	< 0.02	< 0.02	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.01	< 0.0050	< 0.0010	< 0.05
1,4-Dichlorobenzene	0.075	< 0.0010	< 0.0010	< 0.0010	< 0.02	< 0.02	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.01	< 0.0050	< 0.0010	< 0.05
2-Butanone	--	< 0.01	< 0.01	< 0.01	< 0.2	< 0.2	< 0.05	< 0.01	< 0.01	< 0.01	< 0.1	< 0.05	< 0.01	< 0.5
2-Hexanone	--	< 0.01	< 0.01	< 0.01	< 0.2	< 0.2	< 0.05	< 0.01	< 0.01	< 0.01	< 0.1	< 0.05	< 0.01	< 0.5
4-Methyl-2-pentanone	--	< 0.01	< 0.01	< 0.01	< 0.2	< 0.2	< 0.05	< 0.01	< 0.01	< 0.01	< 0.1	< 0.05	< 0.01	< 0.5
Acetone	--	< 0.02	< 0.02	< 0.02	< 0.4	< 0.4	< 0.1	< 0.02	< 0.02	< 0.02	< 0.2	< 0.1	< 0.02	< 1
Benzene	0.005	< 0.0010	< 0.0010	< 0.0010	< 0.02	< 0.02	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.01	< 0.0050	< 0.0010	< 0.05
Bromodichloromethane	0.08000[2]	< 0.0010	< 0.0010	< 0.0010	< 0.02	< 0.02	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.01	< 0.0050	< 0.0010	< 0.05
Carbon disulfide	--	< 0.0010	< 0.0010	< 0.0010	< 0.02	< 0.02	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.01	< 0.0050	< 0.0010	< 0.05
Carbon tetrachloride	0.005	< 0.0010	< 0.0010	< 0.0010	< 0.02	< 0.02	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.01	< 0.0050	< 0.0010	< 0.05
Chlorobenzene	0.1	< 0.0010	< 0.0010	< 0.0010	< 0.02	< 0.02	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.01	< 0.0050	< 0.0010	< 0.05
Chloroethane	--	< 0.0020	< 0.0020	< 0.0020	< 0.04	< 0.04	< 0.01	< 0.0020	< 0.0020	< 0.0020	< 0.02	< 0.01	< 0.0020	< 0.1
Chloroform	0.08000[2]	**0.00052 J**	< 0.0010	< 0.0010	< 0.02	< 0.02	< 0.0050	< 0.0010	**0.00064 J**	< 0.0010	< 0.01	< 0.0050	< 0.0010	< 0.05
Chloromethane	--	< 0.0010	< 0.0010	< 0.0010	< 0.02	< 0.02	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.01	< 0.0050	< 0.0010	< 0.05
cis-1,2-Dichloroethene	0.07	< 0.0010	< 0.0010	< 0.0010	< 0.02	< 0.02	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.01	**0.1**	**0.14**	< 0.05
Cyclohexane	--	< 0.0010	< 0.0010	< 0.0010	< 0.02	< 0.02	< 0.0050	< 0.0010 UJ	< 0.0010	< 0.0010	< 0.01 UJ	< 0.0050	< 0.0010	< 0.05 UJ
Ethylbenzene	0.7	< 0.0010	< 0.0010	< 0.0010	< 0.02	< 0.02	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.01	< 0.0050	< 0.0010	< 0.05
Isopropylbenzene (Cumene)	--	< 0.0010	< 0.0010	< 0.0010	< 0.02	< 0.02	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.01	< 0.0050	< 0.0010	< 0.05
Methyl acetate	--	< 0.0010	< 0.0010	< 0.0010	< 0.02	< 0.02	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.01	< 0.0050	< 0.0010	< 0.05
Methylcyclohexane	--	< 0.0050	< 0.0050	< 0.0050	< 0.1	< 0.1	< 0.025	< 0.0050	< 0.0050	< 0.0050	< 0.05	< 0.025	< 0.0050	< 0.25
Methylene chloride	0.005	< 0.0010	< 0.0010	< 0.0010	< 0.02	< 0.02	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.01	< 0.0050	< 0.0010	< 0.05
Styrene	0.1	< 0.0010	< 0.0010	< 0.0010	< 0.02	< 0.02	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.01	< 0.0050	< 0.0010	< 0.05
Tetrachloroethene	0.005	**0.064**	**0.066**	**0.032**	**2.3**	**2**	**0.5**	**0.011**	**0.044**	**0.026**	**0.81**	**0.34 J+**	**0.073**	**4.2**
Toluene	1	< 0.0010	< 0.0010	< 0.0010	< 0.02	< 0.02	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.01	< 0.0050	< 0.0010	< 0.05
trans-1,2-Dichloroethene	0.1	< 0.0010	< 0.0010	< 0.0010	< 0.02	< 0.02	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.01	< 0.0050	< 0.0010	< 0.05
Trichloroethene	0.005	< 0.0010	< 0.0010	< 0.0010	< 0.02	< 0.02	**0.0022 J**	< 0.0010	< 0.0010	< 0.0010	< 0.01	**0.019 J+**	**0.0051**	< 0.05
Trichlorofluoromethane (Freon 11)	--	**0.00060 J**	**0.00043 J**	**0.0035**	< 0.02	< 0.02	**0.0030 J**	< 0.0010	**0.0020**	**0.00074 J**	< 0.01	< 0.0050	< 0.0010	< 0.05
Trichlorotrifluoroethane (Freon 113)	--	< 0.0010	< 0.0010	< 0.0010	**0.014 J**	**0.012 J**	< 0.0050	< 0.0010 UJ	< 0.0010	< 0.0010	< 0.01 UJ	< 0.0050	**0.00049**	< 0.05 UJ
Vinyl chloride	0.002	< 0.0010	< 0.0010	< 0.0010	< 0.02	< 0.02	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.01	< 0.0050	**0.0015**	< 0.05
Xylenes, total	10	< 0.0010	< 0.0010	< 0.0010	< 0.02	< 0.02	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.01	< 0.0050	< 0.0010	< 0.05
General Chemistry (mg/L)														
Bromide	--	**0.17 J**	**0.18 J**	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	< 0.20	**0.28**	**0.25**	**0.19**	**0.091 J**
Chloride	--	**11**	NA	< 1.0	**1.3**	**1.4**	NA	< 1.0	**0.57 J**	NA	**19**	**21**	NA	**1.2**
Nitrate	10	**4.7**	NA	**0.68**	**1.3**	**1.1 J-**	NA	**0.046**	**0.41**	NA	**4.3**	**0.70**	NA	**0.71**
Sulfate	--	**0.87 J**	**0.81 J-**	**0.44 J**	< 1.0	< 1.0	< 1.0 UJ	**0.64 J**	< 1.0	< 1.0 UJ	**1.3**	**1.0**	**0.52**	**0.52 J**
Field Parameters														
pH, Field (su)	--	**6.16**	**5.05**	**5.78**	**6.44**	NA	**5.67**	**6.75**	**7.31**	**6.57**	**5.5**	**5.72**	**5.22**	**6.4**
Temperature, Field (°C)	--	**21.68**	**17.33**	**13.73**	**23.58**	NA	**18.25**	**14.12**	**26.83**	**18.48**	**16.68**	**18.29**	**18.03**	**17.27**
Specific Conductivity, Field (µS/cm)	--	**96**	**113**	**20**	**31**	NA	**18**	**28**	**23**	**27**	**91**	**108**	**77**	**31**
Dissolved Oxygen, Field (mg/L)	--	**2.6**	**0**	**6.04**	**5.96**	NA	**1.88**	**7.12**	**4.65**	**1.43**	**4.11**	**1.51**	**0**	**4.62**
Oxidation Reduction Potential, Field (mV)	--	**154**	**57**	**180**	**173**	NA	**36**	**126**	**91**	**-65**	**293**	**502**	**-145**	**173**
Turbidity, Field (NTU)	--	**>1000**	**482**	**910**	**989**	NA	**<1000**	NA	**>1000**	**>1000**	**427**	**>1000**	**369**	NA
Iron, Ferrous, Field (mg/L)	--	**2**	**1**	**0.2**	**0.4**	NA	**0.3**	**0**	**0**	**0.3**	**0.6**	**1**	**1**	**0.6**

Note: Only constituents detected in at least one sample are reported in this table.

(2) Maximum Contaminant Level; March 2018 Edition of the Drinking Water Standards and Health Advisories (USEPA, 2018).

(3) The total of combined trihalomethanes (bromodichloromethane, dibromochloromethane, bromoform and chloroform) cannot exceed 0.08 mg/L.

J - Concentration detected equal to or greater than the method detection limit but less than the reporting limit.

J+ - Concentration considered an estimate biased high based on data validation.

J- - Concentration considered an estimate biased low based on data validation.

UJ - Not detected; quantitation limit may be inaccurate or imprecise.

< - Concentration less than the Quantitation Limit.

> - Concentration greater than the Quantitation Limit.

NA - Not analyzed.

Bolding indicates constituent detection.

Shading indicates concentration exceeds comparison criteria.

Appendix B - Comprehensive Summary of Analytical Results for Groundwater Samples

CONSTITUENT	MCL[1]	DP-24A		DP-24B				DP-25			DP-25A			DP-25B
		3/25/2020	3/24/2021	1/15/2019	3/25/2020	DU-21104 3/24/2021	3/24/2021	1/15/2019	3/24/2020	3/24/2021	1/15/2019	3/24/2020	3/24/2021	1/15/2019
Gases (µg/L)														
Methane	--	**1.2**	<5.0	**0.63**	**3.2**	**24**	**23**	**1.0**	**3.0**	**710**	**0.98**	**1.0**	<5.0	< 0.50
Ethane	--	**0.28**	**0.34 J**	**0.12**	**1.2**	**6.6**	**6.2**	**0.29**	**0.31**	**2.4**	**0.37**	**0.36**	**0.98 J**	**0.12**
Ethene	--	**0.16**	**0.35 J**	< 0.10	**0.69**	**3.1**	**2.9**	**0.22**	**0.45**	**1.2**	**0.27**	**0.18**	**0.53 J**	< 0.10
Volatile Organic Compounds (mg/L)														
1,1-Dichloroethane	--	< 0.02	< 0.02	< 0.01	< 0.0010	< 0.0050	< 0.0050	< 0.0050	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.0050	< 0.0050
1,1-Dichloroethene	0.007	< 0.02	< 0.02	< 0.01	< 0.0010	< 0.0050	< 0.0050	< 0.0050	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.0050	< 0.0050
1,2-Dichlorobenzene	0.6	< 0.02	< 0.02	< 0.01	**0.00061 J**	**0.0030 J**	**0.0030 J**	< 0.0050	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.0050	< 0.0050
1,2-Dichloroethane	0.005	< 0.02	< 0.02	< 0.01	< 0.0010	< 0.0050	< 0.0050	< 0.0050	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.0050	< 0.0050
1,2-Dichloropropane	0.005	< 0.02	< 0.02	< 0.01	< 0.0010	< 0.0050	< 0.0050	< 0.0050	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.0050	< 0.0050
1,4-Dichlorobenzene	0.075	< 0.02	< 0.02	< 0.01	< 0.0010	< 0.0050	< 0.0050	< 0.0050	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.0050	< 0.0050
2-Butanone	--	< 0.2	< 0.2	< 0.1	< 0.01	**0.19**	**0.2**	< 0.05	**0.12**	< 0.01	< 0.05	**0.03 J**	< 0.05	< 0.05
2-Hexanone	--	< 0.2	< 0.2	< 0.1	< 0.01	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.05	< 0.05	< 0.05	< 0.05
4-Methyl-2-pentanone	--	< 0.2	< 0.2	< 0.1	< 0.01	< 0.05	< 0.05	< 0.05	< 0.01	< 0.01	< 0.05	< 0.05	< 0.05	< 0.05
Acetone	--	< 0.4	< 0.4	< 0.2	**0.0063 J**	**0.1**	**0.094 J**	< 0.1	**0.18**	< 0.02	**0.012 J**	**0.075 J**	< 0.1	**0.011 J**
Benzene	0.005	< 0.02	< 0.02	< 0.01	< 0.0010	< 0.0050	< 0.0050	< 0.0050	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Bromodichloromethane	0.08000[2]	< 0.02	< 0.02	< 0.01	< 0.0010	< 0.0050	< 0.0050	< 0.0050	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Carbon disulfide	--	< 0.02	< 0.02	< 0.01	< 0.0010	< 0.0050	< 0.0050	< 0.0050	**0.0047**	< 0.0010	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Carbon tetrachloride	0.005	< 0.02	< 0.02	< 0.01	< 0.0010	< 0.0050	< 0.0050	< 0.0050	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Chlorobenzene	0.1	< 0.02	< 0.02	< 0.01	< 0.0010	< 0.0050	< 0.0050	< 0.0050	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Chloroethane	--	< 0.04	< 0.04	< 0.02	< 0.0020	< 0.01	< 0.01	< 0.01	< 0.0020	< 0.0020	< 0.01	< 0.01	< 0.01	< 0.01
Chloroform	0.08000[2]	< 0.02	< 0.02	< 0.01	**0.00049 J**	< 0.0050	< 0.0050	< 0.0050	< 0.0010	< 0.0010	**0.0053**	**0.0084**	**0.01**	**0.0031 J**
Chloromethane	--	< 0.02	< 0.02	< 0.01	< 0.0010	< 0.0050	< 0.0050	< 0.0050	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.0050	< 0.0050
cis-1,2-Dichloroethene	0.07	< 0.02	< 0.02	< 0.01	< 0.0010	< 0.0050	< 0.0050	< 0.0050	**0.00078 J**	**0.036**	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Cyclohexane	--	< 0.02	< 0.02	< 0.01 UJ	< 0.0010	< 0.0050	< 0.0050	< 0.0050 UJ	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Ethylbenzene	0.7	< 0.02	< 0.02	< 0.01	< 0.0010	< 0.0050	< 0.0050	< 0.0050	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Isopropylbenzene (Cumene)	--	< 0.02	< 0.02	< 0.01	< 0.0010	< 0.0050	< 0.0050	< 0.0050	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Methyl acetate	--	< 0.02	< 0.02	< 0.01	< 0.0010	< 0.0050	< 0.0050	< 0.0050	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Methylcyclohexane	--	< 0.1	< 0.1	< 0.05	< 0.0050	< 0.025	< 0.025	< 0.025	< 0.0050	< 0.0050	< 0.025	< 0.025	< 0.025	< 0.025
Methylene chloride	0.005	< 0.02	< 0.02	< 0.01	< 0.0010	< 0.0050	< 0.0050	< 0.0050	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Styrene	0.1	< 0.02	< 0.02	< 0.01	< 0.0010	< 0.0050	< 0.0050	< 0.0050	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Tetrachloroethene	0.005	**2.6**	**3.2**	**0.72**	**0.2**	**0.88**	**0.95**	**0.34**	**0.17**	**0.11**	**0.45**	**0.34**	**0.52**	**0.76**
Toluene	1	< 0.02	< 0.02	< 0.01	< 0.0010	< 0.0050	< 0.0050	< 0.0050	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.0050	< 0.0050
trans-1,2-Dichloroethene	0.1	< 0.02	< 0.02	< 0.01	< 0.0010	< 0.0050	< 0.0050	< 0.0050	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Trichloroethene	0.005	**0.014 J**	**0.012**	**0.0049 J**	**0.0022**	**0.0068**	**0.0069**	< 0.0050	**0.0024**	**0.012**	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Trichlorofluoromethane (Freon 11)	--	< 0.02	< 0.02	< 0.01	**0.00074 J**	< 0.0050	< 0.0050	< 0.0050	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Trichlorotrifluoroethane (Freon 113)	--	**0.019 J**	**0.021**	< 0.01 UJ	**0.0052**	**0.014**	**0.014**	< 0.0050 UJ	**0.00055 J**	< 0.0010	< 0.0050	**0.0038 J**	< 0.0050	**0.0035 J**
Vinyl chloride	0.002	< 0.02	< 0.02	< 0.01	< 0.0010	< 0.0050	< 0.0050	< 0.0050	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Xylenes, total	10	< 0.02	< 0.02	< 0.01	< 0.0010	< 0.0050	< 0.0050	< 0.0050	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.0050	< 0.0050
General Chemistry (mg/L)														
Bromide	--	< 0.20	< 0.20	**0.10 J**	< 0.20	**0.061 J**	**0.058**	**0.32**	**0.32**	**0.34**	**0.094 J**	< 0.20	**0.053 J**	< 0.20
Chloride	--	**0.95 J**	NA	**1.4**	**1.3**	NA	NA	**17**	**23**	NA	**1.4**	**1.4**	NA	**1.0**
Nitrate	10	**0.51**	NA	**2.3**	**2.1**	NA	NA	**5.5**	**0.11 J-**	NA	**1.3**	**2.7**	NA	**0.30**
Sulfate	--	**0.26 J**	**1.1**	**0.60 J**	**0.58 J**	**0.79 J**	**0.57**	**160**	**130**	**90**	**1.4**	**0.84 J**	**1.4**	**1.3**
Field Parameters														
pH, Field (su)	--	**6.83**	**6.24**	**6.72**	**7.4**	NA	**6.19**	**5.03**	**5.17**	**4.6**	**6.29**	**5.79**	**5.46**	**6.68**
Temperature, Field (°C)	--	**17.94**	**20.36**	**17.3**	**18.82**	NA	**20.6**	**16.04**	**15.4**	**16.68**	**12.49**	**15.38**	**16.78**	**13.83**
Specific Conductivity, Field (µS/cm)	--	**31**	**34**	**59**	**75**	NA	**113**	**382**	**1**	**270**	**75**	**69**	**47**	**29**
Dissolved Oxygen, Field (mg/L)	--	**5.28**	**0**	**4.4**	**3.06**	NA	**0**	**1.57**	**2**	**0**	**3.38**	**4.16**	**1.96**	**6.55**
Oxidation Reduction Potential, Field (mV)	--	**101**	**-86**	**86**	**57**	NA	**-485**	**261**	**279**	**-114**	**112**	**42**	**-18**	**88**
Turbidity, Field (NTU)	--	**>1000**	**>1000**	NA	**>1000**	NA	**>1000**	**>1000**	**140**	**547**	NA	**>1000**	**427**	NA
Iron, Ferrous, Field (mg/L)	--	**0.4**	**1**	**0.4**	**0.2**	NA	**5**	**4**	**2**	**2**	**3**	**2**	**3**	**0.8**

Note: Only constituents detected in at least one sample are reported in this table.

(2) Maximum Contaminant Level; March 2018 Edition of the Drinking Water Standards and Health Advisories (USEPA, 2018).

(3) The total of combined trihalomethanes (bromodichloromethane, dibromochloromethane, bromoform and chloroform) cannot exceed 0.08 mg/L.

J - Concentration detected equal to or greater than the method detection limit but less than the reporting limit.

J+ - Concentration considered an estimate biased high based on data validation.

J- - Concentration considered an estimate biased low based on data validation.

UJ - Not detected; quantitation limit may be inaccurate or imprecise.

< - Concentration less than the Quantitation Limit.

> - Concentration greater than the Quantitation Limit.

NA - Not analyzed.

Bolding indicates constituent detection.

Shading indicates concentration exceeds comparison criteria.

Appendix B - Comprehensive Summary of Analytical Results for Groundwater Samples

CONSTITUENT	MCL[1]	DP-25B		DP-26			DP-26A			DP-26B			DP-27	
		3/24/2020	3/24/2021	1/14/2019	3/23/2020	3/23/2021	1/14/2019	3/23/2020	3/23/2021	1/14/2019	3/23/2020	3/23/2021	1/14/2019	3/23/2020
Gases (µg/L)														
Methane	--	**1.7**	<8.2	< 0.50	**8.5**	**1400**	**1.3**	**1.8**	<5.0	**2.5**	**4.6**	<10	**0.64**	**0.69**
Ethane	--	**1.0**	**2.6**	< 0.10	**2.1**	**2.9**	**0.52**	**0.77**	**11**	**1.4**	**1.7**	**5.6**	**0.17**	**0.13**
Ethene	--	**0.45**	**0.72 J**	< 0.10	**0.46**	< 0.12	**0.29**	**0.26**	**0.17 J**	**0.48**	**1.1**	**11**	< 0.10	**0.14**
Volatile Organic Compounds (mg/L)														
1,1-Dichloroethane	--	< 0.0050	< 0.01	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0050	< 0.05	< 0.05	< 0.05	< 0.1	< 0.0050	< 0.01
1,1-Dichloroethene	0.007	< 0.0050	< 0.01	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0050	< 0.05	< 0.05	< 0.05	< 0.1	< 0.0050	< 0.01
1,2-Dichlorobenzene	0.6	< 0.0050	< 0.01	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0050	< 0.05	< 0.05	< 0.05	< 0.1	< 0.0050	< 0.01
1,2-Dichloroethane	0.005	< 0.0050	< 0.01	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0050	< 0.05	< 0.05	< 0.05	< 0.1	< 0.0050	< 0.01
1,2-Dichloropropane	0.005	< 0.0050	< 0.01	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0050	< 0.05	< 0.05	< 0.05	< 0.1	< 0.0050	< 0.01
1,4-Dichlorobenzene	0.075	< 0.0050	< 0.01	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0050	< 0.05	< 0.05	< 0.05	< 0.1	< 0.0050	< 0.01
2-Butanone	--	< 0.05	< 0.1	< 0.05	< 0.05	< 0.01	< 0.05	< 0.05	< 0.5	< 0.5	< 0.5	< 1	< 0.05	< 0.1 UJ
2-Hexanone	--	< 0.05	< 0.1	< 0.05	< 0.05	< 0.01	< 0.05	< 0.05	< 0.5	< 0.5	< 0.5	< 1	< 0.05	< 0.1
4-Methyl-2-pentanone	--	< 0.05	< 0.1	< 0.05	< 0.05	< 0.01	< 0.05	< 0.05	< 0.5	< 0.5	< 0.5	< 1	< 0.05	< 0.1
Acetone	--	< 0.1	< 0.2	< 0.1	< 0.1	< 0.02	< 0.1	< 0.1	< 1	< 1	< 1	< 2	< 0.1	< 0.2 UJ
Benzene	0.005	< 0.0050	< 0.01	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0050	< 0.05	< 0.05	< 0.05	< 0.1	< 0.0050	< 0.01
Bromodichloromethane	0.08000[2]	< 0.0050	< 0.01	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0050	< 0.05	< 0.05	< 0.05	< 0.1	< 0.0050	< 0.01
Carbon disulfide	--	< 0.0050	< 0.01	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0050	< 0.05	< 0.05	< 0.05	< 0.1	< 0.0050	< 0.01
Carbon tetrachloride	0.005	< 0.0050	< 0.01	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0050	< 0.05	< 0.05	< 0.05	< 0.1	< 0.0050	< 0.01
Chlorobenzene	0.1	< 0.0050	< 0.01	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0050	< 0.05	< 0.05	< 0.05	< 0.1	< 0.0050	< 0.01
Chloroethane	--	< 0.01	< 0.02	< 0.01	< 0.01	< 0.0020	< 0.01	< 0.01	< 0.1	< 0.1	< 0.1	< 0.2	< 0.01	< 0.02
Chloroform	0.08000[2]	**0.0027 J**	< 0.01	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0050	< 0.05	< 0.05	< 0.05	< 0.1	< 0.0050	< 0.01
Chloromethane	--	< 0.0050	< 0.01	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0050	< 0.05	< 0.05	< 0.05	< 0.1	< 0.0050	< 0.01
cis-1,2-Dichloroethene	0.07	< 0.0050	< 0.01	< 0.0050	**0.019**	**0.045**	< 0.0050	< 0.0050	< 0.05	< 0.05	< 0.05	**2.2**	< 0.0050	< 0.01
Cyclohexane	--	< 0.0050	< 0.01	< 0.0050 UJ	< 0.0050	< 0.0010	< 0.0050 UJ	< 0.0050	< 0.05	< 0.05 UJ	< 0.05	< 0.1	< 0.0050 UJ	< 0.01
Ethylbenzene	0.7	< 0.0050	< 0.01	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0050	< 0.05	< 0.05	< 0.05	< 0.1	< 0.0050	< 0.01
Isopropylbenzene (Cumene)	--	< 0.0050	< 0.01	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0050	< 0.05	< 0.05	< 0.05	< 0.1	< 0.0050	< 0.01
Methyl acetate	--	< 0.0050	< 0.01	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0050	< 0.05	< 0.05	< 0.05	< 0.1	< 0.0050	< 0.01
Methylcyclohexane	--	< 0.025	< 0.05	< 0.025	< 0.025	< 0.0050	< 0.025	< 0.025	< 0.25	< 0.25	< 0.25	< 0.5	< 0.025	< 0.05
Methylene chloride	0.005	< 0.0050	< 0.01	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0050	< 0.05	< 0.05	< 0.05	< 0.1	< 0.0050	< 0.01
Styrene	0.1	< 0.0050	< 0.01	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0050	< 0.05	< 0.05	< 0.05	< 0.1	< 0.0050	< 0.01
Tetrachloroethene	0.005	**0.24**	**0.99**	**0.32**	**0.27**	**0.34**	**0.28**	**0.6**	**4.5**	**2.2**	**3.8**	**8.7**	**0.33**	**0.52**
Toluene	1	< 0.0050	< 0.01	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0050	< 0.05	< 0.05	< 0.05	< 0.1	< 0.0050	< 0.01
trans-1,2-Dichloroethene	0.1	< 0.0050	< 0.01	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0050	< 0.05	< 0.05	< 0.05	< 0.1	< 0.0050	< 0.01
Trichloroethene	0.005	< 0.0050	< 0.01	< 0.0050	**0.024**	**0.03**	< 0.0050	< 0.0050	< 0.05	< 0.05	< 0.05	**0.21**	< 0.0050	< 0.01
Trichlorofluoromethane (Freon 11)	--	< 0.0050	< 0.01	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0050	< 0.05	< 0.05	< 0.05	< 0.1	< 0.0050	< 0.01
Trichlorotrifluoroethane (Freon 113)	--	**0.0031 J**	**0.0056 J**	< 0.0050 UJ	< 0.0050	**0.00079**	< 0.0050 UJ	< 0.0050	< 0.05	< 0.05 UJ	< 0.05	< 0.1	< 0.0050 UJ	< 0.01
Vinyl chloride	0.002	< 0.0050	< 0.01	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0050	< 0.05	< 0.05	< 0.05	< 0.1	< 0.0050	< 0.01
Xylenes, total	10	< 0.0050	< 0.01	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0050	< 0.05	< 0.05	< 0.05	< 0.1	< 0.0050	< 0.01
General Chemistry (mg/L)														
Bromide	--	< 0.20	< 0.20	**0.24**	**0.32**	**0.30**	< 0.20	< 0.20	< 0.20	**0.094 J**	< 0.20	**0.053**	**0.16 J**	**0.12 J**
Chloride	--	**1.1**	NA	**18**	**44**	NA	< 1.0	**1.0**	NA	**1.2**	**1.6**	NA	**8.8**	**8.9**
Nitrate	10	**0.85**	NA	**2.8**	**0.019 J**	NA	< 0.020	**0.17**	NA	**0.49**	**1.1**	NA	**2.6**	**2.6**
Sulfate	--	**1.5**	**2.3**	**240**	**10**	**9.2**	**1.5**	**1.2**	**0.34**	**4.4**	**6.8**	**5.3**	**91**	**160**
Field Parameters														
pH, Field (su)	--	**6.5**	**6.21**	**4.4**	**5.04**	**5.42**	**6.63**	**6.15**	**6.46**	**6.76**	**6.92**	**6.93**	**4.29**	**4.58**
Temperature, Field (°C)	--	**15.3**	**17.27**	**17.33**	**16.24**	**21.35**	**15.74**	**17.69**	**23.13**	**13.21**	**15.93**	**23.67**	**16.41**	**17.62**
Specific Conductivity, Field (µS/cm)	--	**63**	**29**	**378**	**203**	**126**	**39**	**34**	**17**	**55**	**67**	**82**	**197**	**345**
Dissolved Oxygen, Field (mg/L)	--	**2.61**	**0**	**1.73**	**1.58**	**0**	**3.92**	**3.22**	**1.14**	**2.34**	**2.4**	**0**	**4.69**	**8.65**
Oxidation Reduction Potential, Field (mV)	--	**8**	**-223**	**288**	**312**	**507**	**77**	**116**	**-6**	**27**	**32**	**-361**	**263**	**296**
Turbidity, Field (NTU)	--	**>1000**	**892**	**>1000**	**>1000**	**855**	NA	**>1000**	**122**	**>1000**	**>1000**	**>1000**	**743**	**>1000**
Iron, Ferrous, Field (mg/L)	--	**1**	**2**	**1**	**2**	**0.3**	**0.6**	**1**	**0.1**	**0.6**	**6**	**2**	**3**	**5**

Note: Only constituents detected in at least one sample are reported in this table.

(2) Maximum Contaminant Level; March 2018 Edition of the Drinking Water Standards and Health Advisories (USEPA, 2018).

(3) The total of combined trihalomethanes (bromodichloromethane, dibromochloromethane, bromoform and chloroform) cannot exceed 0.08 mg/L.

J - Concentration detected equal to or greater than the method detection limit but less than the reporting limit.

J+ - Concentration considered an estimate biased high based on data validation.

J- - Concentration considered an estimate biased low based on data validation.

UJ - Not detected; quantitation limit may be inaccurate or imprecise.

< - Concentration less than the Quantitation Limit.

> - Concentration greater than the Quantitation Limit.

NA - Not analyzed.

Bolding indicates constituent detection.

Shading indicates concentration exceeds comparison criteria.

Appendix B - Comprehensive Summary of Analytical Results for Groundwater Samples

CONSTITUENT	MCL[1]	DP-27	DP-27A			DP-27B			MG-02		MG-05			MG-05A
		3/23/2021	1/14/2019	3/23/2020	3/23/2021	1/14/2019	3/23/2020	3/23/2021	7/22/2014	2/8/2019	7/14/2014	2/4/2019	3/22/2021	7/22/2014
Gases (µg/L)														
Methane	--	<5.0	**0.82**	**0.85**	<5.0	**1.2**	**1.9**	<5.0	NA	NA	NA	NA	**37**	NA
Ethane	--	**0.18 J**	**0.29**	**0.28**	**0.28 J**	**0.53**	**0.90**	**0.30 J**	NA	NA	NA	NA	< 0.075	NA
Ethene	--	**0.33 J**	**0.18**	**0.19**	**0.23 J**	**0.35**	**0.52**	**0.22 J**	NA	NA	NA	NA	**0.18 J**	NA
Volatile Organic Compounds (mg/L)														
1,1-Dichloroethane	--	< 0.01	< 0.0050	< 0.0050	< 0.01	< 0.0010	< 0.0050	< 0.0050	< 0.0050	< 0.0010	**0.00089 J**	**0.00077 J**	< 0.0010	< 0.25
1,1-Dichloroethene	0.007	< 0.01	< 0.0050	< 0.0050	< 0.01	< 0.0010	< 0.0050	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.25
1,2-Dichlorobenzene	0.6	< 0.01	< 0.0050	< 0.0050	< 0.01	< 0.0010	< 0.0050	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.25
1,2-Dichloroethane	0.005	< 0.01	< 0.0050	< 0.0050	< 0.01	< 0.0010	< 0.0050	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.25
1,2-Dichloropropane	0.005	< 0.01	< 0.0050	< 0.0050	< 0.01	< 0.0010	< 0.0050	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.25
1,4-Dichlorobenzene	0.075	< 0.01	< 0.0050	< 0.0050	< 0.01	< 0.0010	< 0.0050	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.25
2-Butanone	--	< 0.1	< 0.05	< 0.05	< 0.1	< 0.01	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.5
2-Hexanone	--	< 0.1	< 0.05	< 0.05	< 0.1	< 0.01	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.5
4-Methyl-2-pentanone	--	< 0.1	< 0.05	< 0.05	< 0.1	< 0.01	< 0.05	< 0.05	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.5
Acetone	--	< 0.2	< 0.1	< 0.1	< 0.2	< 0.02	< 0.1	< 0.1	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 1
Benzene	0.005	< 0.01	< 0.0050	< 0.0050	< 0.01	< 0.0010	< 0.0050	< 0.0050	< 0.0050	< 0.0010	< 0.0050	**0.0010**	< 0.0010	< 0.25
Bromodichloromethane	0.08000[2]	< 0.01	< 0.0050	< 0.0050	< 0.01	< 0.0010	< 0.0050	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.25
Carbon disulfide	--	< 0.01	< 0.0050	< 0.0050	< 0.01	< 0.0010	< 0.0050	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.25
Carbon tetrachloride	0.005	< 0.01	< 0.0050	< 0.0050	< 0.01	**0.00089 J**	< 0.0050	**0.0026**	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.25
Chlorobenzene	0.1	< 0.01	< 0.0050	< 0.0050	< 0.01	< 0.0010	< 0.0050	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.25
Chloroethane	--	< 0.02	< 0.01	< 0.01	< 0.02	< 0.0020	< 0.01	< 0.01	< 0.0050	< 0.0020	< 0.0050	< 0.0020	< 0.0020	< 0.25
Chloroform	0.08000[2]	< 0.01	**0.0039 J**	**0.0048 J**	**0.0055 J**	**0.0024**	**0.0040 J**	**0.0038**	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.25
Chloromethane	--	< 0.01	< 0.0050	< 0.0050	< 0.01	< 0.0010	< 0.0050	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.25
cis-1,2-Dichloroethene	0.07	< 0.01	< 0.0050	< 0.0050	< 0.01	< 0.0010	< 0.0050	< 0.0050	< 0.0050	< 0.0010	**0.0052**	**0.0026**	**0.0052**	< 0.25
Cyclohexane	--	< 0.01	< 0.0050 UJ	< 0.0050	< 0.01	< 0.0010 UJ	< 0.0050	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.25
Ethylbenzene	0.7	< 0.01	< 0.0050	< 0.0050	< 0.01	< 0.0010	< 0.0050	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.25
Isopropylbenzene (Cumene)	--	< 0.01	< 0.0050	< 0.0050	< 0.01	< 0.0010	< 0.0050	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.25
Methyl acetate	--	< 0.01	< 0.0050	< 0.0050	< 0.01	< 0.0010	< 0.0050	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.25
Methylcyclohexane	--	< 0.05	< 0.025	< 0.025	< 0.05	**0.00095 J**	< 0.025	< 0.025	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.25
Methylene chloride	0.005	< 0.01	< 0.0050	< 0.0050	< 0.01	< 0.0010	< 0.0050	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.25
Styrene	0.1	< 0.01	< 0.0050	< 0.0050	< 0.01	< 0.0010	< 0.0050	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.25
Tetrachloroethene	0.005	**1.3**	**0.27**	**0.53**	**1.3**	**0.12**	**0.28**	**0.55**	< 0.0050	< 0.0010	**0.016**	**0.02**	**0.14**	**3.2**
Toluene	1	< 0.01	< 0.0050	< 0.0050	< 0.01	**0.0010**	< 0.0050	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.25
trans-1,2-Dichloroethene	0.1	< 0.01	< 0.0050	< 0.0050	< 0.01	< 0.0010	< 0.0050	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.25
Trichloroethene	0.005	< 0.01	< 0.0050	< 0.0050	< 0.01	< 0.0010	< 0.0050	< 0.0050	< 0.0050	< 0.0010	**0.0028 J**	**0.0019**	**0.01**	< 0.25
Trichlorofluoromethane (Freon 11)	--	< 0.01	< 0.0050	< 0.0050	< 0.01	< 0.0010	< 0.0050	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.25
Trichlorotrifluoroethane (Freon 113)	--	< 0.01	< 0.0050 UJ	**0.0032 J**	**0.0091 J**	**0.00082 J**	**0.0025 J**	**0.0031**	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.25
Vinyl chloride	0.002	< 0.01	< 0.0050	< 0.0050	< 0.01	< 0.0010	< 0.0050	< 0.0050	< 0.0020	< 0.0010	< 0.0020	< 0.0010	< 0.0010	< 0.1
Xylenes, total	10	< 0.01	< 0.0050	< 0.0050	< 0.01	< 0.0010	< 0.0050	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.25
General Chemistry (mg/L)														
Bromide	--	**0.16**	**0.094 J**	< 0.20	< 0.20	**0.092 J**	< 0.20	< 0.20	NA	NA	NA	NA	**0.47**	NA
Chloride	--	NA	< 1.0	**0.66 J**	NA	**1.4**	**1.9**	NA	NA	NA	NA	NA	NA	NA
Nitrate	10	NA	**0.25**	**0.46**	NA	**0.30**	**0.63**	NA	NA	NA	NA	NA	NA	NA
Sulfate	--	**170**	**49**	**37**	**42**	**5.5**	**12**	**12**	NA	NA	NA	NA	**2.9 J+**	NA
Field Parameters														
pH, Field (su)	--	**4.31**	**5.7**	**5.24**	**5.14**	**6.55**	**6.5**	**7.09**	**4.97**	**4.7**	**4.52**	**4.41**	**4.69**	**6.49**
Temperature, Field (°C)	--	**14.52**	**14.93**	**14.31**	**16.48**	**13.82**	**12.73**	**19.48**	**18.30**	**14.17**	**21.08**	**15.86**	**22.97**	**20.42**
Specific Conductivity, Field (µS/cm)	--	**363**	**98**	**104**	**102**	**44**	**112**	**69**	**41**	**22**	**69**	**92**	**111**	**329**
Dissolved Oxygen, Field (mg/L)	--	**1.45**	**3.83**	**6.01**	**2.74**	**4.87**	**3.87**	**4.96**	**0.76**	**0.22**	**4.36**	**3.05**	**0.99**	**4.44**
Oxidation Reduction Potential, Field (mV)	--	**122**	**161**	**205**	**115**	**87**	**69**	**-19**	**213**	**276**	**336**	**309**	**256**	**97**
Turbidity, Field (NTU)	--	**>1000**	**>1000**	**>1000**	**368**	NA	**>1000**	**>1000**	**70.1**	**0**	**157**	**76.1**	**59.8**	**30.7**
Iron, Ferrous, Field (mg/L)	--	**3**	**3**	**3**	**2**	**2**	**1**	**0.1**	NA	**0**	NA	**0**	**0**	NA

Note: Only constituents detected in at least one sample are reported in this table.

(2) Maximum Contaminant Level; March 2018 Edition of the Drinking Water Standards and Health Advisories (USEPA, 2018).

(3) The total of combined trihalomethanes (bromodichloromethane, dibromochloromethane, bromoform and chloroform) cannot exceed 0.08 mg/L.

J - Concentration detected equal to or greater than the method detection limit but less than the reporting limit.

J+ - Concentration considered an estimate biased high based on data validation.

J- - Concentration considered an estimate biased low based on data validation.

UJ - Not detected; quantitation limit may be inaccurate or imprecise.

< - Concentration less than the Quantitation Limit.

> - Concentration greater than the Quantitation Limit.

NA - Not analyzed.

Bolding indicates constituent detection.

Shading indicates concentration exceeds comparison criteria.

Appendix B - Comprehensive Summary of Analytical Results for Groundwater Samples

CONSTITUENT	MCL[1]	MG-05A		MG-06				MG-06A				MG-06B		
		2/4/2019	3/22/2021	7/22/2014	2/12/2019	3/26/2020	3/24/2021	6/11/2015	2/12/2019	3/29/2020	3/24/2021	6/11/2015	2/12/2019	3/26/2020
Gases (µg/L)														
Methane	--	NA	**14**	NA	NA	**0.94**	**70**	NA	NA	< 0.046	< 2.5	NA	NA	**0.064 J**
Ethane	--	NA	< 0.075	NA	NA	< 0.0050	< 0.075	NA	NA	< 0.0050	< 0.075	NA	NA	< 0.0050
Ethene	--	NA	**0.22 J**	NA	NA	**0.022 J**	< 0.12	NA	NA	**0.0073 J**	< 0.12	NA	NA	**0.013 J**
Volatile Organic Compounds (mg/L)														
1,1-Dichloroethane	--	< 0.0010	< 0.0050	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0010	< 0.0010
1,1-Dichloroethene	0.007	< 0.0010	< 0.0050	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0010	< 0.0010
1,2-Dichlorobenzene	0.6	< 0.0010	< 0.0050	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0010	< 0.0010
1,2-Dichloroethane	0.005	< 0.0010	< 0.0050	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0010	< 0.0010
1,2-Dichloropropane	0.005	< 0.0010	< 0.0050	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0010	< 0.0010
1,4-Dichlorobenzene	0.075	< 0.0010	< 0.0050	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0010	< 0.0010
2-Butanone	--	< 0.01	< 0.05	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
2-Hexanone	--	< 0.01	< 0.05	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
4-Methyl-2-pentanone	--	< 0.01	< 0.05	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	**0.00054 J**	< 0.01	< 0.01
Acetone	--	< 0.02	< 0.1	< 0.02	**0.0020 J**	< 0.02	< 0.02	**0.0044 J**	**0.0030 J**	< 0.02	< 0.02	**0.0054 J**	**0.0033 J**	< 0.02
Benzene	0.005	< 0.0010	< 0.0050	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0010	< 0.0010
Bromodichloromethane	0.08000[2]	< 0.0010	< 0.0050	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.0010	**0.00025 J**	< 0.0010	< 0.0010
Carbon disulfide	--	< 0.0010	< 0.0050	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0010	< 0.0010
Carbon tetrachloride	0.005	< 0.0010	< 0.0050	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0010	< 0.0010
Chlorobenzene	0.1	< 0.0010	< 0.0050	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0010	< 0.0010
Chloroethane	--	< 0.0020	< 0.01	< 0.0050	< 0.0020	< 0.0020	< 0.0020	< 0.0050	< 0.0020	< 0.0020	< 0.0020	< 0.0050	< 0.0020	< 0.0020
Chloroform	0.08000[2]	< 0.0010	< 0.0050	< 0.0050	< 0.0010	< 0.0010	< 0.0010	**0.0028 J**	< 0.0010	< 0.0010	< 0.0010	**0.01**	< 0.0010	< 0.0010
Chloromethane	--	< 0.0010	< 0.0050	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0010	< 0.0010
cis-1,2-Dichloroethene	0.07	< 0.0010	< 0.0050	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0010	**0.0075**
Cyclohexane	--	< 0.0010	< 0.0050	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0010	< 0.0010
Ethylbenzene	0.7	< 0.0010	< 0.0050	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0010	< 0.0010
Isopropylbenzene (Cumene)	--	< 0.0010	< 0.0050	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0010	< 0.0010
Methyl acetate	--	< 0.0010	< 0.0050	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0010	< 0.0010
Methylcyclohexane	--	< 0.0050	< 0.025	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Methylene chloride	0.005	< 0.0010	< 0.0050	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0010	< 0.0010
Styrene	0.1	< 0.0010	< 0.0050	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0010	< 0.0010
Tetrachloroethene	0.005	**0.2**	**0.31**	< 0.0050	< 0.0010	< 0.0010	< 0.0010	**0.041**	**0.013**	**0.013**	**0.17**	**0.17**	**0.11**	**0.13**
Toluene	1	< 0.0010	< 0.0050	< 0.0050	< 0.0010	< 0.0010	< 0.0010	**0.00066 J**	< 0.0010	< 0.0010	< 0.0010	**0.0096**	< 0.0010	< 0.0010
trans-1,2-Dichloroethene	0.1	< 0.0010	< 0.0050	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0010	< 0.0010
Trichloroethene	0.005	< 0.0010	< 0.0050	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0010	< 0.0010	**0.00049 J**	**0.00035 J**	< 0.0010	< 0.0010
Trichlorofluoromethane (Freon 11)	--	< 0.0010	< 0.0050	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0010	< 0.0010
Trichlorotrifluoroethane (Freon 113)	--	< 0.0010	< 0.0050	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0010	< 0.0010
Vinyl chloride	0.002	< 0.0010	< 0.0050	< 0.0020	< 0.0010	< 0.0010	< 0.0010	< 0.0020	< 0.0010	< 0.0010	< 0.0010	< 0.0020	< 0.0010	< 0.0010
Xylenes, total	10	< 0.0010	< 0.0050	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0010	< 0.0010
General Chemistry (mg/L)														
Bromide	--	NA	**0.064 J**	NA	NA	< 0.20	**0.051 J**	NA	NA	< 0.20	**0.052 J**	NA	NA	< 0.20
Chloride	--	NA	NA	NA	NA	**1.2**	NA	NA	NA	**1.6**	NA	NA	NA	**22**
Nitrate	10	NA	NA	NA	NA	**0.070**	NA	NA	NA	**1.8**	NA	NA	NA	**1.6**
Sulfate	--	NA	**1.2**	NA	NA	**25**	**21**	NA	NA	**1.4**	**1.3**	NA	NA	**20**
Field Parameters														
pH, Field (su)	--	**6.09**	**6.16**	**4.69**	**4.69**	**4.67**	**4.9**	**6.97**	**6.27**	**6.01**	**6.24**	**10.47**	**6.37**	**6.2**
Temperature, Field (°C)	--	**15.86**	**18.71**	**18.96**	**10.8**	**16.24**	**20.08**	**24.26**	**17.97**	**20.5**	**18.26**	**22.57**	**17.6**	**19.36**
Specific Conductivity, Field (µS/cm)	--	**223**	**64**	**68**	**51**	**89**	**50**	**51**	**79**	**88**	**66**	**129**	**198**	**170**
Dissolved Oxygen, Field (mg/L)	--	**5.14**	**4.13**	**1.66**	**0.99**	**0**	**0.03**	**0.27**	**1.55**	**3.43**	**1.41**	**0.13**	**0**	**1.18**
Oxidation Reduction Potential, Field (mV)	--	**176**	**157**	**161**	**295**	**235**	**105**	**-10**	**141**	**185**	**167**	**-376**	**123**	**184**
Turbidity, Field (NTU)	--	**1**	**74.3**	**42.3**	**55.5**	**8.46**	**65.6**	**0**	**0**	**0**	**0**	**15.1**	**0**	**0**
Iron, Ferrous, Field (mg/L)	--	**0**	**0**	NA	**0**	**0**	**1.5**		**0**	**0**	**0.5**		**0**	**0**

Note: Only constituents detected in at least one sample are reported in this table.

(2) Maximum Contaminant Level; March 2018 Edition of the Drinking Water Standards and Health Advisories (USEPA, 2018).

(3) The total of combined trihalomethanes (bromodichloromethane, dibromochloromethane, bromoform and chloroform) cannot exceed 0.08 mg/L.

J - Concentration detected equal to or greater than the method detection limit but less than the reporting limit.

J+ - Concentration considered an estimate biased high based on data validation.

J- - Concentration considered an estimate biased low based on data validation.

UJ - Not detected; quantitation limit may be inaccurate or imprecise.

< - Concentration less than the Quantitation Limit.

> - Concentration greater than the Quantitation Limit.

NA - Not analyzed.

Bolding indicates constituent detection.

Shading indicates concentration exceeds comparison criteria.

Appendix B - Comprehensive Summary of Analytical Results for Groundwater Samples

CONSTITUENT	MCL[1]	MG-06B	MW-09	MW-11		MW-12		PW-20	PW-21	PW-22	PW-23	PW-24	PW-25	PW-26
		3/24/2021	7/23/2014	7/23/2014	2/14/2019	7/23/2014	2/14/2019	8/13/2014	8/13/2014	8/13/2014	8/13/2014	8/13/2014	8/12/2014	DU-14306 8/14/2014
Gases (µg/L)														
Methane	--	< 2.5	NA	NA	**7.8**	NA	< 0.50	NA	NA	NA	NA	NA	NA	NA
Ethane	--	< 0.075	NA	NA	< 0.10	NA	< 0.10	NA	NA	NA	NA	NA	NA	NA
Ethene	--	< 0.12	NA	NA	< 0.10	NA	< 0.10	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds (mg/L)														
1,1-Dichloroethane	--	< 0.0010	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.025	**0.00063 J**	< 0.0050
1,1-Dichloroethene	0.007	< 0.0010	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.025	< 0.0050	< 0.0050
1,2-Dichlorobenzene	0.6	< 0.0010	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.025	< 0.0050	< 0.0050
1,2-Dichloroethane	0.005	< 0.0010	< 0.0050	< 0.0050	**0.00045 J**	< 0.0050	**0.0034**	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.025	< 0.0050	< 0.0050
1,2-Dichloropropane	0.005	< 0.0010	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.025	< 0.0050	< 0.0050
1,4-Dichlorobenzene	0.075	< 0.0010	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.025	< 0.0050	< 0.0050
2-Butanone	--	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.05	< 0.01	< 0.01
2-Hexanone	--	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.05	< 0.01	< 0.01
4-Methyl-2-pentanone	--	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.05	< 0.01	< 0.01
Acetone	--	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.1	< 0.02	< 0.02
Benzene	0.005	< 0.0010	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.025	< 0.0050	< 0.0050
Bromodichloromethane	0.08000[2]	< 0.0010	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.025	< 0.0050	< 0.0050
Carbon disulfide	--	< 0.0010	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.025	< 0.0050	< 0.0050
Carbon tetrachloride	0.005	< 0.0010	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.025	< 0.0050	< 0.0050
Chlorobenzene	0.1	< 0.0010	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.025	< 0.0050	< 0.0050
Chloroethane	--	< 0.0020	< 0.0050	< 0.0050	< 0.0020	< 0.0050	< 0.0020	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.025	< 0.0050	< 0.0050
Chloroform	0.08000[2]	< 0.0010	< 0.0050	< 0.0050	**0.00083 J**	< 0.0050	**0.00064 J**	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.025	< 0.0050	< 0.0050
Chloromethane	--	< 0.0010	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.025	< 0.0050	< 0.0050
cis-1,2-Dichloroethene	0.07	**0.00061 J**	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0050	**0.0026 J**	**0.018**	< 0.0050	**0.012 J**	**0.00070 J**	< 0.0050
Cyclohexane	--	< 0.0010	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.025	< 0.0050	< 0.0050
Ethylbenzene	0.7	< 0.0010	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.025	< 0.0050	< 0.0050
Isopropylbenzene (Cumene)	--	< 0.0010	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.025	< 0.0050	< 0.0050
Methyl acetate	--	< 0.0010	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.025	< 0.0050	< 0.0050
Methylcyclohexane	--	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.025	< 0.0050	< 0.0050
Methylene chloride	0.005	< 0.0010	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.025	< 0.0050	< 0.0050
Styrene	0.1	< 0.0010	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.025	< 0.0050	< 0.0050
Tetrachloroethene	0.005	**0.39**	< 0.0050	< 0.0050	**0.0015**	**0.056**	**0.07**	**0.0057**	**0.013**	**0.11**	**0.015**	**0.32**	**0.0021 J**	**0.05**
Toluene	1	< 0.0010	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.025	< 0.0050	< 0.0050
trans-1,2-Dichloroethene	0.1	< 0.0010	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.025	< 0.0050	< 0.0050
Trichloroethene	0.005	**0.0014**	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0050	**0.0024 J**	**0.0054**	**0.00078 J**	**0.053**	< 0.0050	< 0.0050
Trichlorofluoromethane (Freon 11)	--	< 0.0010	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.025	**0.015**	**0.0086**
Trichlorotrifluoroethane (Freon 113)	--	< 0.0010	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0050	< 0.0050	**0.00030 J**	< 0.0050	< 0.025	< 0.0050	< 0.0050
Vinyl chloride	0.002	< 0.0010	< 0.0020	< 0.0020	< 0.0010	< 0.0020	< 0.0010	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.01	< 0.0020	< 0.0020
Xylenes, total	10	< 0.0010	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.025	< 0.0050	< 0.0050
General Chemistry (mg/L)														
Bromide	--	**0.061 J**	NA	NA	**0.11 J**	NA	**0.12 J**	NA	NA	NA	NA	NA	NA	NA
Chloride	--	NA	NA	NA	**3.3**	NA	**4.8**	NA	NA	NA	NA	NA	NA	NA
Nitrate	10	NA	NA	NA	**0.30**	NA	**1.2**	NA	NA	NA	NA	NA	NA	NA
Sulfate	--	**9.1**	NA	NA	**0.86 J**	NA	**42**	NA	NA	NA	NA	NA	NA	NA
Field Parameters														
pH, Field (su)	--	**6.45**	**4.81**	**4.57**	**4.76**	**4.28**	**4.29**	**4.78**	**5.31**	**4.92**	**4.11**	**4.83**	**4.49**	NA
Temperature, Field (°C)	--	**19.29**	**18.45**	**17.88**	**12.05**	**17.42**	**8.44**	**32.83**	**32.69**	**31.97**	**33.53**	**30.13**	**24.98**	NA
Specific Conductivity, Field (µS/cm)	--	**93**	**24**	**24**	**18**	**80**	**82**	**43**	**102**	**237**	**567**	**311**	**58**	NA
Dissolved Oxygen, Field (mg/L)	--	**1.43**	**3.74**	**5.69**	**5.23**	**3.37**	**5.65**	NA	NA	NA	NA	NA	NA	NA
Oxidation Reduction Potential, Field (mV)	--	**75**	**334**	**235**	**252**	**336**	**278**	NA	NA	NA	NA	NA	NA	NA
Turbidity, Field (NTU)	--	**2.8**	**15.4**	**73.0**	**0**	**228**	**0**	NA	NA	NA	NA	NA	NA	NA
Iron, Ferrous, Field (mg/L)	--	**0**	NA	NA	**0**	NA	**0**	NA	NA	NA	NA	NA	NA	NA

Note: Only constituents detected in at least one sample are reported in this table.

(2) Maximum Contaminant Level; March 2018 Edition of the Drinking Water Standards and Health Advisories (USEPA, 2018).

(3) The total of combined trihalomethanes (bromodichloromethane, dibromochloromethane, bromoform and chloroform) cannot exceed 0.08 mg/L.

J - Concentration detected equal to or greater than the method detection limit but less than the reporting limit.

J+ - Concentration considered an estimate biased high based on data validation.

J- - Concentration considered an estimate biased low based on data validation.

UJ - Not detected; quantitation limit may be inaccurate or imprecise.

< - Concentration less than the Quantitation Limit.

> - Concentration greater than the Quantitation Limit.

NA - Not analyzed.

Bolding indicates constituent detection.

Shading indicates concentration exceeds comparison criteria.

Appendix B - Comprehensive Summary of Analytical Results for Groundwater Samples

CONSTITUENT	MCL[1]	PW-26	PW-27	PW-28	PW-29	PW-30	RMW-01					RMW-02		
		8/14/2014	8/14/2014	8/14/2014	8/14/2014	8/12/2014	7/9/2014	2/6/2019	10/28/2019	3/23/2020	3/25/2021	7/9/2014	2/13/2019	11/7/2019
Gases (µg/L)														
Methane	--	NA	NA	NA	NA	NA	NA	< 0.50	NA	< 0.094	**16**	NA	**230**	NA
Ethane	--	NA	NA	NA	NA	NA	NA	< 0.10	NA	< 0.011	< 0.075	NA	< 0.10	NA
Ethene	--	NA	NA	NA	NA	NA	NA	< 0.10	NA	**0.037 J**	< 0.12	NA	**0.13**	NA
Volatile Organic Compounds (mg/L)														
1,1-Dichloroethane	--	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 1	< 0.05	NA
1,1-Dichloroethene	0.007	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	**0.00058 J**	< 0.001	NA	< 0.0010	< 0.0010	< 1	< 0.05	NA
1,2-Dichlorobenzene	0.6	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 1	< 0.05	NA
1,2-Dichloroethane	0.005	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	**0.0019 J**	< 0.001	NA	**0.00047 J**	< 0.0010	< 1	< 0.05	NA
1,2-Dichloropropane	0.005	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 1	< 0.05	NA
1,4-Dichlorobenzene	0.075	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 1	< 0.05	NA
2-Butanone	--	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	NA	< 0.01	< 0.01	< 2	< 0.5	NA
2-Hexanone	--	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	NA	< 0.01	< 0.01	< 2	< 0.5	NA
4-Methyl-2-pentanone	--	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	NA	< 0.01	< 0.01	< 2	< 0.5	NA
Acetone	--	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	< 0.02	< 0.02	< 4	**0.11 J**	NA
Benzene	0.005	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 1	< 0.05	NA
Bromodichloromethane	0.08000[2]	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 1	< 0.05	NA
Carbon disulfide	--	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 1	< 0.05	NA
Carbon tetrachloride	0.005	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 1	< 0.05	NA
Chlorobenzene	0.1	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 1	< 0.05	NA
Chloroethane	--	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.002	NA	< 0.0020	< 0.0020	< 1	< 0.1	NA
Chloroform	0.08000[2]	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 1	< 0.05	NA
Chloromethane	--	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 1	< 0.05	NA
cis-1,2-Dichloroethene	0.07	< 0.0050	< 0.0050	< 0.0050	< 0.0050	**0.00038 J**	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 1	< 0.05	NA
Cyclohexane	--	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 1	< 0.05	NA
Ethylbenzene	0.7	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	**11**	**1.1**	NA
Isopropylbenzene (Cumene)	--	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 1	< 0.05	NA
Methyl acetate	--	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 1	< 0.05	NA
Methylcyclohexane	--	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.005	NA	< 0.0050	< 0.0050	< 1	< 0.25	NA
Methylene chloride	0.005	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 1	< 0.05	NA
Styrene	0.1	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 1	< 0.05	NA
Tetrachloroethene	0.005	**0.034 J**	**0.019**	< 0.0050	< 0.0050	**0.21**	**0.0031 J**	**0.0022**	NA	**0.0022**	**0.00081 J**	< 1	< 0.05	NA
Toluene	1	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 1	< 0.05	NA
trans-1,2-Dichloroethene	0.1	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 1	< 0.05	NA
Trichloroethene	0.005	< 0.0050	< 0.0050	< 0.0050	< 0.0050	**0.00036 J**	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 1	< 0.05	NA
Trichlorofluoromethane (Freon 11)	--	**0.0064**	**0.015**	< 0.0050	< 0.0050	**0.013**	**0.0019 J**	**0.00051 J**	NA	**0.00060 J**	< 0.0010	< 1	< 0.05	NA
Trichlorotrifluoroethane (Freon 113)	--	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 1	< 0.05	NA
Vinyl chloride	0.002	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.0020	< 0.001	NA	< 0.0010	< 0.0010	< 0.4	< 0.05	NA
Xylenes, total	10	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	**32**	**3.7**	NA
General Chemistry (mg/L)														
Bromide	--	NA	NA	NA	NA	NA	NA	**0.25**	**0.24**	**0.16 J**	**0.14 J**	NA	**0.37**	**0.86**
Chloride	--	NA	NA	NA	NA	NA	NA	**15**	NA	**16**	NA	NA	**16**	NA
Nitrate	10	NA	NA	NA	NA	NA	NA	**6.1**	NA	**4.7**	NA	NA	**0.53**	NA
Sulfate	--	NA	NA	NA	NA	NA	NA	**110**	NA	**68**	**77**	NA	**7.2**	NA
Field Parameters														
pH, Field (su)	--	**4.74**	**5.00**	**5.27**	**5.50**	**4.43**	**4.77**	**5.36**	**4.01**	**5.46**	**4.8**	**11.58**	**12.33**	**11.16**
Temperature, Field (°C)	--	**28.14**	**31.69**	**30.12**	**33.75**	**27.95**	**21.04**	**17.44**	**23.1**	**19.4**	**18.89**	**21.69**	**19.83**	**21.13**
Specific Conductivity, Field (µS/cm)	--	**146**	**126**	**289**	**359**	**73**	**461**	**287**	**209**	**262**	**199**	**890**	**3880**	**972**
Dissolved Oxygen, Field (mg/L)	--	NA	NA	NA	NA	NA	**0.41**	**1.38**	**0**	**0**	**0.23**	**0**	**0**	**0**
Oxidation Reduction Potential, Field (mV)	--	NA	NA	NA	NA	NA	**278**	**209**	**328**	**231**	**187**	**-192**	**-242**	**-182**
Turbidity, Field (NTU)	--	NA	NA	NA	NA	NA	**4.49**	**0**	**8.7**	**0**	**0**	**3.42**	**0**	**1.2**
Iron, Ferrous, Field (mg/L)	--	NA	NA	NA	NA	NA	NA	**0**	**0**	**0**	**0**	NA	**0**	**0.05**

Note: Only constituents detected in at least one sample are reported in this table.

(2) Maximum Contaminant Level; March 2018 Edition of the Drinking Water Standards and Health Advisories (USEPA, 2018).

(3) The total of combined trihalomethanes (bromodichloromethane, dibromochloromethane, bromoform and chloroform) cannot exceed 0.08 mg/L.

J - Concentration detected equal to or greater than the method detection limit but less than the reporting limit.

J+ - Concentration considered an estimate biased high based on data validation.

J- - Concentration considered an estimate biased low based on data validation.

UJ - Not detected; quantitation limit may be inaccurate or imprecise.

< - Concentration less than the Quantitation Limit.

> - Concentration greater than the Quantitation Limit.

NA - Not analyzed.

Bolding indicates constituent detection.

Shading indicates concentration exceeds comparison criteria.

Appendix B - Comprehensive Summary of Analytical Results for Groundwater Samples

CONSTITUENT	MCL[1]	RMW-02		RMW-03		RMW-04		RMW-05	RMW-05A				
		3/31/2020	3/24/2021	7/9/2014	2/12/2019	7/9/2014	2/12/2019	7/9/2014	6/11/2015	2/7/2019	10/28/2019	3/23/2020	3/19/2021
Gases (µg/L)													
Methane	--	**330**	**170**	NA	< 0.50	NA	< 0.50	NA	NA	< 0.50	NA	< 0.094	< 8.4
Ethane	--	**0.026 J**	< 0.075	NA	< 0.10	NA	< 0.10	NA	NA	< 0.10	NA	< 0.011	< 0.075
Ethene	--	**0.13**	**0.18 J**	NA	< 0.10	NA	< 0.10	NA	NA	< 0.10	NA	< 0.0080	< 0.12
Volatile Organic Compounds (mg/L)													
1,1-Dichloroethane	--	< 0.01	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010
1,1-Dichloroethene	0.007	< 0.01	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010
1,2-Dichlorobenzene	0.6	< 0.01	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010
1,2-Dichloroethane	0.005	< 0.01	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0010	**0.0027 J**	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010
1,2-Dichloropropane	0.005	< 0.01	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010
1,4-Dichlorobenzene	0.075	< 0.01	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010
2-Butanone	--	< 0.1	< 0.05	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	NA	< 0.01	< 0.01
2-Hexanone	--	< 0.1	< 0.05	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	NA	< 0.01	< 0.01
4-Methyl-2-pentanone	--	< 0.1	< 0.05	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	NA	< 0.01	< 0.01
Acetone	--	**0.1 J**	**0.064 J**	< 0.02	**0.0020 J**	< 0.02	**0.0020 J**	< 0.02	**0.0088 J**	**0.012 J**	NA	< 0.02	< 0.02
Benzene	0.005	< 0.01	< 0.0050	**0.00034 J**	< 0.0010	< 0.0050	< 0.0010	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010
Bromodichloromethane	0.08000[2]	< 0.01	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010
Carbon disulfide	--	< 0.01	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010
Carbon tetrachloride	0.005	< 0.01	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010
Chlorobenzene	0.1	< 0.01	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010
Chloroethane	--	< 0.02	< 0.01	< 0.0050	< 0.0020	< 0.0050	< 0.0020	< 0.0050	< 0.0050	< 0.0020	NA	< 0.0020	< 0.0020
Chloroform	0.08000[2]	< 0.01	< 0.0050	< 0.0050	**0.00056 J**	< 0.0050	**0.00055 J**	< 0.0050	**0.012**	**0.012**	NA	**0.011**	**0.011**
Chloromethane	--	< 0.01	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010
cis-1,2-Dichloroethene	0.07	< 0.01	< 0.0050	**0.00023 J**	< 0.0010	< 0.0050	< 0.0010	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010
Cyclohexane	--	< 0.01	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010
Ethylbenzene	0.7	**0.61**	**0.35**	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010
Isopropylbenzene (Cumene)	--	< 0.01	< 0.0050	**0.0010 J**	< 0.0010	< 0.0050	< 0.0010	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010
Methyl acetate	--	< 0.01	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010
Methylcyclohexane	--	< 0.05	< 0.025	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	NA	< 0.0050	< 0.0050
Methylene chloride	0.005	< 0.01	**0.0021 J**	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010
Styrene	0.1	**0.012**	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010
Tetrachloroethene	0.005	< 0.01	**0.0049 J**	**0.0025 J**	**0.0016**	< 0.0050	< 0.0010	**0.00087 J**	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010
Toluene	1	< 0.01	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010
trans-1,2-Dichloroethene	0.1	< 0.01	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010
Trichloroethene	0.005	< 0.01	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010
Trichlorofluoromethane (Freon 11)	--	< 0.01	< 0.0050	**0.0023 J**	< 0.0010	**0.0031 J**	**0.0020**	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010
Trichlorotrifluoroethane (Freon 113)	--	< 0.01	< 0.0050	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010
Vinyl chloride	0.002	< 0.01	< 0.0050	< 0.0020	< 0.0010	< 0.0020	< 0.0010	< 0.0020	< 0.0020	< 0.0010	NA	< 0.0010	< 0.0010
Xylenes, total	10	**2**	**1.1**	< 0.0050	< 0.0010	< 0.0050	< 0.0010	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010
General Chemistry (mg/L)													
Bromide	--	**0.20**	**0.22**	NA	**0.32**	NA	**0.35**	NA	NA	**0.10 J**	< 0.20	< 0.20	< 0.20
Chloride	--	**17**	NA	NA	**9.0**	NA	**14**	NA	NA	**2.0**	NA	**1.8**	NA
Nitrate	10	**0.31 J**	NA	NA	**5.2**	NA	**4.9**	NA	NA	**0.50**	NA	**0.54**	NA
Sulfate	--	**11**	**12**	NA	**1.2**	NA	**18**	NA	NA	< 1.2	NA	**0.76 J**	< 1.0
Field Parameters													
pH, Field (su)	--	**13.89**	**11.83**	**5.61**	**4.78**	**4.91**	**4.75**	**6.45**	**6.38**	**6.18**	**4.89**	**5.86**	**5.26**
Temperature, Field (°C)	--	**19.54**	**19.02**	**21.75**	**17.86**	**21.97**	**17.88**	**22.38**	**21.82**	**19.04**	**21.7**	**19.2**	**20.03**
Specific Conductivity, Field (µS/cm)	--	**3780**	**3450**	**189**	**53**	**71**	**85**	**91**	**56**	**35**	**19**	**24**	**23**
Dissolved Oxygen, Field (mg/L)	--	**0**	**0**	**0.04**	**0.78**	**0.85**	**1.53**	**6.23**	**0.19**	**2.12**	**0.31**	**3.15**	**1.71**
Oxidation Reduction Potential, Field (mV)	--	**-211**	**-84**	**169**	**378**	**262**	**490**	**183**	**-154**	**169**	**227**	**201**	**168**
Turbidity, Field (NTU)	--	**0**	**0**	**11.9**	**1.11**	**6.4**	**2.1**	**26.1**	**0**	**0**	**0**	**0**	**0**
Iron, Ferrous, Field (mg/L)	--	**0**	**0**	NA	**0**	NA	**0**	NA		**0**	**0**	**0**	**0**

Note: Only constituents detected in at least one sample are reported in this table.

(2) Maximum Contaminant Level; March 2018 Edition of the Drinking Water Standards and Health Advisories (USEPA, 2018).

(3) The total of combined trihalomethanes (bromodichloromethane, dibromochloromethane, bromoform and chloroform) cannot exceed 0.08 mg/L.

J - Concentration detected equal to or greater than the method detection limit but less than the reporting limit.

J+ - Concentration considered an estimate biased high based on data validation.

J- - Concentration considered an estimate biased low based on data validation.

UJ - Not detected; quantitation limit may be inaccurate or imprecise.

< - Concentration less than the Quantitation Limit.

> - Concentration greater than the Quantitation Limit.

NA - Not analyzed.

Bolding indicates constituent detection.

Shading indicates concentration exceeds comparison criteria.

Appendix B - Comprehensive Summary of Analytical Results for Groundwater Samples

CONSTITUENT	MCL[1]	RMW-05B					RMW-06					
		6/11/2015	2/13/2019	11/6/2019	3/23/2020	3/19/2021	DU-14301 7/10/2014	7/10/2014	1/31/2019	10/29/2019	3/12/2020	3/16/2021
Gases (µg/L)												
Methane	--	NA	< 0.50	NA	**0.56**	**17**	NA	NA	< 0.50	NA	< 0.046	< 5.0
Ethane	--	NA	< 0.10	NA	< 0.011	< 0.075	NA	NA	< 0.10	NA	< 0.0050	< 0.075
Ethene	--	NA	< 0.10	NA	**0.080 J**	**0.45 J**	NA	NA	< 0.10	NA	**0.018 J**	< 0.12
Volatile Organic Compounds (mg/L)												
1,1-Dichloroethane	--	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010
1,1-Dichloroethene	0.007	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010
1,2-Dichlorobenzene	0.6	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010
1,2-Dichloroethane	0.005	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010
1,2-Dichloropropane	0.005	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010
1,4-Dichlorobenzene	0.075	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010
2-Butanone	--	< 0.01	< 0.01	NA	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	NA	< 0.01	< 0.01
2-Hexanone	--	< 0.01	< 0.01	NA	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	NA	< 0.01	< 0.01
4-Methyl-2-pentanone	--	< 0.01	< 0.01	NA	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	NA	< 0.01	< 0.01
Acetone	--	**0.0020 J**	**0.0025 J**	NA	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	< 0.02	< 0.02
Benzene	0.005	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010
Bromodichloromethane	0.08000[2]	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010
Carbon disulfide	--	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010
Carbon tetrachloride	0.005	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010
Chlorobenzene	0.1	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010
Chloroethane	--	< 0.0050	< 0.002	NA	< 0.0020	< 0.0020	< 0.0050	< 0.0050	< 0.0020	NA	< 0.0020	< 0.0020
Chloroform	0.08000[2]	**0.016**	**0.0066**	NA	**0.0081**	**0.012**	< 0.0050	< 0.0050	**0.00071 J**	NA	**0.00068 J**	< 0.0010
Chloromethane	--	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010
cis-1,2-Dichloroethene	0.07	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010
Cyclohexane	--	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010
Ethylbenzene	0.7	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010
Isopropylbenzene (Cumene)	--	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010
Methyl acetate	--	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010
Methylcyclohexane	--	< 0.0050	< 0.005	NA	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	NA	< 0.0050	< 0.0050
Methylene chloride	0.005	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010
Styrene	0.1	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010
Tetrachloroethene	0.005	< 0.0050	**0.0023**	NA	< 0.0010	< 0.0010	**0.014 J**	**0.021 J**	**0.066**	NA	**0.078**	**0.022**
Toluene	1	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010
trans-1,2-Dichloroethene	0.1	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010
Trichloroethene	0.005	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010
Trichlorofluoromethane (Freon 11)	--	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010
Trichlorotrifluoroethane (Freon 113)	--	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010
Vinyl chloride	0.002	< 0.0020	< 0.001	NA	< 0.0010	< 0.0010	< 0.0020	< 0.0020	< 0.0010	NA	< 0.0010	< 0.0010
Xylenes, total	10	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010
General Chemistry (mg/L)												
Bromide	--	NA	**0.091 J**	< 0.20	< 0.20	< 0.20	NA	NA	< 0.20	**0.078 J**	< 0.20	**0.080 J**
Chloride	--	NA	**1.2**	NA	**0.93 J**	NA	NA	NA	**12**	NA	**12**	NA
Nitrate	10	NA	**1.0**	NA	**0.94**	NA	NA	NA	**3.3**	NA	**2.7**	NA
Sulfate	--	NA	**0.57 J**	NA	< 1.0	< 1.0	NA	NA	**45**	NA	**10**	**16**
Field Parameters												
pH, Field (su)	--	**6.52**	**6.51**	**5.91**	**6.29**	**6.8**	NA	**4.47**	**4.34**	**4.59**	**3.93**	**4.68**
Temperature, Field (°C)	--	**22.67**	**16.11**	**20.76**	**19.8**	**19.49**	NA	**21.32**	**15.54**	**22.62**	**19.78**	**16.6**
Specific Conductivity, Field (µS/cm)	--	**24**	**28**	**32**	**42**	**36**	NA	**75**	**69**	**66**	**78**	**69**
Dissolved Oxygen, Field (mg/L)	--	**0.10**	**4.62**	**0**	**3.03**	**0.57**	NA	**3.35**	**11.26**	**3.37**	**5.58**	**4.89**
Oxidation Reduction Potential, Field (mV)	--	**57**	**-15**	**234**	NA	**32**	NA	**315**	**302**	**277**	**305**	**350**
Turbidity, Field (NTU)	--	**78.3**	**0**	**0**	**9.18**	**25.1**	NA	**0**	**0**	**25.6**	**0**	**0**
Iron, Ferrous, Field (mg/L)	--		**0**	**0**	**0**	**0**	NA	NA	**0**	**0**	**0**	**0.1**

Note: Only constituents detected in at least one sample are reported in this table.

(2) Maximum Contaminant Level; March 2018 Edition of the Drinking Water Standards and Health Advisories (USEPA, 2018).

(3) The total of combined trihalomethanes (bromodichloromethane, dibromochloromethane, bromoform and chloroform) cannot exceed 0.08 mg/L.

J - Concentration detected equal to or greater than the method detection limit but less than the reporting limit.

J+ - Concentration considered an estimate biased high based on data validation.

J- - Concentration considered an estimate biased low based on data validation.

UJ - Not detected; quantitation limit may be inaccurate or imprecise.

< - Concentration less than the Quantitation Limit.

> - Concentration greater than the Quantitation Limit.

NA - Not analyzed.

Bolding indicates constituent detection.

Shading indicates concentration exceeds comparison criteria.

Appendix B - Comprehensive Summary of Analytical Results for Groundwater Samples

CONSTITUENT	MCL[1]	RMW-06A					RMW-07					RMW-08	
		7/21/2014	1/31/2019	11/6/2019	3/12/2020	3/16/2021	7/9/2014	2/5/2019	11/4/2019	3/24/2020	3/15/2021	7/10/2014	2/5/2019
Gases (µg/L)													
Methane	--	NA	**8.0**	NA	**0.079 J**	< 2.5	NA	< 0.50	NA	**9.8**	**100**	NA	< 0.50
Ethane	--	NA	**3.2**	NA	**0.0052 J**	< 0.075	NA	< 0.10	NA	**0.25**	**2.4**	NA	< 0.10
Ethene	--	NA	**37**	NA	**0.013 J**	< 0.12	NA	**0.26**	NA	**0.020 J**	**0.16 J**	NA	**0.72**
Volatile Organic Compounds (mg/L)													
1,1-Dichloroethane	--	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.025	< 0.005	NA	< 0.0010	< 0.0010	**0.00076 J**	< 0.005
1,1-Dichloroethene	0.007	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.025	< 0.005	NA	< 0.0010	< 0.0010	< 0.0050	< 0.005
1,2-Dichlorobenzene	0.6	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.025	< 0.005	NA	< 0.0010	< 0.0010	< 0.0050	< 0.005
1,2-Dichloroethane	0.005	**0.0023 J**	**0.0011**	NA	**0.00046 J**	< 0.0010	< 0.025	< 0.005	NA	< 0.0010	< 0.0010	< 0.0050	< 0.005
1,2-Dichloropropane	0.005	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.025	< 0.005	NA	< 0.0010	< 0.0010	< 0.0050	< 0.005
1,4-Dichlorobenzene	0.075	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.025	< 0.005	NA	< 0.0010	< 0.0010	< 0.0050	< 0.005
2-Butanone	--	< 0.01	< 0.01	NA	< 0.01	< 0.01	< 0.05	< 0.05	NA	**0.025**	< 0.01	< 0.01	< 0.05
2-Hexanone	--	< 0.01	< 0.01	NA	< 0.01	< 0.01	< 0.05	< 0.05	NA	< 0.01	< 0.01	< 0.01	< 0.05
4-Methyl-2-pentanone	--	< 0.01	< 0.01	NA	< 0.01	< 0.01	< 0.05	< 0.05	NA	< 0.01	< 0.01	< 0.01	< 0.05
Acetone	--	< 0.02	< 0.02	NA	< 0.02	< 0.02	< 0.1	< 0.1	NA	**0.016 J**	< 0.02	< 0.02	< 0.1
Benzene	0.005	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.025	< 0.005	NA	< 0.0010	< 0.0010	< 0.0050	< 0.005
Bromodichloromethane	0.08000[2]	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.025	< 0.005	NA	< 0.0010	< 0.0010	< 0.0050	< 0.005
Carbon disulfide	--	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.025	< 0.005	NA	**0.0015**	< 0.0010	< 0.0050	< 0.005
Carbon tetrachloride	0.005	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.025	< 0.005	NA	< 0.0010	< 0.0010	< 0.0050	< 0.005
Chlorobenzene	0.1	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.025	< 0.005	NA	< 0.0010	< 0.0010	< 0.0050	< 0.005
Chloroethane	--	< 0.0050	< 0.0020	NA	< 0.0020	< 0.0020	< 0.025	< 0.01	NA	< 0.0020	< 0.0020	< 0.0050	< 0.01
Chloroform	0.08000[2]	< 0.0050	< 0.0010	NA	**0.00055 J**	**0.00093 J**	< 0.025	< 0.005	NA	< 0.0010	< 0.0010	< 0.0050	< 0.005
Chloromethane	--	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.025	< 0.005	NA	< 0.0010	< 0.0010	< 0.0050	< 0.005
cis-1,2-Dichloroethene	0.07	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.025	< 0.005	NA	**0.0022**	**0.023**	**0.017**	< 0.005
Cyclohexane	--	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.025	< 0.005	NA	< 0.0010	< 0.0010	< 0.0050	< 0.005
Ethylbenzene	0.7	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.025	< 0.005	NA	< 0.0010	< 0.0010	< 0.0050	< 0.005
Isopropylbenzene (Cumene)	--	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.025	< 0.005	NA	< 0.0010	< 0.0010	< 0.0050	< 0.005
Methyl acetate	--	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.025	< 0.005	NA	< 0.0010	< 0.0010	< 0.0050	< 0.005
Methylcyclohexane	--	< 0.0050	< 0.0050	NA	< 0.0050	< 0.0050	< 0.025	< 0.025	NA	< 0.0050	< 0.0050	< 0.0050	< 0.025
Methylene chloride	0.005	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.025	< 0.005	NA	< 0.0010	< 0.0010	< 0.0050	< 0.005
Styrene	0.1	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.025	< 0.005	NA	< 0.0010	< 0.0010	< 0.0050	< 0.005
Tetrachloroethene	0.005	**0.2**	**0.036**	NA	**0.087**	**0.15**	**0.59**	**0.27**	NA	**0.22**	**0.076**	**0.13**	**0.34**
Toluene	1	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.025	< 0.005	NA	< 0.0010	< 0.0010	< 0.0050	< 0.005
trans-1,2-Dichloroethene	0.1	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.025	< 0.005	NA	< 0.0010	< 0.0010	< 0.0050	< 0.005
Trichloroethene	0.005	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.025	< 0.005	NA	**0.00088 J**	**0.0015**	**0.0039 J**	< 0.005
Trichlorofluoromethane (Freon 11)	--	**0.0016 J**	< 0.0010	NA	< 0.0010	**0.00088 J**	< 0.025	< 0.005	NA	**0.00093 J**	< 0.0010	< 0.0050	< 0.005
Trichlorotrifluoroethane (Freon 113)	--	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.025	< 0.005	NA	**0.0011**	**0.00070 J**	< 0.0050	< 0.005
Vinyl chloride	0.002	< 0.0020	< 0.0010	NA	< 0.0010	< 0.0010	< 0.01	< 0.005	NA	< 0.0010	< 0.0010	< 0.0020	< 0.005
Xylenes, total	10	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.025	< 0.005	NA	< 0.0010	< 0.0010	< 0.0050	< 0.005
General Chemistry (mg/L)													
Bromide	--	NA	**0.11 J**	< 0.20	< 0.20	**0.055 J**	NA	**0.34**	**0.31**	**0.27**	**0.33**	NA	**0.30**
Chloride	--	NA	**1.2**	NA	**0.97 J**	NA	NA	**19**	NA	**23**	NA	NA	**21**
Nitrate	10	NA	**2.1**	NA	**1.9 J-**	NA	NA	**4.3**	NA	**5.5**	NA	NA	**5.2**
Sulfate	--	NA	**0.88 J**	NA	< 1.0	< 1.0	NA	**2.7**	NA	**0.83 J**	**0.64 J**	NA	**9.8**
Field Parameters													
pH, Field (su)	--	**4.39**	**3.92**	**5.35**	**4.05**	**4.35**	**4.80**	**4.55**	**4.05**	**4.05**	**4**	**4.74**	**4.85**
Temperature, Field (°C)	--	**20.44**	**18.08**	**20.26**	**20.31**	**16.58**	**21.80**	**19.98**	**20.53**	**18.67**	**18.46**	**20.99**	**18.63**
Specific Conductivity, Field (µS/cm)	--	**33**	**33**	**38**	**32**	**23**	**84**	**72**	**101**	**132**	**80**	**174**	**104**
Dissolved Oxygen, Field (mg/L)	--	**2.24**	**4.97**	**3.68**	**4.71**	**2.12**	**1.21**	**2.1**	**0.33**	**0**	**0.31**	**2.85**	**3.28**
Oxidation Reduction Potential, Field (mV)	--	**248**	**297**	**264**	**430**	**285**	**300**	**341**	**250**	**240**	**559**	**274**	**250**
Turbidity, Field (NTU)	--	**0**	**2.5**	**0**	**0**	**0**	**9.35**	**0.95**	**0**	**0**	**0.3**	**1.88**	**0**
Iron, Ferrous, Field (mg/L)	--	NA	**0**	**0**	**0**	**0**	NA	**0**	**0**	**0**	**0**	NA	**0**

Note: Only constituents detected in at least one sample are reported in this table.

(2) Maximum Contaminant Level; March 2018 Edition of the Drinking Water Standards and Health Advisories (USEPA, 2018).

(3) The total of combined trihalomethanes (bromodichloromethane, dibromochloromethane, bromoform and chloroform) cannot exceed 0.08 mg/L.

J - Concentration detected equal to or greater than the method detection limit but less than the reporting limit.

J+ - Concentration considered an estimate biased high based on data validation.

J- - Concentration considered an estimate biased low based on data validation.

UJ - Not detected; quantitation limit may be inaccurate or imprecise.

< - Concentration less than the Quantitation Limit.

> - Concentration greater than the Quantitation Limit.

NA - Not analyzed.

Bolding indicates constituent detection.

Shading indicates concentration exceeds comparison criteria.

Appendix B - Comprehensive Summary of Analytical Results for Groundwater Samples

CONSTITUENT	MCL[1]	RMW-08			RMW-08A					RMW-09			
		10/29/2019	3/18/2020	3/22/2021	7/22/2014	2/5/2019	11/6/2019	3/18/2020	3/22/2021	7/10/2014	DU-19104 2/6/2019	2/6/2019	11/4/2019
Gases (µg/L)													
Methane	--	NA	**13**	**130**	NA	**3.0**	NA	**0.27 J**	**5200**	NA	< 0.50	< 0.50	NA
Ethane	--	NA	**0.10**	**0.59 J**	NA	**0.37**	NA	**0.019 J**	**2.7**	NA	< 0.10	< 0.10	NA
Ethene	--	NA	**0.024 J**	**2.1**	NA	**3.6**	NA	**0.024 J**	**1.4**	NA	< 0.10	< 0.10	NA
Volatile Organic Compounds (mg/L)													
1,1-Dichloroethane	--	NA	< 0.0050	< 0.0010	< 0.1	< 0.001	NA	< 0.0010	< 0.0050	< 0.025	< 0.001	< 0.001	NA
1,1-Dichloroethene	0.007	NA	< 0.0050	< 0.0010	< 0.1	< 0.001	NA	< 0.0010	< 0.0050	< 0.025	< 0.001	< 0.001	NA
1,2-Dichlorobenzene	0.6	NA	< 0.0050	< 0.0010	< 0.1	< 0.001	NA	< 0.0010	< 0.0050	< 0.025	< 0.001	< 0.001	NA
1,2-Dichloroethane	0.005	NA	< 0.0050	< 0.0010	< 0.1	< 0.001	NA	< 0.0010	< 0.0050	< 0.025	< 0.001	< 0.001	NA
1,2-Dichloropropane	0.005	NA	< 0.0050	< 0.0010	< 0.1	< 0.001	NA	< 0.0010	< 0.0050	< 0.025	< 0.001	< 0.001	NA
1,4-Dichlorobenzene	0.075	NA	< 0.0050	< 0.0010	< 0.1	< 0.001	NA	< 0.0010	< 0.0050	< 0.025	< 0.001	< 0.001	NA
2-Butanone	--	NA	< 0.05 UJ	< 0.01	< 0.2	< 0.01	NA	< 0.01	**0.34**	< 0.05	< 0.01	< 0.01	NA
2-Hexanone	--	NA	< 0.05	< 0.01	< 0.2	< 0.01	NA	< 0.01	< 0.05	< 0.05	< 0.01	< 0.01	NA
4-Methyl-2-pentanone	--	NA	< 0.05	< 0.01	< 0.2	< 0.01	NA	< 0.01	< 0.05	< 0.05	< 0.01	< 0.01	NA
Acetone	--	NA	< 0.1 UJ	< 0.02	< 0.4	< 0.02	NA	< 0.02	**0.15**	< 0.1	< 0.02	< 0.02	NA
Benzene	0.005	NA	< 0.0050	< 0.0010	< 0.1	< 0.001	NA	< 0.0010	< 0.0050	< 0.025	< 0.001	< 0.001	NA
Bromodichloromethane	0.08000[2]	NA	< 0.0050	< 0.0010	< 0.1	< 0.001	NA	< 0.0010	< 0.0050	< 0.025	< 0.001	< 0.001	NA
Carbon disulfide	--	NA	< 0.0050	< 0.0010	< 0.1	< 0.001	NA	< 0.0010	**0.0024 J**	< 0.025	< 0.001	< 0.001	NA
Carbon tetrachloride	0.005	NA	< 0.0050	< 0.0010	< 0.1	< 0.001	NA	< 0.0010	< 0.0050	< 0.025	< 0.001	< 0.001	NA
Chlorobenzene	0.1	NA	< 0.0050	< 0.0010	< 0.1	< 0.001	NA	< 0.0010	< 0.0050	< 0.025	< 0.001	< 0.001	NA
Chloroethane	--	NA	< 0.01	< 0.0020	< 0.1	< 0.002	NA	< 0.0020	< 0.01	< 0.025	< 0.002	< 0.002	NA
Chloroform	0.08000[2]	NA	< 0.0050	< 0.0010	< 0.1	< 0.001	NA	< 0.0010	< 0.0050	< 0.025	< 0.001	< 0.001	NA
Chloromethane	--	NA	< 0.0050	< 0.0010	< 0.1	< 0.001	NA	< 0.0010	< 0.0050	< 0.025	< 0.001	< 0.001	NA
cis-1,2-Dichloroethene	0.07	NA	**0.012**	**0.013**	< 0.1	< 0.001	NA	**0.039**	**0.88**	**0.0073 J**	**0.0053**	**0.0047**	NA
Cyclohexane	--	NA	< 0.0050	< 0.0010	< 0.1	< 0.001	NA	< 0.0010	< 0.0050	< 0.025	< 0.001	< 0.001	NA
Ethylbenzene	0.7	NA	< 0.0050	< 0.0010	< 0.1	< 0.001	NA	< 0.0010	< 0.0050	< 0.025	< 0.001	< 0.001	NA
Isopropylbenzene (Cumene)	--	NA	< 0.0050	< 0.0010	< 0.1	< 0.001	NA	< 0.0010	< 0.0050	< 0.025	< 0.001	< 0.001	NA
Methyl acetate	--	NA	< 0.0050	< 0.0010	< 0.1	< 0.001	NA	< 0.0010	< 0.0050	< 0.025	< 0.001	< 0.001	NA
Methylcyclohexane	--	NA	< 0.025	< 0.0050	< 0.1	< 0.005	NA	< 0.0050	< 0.025	< 0.025	< 0.005	< 0.005	NA
Methylene chloride	0.005	NA	< 0.0050	< 0.0010	< 0.1	< 0.001	NA	< 0.0010	< 0.0050	< 0.025	< 0.001	< 0.001	NA
Styrene	0.1	NA	< 0.0050	< 0.0010	< 0.1	< 0.001	NA	< 0.0010	< 0.0050	< 0.025	< 0.001	< 0.001	NA
Tetrachloroethene	0.005	NA	**0.35**	**0.17**	**1.1**	**0.1**	NA	**0.11**	**0.25**	**0.34**	**0.19**	**0.15**	NA
Toluene	1	NA	< 0.0050	< 0.0010	< 0.1	< 0.001	NA	< 0.0010	< 0.0050	< 0.025	< 0.001	< 0.001	NA
trans-1,2-Dichloroethene	0.1	NA	< 0.0050	< 0.0010	< 0.1	< 0.001	NA	< 0.0010	< 0.0050	< 0.025	< 0.001	< 0.001	NA
Trichloroethene	0.005	NA	**0.0026 J**	**0.0028**	< 0.1	**0.00049 J**	NA	**0.0011**	**0.021**	< 0.025	**0.0014**	**0.0011**	NA
Trichlorofluoromethane (Freon 11)	--	NA	< 0.0050	< 0.0010	< 0.1	< 0.001	NA	< 0.0010	< 0.0050	< 0.025	< 0.001	< 0.001	NA
Trichlorotrifluoroethane (Freon 113)	--	NA	< 0.0050	< 0.0010	< 0.1	< 0.001	NA	< 0.0010	< 0.0050	< 0.025	< 0.001	< 0.001	NA
Vinyl chloride	0.002	NA	< 0.0050	< 0.0010	< 0.04	< 0.001	NA	< 0.0010	< 0.0050	< 0.01	< 0.001	< 0.001	NA
Xylenes, total	10	NA	< 0.0050	< 0.0010	< 0.1	< 0.001	NA	< 0.0010	< 0.0050	< 0.025	< 0.001	< 0.001	NA
General Chemistry (mg/L)													
Bromide	--	**0.15 J**	**0.20**	**0.19 J**	NA	**1.1**	**0.66**	**0.48**	**0.51**	NA	**0.45**	**0.43**	**0.15 J**
Chloride	--	NA	**19**	NA	NA	**150**	NA	**230**	NA	NA	**38**	**40**	NA
Nitrate	10	NA	**2.8**	NA	NA	**3.0**	NA	**2.7**	NA	NA	**3.2**	**3.5**	NA
Sulfate	--	NA	**7.8**	**4.9**	NA	**1.3**	NA	**1.0**	< 1.0	NA	**2.5 J**	**1.8 J**	NA
Field Parameters													
pH, Field (su)	--	**3.92**	**4.6**	**4.81**	**6.19**	**5.57**	**6.4**	**5.18**	**6.07**	**4.71**	NA	**4.69**	**4.38**
Temperature, Field (°C)	--	**23.74**	**18.62**	**21.08**	**23.02**	**19.74**	**22.63**	**21.76**	**19.73**	**20.52**	NA	**17.58**	**20.43**
Specific Conductivity, Field (µS/cm)	--	**89**	**99**	**73**	**209**	**664**	**160**	**752**	**778**	**110**	NA	**159**	**39**
Dissolved Oxygen, Field (mg/L)	--	**0**	**0.35**	**0.35**	**2.08**	**0**	**0**	**1.52**	**7.44**	**0.95**	NA	**0**	**5.6**
Oxidation Reduction Potential, Field (mV)	--	**285**	**210**	**274**	**26**	**206**	**126**	**141**	**-57**	**296**	NA	**482**	**438**
Turbidity, Field (NTU)	--	**14.3**	**1.6**	**3.4**	**0**	**1.1**	**0**	**0**	**4.7**	**2.78**	NA	**7.8**	**0**
Iron, Ferrous, Field (mg/L)	--	**0.1**	**1**	**0**	NA	**0**	**0**	**0**	**>10**	NA	NA	**0**	**0**

Note: Only constituents detected in at least one sample are reported in this table.

(2) Maximum Contaminant Level; March 2018 Edition of the Drinking Water Standards and Health Advisories (USEPA, 2018).

(3) The total of combined trihalomethanes (bromodichloromethane, dibromochloromethane, bromoform and chloroform) cannot exceed 0.08 mg/L.

J - Concentration detected equal to or greater than the method detection limit but less than the reporting limit.

J+ - Concentration considered an estimate biased high based on data validation.

J- - Concentration considered an estimate biased low based on data validation.

UJ - Not detected; quantitation limit may be inaccurate or imprecise.

< - Concentration less than the Quantitation Limit.

> - Concentration greater than the Quantitation Limit.

NA - Not analyzed.

Bolding indicates constituent detection.

Shading indicates concentration exceeds comparison criteria.

Appendix B - Comprehensive Summary of Analytical Results for Groundwater Samples

CONSTITUENT	MCL[1]	RMW-09		RMW-10					RMW-10A				
		3/23/2020	3/12/2021	7/10/2014	1/30/2019	10/29/2019	3/19/2020	3/11/2021	7/17/2014	2/6/2019	10/29/2019	3/19/2020	3/11/2021
Gases (µg/L)													
Methane	--	**3.0**	**79**	NA	< 0.50	NA	**4.8**	**20**	NA	< 0.50	NA	**0.12 J**	< 5.0
Ethane	--	**0.39**	**0.36 J**	NA	< 0.10	NA	**0.75**	**1.1**	NA	< 0.10	NA	**0.0056 J**	< 0.075
Ethene	--	< 0.0080	< 0.12	NA	< 0.10	NA	**0.65**	**0.27 J**	NA	< 0.10	NA	**0.014 J**	**0.31 J**
Volatile Organic Compounds (mg/L)													
1,1-Dichloroethane	--	< 0.0010	< 0.0010	< 0.0050	< 0.01	NA	< 0.0050	< 0.0050	< 0.05	< 0.02	NA	< 0.0050	< 0.01
1,1-Dichloroethene	0.007	< 0.0010	< 0.0010	< 0.0050	< 0.01	NA	< 0.0050	< 0.0050	< 0.05	< 0.02	NA	< 0.0050	< 0.01
1,2-Dichlorobenzene	0.6	< 0.0010	< 0.0010	< 0.0050	< 0.01	NA	< 0.0050	< 0.0050	< 0.05	< 0.02	NA	< 0.0050	< 0.01
1,2-Dichloroethane	0.005	< 0.0010	< 0.0010	< 0.0050	< 0.01	NA	< 0.0050	< 0.0050	< 0.05	< 0.02	NA	< 0.0050	< 0.01
1,2-Dichloropropane	0.005	< 0.0010	< 0.0010	< 0.0050	< 0.01	NA	< 0.0050	< 0.0050	< 0.05	< 0.02	NA	< 0.0050	< 0.01
1,4-Dichlorobenzene	0.075	< 0.0010	< 0.0010	< 0.0050	< 0.01	NA	< 0.0050	< 0.0050	< 0.05	< 0.02	NA	< 0.0050	< 0.01
2-Butanone	--	< 0.01	< 0.01	< 0.01	< 0.1	NA	**0.21**	< 0.05	< 0.1	< 0.2	NA	< 0.05 UJ	< 0.1
2-Hexanone	--	< 0.01	< 0.01	< 0.01	< 0.1	NA	< 0.05	< 0.05	< 0.1	< 0.2	NA	< 0.05	< 0.1
4-Methyl-2-pentanone	--	< 0.01	< 0.01	< 0.01	< 0.1	NA	< 0.05	< 0.05	< 0.1	< 0.2	NA	< 0.05	< 0.1
Acetone	--	< 0.02	< 0.02	< 0.02	**0.031 J**	NA	**0.19**	< 0.1	< 0.2	< 0.4	NA	< 0.1 UJ	< 0.2
Benzene	0.005	< 0.0010	< 0.0010	< 0.0050	< 0.01	NA	< 0.0050	< 0.0050	< 0.05	< 0.02	NA	< 0.0050	< 0.01
Bromodichloromethane	0.08000[2]	< 0.0010	< 0.0010	< 0.0050	< 0.01	NA	< 0.0050	< 0.0050	< 0.05	< 0.02	NA	< 0.0050	< 0.01
Carbon disulfide	--	**0.00042 J**	< 0.0010	< 0.0050	< 0.01	NA	< 0.0050	< 0.0050	< 0.05	< 0.02	NA	< 0.0050	< 0.01
Carbon tetrachloride	0.005	< 0.0010	< 0.0010	< 0.0050	< 0.01	NA	< 0.0050	< 0.0050	< 0.05	< 0.02	NA	< 0.0050	< 0.01
Chlorobenzene	0.1	< 0.0010	< 0.0010	< 0.0050	< 0.01	NA	< 0.0050	< 0.0050	< 0.05	< 0.02	NA	< 0.0050	< 0.01
Chloroethane	--	< 0.0020	< 0.0020	< 0.0050	< 0.02	NA	< 0.01	< 0.01	< 0.05	< 0.04	NA	< 0.01	< 0.02
Chloroform	0.08000[2]	< 0.0010	< 0.0010	< 0.0050	< 0.01	NA	< 0.0050	< 0.0050	< 0.05	< 0.02	NA	< 0.0050	< 0.01
Chloromethane	--	< 0.0010	< 0.0010	< 0.0050	< 0.01	NA	< 0.0050	< 0.0050	< 0.05	< 0.02	NA	< 0.0050	< 0.01
cis-1,2-Dichloroethene	0.07	**0.0027**	**0.0071**	< 0.0050	< 0.01	NA	**0.019**	**0.034**	< 0.05	< 0.02	NA	< 0.0050	< 0.01
Cyclohexane	--	< 0.0010	< 0.0010	< 0.0050	< 0.01	NA	< 0.0050	< 0.0050	< 0.05	< 0.02	NA	< 0.0050	< 0.01
Ethylbenzene	0.7	< 0.0010	< 0.0010	< 0.0050	< 0.01	NA	< 0.0050	< 0.0050	< 0.05	< 0.02	NA	< 0.0050	< 0.01
Isopropylbenzene (Cumene)	--	< 0.0010	< 0.0010	< 0.0050	< 0.01	NA	< 0.0050	< 0.0050	< 0.05	< 0.02	NA	< 0.0050	< 0.01
Methyl acetate	--	< 0.0010	< 0.0010	< 0.0050	< 0.01	NA	< 0.0050	< 0.0050	< 0.05	< 0.02	NA	< 0.0050 UJ	< 0.01
Methylcyclohexane	--	< 0.0050	< 0.0050	< 0.0050	< 0.05	NA	< 0.025	< 0.025	< 0.05	< 0.1	NA	< 0.025	< 0.05
Methylene chloride	0.005	< 0.0010	< 0.0010	< 0.0050	< 0.01	NA	< 0.0050	< 0.0050	< 0.05	< 0.02	NA	< 0.0050	< 0.01
Styrene	0.1	< 0.0010	< 0.0010	< 0.0050	< 0.01	NA	< 0.0050	< 0.0050	< 0.05	< 0.02	NA	< 0.0050	< 0.01
Tetrachloroethene	0.005	**0.2**	**0.16**	**0.16**	**0.48**	NA	**0.58**	**0.36**	**0.68**	**1.7**	NA	**0.26**	**1.4**
Toluene	1	< 0.0010	< 0.0010	< 0.0050	< 0.01	NA	< 0.0050	< 0.0050	< 0.05	< 0.02	NA	< 0.0050	< 0.01
trans-1,2-Dichloroethene	0.1	< 0.0010	< 0.0010	< 0.0050	< 0.01	NA	< 0.0050	< 0.0050	< 0.05	< 0.02	NA	< 0.0050	< 0.01
Trichloroethene	0.005	**0.00090 J**	**0.0019**	**0.00036 J**	< 0.01	NA	**0.0079**	**0.0048 J**	< 0.05	< 0.02	NA	< 0.0050	< 0.01
Trichlorofluoromethane (Freon 11)	--	< 0.0010	< 0.0010	< 0.0050	< 0.01	NA	< 0.0050	< 0.0050	< 0.05	< 0.02	NA	< 0.0050	< 0.01
Trichlorotrifluoroethane (Freon 113)	--	< 0.0010	< 0.0010	**0.00030 J**	< 0.01	NA	< 0.0050	< 0.0050	< 0.05	< 0.02	NA	< 0.0050	**0.0089 J**
Vinyl chloride	0.002	< 0.0010	< 0.0010	< 0.0020	< 0.01	NA	< 0.0050	< 0.0050 UJ	< 0.02	< 0.02	NA	< 0.0050	< 0.01
Xylenes, total	10	< 0.0010	< 0.0010	< 0.0050	< 0.01	NA	< 0.0050	< 0.0050	< 0.05	< 0.02	NA	< 0.0050	< 0.01
General Chemistry (mg/L)													
Bromide	--	**0.31**	**0.18 J**	NA	**0.30**	**0.32**	**0.44 J**	**0.44 J**	NA	< 0.2	< 0.20	< 0.20	< 0.20
Chloride	--	**27**	NA	NA	**12**	NA	**14**	NA	NA	**1.0**	NA	**0.94 J**	NA
Nitrate	10	**1.7**	NA	NA	**4.7**	NA	**0.32**	NA	NA	**0.78**	NA	**0.73**	NA
Sulfate	--	**7.7**	**9.8**	NA	**3200**	NA	**1300**	**850**	NA	**1.3**	NA	**1.1**	**1.4**
Field Parameters													
pH, Field (su)	--	**4.37**	**4.33**	**3.41**	**3.53**	**3.24**	**3.61**	**3.74**	**5.69**	**5.56**	**5.56**	**5.64**	**4.9**
Temperature, Field (°C)	--	**17.91**	**23.27**	**19.83**	**17.1**	**21.48**	**18.99**	**21.79**	**21.34**	**17.71**	**21.96**	**19.75**	**19.96**
Specific Conductivity, Field (µS/cm)	--	**103**	**51**	**1140**	**1400**	**572**	**1650**	**745**	**77**	**19**	**16**	**14**	**16**
Dissolved Oxygen, Field (mg/L)	--	**0**	**0**	**2.39**	**2**	**0**	**0**	**1.49**	**4.02**	**1.35**	**3.99**	**5.27**	**2.56**
Oxidation Reduction Potential, Field (mV)	--	**510**	**543**	**400**	**531**	**392**	**192**	**352**	**118**	**220**	**189**	**244**	**279**
Turbidity, Field (NTU)	--	**0**	**0.6**	**20.0**	**8.3**	**4.4**	**63.1**	**31**	**1.34**	**0**	**25.4**	**0**	**10.2**
Iron, Ferrous, Field (mg/L)	--	**0**	**0**	NA	**0**	**2**	**>10**	**7**	NA	**0**	**0**	**0**	**0**

Note: Only constituents detected in at least one sample are reported in this table.

(2) Maximum Contaminant Level; March 2018 Edition of the Drinking Water Standards and Health Advisories (USEPA, 2018).

(3) The total of combined trihalomethanes (bromodichloromethane, dibromochloromethane, bromoform and chloroform) cannot exceed 0.08 mg/L.

J - Concentration detected equal to or greater than the method detection limit but less than the reporting limit.

J+ - Concentration considered an estimate biased high based on data validation.

J- - Concentration considered an estimate biased low based on data validation.

UJ - Not detected; quantitation limit may be inaccurate or imprecise.

< - Concentration less than the Quantitation Limit.

> - Concentration greater than the Quantitation Limit.

NA - Not analyzed.

Bolding indicates constituent detection.

Shading indicates concentration exceeds comparison criteria.

Appendix B - Comprehensive Summary of Analytical Results for Groundwater Samples

CONSTITUENT	MCL[1]	RMW-10B					RMW-10C					
		7/17/2014	2/6/2019	10/31/2019	3/19/2020	3/11/2021	7/17/2014	2/6/2019	10/31/2019	3/19/2020	DU-21101 3/11/2021	3/11/2021
Gases (µg/L)												
Methane	--	NA	**6.4**	NA	**1.5**	< 5.0	NA	< 0.50	NA	**0.082 J**	< 5.0	< 2.5
Ethane	--	NA	< 0.10	NA	**0.0079 J**	< 0.075	NA	< 0.10	NA	< 0.0050	< 0.075	< 0.075
Ethene	--	NA	**0.17**	NA	**0.032 J**	< 0.12	NA	**0.23**	NA	**0.031 J**	< 0.12	< 0.12
Volatile Organic Compounds (mg/L)												
1,1-Dichloroethane	--	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.0010
1,1-Dichloroethene	0.007	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.0010
1,2-Dichlorobenzene	0.6	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.0010
1,2-Dichloroethane	0.005	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.0010
1,2-Dichloropropane	0.005	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.0010
1,4-Dichlorobenzene	0.075	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.0010
2-Butanone	--	< 0.01	< 0.01	NA	< 0.01	< 0.01	< 0.01	< 0.01	NA	< 0.01	< 0.01	< 0.01
2-Hexanone	--	< 0.01	< 0.01	NA	< 0.01	< 0.01	< 0.01	< 0.01	NA	< 0.01	< 0.01	< 0.01
4-Methyl-2-pentanone	--	**0.0019 J**	< 0.01	NA	< 0.01	< 0.01	**0.0021 J**	< 0.01	NA	< 0.01	< 0.01	< 0.01
Acetone	--	< 0.02	< 0.02	NA	< 0.02	< 0.02	< 0.02	< 0.02	NA	< 0.02	< 0.02	< 0.02
Benzene	0.005	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.0010
Bromodichloromethane	0.08000[2]	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.0010
Carbon disulfide	--	**0.0014 J**	< 0.001	NA	< 0.0010	< 0.0010	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.0010
Carbon tetrachloride	0.005	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.0010
Chlorobenzene	0.1	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.0010
Chloroethane	--	< 0.0050	< 0.002	NA	< 0.0020	< 0.0020	< 0.0050	< 0.002	NA	< 0.0020	< 0.0020	< 0.0020
Chloroform	0.08000[2]	**0.0032 J**	< 0.001	NA	< 0.0010	< 0.0010	**0.0053**	**0.00064 J**	NA	< 0.0010	< 0.0010	< 0.0010
Chloromethane	--	< 0.0050	< 0.001	NA	< 0.0010	**0.00058 J**	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.0010
cis-1,2-Dichloroethene	0.07	< 0.0050	**0.02**	NA	**0.031**	**0.021**	< 0.0050	< 0.001	NA	**0.00083 J**	**0.0020**	**0.0020**
Cyclohexane	--	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.0010
Ethylbenzene	0.7	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.0010
Isopropylbenzene (Cumene)	--	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.0010
Methyl acetate	--	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.0010
Methylcyclohexane	--	< 0.0050	< 0.005	NA	< 0.0050	< 0.0050	< 0.0050	< 0.005	NA	< 0.0050	< 0.0050	< 0.0050
Methylene chloride	0.005	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.0010
Styrene	0.1	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.0010
Tetrachloroethene	0.005	**0.021**	**0.076**	NA	**0.044**	**0.15**	**0.0058**	**0.018**	NA	**0.065**	**0.091**	**0.095**
Toluene	1	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.0010
trans-1,2-Dichloroethene	0.1	< 0.0050	< 0.001	NA	**0.00041 J**	< 0.0010	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.0010
Trichloroethene	0.005	< 0.0050	**0.0015**	NA	**0.0025**	**0.0070**	< 0.0050	**0.00047 J**	NA	< 0.0010	**0.0012**	**0.0012**
Trichlorofluoromethane (Freon 11)	--	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.0010
Trichlorotrifluoroethane (Freon 113)	--	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.0010
Vinyl chloride	0.002	< 0.0020	< 0.001	NA	< 0.0010	< 0.0010	< 0.0020	< 0.001	NA	< 0.0010	< 0.0010	< 0.0010
Xylenes, total	10	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.0010
General Chemistry (mg/L)												
Bromide	--	NA	**0.096 J**	< 0.20	< 0.20	**0.054 J**	NA	**0.095 J**	< 0.20	< 0.20	**0.052 J**	**0.051 J**
Chloride	--	NA	**1.1**	NA	**0.92 J**	NA	NA	**1.3**	NA	**0.99 J**	NA	NA
Nitrate	10	NA	**0.79 J**	NA	**1.1**	NA	NA	**0.95**	NA	**1.2**	NA	NA
Sulfate	--	NA	**8.6**	NA	**0.59 J**	**2.0**	NA	**2.9**	NA	**1.0**	**2.0**	**1.9**
Field Parameters												
pH, Field (su)	--	**6.55**	**6.83**	**6.55**	**6.23**	**6.52**	**9.38**	**9.42**	**9**	**8.56**	NA	**9.1**
Temperature, Field (°C)	--	**24.30**	**16.56**	**20.46**	**19.98**	**21.45**	**20.74**	**16.42**	**19.8**	**20.31**	NA	**22.53**
Specific Conductivity, Field (µS/cm)	--	**689**	**65**	**76**	**86**	**62**	**130**	**88**	**98**	**107**	NA	**64**
Dissolved Oxygen, Field (mg/L)	--	**0**	**2.98**	**0**	**4.31**	**0**	**3.91**	**3.44**	**2.78**	**4.03**	NA	**1.89**
Oxidation Reduction Potential, Field (mV)	--	**-44**	**-65**	**66**	**-8**	**30**	**-25**	**-74**	**33**	**83**	NA	**129**
Turbidity, Field (NTU)	--	**13.9**	**7.4**	**424**	**57.8**	**37.3**	**31.3**	**0**	**92.1**	**0**	NA	**3.8**
Iron, Ferrous, Field (mg/L)	--	NA	**0.5**	**1**	**0.3**	**0.2**	NA	**0**	**0**	**0**	NA	**0.05**

Note: Only constituents detected in at least one sample are reported in this table.

(2) Maximum Contaminant Level; March 2018 Edition of the Drinking Water Standards and Health Advisories (USEPA, 2018).

(3) The total of combined trihalomethanes (bromodichloromethane, dibromochloromethane, bromoform and chloroform) cannot exceed 0.08 mg/L.

J - Concentration detected equal to or greater than the method detection limit but less than the reporting limit.

J+ - Concentration considered an estimate biased high based on data validation.

J- - Concentration considered an estimate biased low based on data validation.

UJ - Not detected; quantitation limit may be inaccurate or imprecise.

< - Concentration less than the Quantitation Limit.

> - Concentration greater than the Quantitation Limit.

NA - Not analyzed.

Bolding indicates constituent detection.

Shading indicates concentration exceeds comparison criteria.

Appendix B - Comprehensive Summary of Analytical Results for Groundwater Samples

CONSTITUENT	MCL[1]	RMW-11					RMW-12		RMW-13				
		7/14/2014	2/4/2019	10/29/2019	3/9/2020	3/25/2021	7/14/2014	2/5/2019	7/14/2014	DU-19102 2/4/2019	2/4/2019	1/11/2019	3/12/2020
Gases (µg/L)													
Methane	--	NA	< 0.50	NA	< 0.094	**2.6 J**	NA	< 0.50	NA	< 0.50	< 0.50	NA	**0.071 J**
Ethane	--	NA	< 0.10	NA	< 0.011	< 0.075	NA	< 0.10	NA	< 0.10	< 0.10	NA	< 0.0050
Ethene	--	NA	< 0.10	NA	**0.015 J**	< 0.12	NA	< 0.10	NA	**0.29 J**	**0.66 J**	NA	**0.059 J**
Volatile Organic Compounds (mg/L)													
1,1-Dichloroethane	--	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.001	< 0.0050	< 0.0010	< 0.0010	NA	< 0.0010
1,1-Dichloroethene	0.007	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.001	< 0.0050	< 0.0010	< 0.0010	NA	< 0.0010
1,2-Dichlorobenzene	0.6	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.001	< 0.0050	< 0.0010	< 0.0010	NA	< 0.0010
1,2-Dichloroethane	0.005	**0.00095 J**	**0.00093 J**	NA	**0.00079 J**	**0.00075 J**	**0.0018 J**	**0.0011**	**0.00063 J**	< 0.0010	< 0.0010	NA	**0.00046 J**
1,2-Dichloropropane	0.005	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.001	< 0.0050	< 0.0010	< 0.0010	NA	< 0.0010
1,4-Dichlorobenzene	0.075	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.001	< 0.0050	< 0.0010	< 0.0010	NA	< 0.0010
2-Butanone	--	< 0.01	< 0.01	NA	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	NA	< 0.01
2-Hexanone	--	< 0.01	< 0.01	NA	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	NA	< 0.01
4-Methyl-2-pentanone	--	< 0.01	< 0.01	NA	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	NA	< 0.01
Acetone	--	< 0.02	< 0.02	NA	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02	NA	< 0.02
Benzene	0.005	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.001	< 0.0050	< 0.0010	< 0.0010	NA	< 0.0010
Bromodichloromethane	0.08000[2]	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.001	< 0.0050	< 0.0010	< 0.0010	NA	< 0.0010
Carbon disulfide	--	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.001	< 0.0050	< 0.0010	< 0.0010	NA	< 0.0010
Carbon tetrachloride	0.005	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.001	< 0.0050	< 0.0010	< 0.0010	NA	< 0.0010
Chlorobenzene	0.1	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.001	< 0.0050	< 0.0010	< 0.0010	NA	< 0.0010
Chloroethane	--	< 0.0050	< 0.0020	NA	< 0.0020	< 0.0020	< 0.0050	< 0.002	< 0.0050	< 0.0020	< 0.0020	NA	< 0.0020
Chloroform	0.08000[2]	**0.0033 J**	**0.0021**	NA	**0.0020**	**0.0016**	< 0.0050	**0.00074 J**	< 0.0050	< 0.0010	< 0.0010	NA	**0.00051 J**
Chloromethane	--	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.001	< 0.0050	< 0.0010	< 0.0010	NA	< 0.0010
cis-1,2-Dichloroethene	0.07	**0.00024 J**	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.001	**0.00028 J**	< 0.0010	< 0.0010	NA	< 0.0010
Cyclohexane	--	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.001	< 0.0050	< 0.0010	< 0.0010	NA	< 0.0010
Ethylbenzene	0.7	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.001	< 0.0050	< 0.0010	< 0.0010	NA	< 0.0010
Isopropylbenzene (Cumene)	--	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.001	< 0.0050	< 0.0010	< 0.0010	NA	< 0.0010
Methyl acetate	--	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.001	< 0.0050	< 0.0010	< 0.0010	NA	< 0.0010
Methylcyclohexane	--	< 0.0050	< 0.0050	NA	< 0.0050	< 0.0050	< 0.0050	< 0.005	< 0.0050	< 0.0050	< 0.0050	NA	< 0.0050
Methylene chloride	0.005	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.001	< 0.0050	< 0.0010	< 0.0010	NA	< 0.0010
Styrene	0.1	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.001	< 0.0050	< 0.0010	< 0.0010	NA	< 0.0010
Tetrachloroethene	0.005	**0.15**	**0.1**	NA	**0.091**	**0.087**	**0.00095 J**	**0.0017**	**0.15**	**0.11**	**0.12**	NA	**0.17**
Toluene	1	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.001	< 0.0050	< 0.0010	< 0.0010	NA	< 0.0010
trans-1,2-Dichloroethene	0.1	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.001	< 0.0050	< 0.0010	< 0.0010	NA	< 0.0010
Trichloroethene	0.005	**0.00037 J**	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.001	**0.00046 J**	< 0.0010	< 0.0010	NA	< 0.0010
Trichlorofluoromethane (Freon 11)	--	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.001	< 0.0050	< 0.0010	< 0.0010	NA	< 0.0010
Trichlorotrifluoroethane (Freon 113)	--	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.001	**0.00051 J**	< 0.0010	< 0.0010	NA	< 0.0010
Vinyl chloride	0.002	< 0.0020	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0020	< 0.001	< 0.0020	< 0.0010	< 0.0010	NA	< 0.0010
Xylenes, total	10	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.001	< 0.0050	< 0.0010	< 0.0010	NA	< 0.0010
General Chemistry (mg/L)													
Bromide	--	NA	**0.18 J**	**0.13 J**	**0.14 J**	**0.12 J**	NA	**0.18 J**	NA	**0.13 J**	**0.12 J**	**0.074 J**	< 0.20
Chloride	--	NA	**9.0**	NA	**7.4**	NA	NA	**5.5**	NA	**4.9**	**4.8**	NA	**4.6**
Nitrate	10	NA	**6.6**	NA	**5.3**	NA	NA	**1.7**	NA	**1.3**	**1.2**	NA	**1.4**
Sulfate	--	NA	**98**	NA	**100**	**90**	NA	**2.4**	NA	**60**	**64**	NA	**79**
Field Parameters													
pH, Field (su)	--	**4.20**	**4.5**	**4.19**	**4.02**	**3.84**	**4.94**	**4.79**	**4.27**	NA	**4.16**	**3.52**	**3.65**
Temperature, Field (°C)	--	**20.32**	**18.65**	**23.35**	**20.25**	**18.37**	**19.54**	**17.22**	**20.34**	NA	**15.39**	**20.56**	**19.41**
Specific Conductivity, Field (µS/cm)	--	**198**	**293**	**171**	**300**	**216**	**45**	**34**	**185**	NA	**120**	**224**	**170**
Dissolved Oxygen, Field (mg/L)	--	**4.37**	**6**	**6.62**	**4.82**	**3.13**	**7.37**	**8.92**	**6.78**	NA	**7.77**	**0.17**	**7.23**
Oxidation Reduction Potential, Field (mV)	--	**310**	**411**	**360**	**441**	**303**	**269**	**318**	**310**	NA	**351**	**443**	**294**
Turbidity, Field (NTU)	--	**7.40**	**10.7**	**2**	**1.84**	**0**	**0**	**0**	**1.81**	NA	**0**	**32.9**	**0**
Iron, Ferrous, Field (mg/L)	--	NA	**0**	**0**	**0**	**0**	NA	**0**	NA	NA	**0.05**	**0**	**0**

Note: Only constituents detected in at least one sample are reported in this table.

(2) Maximum Contaminant Level; March 2018 Edition of the Drinking Water Standards and Health Advisories (USEPA, 2018).

(3) The total of combined trihalomethanes (bromodichloromethane, dibromochloromethane, bromoform and chloroform) cannot exceed 0.08 mg/L.

J - Concentration detected equal to or greater than the method detection limit but less than the reporting limit.

J+ - Concentration considered an estimate biased high based on data validation.

J- - Concentration considered an estimate biased low based on data validation.

UJ - Not detected; quantitation limit may be inaccurate or imprecise.

< - Concentration less than the Quantitation Limit.

> - Concentration greater than the Quantitation Limit.

NA - Not analyzed.

Bolding indicates constituent detection.

Shading indicates concentration exceeds comparison criteria.

Appendix B - Comprehensive Summary of Analytical Results for Groundwater Samples

CONSTITUENT	MCL[1]	RMW-13	RMW-13A					RMW-14					RMW-14A
		3/16/2021	7/21/2014	2/11/2019	10/28/2019	3/12/2020	3/16/2021	7/14/2014	1/30/2019	11/4/2019	3/11/2020	3/15/2021	7/21/2014
Gases (µg/L)													
Methane	--	< 5.0	NA	< 0.50	NA	**0.054 J**	< 5.0	NA	< 0.50	NA	**0.046 J**	< 5.0	NA
Ethane	--	< 0.075	NA	< 0.10	NA	< 0.0050	< 0.075	NA	< 0.10	NA	< 0.0050	< 0.075	NA
Ethene	--	**0.68 J**	NA	< 0.10	NA	**0.0098 J**	< 0.12	NA	< 0.10	NA	**0.015 J**	**0.23 J**	NA
Volatile Organic Compounds (mg/L)													
1,1-Dichloroethane	--	< 0.0010	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050
1,1-Dichloroethene	0.007	< 0.0010	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050
1,2-Dichlorobenzene	0.6	< 0.0010	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050
1,2-Dichloroethane	0.005	**0.00048 J**	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050
1,2-Dichloropropane	0.005	< 0.0010	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050
1,4-Dichlorobenzene	0.075	< 0.0010	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050
2-Butanone	--	< 0.01	< 0.01	< 0.01	NA	< 0.01	< 0.01	< 0.01	< 0.01	NA	< 0.01	< 0.01	< 0.01
2-Hexanone	--	< 0.01	< 0.01	< 0.01	NA	< 0.01	< 0.01	< 0.01	< 0.01	NA	< 0.01	< 0.01	< 0.01
4-Methyl-2-pentanone	--	< 0.01	< 0.01	< 0.01	NA	< 0.01	< 0.01	< 0.01	< 0.01	NA	< 0.01	< 0.01	< 0.01
Acetone	--	< 0.02	< 0.02	< 0.02	NA	< 0.02	< 0.02	< 0.02	**0.0029 J**	NA	< 0.02	< 0.02	< 0.02
Benzene	0.005	< 0.0010	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050
Bromodichloromethane	0.08000[2]	< 0.0010	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050
Carbon disulfide	--	< 0.0010	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	**0.0024 J**
Carbon tetrachloride	0.005	< 0.0010	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050
Chlorobenzene	0.1	< 0.0010	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050
Chloroethane	--	< 0.0020	< 0.0050	< 0.0020	NA	< 0.0020	< 0.0020	< 0.0050	< 0.0020	NA	< 0.0020	< 0.0020	< 0.0050
Chloroform	0.08000[2]	**0.00053 J**	**0.0017 J**	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	**0.0089**
Chloromethane	--	< 0.0010	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050
cis-1,2-Dichloroethene	0.07	**0.00041 J**	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	**0.00022 J**	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050
Cyclohexane	--	< 0.0010	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050
Ethylbenzene	0.7	< 0.0010	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050
Isopropylbenzene (Cumene)	--	< 0.0010	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050
Methyl acetate	--	< 0.0010	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050
Methylcyclohexane	--	< 0.0050	< 0.0050	< 0.0050	NA	< 0.0050	< 0.0050	< 0.0050	< 0.0050	NA	< 0.0050	< 0.0050	< 0.0050
Methylene chloride	0.005	< 0.0010	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050
Styrene	0.1	< 0.0010	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050
Tetrachloroethene	0.005	**0.16**	**0.0010 J**	< 0.0010	NA	< 0.0010	< 0.0010	**0.12**	**0.053**	NA	**0.034**	**0.022**	**0.025**
Toluene	1	< 0.0010	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050
trans-1,2-Dichloroethene	0.1	< 0.0010	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050
Trichloroethene	0.005	**0.00043 J**	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050
Trichlorofluoromethane (Freon 11)	--	< 0.0010	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050
Trichlorotrifluoroethane (Freon 113)	--	**0.00046 J**	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050
Vinyl chloride	0.002	< 0.0010	< 0.0020	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0020	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0020
Xylenes, total	10	< 0.0010	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050
General Chemistry (mg/L)													
Bromide	--	< 0.20	NA	**0.099 J**	< 0.20	< 0.20	< 0.20	NA	**0.11 J**	**0.10 J**	< 0.20	< 0.20	NA
Chloride	--	NA	NA	**0.96 J**	NA	**0.86 J**	NA	NA	**3.5**	NA	**2.8**	NA	NA
Nitrate	10	NA	NA	**0.16**	NA	**0.18**	NA	NA	**1.6**	NA	**1.5**	NA	NA
Sulfate	--	**110**	NA	**1.1**	NA	**1.1**	**0.99 J**	NA	**440**	NA	**120**	**97**	NA
Field Parameters													
pH, Field (su)	--	**3.84**	**5.96**	**5.6**	**4.84**	**5.16**	**5.44**	**4.03**	**3.9**	**3.4**	**3.69**	**3.95**	**4.95**
Temperature, Field (°C)	--	**15.14**	**21.25**	**16.88**	**22.14**	**20.88**	**15.53**	**20.09**	**14.31**	**18.78**	**18.76**	**20.92**	**20.88**
Specific Conductivity, Field (µS/cm)	--	**197**	**114**	**12**	**13**	**16**	**11**	**304**	**200**	**423**	**208**	**149**	**768**
Dissolved Oxygen, Field (mg/L)	--	**4.31**	**3.71**	**4.13**	**7.83**	**5.18**	**10.07**	**3.59**	**7.38**	**11.59**	**4.91**	**7.27**	**5.44**
Oxidation Reduction Potential, Field (mV)	--	**247**	**149**	**271**	**280**	**304**	**289**	**313**	**370**	**411**	**296**	**425**	**280**
Turbidity, Field (NTU)	--	**1.5**	**1.42**	**4.78**	**0**	**1.97**	**0**	**0**	**0**	**0**	**0**	**9.9**	**0**
Iron, Ferrous, Field (mg/L)	--	**0**	NA	**0**	**0**	**0**	**0**	NA	**0**	**0**	**0**	**0**	NA

Note: Only constituents detected in at least one sample are reported in this table.

(2) Maximum Contaminant Level; March 2018 Edition of the Drinking Water Standards and Health Advisories (USEPA, 2018).

(3) The total of combined trihalomethanes (bromodichloromethane, dibromochloromethane, bromoform and chloroform) cannot exceed 0.08 mg/L.

J - Concentration detected equal to or greater than the method detection limit but less than the reporting limit.

J+ - Concentration considered an estimate biased high based on data validation.

J- - Concentration considered an estimate biased low based on data validation.

UJ - Not detected; quantitation limit may be inaccurate or imprecise.

< - Concentration less than the Quantitation Limit.

> - Concentration greater than the Quantitation Limit.

NA - Not analyzed.

Bolding indicates constituent detection.

Shading indicates concentration exceeds comparison criteria.

Appendix B - Comprehensive Summary of Analytical Results for Groundwater Samples

CONSTITUENT	MCL[1]	RMW-14A				RMW-14B						RMW-14C
		1/29/2019	11/4/2019	3/11/2020	3/15/2021	7/21/2014	1/29/2019	10/30/2019	DU-20101 3/11/2020	3/11/2020	3/15/2021	7/21/2014
Gases (µg/L)												
Methane	--	< 0.50	NA	**0.14 J**	< 5.0	NA	**12**	NA	**0.055 J**	**0.051 J**	< 5.0	NA
Ethane	--	< 0.10	NA	**0.0075 J**	< 0.075	NA	< 0.10	NA	< 0.0050	< 0.0050	< 0.075	NA
Ethene	--	< 0.10	NA	**0.0084 J**	< 0.12	NA	< 0.10	NA	< 0.0040	< 0.0040	**0.24 J**	NA
Volatile Organic Compounds (mg/L)												
1,1-Dichloroethane	--	< 0.0050	NA	< 0.0050	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0010	< 0.0050
1,1-Dichloroethene	0.007	**0.0034 J**	NA	**0.0057**	**0.0050**	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0010	< 0.0050
1,2-Dichlorobenzene	0.6	< 0.0050	NA	< 0.0050	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0010	< 0.0050
1,2-Dichloroethane	0.005	< 0.0050	NA	< 0.0050	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0010	< 0.0050
1,2-Dichloropropane	0.005	< 0.0050	NA	< 0.0050	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0010	< 0.0050
1,4-Dichlorobenzene	0.075	< 0.0050	NA	< 0.0050	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0010	< 0.0050
2-Butanone	--	< 0.05	NA	< 0.05	< 0.05	< 0.01	< 0.01	NA	< 0.01	< 0.01	< 0.01	< 0.01
2-Hexanone	--	< 0.05	NA	< 0.05	< 0.05	< 0.01	< 0.01	NA	< 0.01	< 0.01	< 0.01	< 0.01
4-Methyl-2-pentanone	--	< 0.05	NA	< 0.05	< 0.05	< 0.01	< 0.01	NA	< 0.01	< 0.01	< 0.01	< 0.01
Acetone	--	< 0.1	NA	< 0.1	< 0.1	< 0.02	< 0.02	NA	< 0.02	< 0.02	< 0.02	< 0.0082
Benzene	0.005	< 0.0050	NA	< 0.0050	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0010	< 0.0050
Bromodichloromethane	0.08000[2]	< 0.0050	NA	< 0.0050	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0010	< 0.0050
Carbon disulfide	--	< 0.0050	NA	< 0.0050	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0010	< 0.0050
Carbon tetrachloride	0.005	< 0.0050	NA	< 0.0050	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0010	< 0.0050
Chlorobenzene	0.1	< 0.0050	NA	< 0.0050	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0010	< 0.0050
Chloroethane	--	< 0.01	NA	< 0.01	< 0.01	< 0.0050	< 0.0020	NA	< 0.0020	< 0.0020	< 0.0020	< 0.0050
Chloroform	0.08000[2]	**0.0073**	NA	**0.0068**	**0.0052**	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0010	< 0.0050
Chloromethane	--	< 0.0050	NA	< 0.0050	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0010	< 0.0050
cis-1,2-Dichloroethene	0.07	< 0.0050	NA	< 0.0050	< 0.0050	< 0.0050	**0.00062 J**	NA	< 0.0010	< 0.0010	< 0.0010	< 0.0050
Cyclohexane	--	< 0.0050	NA	< 0.0050 UJ	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0010	< 0.0050
Ethylbenzene	0.7	< 0.0050	NA	< 0.0050	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0010	< 0.0050
Isopropylbenzene (Cumene)	--	< 0.0050	NA	< 0.0050	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0010	< 0.0050
Methyl acetate	--	< 0.0050	NA	< 0.0050 UJ	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0010	< 0.0050
Methylcyclohexane	--	< 0.025	NA	< 0.025	< 0.025	< 0.0050	< 0.0050	NA	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Methylene chloride	0.005	< 0.0050	NA	< 0.0050	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0010	< 0.0050
Styrene	0.1	< 0.0050	NA	< 0.0050	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0010	< 0.0050
Tetrachloroethene	0.005	**0.3**	NA	**0.53 J**	**0.6**	**0.0014 J**	**0.0021**	NA	**0.00096 J**	**0.00087 J**	**0.0043**	**0.0085**
Toluene	1	< 0.0050	NA	< 0.0050	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0010	< 0.0050
trans-1,2-Dichloroethene	0.1	< 0.0050	NA	< 0.0050	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0010	< 0.0050
Trichloroethene	0.005	< 0.0050	NA	< 0.0050	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0010	< 0.0050
Trichlorofluoromethane (Freon 11)	--	< 0.0050	NA	< 0.0050	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0010	< 0.0050
Trichlorotrifluoroethane (Freon 113)	--	< 0.0050	NA	**0.0021 J**	**0.0022 J**	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0010	< 0.0050
Vinyl chloride	0.002	< 0.0050	NA	< 0.0050	< 0.0050	< 0.0020	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0010	< 0.0020
Xylenes, total	10	< 0.0050	NA	< 0.0050	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0010	< 0.0050
General Chemistry (mg/L)												
Bromide	--	< 0.20	< 0.20	< 1.0	< 0.20	NA	**0.10 J**	< 0.20	< 0.20	< 0.20	< 0.20	NA
Chloride	--	**0.71 J**	NA	< 5.0	NA	NA	**0.84 J**	NA	**0.81 J**	**0.85 J**	NA	NA
Nitrate	10	**0.83**	NA	**0.70**	NA	NA	**0.34**	NA	**0.37**	**0.36**	NA	NA
Sulfate	--	**170**	NA	**150**	**140**	NA	**0.71 J**	NA	**0.34 J**	**0.63 J**	**0.36 J**	NA
Field Parameters												
pH, Field (su)	--	**5.19**	**5.11**	**5.03**	**5.15**	**6.91**	**6.95**	**6.94**	NA	**6.66**	**6.24**	**8.97**
Temperature, Field (°C)	--	**15.03**	**19.42**	**19.31**	**19.18**	**21.77**	**16.02**	**19.85**	NA	**19.65**	**19.94**	**20.31**
Specific Conductivity, Field (µS/cm)	--	**246**	**242**	**292**	**217**	**152**	**55**	**48**	NA	**65**	**42**	**149**
Dissolved Oxygen, Field (mg/L)	--	**8.1**	**6.22**	**6.71**	**2.39**	**3.32**	**8.49**	**8.24**	NA	**6.34**	**5.62**	**6.49**
Oxidation Reduction Potential, Field (mV)	--	**266**	**274**	**225**	**255**	**45**	**92**	**103**	NA	**202**	**231**	**49**
Turbidity, Field (NTU)	--	**0**	**0**	**0**	**0.7**	**129**	**220**	**77.5**	NA	**5.38**	**14.3**	**0**
Iron, Ferrous, Field (mg/L)	--	**0**	**0**	**0**	NA	**0**	**0**	NA	NA	**0.05**	**0**	NA

Note: Only constituents detected in at least one sample are reported in this table.

(2) Maximum Contaminant Level; March 2018 Edition of the Drinking Water Standards and Health Advisories (USEPA, 2018).

(3) The total of combined trihalomethanes (bromodichloromethane, dibromochloromethane, bromoform and chloroform) cannot exceed 0.08 mg/L.

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< - Concentration less than the Quantitation Limit.

> - Concentration greater than the Quantitation Limit.

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Appendix B - Comprehensive Summary of Analytical Results for Groundwater Samples

CONSTITUENT	MCL[1]	RMW-14C				RMW-15		RMW-15A		RMW-15B		RMW-16	
		1/29/2019	10/30/2019	3/11/2020	3/15/2021	7/14/2014	2/4/2019	7/17/2014	2/4/2019	7/17/2014	2/4/2019	7/14/2014	1/30/2019
Gases (µg/L)													
Methane	--	< 0.50	NA	**0.098 J**	< 2.5	NA	NA	NA	NA	NA	NA	NA	NA
Ethane	--	< 0.10	NA	< 0.0050	< 0.075	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	--	< 0.10	NA	< 0.0040	**0.14 J**	NA	NA	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds (mg/L)													
1,1-Dichloroethane	--	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0010	< 0.025	< 0.0050	< 0.0050	< 0.0010	< 0.05	< 0.0050
1,1-Dichloroethene	0.007	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0010	< 0.025	< 0.0050	< 0.0050	< 0.0010	< 0.05	< 0.0050
1,2-Dichlorobenzene	0.6	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0010	< 0.025	< 0.0050	< 0.0050	< 0.0010	< 0.05	< 0.0050
1,2-Dichloroethane	0.005	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0010	< 0.025	< 0.0050	< 0.0050	< 0.0010	< 0.05	< 0.0050
1,2-Dichloropropane	0.005	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0010	< 0.025	< 0.0050	< 0.0050	< 0.0010	< 0.05	< 0.0050
1,4-Dichlorobenzene	0.075	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0010	< 0.025	< 0.0050	< 0.0050	< 0.0010	< 0.05	< 0.0050
2-Butanone	--	< 0.01	NA	< 0.01	< 0.01	< 0.01	< 0.01	< 0.05	< 0.05	< 0.01	< 0.01	< 0.1	< 0.05
2-Hexanone	--	< 0.01	NA	< 0.01	< 0.01	< 0.01	< 0.01	< 0.05	< 0.05	< 0.01	< 0.01	< 0.1	< 0.05
4-Methyl-2-pentanone	--	< 0.01	NA	< 0.01	< 0.01	< 0.01	< 0.01	< 0.05	< 0.05	< 0.01	< 0.01	< 0.1	< 0.05
Acetone	--	**0.0024 J**	NA	< 0.02	< 0.02	< 0.02	< 0.02	< 0.1	< 0.1	< 0.02	**0.019 J**	< 0.2	< 0.1
Benzene	0.005	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0010	< 0.025	< 0.0050	< 0.0050	< 0.0010	< 0.05	< 0.0050
Bromodichloromethane	0.08000[2]	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0010	< 0.025	< 0.0050	< 0.0050	< 0.0010	< 0.05	< 0.0050
Carbon disulfide	--	**0.00052 J**	NA	< 0.0010	< 0.0010	**0.00030 J**	< 0.0010	< 0.025	< 0.0050	< 0.0050	< 0.0010	< 0.05	< 0.0050
Carbon tetrachloride	0.005	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0010	< 0.025	< 0.0050	< 0.0050	< 0.0010	< 0.05	< 0.0050
Chlorobenzene	0.1	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0010	< 0.025	< 0.0050	< 0.0050	< 0.0010	< 0.05	< 0.0050
Chloroethane	--	< 0.0020	NA	< 0.0020	< 0.0020	< 0.0050	< 0.0020	< 0.025	< 0.01	< 0.0050	< 0.0020	< 0.05	< 0.01
Chloroform	0.08000[2]	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0010	**0.016 J**	< 0.0050	**0.0038 J**	< 0.0010	< 0.05	< 0.0050
Chloromethane	--	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0010	< 0.025	< 0.0050	< 0.0050	< 0.0010	< 0.05	< 0.0050
cis-1,2-Dichloroethene	0.07	< 0.0010	NA	**0.00045 J**	< 0.0010	**0.00021 J**	< 0.0010	< 0.025	< 0.0050	< 0.0050	**0.00053 J**	**0.0081 J**	**0.018**
Cyclohexane	--	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0010	< 0.025	< 0.0050	< 0.0050	< 0.0010	< 0.05	< 0.0050
Ethylbenzene	0.7	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0010	< 0.025	< 0.0050	< 0.0050	< 0.0010	< 0.05	< 0.0050
Isopropylbenzene (Cumene)	--	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0010	< 0.025	< 0.0050	< 0.0050	< 0.0010	< 0.05	< 0.0050
Methyl acetate	--	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0010	< 0.025	< 0.0050	< 0.0050	< 0.0010	< 0.05	< 0.0050
Methylcyclohexane	--	< 0.0050	NA	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.025	< 0.025	< 0.0050	< 0.0050	< 0.05	< 0.025
Methylene chloride	0.005	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0010	< 0.025	< 0.0050	< 0.0050	< 0.0010	< 0.05	< 0.0050
Styrene	0.1	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0010	< 0.025	< 0.0050	< 0.0050	< 0.0010	< 0.05	< 0.0050
Tetrachloroethene	0.005	**0.0010**	NA	**0.0046**	**0.016**	**0.052**	**0.035**	**0.24**	**0.23**	**0.0018 J**	**0.0046**	**0.44**	**0.27**
Toluene	1	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0010	< 0.025	< 0.0050	< 0.0017	< 0.0010	< 0.05	< 0.0050
trans-1,2-Dichloroethene	0.1	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0010	< 0.025	< 0.0050	< 0.0050	< 0.0010	< 0.05	< 0.0050
Trichloroethene	0.005	< 0.0010	NA	< 0.0010	< 0.0010	**0.00058 J**	**0.0018**	< 0.025	< 0.0050	< 0.0050	**0.0014**	**0.085**	**0.015**
Trichlorofluoromethane (Freon 11)	--	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0010	< 0.025	< 0.0050	< 0.0050	< 0.0010	< 0.05	< 0.0050
Trichlorotrifluoroethane (Freon 113)	--	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0010	< 0.025	< 0.0050	< 0.0050	< 0.0010	< 0.05	< 0.0050
Vinyl chloride	0.002	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0020	< 0.0010	< 0.01	< 0.0050	< 0.0020	< 0.0010	< 0.02	< 0.0050
Xylenes, total	10	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0010	< 0.025	< 0.0050	< 0.0050	< 0.0010	< 0.05	< 0.0050
General Chemistry (mg/L)													
Bromide	--	**0.094 J**	< 0.20	< 0.20	< 0.20	NA	NA	NA	NA	NA	NA	NA	NA
Chloride	--	**0.96 J**	NA	**0.82 J**	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate	10	**0.43**	NA	**0.44**	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	--	**0.66 J**	NA	**0.29 J**	**0.55 J**	NA	NA	NA	NA	NA	NA	NA	NA
Field Parameters													
pH, Field (su)	--	**7.15**	**8.9**	**6.79**	**7.89**	**4.64**	**5.5**	**6.07**	**5.75**	**8.90**	**7.3**	**4.58**	**5.71**
Temperature, Field (°C)	--	**16.98**	**19.85**	**19.43**	**18.68**	**18.34**	**15.08**	**19.79**	**14.74**	**21.38**	**15.47**	**19.61**	**12.38**
Specific Conductivity, Field (µS/cm)	--	**71**	**52**	**70**	**58**	**108**	**70**	**314**	**115**	**189**	**118**	**142**	**131**
Dissolved Oxygen, Field (mg/L)	--	**8.93**	**6.08**	**6.97**	**8.47**	**0.27**	**4.34**	**2.83**	**2.94**	**0.02**	**0.19**	**0**	**0**
Oxidation Reduction Potential, Field (mV)	--	**173**	**83**	**241**	**114**	**294**	**421**	**107**	**221**	**-227**	**-47**	**524**	**39**
Turbidity, Field (NTU)	--	**0**	**8**	**0**	**18.4**	**0**	**0**	**4.74**	**0**	**99.6**	**250**	**19.5**	**0**
Iron, Ferrous, Field (mg/L)	--	**0**	**0**	**0**	**0**	NA	**0**	NA	**0**	NA	**0**	NA	**3**

Note: Only constituents detected in at least one sample are reported in this table.

(2) Maximum Contaminant Level; March 2018 Edition of the Drinking Water Standards and Health Advisories (USEPA, 2018).

(3) The total of combined trihalomethanes (bromodichloromethane, dibromochloromethane, bromoform and chloroform) cannot exceed 0.08 mg/L.

J - Concentration detected equal to or greater than the method detection limit but less than the reporting limit.

J+ - Concentration considered an estimate biased high based on data validation.

J- - Concentration considered an estimate biased low based on data validation.

UJ - Not detected; quantitation limit may be inaccurate or imprecise.

< - Concentration less than the Quantitation Limit.

> - Concentration greater than the Quantitation Limit.

NA - Not analyzed.

Bolding indicates constituent detection.

Shading indicates concentration exceeds comparison criteria.

Appendix B - Comprehensive Summary of Analytical Results for Groundwater Samples

CONSTITUENT	MCL[1]	RMW-16	RMW-16A				RMW-16B			RMW-16C		RMW-17
		3/16/2021	7/17/2014	2/11/2019	DU-21102 3/12/2021	3/16/2021	7/14/2014	7/16/2014	2/11/2019	7/16/2014	2/11/2019	7/14/2014
Gases (µg/L)												
Methane	--	**5800**	NA	NA	**34**	**36**	NA	NA	NA	NA	NA	NA
Ethane	--	**0.22 J**	NA	NA	< 0.075	< 0.075	NA	NA	NA	NA	NA	NA
Ethene	--	< 0.12	NA	NA	< 0.12	< 0.12	NA	NA	NA	NA	NA	NA
Volatile Organic Compounds (mg/L)												
1,1-Dichloroethane	--	< 0.0010	< 0.5	< 0.1	< 0.05	< 0.1	< 0.025	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.025
1,1-Dichloroethene	0.007	< 0.0010	< 0.5	< 0.1	< 0.05	< 0.1	< 0.025	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.025
1,2-Dichlorobenzene	0.6	< 0.0010	< 0.5	< 0.1	< 0.05	< 0.1	< 0.025	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.025
1,2-Dichloroethane	0.005	< 0.0010	< 0.5	< 0.1	< 0.05	< 0.1	< 0.025	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.025
1,2-Dichloropropane	0.005	< 0.0010	< 0.5	< 0.1	< 0.05	< 0.1	< 0.025	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.025
1,4-Dichlorobenzene	0.075	< 0.0010	< 0.5	< 0.1	< 0.05	< 0.1	< 0.025	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.025
2-Butanone	--	< 0.01	< 1	< 1	< 0.5	< 1	< 0.05	< 0.01	< 0.05	< 0.01	< 0.05	< 0.05
2-Hexanone	--	< 0.01	< 1	< 1	< 0.5	< 1	< 0.05	< 0.01	< 0.05	< 0.01	< 0.05	< 0.05
4-Methyl-2-pentanone	--	< 0.01	< 1	< 1	< 0.5	< 1	< 0.05	< 0.01	< 0.05	< 0.01	< 0.05	< 0.05
Acetone	--	< 0.02	< 2	< 2	< 1	< 2	< 0.1	< 0.02	< 0.1	< 0.02	< 0.1	< 0.1
Benzene	0.005	< 0.0010	< 0.5	< 0.1	< 0.05	< 0.1	< 0.025	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.025
Bromodichloromethane	0.08000[2]	< 0.0010	< 0.5	< 0.1	< 0.05	< 0.1	< 0.025	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.025
Carbon disulfide	--	< 0.0010	< 0.5	< 0.1	< 0.05	< 0.1	< 0.025	**0.00060 J**	< 0.0050	< 0.0050	< 0.0050	< 0.025
Carbon tetrachloride	0.005	< 0.0010	< 0.5	< 0.1	< 0.05	< 0.1	< 0.025	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.025
Chlorobenzene	0.1	< 0.0010	< 0.5	< 0.1	< 0.05	< 0.1	< 0.025	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.025
Chloroethane	--	< 0.0020	< 0.5	< 0.2	< 0.1	< 0.2	< 0.025	< 0.0050	< 0.01	< 0.0050	< 0.01	< 0.025
Chloroform	0.08000[2]	< 0.0010	< 0.5	< 0.1	< 0.05	< 0.1	< 0.025	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.025
Chloromethane	--	< 0.0010	< 0.5	< 0.1	< 0.05	< 0.1	< 0.025	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.025
cis-1,2-Dichloroethene	0.07	**0.021**	< 0.5	< 0.1	< 0.05	< 0.1	< 0.025	< 0.0050	**0.012**	< 0.0050	< 0.0050	**0.0050 J**
Cyclohexane	--	< 0.0010	< 0.5	< 0.1	< 0.05	< 0.1	< 0.025	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.025
Ethylbenzene	0.7	< 0.0010	< 0.5	< 0.1	< 0.05	< 0.1	< 0.025	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.025
Isopropylbenzene (Cumene)	--	< 0.0010	< 0.5	< 0.1	< 0.05	< 0.1	< 0.025	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.025
Methyl acetate	--	< 0.0010	< 0.5	< 0.1	< 0.05	< 0.1	< 0.025	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.025
Methylcyclohexane	--	< 0.0050	< 0.5	< 0.5	< 0.25	< 0.5	< 0.025	< 0.0050	< 0.025	< 0.0050	< 0.025	< 0.025
Methylene chloride	0.005	< 0.0010	< 0.5	< 0.1	< 0.05	< 0.1	< 0.025	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.025
Styrene	0.1	< 0.0010	< 0.5	< 0.1	< 0.05	< 0.1	< 0.025	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.025
Tetrachloroethene	0.005	**0.15**	**4.6**	**9.3**	**8.9**	**10**	**0.19**	**0.2**	**0.35**	**0.1**	**0.45**	**0.18**
Toluene	1	< 0.0010	< 0.5	< 0.1	< 0.05	< 0.1	< 0.025	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.025
trans-1,2-Dichloroethene	0.1	< 0.0010	< 0.5	< 0.1	< 0.05	< 0.1	< 0.025	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.025
Trichloroethene	0.005	**0.014**	< 0.5	< 0.1	**0.054**	**0.056 J**	< 0.025	**0.00056 J**	**0.015**	< 0.0050	< 0.0050	< 0.025
Trichlorofluoromethane (Freon 11)	--	< 0.0010	< 0.5	< 0.1	< 0.05	< 0.1	< 0.025	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.025
Trichlorotrifluoroethane (Freon 113)	--	< 0.0010	< 0.5	< 0.1	< 0.05	< 0.1	< 0.025	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.025
Vinyl chloride	0.002	< 0.0010	< 0.2	< 0.1	< 0.05	< 0.1	< 0.01	< 0.0020	< 0.0050	< 0.0020	< 0.0050	< 0.01
Xylenes, total	10	< 0.0010	< 0.5	< 0.1	< 0.05	< 0.1	< 0.025	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.025
General Chemistry (mg/L)												
Bromide	--	**0.27**	NA	NA	**0.088 J**	**0.089 J**	NA	NA	NA	NA	NA	NA
Chloride	--	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Nitrate	10	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Sulfate	--	**6.8**	NA	NA	**2.6**	**2.5**	NA	NA	NA	NA	NA	NA
Field Parameters												
pH, Field (su)	--	**5.47**	**6.30**	**6.13**	NA	**5.74**	NA	**7.29**	**6.87**	**7.75**	**6.94**	**4.37**
Temperature, Field (°C)	--	**12.7**	**19.27**	**15.9**	NA	**13.85**	NA	**23.89**	**15.68**	**21.95**	**16.94**	**18.54**
Specific Conductivity, Field (µS/cm)	--	**104**	**107**	**94**	NA	**66**	NA	**203**	**74**	**110**	**89**	**123**
Dissolved Oxygen, Field (mg/L)	--	**0**	**3.84**	**0**	NA	**2.84**	NA	**1.52**	**1.2**	**1.67**	**0**	**0.85**
Oxidation Reduction Potential, Field (mV)	--	**-7**	**58**	**152**	NA	**194**	NA	**77**	**-87**	**-21**	**21**	**324**
Turbidity, Field (NTU)	--	**2.1**	**2.22**	**0**	NA	**0**	NA	**0**	**0**	**0**	**0**	**8.87**
Iron, Ferrous, Field (mg/L)	--	**2.5**	NA	**0**	NA	**0**	NA	NA	**1**	NA	**0**	NA

Note: Only constituents detected in at least one sample are reported in this table.

(2) Maximum Contaminant Level; March 2018 Edition of the Drinking Water Standards and Health Advisories (USEPA, 2018).

(3) The total of combined trihalomethanes (bromodichloromethane, dibromochloromethane, bromoform and chloroform) cannot exceed 0.08 mg/L.

J - Concentration detected equal to or greater than the method detection limit but less than the reporting limit.

J+ - Concentration considered an estimate biased high based on data validation.

J- - Concentration considered an estimate biased low based on data validation.

UJ - Not detected; quantitation limit may be inaccurate or imprecise.

< - Concentration less than the Quantitation Limit.

> - Concentration greater than the Quantitation Limit.

NA - Not analyzed.

Bolding indicates constituent detection.

Shading indicates concentration exceeds comparison criteria.

Appendix B - Comprehensive Summary of Analytical Results for Groundwater Samples

CONSTITUENT	MCL[1]	RMW-17		RMW-17A			RMW-18					RMW-18A	
		1/30/2019	3/12/2021	7/22/2014	1/30/2019	3/12/2021	7/9/2014	1/24/2019	10/25/2019	3/30/2020	3/25/2021	7/22/2014	7/22/2014
Gases (µg/L)													
Methane	--	NA	**3200**	NA	NA	< 2.5	NA	**360**	NA	**750**	**1600**	NA	NA
Ethane	--	NA	**0.34 J**	NA	NA	**0.10 J**	NA	< 0.10	NA	**0.39**	**3.5**	NA	NA
Ethene	--	NA	< 0.12	NA	NA	< 0.12	NA	< 0.10	NA	**0.021 J**	**0.18 J**	NA	NA
Volatile Organic Compounds (mg/L)													
1,1-Dichloroethane	--	< 0.0010	< 0.0010	< 0.1	< 0.02	< 0.05	< 0.1	< 0.02	NA	< 0.01	< 0.0010	< 0.5	< 0.5
1,1-Dichloroethene	0.007	< 0.0010	< 0.0010	< 0.1	< 0.02	< 0.05	< 0.1	< 0.02	NA	< 0.01	**0.00073 J**	< 0.5	< 0.5
1,2-Dichlorobenzene	0.6	< 0.0010	< 0.0010	< 0.1	< 0.02	< 0.05	< 0.1	< 0.02	NA	< 0.01	< 0.0010	< 0.5	< 0.5
1,2-Dichloroethane	0.005	< 0.0010	< 0.0010	< 0.1	< 0.02	< 0.05	< 0.1	< 0.02	NA	< 0.01	< 0.0010	< 0.5	< 0.5
1,2-Dichloropropane	0.005	< 0.0010	< 0.0010	< 0.1	< 0.02	< 0.05	< 0.1	< 0.02	NA	< 0.01	< 0.0010	< 0.5	< 0.5
1,4-Dichlorobenzene	0.075	< 0.0010	< 0.0010	< 0.1	< 0.02	< 0.05	< 0.1	< 0.02	NA	< 0.01	< 0.0010	< 0.5	< 0.5
2-Butanone	--	< 0.01	< 0.01	< 0.2	< 0.2	< 0.5	< 0.2	< 0.2	NA	< 0.1	< 0.01	< 1	< 1
2-Hexanone	--	< 0.01	< 0.01	< 0.2	< 0.2	< 0.5	< 0.2	< 0.2	NA	< 0.1	< 0.01	< 1	< 1
4-Methyl-2-pentanone	--	< 0.01	< 0.01	< 0.2	< 0.2	< 0.5	< 0.2	< 0.2	NA	< 0.1	< 0.01	< 1	< 1
Acetone	--	**0.0082 J**	< 0.02	< 0.4	< 0.4	< 1	< 0.4	< 0.4	NA	< 0.2	< 0.02	< 2	< 2
Benzene	0.005	< 0.0010	< 0.0010	< 0.1	< 0.02	< 0.05	< 0.1	< 0.02	NA	< 0.01	< 0.0010	< 0.5	< 0.5
Bromodichloromethane	0.08000[2]	< 0.0010	< 0.0010	< 0.1	< 0.02	< 0.05	< 0.1	< 0.02	NA	< 0.01	< 0.0010	< 0.5	< 0.5
Carbon disulfide	--	< 0.0010	< 0.0010	< 0.1	< 0.02	< 0.05	< 0.1	< 0.02	NA	< 0.01	< 0.0010	< 0.5	< 0.5
Carbon tetrachloride	0.005	< 0.0010	< 0.0010	< 0.1	< 0.02	< 0.05	< 0.1	< 0.02	NA	< 0.01	< 0.0010	< 0.5	< 0.5
Chlorobenzene	0.1	< 0.0010	< 0.0010	< 0.1	< 0.02	< 0.05	< 0.1	< 0.02	NA	< 0.01	< 0.0010	< 0.5	< 0.5
Chloroethane	--	< 0.0020	< 0.0020	< 0.1	< 0.04	< 0.1	< 0.1	< 0.04	NA	< 0.02	< 0.0020	< 0.5	< 0.5
Chloroform	0.08000[2]	< 0.0010	< 0.0010	< 0.1	< 0.02	< 0.05	< 0.1	< 0.02	NA	< 0.01	< 0.0010	< 0.5	< 0.5
Chloromethane	--	< 0.0010	< 0.0010	< 0.1	< 0.02	< 0.05	< 0.1	< 0.02	NA	< 0.01	< 0.0010	< 0.5	< 0.5
cis-1,2-Dichloroethene	0.07	**0.021**	**0.011**	< 0.1	< 0.02	< 0.05	**0.025 J**	**0.03**	NA	**0.019**	**0.35**	< 0.5	< 0.5
Cyclohexane	--	< 0.0010	< 0.0010	< 0.1	< 0.02	< 0.05	< 0.1	< 0.02	NA	< 0.01	< 0.0010	< 0.5	< 0.5
Ethylbenzene	0.7	< 0.0010	< 0.0010	< 0.1	< 0.02	< 0.05	< 0.1	< 0.02	NA	< 0.01	< 0.0010	< 0.5	< 0.5
Isopropylbenzene (Cumene)	--	< 0.0010	< 0.0010	< 0.1	< 0.02	< 0.05	< 0.1	< 0.02	NA	< 0.01	< 0.0010	< 0.5	< 0.5
Methyl acetate	--	< 0.0010	< 0.0010	< 0.1	< 0.02	< 0.05	< 0.1	< 0.02	NA	< 0.01	< 0.0010	< 0.5	< 0.5
Methylcyclohexane	--	< 0.0050	< 0.0050	< 0.1	< 0.1	< 0.25	< 0.1	< 0.1	NA	< 0.05	< 0.0050	< 0.5	< 0.5
Methylene chloride	0.005	< 0.0010	< 0.0010	< 0.1	< 0.02	< 0.05	< 0.1	< 0.02	NA	< 0.01	< 0.0010	< 0.5	< 0.5
Styrene	0.1	< 0.0010	< 0.0010	< 0.1	< 0.02	< 0.05	< 0.1	< 0.02	NA	< 0.01	< 0.0010	< 0.5	< 0.5
Tetrachloroethene	0.005	**0.18**	**0.079**	**0.82**	**0.92**	**4.1**	**1.6**	**1.5**	NA	**1**	**0.28**	**4 J**	**9.9 J**
Toluene	1	< 0.0010	< 0.0010	< 0.1	< 0.02	< 0.05	< 0.1	< 0.02	NA	< 0.01	< 0.0010	< 0.5	< 0.5
trans-1,2-Dichloroethene	0.1	< 0.0010	< 0.0010	< 0.1	< 0.02	< 0.05	< 0.1	< 0.02	NA	< 0.01	< 0.0010	< 0.5	< 0.5
Trichloroethene	0.005	**0.0054**	**0.0077**	< 0.1	< 0.02	**0.26**	< 0.1	< 0.02	NA	< 0.01	**0.022**	< 0.5	< 0.5
Trichlorofluoromethane (Freon 11)	--	< 0.0010	< 0.0010	< 0.1	< 0.02	< 0.05	< 0.1	< 0.02	NA	< 0.01	< 0.0010	< 0.5	< 0.5
Trichlorotrifluoroethane (Freon 113)	--	< 0.0010	< 0.0010	< 0.1	< 0.02	< 0.05	< 0.1	< 0.02	NA	< 0.01	< 0.0010	< 0.5	< 0.5
Vinyl chloride	0.002	< 0.0010	< 0.0010	< 0.04	< 0.02	< 0.05	< 0.04	< 0.02	NA	< 0.01	**0.00090 J**	< 0.2	< 0.2
Xylenes, total	10	< 0.0010	< 0.0010	< 0.1	< 0.02	< 0.05	< 0.1	< 0.02	NA	< 0.01	< 0.0010	< 0.5	< 0.5
General Chemistry (mg/L)													
Bromide	--	NA	**0.096 J**	NA	NA	**0.35**	NA	**0.38 J**	**0.52**	**0.19 J**	**0.37**	NA	NA
Chloride	--	NA	NA	NA	NA	NA	NA	**51**	NA	**45**	NA	NA	NA
Nitrate	10	NA	NA	NA	NA	NA	NA	**6.2**	NA	**3.3**	NA	NA	NA
Sulfate	--	NA	**43**	NA	NA	**22**	NA	**40**	NA	**49**	**65**	NA	NA
Field Parameters													
pH, Field (su)	--	**5.33**	**5.53**	**5.56**	**5.84**	**5.7**	**5.63**	**5.02**	**4.64**	**5.38**	**5.11**	NA	**4.92**
Temperature, Field (°C)	--	**15.22**	**21.63**	**19.49**	**16.65**	**22.75**	**21.45**	**16.64**	**20.53**	**21.88**	**19.37**	NA	**23.31**
Specific Conductivity, Field (µS/cm)	--	**133**	**110**	**187**	**154**	**91**	**451**	**199**	**552**	**329**	**288**	NA	**797**
Dissolved Oxygen, Field (mg/L)	--	**0**	**0.03**	**0**	**0**	**0.53**	**3.03**	**8.04**	**0**	**1.17**	**0.45**	NA	**3.18**
Oxidation Reduction Potential, Field (mV)	--	**532**	**537**	**385**	**262**	**334**	**190**	**525**	**229**	**165**	**226**	NA	**272**
Turbidity, Field (NTU)	--	**9.5**	**9.5**	**0**	**0.8**	**6**	**3.16**	**0**	**86.2**	**0**	**5.4**	NA	**0**
Iron, Ferrous, Field (mg/L)	--	**0**	**0**	NA	**0**	**0**	NA	**0**	**0**	**0.5**	**0.3**	NA	NA

Note: Only constituents detected in at least one sample are reported in this table.

(2) Maximum Contaminant Level; March 2018 Edition of the Drinking Water Standards and Health Advisories (USEPA, 2018).

(3) The total of combined trihalomethanes (bromodichloromethane, dibromochloromethane, bromoform and chloroform) cannot exceed 0.08 mg/L.

J - Concentration detected equal to or greater than the method detection limit but less than the reporting limit.

J+ - Concentration considered an estimate biased high based on data validation.

J- - Concentration considered an estimate biased low based on data validation.

UJ - Not detected; quantitation limit may be inaccurate or imprecise.

< - Concentration less than the Quantitation Limit.

> - Concentration greater than the Quantitation Limit.

NA - Not analyzed.

Bolding indicates constituent detection.

Shading indicates concentration exceeds comparison criteria.

Appendix B - Comprehensive Summary of Analytical Results for Groundwater Samples

CONSTITUENT	MCL[1]	RMW-18A				RMW-19						RMW-19A	
		1/24/2019	11/8/2019	3/31/2020	3/23/2021	7/9/2014	2/6/2019	11/1/2019	3/16/2020	3/16/2020	3/19/2021	7/21/2014	1/31/2019
Gases (µg/L)													
Methane	--	**0.72**	NA	**55**	**340**	NA	< 0.50	NA	< 0.094	< 0.094	< 2.5	NA	**11**
Ethane	--	< 0.10	NA	**0.36**	< 0.075	NA	< 0.10	NA	< 0.011	< 0.011	< 0.075	NA	**2.9**
Ethene	--	**0.14**	NA	**0.051 J**	< 0.12	NA	< 0.10	NA	**0.037 J**	**0.033 J**	< 0.12	NA	**25**
Volatile Organic Compounds (mg/L)													
1,1-Dichloroethane	--	< 0.05	NA	< 0.0010	< 0.0010	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0010
1,1-Dichloroethene	0.007	< 0.05	NA	< 0.0010	< 0.0010	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0010
1,2-Dichlorobenzene	0.6	< 0.05	NA	< 0.0010	< 0.0010	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0010
1,2-Dichloroethane	0.005	< 0.05	NA	< 0.0010	< 0.0010	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0010
1,2-Dichloropropane	0.005	< 0.05	NA	< 0.0010	< 0.0010	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0010
1,4-Dichlorobenzene	0.075	< 0.05	NA	< 0.0010	< 0.0010	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0010
2-Butanone	--	< 0.5	NA	< 0.01	< 0.01	< 0.01	< 0.01	NA	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
2-Hexanone	--	< 0.5	NA	< 0.01	< 0.01	< 0.01	< 0.01	NA	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
4-Methyl-2-pentanone	--	< 0.5	NA	< 0.01	< 0.01	< 0.01	< 0.01	NA	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Acetone	--	< 1	NA	**0.0059 J**	< 0.02	< 0.02	**0.0021 J**	NA	< 0.02	< 0.02	< 0.02	< 0.02	< 0.02
Benzene	0.005	< 0.05	NA	< 0.0010	< 0.0010	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0010
Bromodichloromethane	0.08000[2]	< 0.05	NA	< 0.0010	< 0.0010	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0010
Carbon disulfide	--	< 0.05	NA	< 0.0010	< 0.0010	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.0010	**0.0012 J**	< 0.0010
Carbon tetrachloride	0.005	< 0.05	NA	< 0.0010	< 0.0010	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0010
Chlorobenzene	0.1	< 0.05	NA	< 0.0010	< 0.0010	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0010
Chloroethane	--	< 0.1	NA	< 0.0020	< 0.0020	< 0.0050	< 0.002	NA	< 0.0020	< 0.0020	< 0.0020	< 0.0050	< 0.0020
Chloroform	0.08000[2]	< 0.05	NA	< 0.0010	< 0.0010	**0.0019 J**	< 0.001	NA	< 0.0010	< 0.0010	< 0.0010	**0.0083**	**0.019**
Chloromethane	--	< 0.05	NA	< 0.0010	< 0.0010	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0010
cis-1,2-Dichloroethene	0.07	< 0.05	NA	< 0.0010	< 0.0010	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0010
Cyclohexane	--	< 0.05	NA	< 0.0010	< 0.0010	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0010
Ethylbenzene	0.7	< 0.05	NA	< 0.0010	< 0.0010	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0010
Isopropylbenzene (Cumene)	--	< 0.05	NA	< 0.0010	< 0.0010	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0010
Methyl acetate	--	< 0.05	NA	< 0.0010	< 0.0010	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0010
Methylcyclohexane	--	< 0.25	NA	< 0.0050	< 0.0050	< 0.0050	< 0.005	NA	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Methylene chloride	0.005	< 0.05	NA	< 0.0010	< 0.0010	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0010
Styrene	0.1	< 0.05	NA	< 0.0010	< 0.0010	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0010
Tetrachloroethene	0.005	**2.6**	NA	**0.18**	**0.015**	**0.17**	**0.029**	NA	**0.015**	**0.015**	**0.0073**	**0.12**	**0.19**
Toluene	1	< 0.05	NA	< 0.0010	< 0.0010	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0010
trans-1,2-Dichloroethene	0.1	< 0.05	NA	< 0.0010	< 0.0010	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0010
Trichloroethene	0.005	< 0.05	NA	< 0.0010	< 0.0010	**0.00037 J**	< 0.001	NA	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0010
Trichlorofluoromethane (Freon 11)	--	< 0.05	NA	< 0.0010	< 0.0010	**0.0046 J**	**0.0036**	NA	**0.0030**	**0.0029**	**0.0034**	**0.017**	**0.00044 J**
Trichlorotrifluoroethane (Freon 113)	--	< 0.05	NA	< 0.0010	< 0.0010	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0010
Vinyl chloride	0.002	< 0.05	NA	< 0.0010	< 0.0010	< 0.0020	< 0.001	NA	< 0.0010	< 0.0010	< 0.0010	< 0.0020	< 0.0010
Xylenes, total	10	< 0.05	NA	< 0.0010	< 0.0010	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.0010	< 0.0050	< 0.0010
General Chemistry (mg/L)													
Bromide	--	**0.34**	**1.3**	< 0.20	< 0.20	NA	**0.18 J**	**0.10 J**	**0.17 J**	**0.17 J**	**0.22**	NA	**0.11 J**
Chloride	--	**150**	NA	**54**	NA	NA	**7.4**	NA	**9.6**	**9.6**	NA	NA	**1.2**
Nitrate	10	**6.2**	NA	**0.34**	NA	NA	**7.8**	NA	**7.8**	**8.1**	NA	NA	**2.1**
Sulfate	--	**97**	NA	**130**	**120**	NA	**13**	NA	**17**	**17**	**29**	NA	**0.92 J**
Field Parameters													
pH, Field (su)	--	**4.82**	**4.3**	**5.42**	**5.1**	**4.26**	**4.56**	**4**	NA	**4.33**	**4.58**	**5.34**	**4.63**
Temperature, Field (°C)	--	**18.11**	**20.35**	**21.32**	**20.6**	**20.49**	**19.17**	**19.32**	NA	**18.79**	**18.75**	**21.77**	**19.04**
Specific Conductivity, Field (µS/cm)	--	**617**	**409**	**521**	**280**	**77**	**82**	**91**	NA	**145**	**142**	**68**	**33**
Dissolved Oxygen, Field (mg/L)	--	**1.17**	**0**	**1.39**	**0**	**1.45**	**1.85**	**0**	NA	**1.91**	**6.5**	**4.07**	**10.3**
Oxidation Reduction Potential, Field (mV)	--	**373**	**-105**	**-227**	**150**	**294**	**369**	**348**	NA	**260**	**234**	**207**	**234**
Turbidity, Field (NTU)	--	**0**	**2.4**	**0**	**0**	**3.50**	**1.89**	**30.6**	NA	**0**	**18.8**	**0**	**0**
Iron, Ferrous, Field (mg/L)	--	**0**	**0**	**2**	**0.05**	NA	**0**	**0**	NA	**0**	**0**	NA	**0**

Note: Only constituents detected in at least one sample are reported in this table.

(2) Maximum Contaminant Level; March 2018 Edition of the Drinking Water Standards and Health Advisories (USEPA, 2018).

(3) The total of combined trihalomethanes (bromodichloromethane, dibromochloromethane, bromoform and chloroform) cannot exceed 0.08 mg/L.

J - Concentration detected equal to or greater than the method detection limit but less than the reporting limit.

J+ - Concentration considered an estimate biased high based on data validation.

J- - Concentration considered an estimate biased low based on data validation.

UJ - Not detected; quantitation limit may be inaccurate or imprecise.

< - Concentration less than the Quantitation Limit.

> - Concentration greater than the Quantitation Limit.

NA - Not analyzed.

Bolding indicates constituent detection.

Shading indicates concentration exceeds comparison criteria.

Appendix B - Comprehensive Summary of Analytical Results for Groundwater Samples

CONSTITUENT	MCL[1]	RMW-19A			RMW-20					RMW-20A			
		11/1/2019	3/16/2020	3/19/2021	7/9/2014	1/24/2019	11/4/2019	3/11/2020	3/22/2021	7/15/2014	1/24/2019	11/6/2019	3/11/2020
Gases (µg/L)													
Methane	--	NA	**0.54**	< 2.5	NA	**0.54**	NA	**16**	**1200**	NA	< 0.50	NA	**8300**
Ethane	--	NA	**0.015 J**	< 0.075	NA	< 0.10	NA	**0.63**	**0.25 J**	NA	< 0.10	NA	**5.0**
Ethene	--	NA	**0.021 J**	< 0.12	NA	< 0.10	NA	**0.053 J**	**0.45 J**	NA	< 0.10	NA	**1.8**
Volatile Organic Compounds (mg/L)													
1,1-Dichloroethane	--	NA	< 0.01	< 0.01	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.5	< 0.05	NA	< 0.02
1,1-Dichloroethene	0.007	NA	< 0.01	< 0.01	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.5	< 0.05	NA	< 0.02
1,2-Dichlorobenzene	0.6	NA	< 0.01	< 0.01	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.5	< 0.05	NA	< 0.02
1,2-Dichloroethane	0.005	NA	< 0.01	< 0.01	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.5	< 0.05	NA	< 0.02
1,2-Dichloropropane	0.005	NA	< 0.01	< 0.01	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.5	< 0.05	NA	< 0.02
1,4-Dichlorobenzene	0.075	NA	< 0.01	< 0.01	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.5	< 0.05	NA	< 0.02
2-Butanone	--	NA	< 0.1	< 0.1	< 0.01	< 0.01	NA	< 0.01	< 0.01	< 1	< 0.5	NA	**0.2**
2-Hexanone	--	NA	< 0.1	< 0.1	< 0.01	< 0.01	NA	< 0.01	< 0.01	< 1	< 0.5	NA	< 0.2
4-Methyl-2-pentanone	--	NA	< 0.1	< 0.1	< 0.01	< 0.01	NA	< 0.01	< 0.01	< 1	< 0.5	NA	< 0.2
Acetone	--	NA	< 0.2	< 0.2	< 0.02	< 0.02	NA	< 0.02	< 0.02	< 2	< 1	NA	< 0.4
Benzene	0.005	NA	< 0.01	< 0.01	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.5	< 0.05	NA	< 0.02
Bromodichloromethane	0.08000[2]	NA	< 0.01	< 0.01	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.5	< 0.05	NA	< 0.02
Carbon disulfide	--	NA	< 0.01	< 0.01	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.5	< 0.05	NA	< 0.02
Carbon tetrachloride	0.005	NA	< 0.01	< 0.01	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.5	< 0.05	NA	< 0.02
Chlorobenzene	0.1	NA	< 0.01	< 0.01	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.5	< 0.05	NA	< 0.02
Chloroethane	--	NA	< 0.02	< 0.02	< 0.0050	< 0.0020	NA	< 0.0020	< 0.0020	< 0.5	< 0.1	NA	< 0.04
Chloroform	0.08000[2]	NA	**0.013**	**0.0075 J**	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.5	< 0.05	NA	< 0.02
Chloromethane	--	NA	< 0.01	< 0.01	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.5	< 0.05	NA	< 0.02
cis-1,2-Dichloroethene	0.07	NA	< 0.01	< 0.01	**0.00024 J**	< 0.0010	NA	**0.0010**	**0.00078 J**	< 0.5	< 0.05	NA	**1.6**
Cyclohexane	--	NA	< 0.01	< 0.01	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.5	< 0.05	NA	< 0.02
Ethylbenzene	0.7	NA	< 0.01	< 0.01	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.5	< 0.05	NA	< 0.02
Isopropylbenzene (Cumene)	--	NA	< 0.01	< 0.01	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.5	< 0.05	NA	< 0.02
Methyl acetate	--	NA	< 0.01	< 0.01	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.5	< 0.05	NA	< 0.02
Methylcyclohexane	--	NA	< 0.05	< 0.05	< 0.0050	< 0.0050	NA	< 0.0050	< 0.0050	< 0.5	< 0.25	NA	< 0.1
Methylene chloride	0.005	NA	< 0.01	< 0.01	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.5	< 0.05	NA	< 0.02
Styrene	0.1	NA	< 0.01	< 0.01	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.5	< 0.05	NA	< 0.02
Tetrachloroethene	0.005	NA	**0.68**	**1.2**	**0.2**	**0.056**	NA	**0.029**	**0.019**	**5.1**	**5.4**	NA	**0.021**
Toluene	1	NA	< 0.01	< 0.01	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.5	< 0.05	NA	< 0.02
trans-1,2-Dichloroethene	0.1	NA	< 0.01	< 0.01	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.5	< 0.05	NA	< 0.02
Trichloroethene	0.005	NA	< 0.01	< 0.01	**0.00050 J**	< 0.0010	NA	< 0.0010	< 0.0010	< 0.5	< 0.05	NA	< 0.02
Trichlorofluoromethane (Freon 11)	--	NA	< 0.01	< 0.01	**0.00055 J**	< 0.0010	NA	< 0.0010	< 0.0010	< 0.5	< 0.05	NA	< 0.02
Trichlorotrifluoroethane (Freon 113)	--	NA	< 0.01	< 0.01	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	**0.082 J**	< 0.05	NA	< 0.02
Vinyl chloride	0.002	NA	< 0.01	< 0.01	< 0.0020	< 0.0010	NA	< 0.0010	< 0.0010	< 0.2	< 0.05	NA	**0.011 J**
Xylenes, total	10	NA	< 0.01	< 0.01	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.5	< 0.05	NA	< 0.02
General Chemistry (mg/L)													
Bromide	--	< 0.20	**0.058 J**	**0.056 J**	NA	**0.27**	**0.22**	**0.15 J**	**0.15 J**	NA	< 0.20	**0.060 J**	< 0.20
Chloride	--	NA	**1.0**	NA	NA	**13**	NA	**13**	NA	NA	**1.4**	NA	**2.3**
Nitrate	10	NA	**1.9**	NA	NA	**9.0**	NA	**5.7**	NA	NA	**2.5**	NA	**0.90**
Sulfate	--	NA	< 1.0	< 1.0	NA	**78**	NA	**83**	**66**	NA	**0.59 J**	NA	< 1.0
Field Parameters													
pH, Field (su)	--	**4.94**	**4.36**	**4.89**	**4.92**	**4.79**	**4.23**	**4.45**	**4.51**	**5.29**	**5.08**	**5.83**	**7.78**
Temperature, Field (°C)	--	**19.9**	**20.99**	**18.54**	**23.57**	**16.1**	**20.92**	**19.83**	**21.3**	**23.59**	**16.05**	**22.79**	**21.79**
Specific Conductivity, Field (µS/cm)	--	**24**	**33**	**30**	**119**	**172**	**230**	**239**	**183**	**50**	**24**	**512**	**220**
Dissolved Oxygen, Field (mg/L)	--	**6.35**	**5.63**	**1.76**	**2.61**	**6.82**	**7.72**	**1.21**	**0**	**4.94**	**6.11**	**0**	**1.56**
Oxidation Reduction Potential, Field (mV)	--	**174**	**246**	**253**	**239**	**406**	**446**	**392**	**221**	**228**	**421**	**-61**	**-305**
Turbidity, Field (NTU)	--	**0**	**0**	**30.5**	**1.58**	**0**	**65.7**	**3.9**	**0.3**	**0**	**0**	**282**	**11**
Iron, Ferrous, Field (mg/L)	--	**0**	**0**	**0**	NA	**0.05**	**0**	**2**	**0.65**	NA	**0.1**	**>10 J**	**3**

Note: Only constituents detected in at least one sample are reported in this table.

(2) Maximum Contaminant Level; March 2018 Edition of the Drinking Water Standards and Health Advisories (USEPA, 2018).

(3) The total of combined trihalomethanes (bromodichloromethane, dibromochloromethane, bromoform and chloroform) cannot exceed 0.08 mg/L.

J - Concentration detected equal to or greater than the method detection limit but less than the reporting limit.

J+ - Concentration considered an estimate biased high based on data validation.

J- - Concentration considered an estimate biased low based on data validation.

UJ - Not detected; quantitation limit may be inaccurate or imprecise.

< - Concentration less than the Quantitation Limit.

> - Concentration greater than the Quantitation Limit.

NA - Not analyzed.

Bolding indicates constituent detection.

Shading indicates concentration exceeds comparison criteria.

Appendix B - Comprehensive Summary of Analytical Results for Groundwater Samples

CONSTITUENT	MCL[1]	RMW-20A	RMW-20B					RMW-20C				
		3/22/2021	7/15/2014	1/24/2019	10/30/2019	3/31/2020	3/23/2021	7/15/2014	2/5/2019	10/30/2019	3/12/2020	3/23/2021
Gases (µg/L)												
Methane	--	**16000**	NA	**3.0**	NA	**24000**	**18000**	NA	**1.1**	NA	**920**	**1400**
Ethane	--	**1.8**	NA	< 0.10	NA	**0.39**	**1.6**	NA	< 0.10	NA	**0.31**	< 0.075
Ethene	--	**4.6**	NA	< 0.10	NA	**0.16**	**0.16 J**	NA	**3.8**	NA	**0.70**	**0.69 J**
Volatile Organic Compounds (mg/L)												
1,1-Dichloroethane	--	< 0.0010	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010
1,1-Dichloroethene	0.007	**0.0027**	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010
1,2-Dichlorobenzene	0.6	**0.00054 J**	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010
1,2-Dichloroethane	0.005	< 0.0010	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010
1,2-Dichloropropane	0.005	< 0.0010	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010
1,4-Dichlorobenzene	0.075	< 0.0010	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010
2-Butanone	--	**0.18**	< 0.01	< 0.01	NA	**0.011**	< 0.01	< 0.01	< 0.01	NA	**0.0091 J**	**0.0032 J**
2-Hexanone	--	< 0.01	< 0.01	< 0.01	NA	< 0.01	< 0.01	< 0.01	< 0.01	NA	< 0.01	< 0.01
4-Methyl-2-pentanone	--	< 0.01	< 0.01	< 0.01	NA	< 0.01	< 0.01	< 0.01	< 0.01	NA	< 0.01	< 0.01
Acetone	--	< 1	< 0.02	< 0.02	NA	**0.0084 J**	< 0.02	< 0.02	**0.0032 J**	NA	**0.0081 J**	< 0.02
Benzene	0.005	< 0.0010	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010
Bromodichloromethane	0.08000[2]	< 0.0010	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010
Carbon disulfide	--	< 0.0010	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	**0.00042 J**	< 0.001	NA	< 0.0010	< 0.0010
Carbon tetrachloride	0.005	< 0.0010	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010
Chlorobenzene	0.1	< 0.0010	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010
Chloroethane	--	< 0.0020	< 0.0050	< 0.0020	NA	< 0.0020	< 0.0020	< 0.0050	< 0.002	NA	< 0.0020	< 0.0020
Chloroform	0.08000[2]	< 0.0010	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	**0.0041 J**	< 0.001	NA	< 0.0010	< 0.0010
Chloromethane	--	< 0.0010	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010
cis-1,2-Dichloroethene	0.07	**2.6**	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010
Cyclohexane	--	< 0.0010	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010
Ethylbenzene	0.7	< 0.0010	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010
Isopropylbenzene (Cumene)	--	< 0.0010	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010
Methyl acetate	--	**0.01 J+**	< 0.0050	< 0.0010	NA	**0.0013**	< 0.0010	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010
Methylcyclohexane	--	< 0.0050	< 0.0050	< 0.0050	NA	< 0.0050	< 0.0050	< 0.0050	< 0.005	NA	< 0.0050	< 0.0050
Methylene chloride	0.005	**0.00062 J**	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010
Styrene	0.1	< 0.0010	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010
Tetrachloroethene	0.005	**0.026**	**0.0062**	**0.0056**	NA	< 0.0010	< 0.0010	**0.0027 J**	**0.0062**	NA	**0.0035**	**0.0030**
Toluene	1	< 0.0010	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010
trans-1,2-Dichloroethene	0.1	**0.0013**	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010
Trichloroethene	0.005	**0.0074**	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010
Trichlorofluoromethane (Freon 11)	--	< 0.0010	**0.00052 J**	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010
Trichlorotrifluoroethane (Freon 113)	--	< 0.0010	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010
Vinyl chloride	0.002	**0.016**	< 0.0020	< 0.0010	NA	< 0.0010	< 0.0010	**0.00011 J**	< 0.001	NA	< 0.0010	< 0.0010
Xylenes, total	10	< 0.0010	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010
General Chemistry (mg/L)												
Bromide	--	< 0.20	NA	< 0.20	< 0.20	< 0.20	**0.051 J**	NA	**0.097 J**	< 0.20	< 0.20	**0.050 J**
Chloride	--	NA	NA	**3.3**	NA	**3.0**	NA	NA	**3.5**	NA	**2.5**	NA
Nitrate	10	NA	NA	**1.5**	NA	**0.14**	NA	NA	**1.7**	NA	**1.2**	NA
Sulfate	--	< 1.0 UJ	NA	**0.35 J**	NA	< 5.0	< 1.0	NA	**0.62 J**	NA	**0.48 J**	**1.1 J+**
Field Parameters												
pH, Field (su)	--	**6.74**	**7.53**	**6.29**	**8.02**	**7.39**	**7**	**10.47**	**11.13**	**11.96**	**9.4**	**11.25**
Temperature, Field (°C)	--	**21.76**	**27.77**	**18.44**	**21.73**	**21.13**	**21.32**	**24.88**	**19.72**	**21.45**	**22.03**	**23.86**
Specific Conductivity, Field (µS/cm)	--	**412**	**218**	**65**	**83**	**371**	**216**	**341**	**329**	**438**	**243**	**358**
Dissolved Oxygen, Field (mg/L)	--	**0.98**	**0**	**9.34**	**0**	**0**	**2.16**	**3.16**	**4.98**	**0.07**	**1.02**	**0.38**
Oxidation Reduction Potential, Field (mV)	--	**-128**	**-183**	**234**	**-262**	**-161**	**-163**	**-47**	**-2**	**-173**	**37**	**-175**
Turbidity, Field (NTU)	--	**50.7**	**278**	**3.5**	**82.2**	**182**	**16.3**	**1.56**	**0**	**58.5**	**0**	**19.6**
Iron, Ferrous, Field (mg/L)	--	**>10**	NA	**0**	**5.5**	**>10**	**>10**	NA	**0**	**0**	**0**	**0**

Note: Only constituents detected in at least one sample are reported in this table.

(2) Maximum Contaminant Level; March 2018 Edition of the Drinking Water Standards and Health Advisories (USEPA, 2018).

(3) The total of combined trihalomethanes (bromodichloromethane, dibromochloromethane, bromoform and chloroform) cannot exceed 0.08 mg/L.

J - Concentration detected equal to or greater than the method detection limit but less than the reporting limit.

J+ - Concentration considered an estimate biased high based on data validation.

J- - Concentration considered an estimate biased low based on data validation.

UJ - Not detected; quantitation limit may be inaccurate or imprecise.

< - Concentration less than the Quantitation Limit.

> - Concentration greater than the Quantitation Limit.

NA - Not analyzed.

Bolding indicates constituent detection.

Shading indicates concentration exceeds comparison criteria.

Appendix B - Comprehensive Summary of Analytical Results for Groundwater Samples

CONSTITUENT	MCL[1]	RMW-21					RMW-21A					RMW-22	
		7/9/2014	2/5/2019	11/4/2019	3/17/2020	3/19/2021	7/15/2014	1/31/2019	11/8/2019	3/17/2020	3/19/2021	7/10/2014	2/6/2019
Gases (µg/L)													
Methane	--	NA	**2.7**	NA	**5.7**	**110**	NA	**1.5**	NA	**9.7**	**210 J-**	NA	NA
Ethane	--	NA	< 0.10	NA	**0.072 J**	< 0.075	NA	< 0.10	NA	**0.031 J**	**1.6 J-**	NA	NA
Ethene	--	NA	**0.34**	NA	**0.019 J**	< 0.12	NA	**0.23**	NA	**0.015 J**	**0.65 J**	NA	NA
Volatile Organic Compounds (mg/L)													
1,1-Dichloroethane	--	< 0.025	< 0.005	NA	< 0.0050	< 0.0010	< 0.1	< 0.1	NA	< 0.05	< 0.02	**0.0017 J**	< 0.001
1,1-Dichloroethene	0.007	< 0.025	< 0.005	NA	< 0.0050	< 0.0010	< 0.1	< 0.1	NA	< 0.05	< 0.02	< 0.0050	< 0.001
1,2-Dichlorobenzene	0.6	< 0.025	< 0.005	NA	< 0.0050	< 0.0010	< 0.1	< 0.1	NA	< 0.05	< 0.02	< 0.0050	< 0.001
1,2-Dichloroethane	0.005	< 0.025	< 0.005	NA	< 0.0050	< 0.0010	< 0.1	< 0.1	NA	< 0.05	< 0.02	< 0.0050	< 0.001
1,2-Dichloropropane	0.005	< 0.025	< 0.005	NA	< 0.0050	< 0.0010	< 0.1	< 0.1	NA	< 0.05	< 0.02	< 0.0050	< 0.001
1,4-Dichlorobenzene	0.075	< 0.025	< 0.005	NA	< 0.0050	< 0.0010	< 0.1	< 0.1	NA	< 0.05	< 0.02	< 0.0050	< 0.001
2-Butanone	--	< 0.05	< 0.05	NA	< 0.05	< 0.01	< 0.2	< 1	NA	< 0.5	**0.11 J**	< 0.01	< 0.01
2-Hexanone	--	< 0.05	< 0.05	NA	< 0.05	< 0.01	< 0.2	< 1	NA	< 0.5	< 0.2	< 0.01	< 0.01
4-Methyl-2-pentanone	--	< 0.05	< 0.05	NA	< 0.05	< 0.01	< 0.2	< 1	NA	< 0.5	< 0.2	< 0.01	< 0.01
Acetone	--	< 0.1	< 0.1	NA	< 0.1	< 0.02	< 0.4	< 2	NA	< 1	< 0.4 UJ	< 0.02	< 0.02
Benzene	0.005	< 0.025	< 0.005	NA	**0.0020 J**	< 0.0010	< 0.1	< 0.1	NA	< 0.05	< 0.02	**0.00022 J**	< 0.001
Bromodichloromethane	0.08000[2]	< 0.025	< 0.005	NA	< 0.0050	< 0.0010	< 0.1	< 0.1	NA	< 0.05	< 0.02	< 0.0050	< 0.001
Carbon disulfide	--	< 0.025	< 0.005	NA	< 0.0050	< 0.0010	< 0.1	< 0.1	NA	< 0.05	**0.011 J**	< 0.0050	< 0.001
Carbon tetrachloride	0.005	< 0.025	< 0.005	NA	< 0.0050	< 0.0010	< 0.1	< 0.1	NA	< 0.05	< 0.02	< 0.0050	< 0.001
Chlorobenzene	0.1	< 0.025	< 0.005	NA	< 0.0050	< 0.0010	< 0.1	< 0.1	NA	< 0.05	< 0.02	< 0.0050	< 0.001
Chloroethane	--	< 0.025	< 0.01	NA	< 0.01	< 0.0020	< 0.1	< 0.2	NA	< 0.1	< 0.04	< 0.0050	< 0.002
Chloroform	0.08000[2]	< 0.025	< 0.005	NA	< 0.0050	< 0.0010	< 0.1	< 0.1	NA	< 0.05	< 0.02	< 0.0050	< 0.001
Chloromethane	--	< 0.025	< 0.005	NA	< 0.0050	< 0.0010	< 0.1	< 0.1	NA	< 0.05	< 0.02	< 0.0050	< 0.001
cis-1,2-Dichloroethene	0.07	< 0.025	**0.0026 J**	NA	**0.0042 J**	**0.0024**	< 0.1	< 0.1	NA	< 0.05	**0.023**	**0.012**	**0.0037**
Cyclohexane	--	< 0.025	< 0.005	NA	< 0.0050	< 0.0010	< 0.1	< 0.1	NA	< 0.05	< 0.02	< 0.0050	< 0.001
Ethylbenzene	0.7	< 0.025	< 0.005	NA	< 0.0050	< 0.0010	< 0.1	< 0.1	NA	< 0.05	< 0.02	< 0.0050	< 0.001
Isopropylbenzene (Cumene)	--	< 0.025	< 0.005	NA	< 0.0050	< 0.0010	< 0.1	< 0.1	NA	< 0.05	< 0.02	< 0.0050	< 0.001
Methyl acetate	--	< 0.025	< 0.005	NA	< 0.0050	< 0.0010	< 0.1	< 0.1	NA	< 0.05	**0.0097 J**	< 0.0050	< 0.001
Methylcyclohexane	--	< 0.025	< 0.025	NA	< 0.025	< 0.0050	< 0.1	< 0.5	NA	< 0.25	< 0.1	< 0.0050	< 0.005
Methylene chloride	0.005	< 0.025	< 0.005	NA	< 0.0050	< 0.0010	< 0.1	< 0.1	NA	< 0.05	< 0.02	< 0.0050	< 0.001
Styrene	0.1	< 0.025	< 0.005	NA	< 0.0050	< 0.0010	< 0.1	< 0.1	NA	< 0.05	< 0.02	< 0.0050	< 0.001
Tetrachloroethene	0.005	**0.52**	**0.36**	NA	**0.22**	**0.11**	**1.9**	**6.1**	NA	**3.8**	**2 J-**	**0.12**	**0.077**
Toluene	1	< 0.025	< 0.005	NA	< 0.0050	< 0.0010	< 0.1	< 0.1	NA	< 0.05	< 0.02	< 0.0050	< 0.001
trans-1,2-Dichloroethene	0.1	< 0.025	< 0.005	NA	< 0.0050	< 0.0010	< 0.1	< 0.1	NA	< 0.05	< 0.02	< 0.0050	< 0.001
Trichloroethene	0.005	**0.0015 J**	**0.0035 J**	NA	**0.011**	**0.0017**	**0.011 J**	< 0.1	NA	< 0.05	**0.02**	**0.0030 J**	**0.00079 J**
Trichlorofluoromethane (Freon 11)	--	< 0.025	< 0.005	NA	< 0.0050	< 0.0010	< 0.1	< 0.1	NA	< 0.05	< 0.02	< 0.0050	< 0.001
Trichlorotrifluoroethane (Freon 113)	--	< 0.025	< 0.005	NA	< 0.0050	< 0.0010	< 0.1	< 0.1	NA	< 0.05	< 0.02	< 0.0050	< 0.001
Vinyl chloride	0.002	< 0.01	< 0.005	NA	< 0.0050	< 0.0010	< 0.04	< 0.1	NA	< 0.05	< 0.02	< 0.0020	< 0.001
Xylenes, total	10	< 0.025	< 0.005	NA	< 0.0050	< 0.0010	< 0.1	< 0.1	NA	< 0.05	< 0.02	< 0.0050	**0.0012**
General Chemistry (mg/L)													
Bromide	--	NA	**0.25**	**0.18 J**	**0.19 J**	**0.16 J**	NA	**0.65**	**0.55**	**0.29 J**	**0.32**	NA	NA
Chloride	--	NA	**20**	NA	**17**	NA	NA	**190**	NA	**190**	NA	NA	NA
Nitrate	10	NA	**6.4**	NA	**3.8**	NA	NA	**7.1**	NA	**6.9**	NA	NA	NA
Sulfate	--	NA	**21 J**	NA	**21**	**11**	NA	**120**	NA	**99**	**61**	NA	NA
Field Parameters													
pH, Field (su)	--	**5.10**	**4.87**	**4.72**	**4.71**	**4.92**	**4.82**	**4.96**	**4.14**	**4.61**	**5.56**	**4.36**	**4.82**
Temperature, Field (°C)	--	**21.69**	**20.65**	**20.83**	**19.23**	**18.78**	**23.81**	**18.1**	**20.24**	**21.74**	**19.04**	**20.98**	**18.12**
Specific Conductivity, Field (µS/cm)	--	**186**	**104**	**118**	**131**	**100**	**1090**	**652**	**736**	**882**	**620**	**223**	**82**
Dissolved Oxygen, Field (mg/L)	--	**1.38**	**1.41**	**3.73**	**0.1**	**0.77**	**0**	**5.33**	**0**	**1.9**	**0**	**0.48**	**1.46**
Oxidation Reduction Potential, Field (mV)	--	**245**	**465**	**504**	**496**	**332**	**159**	**325**	**184**	**253**	**-37**	**478**	**525**
Turbidity, Field (NTU)	--	**2.71**	**0.67**	**21**	**0**	**9.8**	**0**	**0**	**284**	**0**	**6.5**	**0.43**	**1.21**
Iron, Ferrous, Field (mg/L)	--	NA	**0**	**0**	**0**	**0**	NA	**0**	**1.5**	**0**	**>10**	NA	**0**

Note: Only constituents detected in at least one sample are reported in this table.

(2) Maximum Contaminant Level; March 2018 Edition of the Drinking Water Standards and Health Advisories (USEPA, 2018).

(3) The total of combined trihalomethanes (bromodichloromethane, dibromochloromethane, bromoform and chloroform) cannot exceed 0.08 mg/L.

J - Concentration detected equal to or greater than the method detection limit but less than the reporting limit.

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UJ - Not detected; quantitation limit may be inaccurate or imprecise.

< - Concentration less than the Quantitation Limit.

> - Concentration greater than the Quantitation Limit.

NA - Not analyzed.

Bolding indicates constituent detection.

Shading indicates concentration exceeds comparison criteria.

Appendix B - Comprehensive Summary of Analytical Results for Groundwater Samples

CONSTITUENT	MCL[1]	RMW-22			RMW-22A					RMW-23			
		11/1/2019	3/18/2020	3/18/2021	7/16/2014	2/7/2019	11/1/2019	3/18/2020	3/18/2021	7/14/2014	8/12/2014	1/28/2019	1/28/2019
Gases (µg/L)													
Methane	--	NA	**150**	**5600**	NA	NA	NA	**0.080 J**	**11000**	NA	NA	**24000**	**26000**
Ethane	--	NA	**2.5**	**3.2**	NA	NA	NA	**0.046 J**	**2.1**	NA	NA	**0.26**	**0.30**
Ethene	--	NA	**0.015 J**	**0.38 J**	NA	NA	NA	< 0.0040	**1.8**	NA	NA	**0.14**	**0.24**
Volatile Organic Compounds (mg/L)													
1,1-Dichloroethane	--	NA	< 0.0010	< 0.0010	< 0.1	< 0.0050	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.0010	< 0.0010
1,1-Dichloroethene	0.007	NA	< 0.0010	< 0.0010	< 0.1	< 0.0050	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.0010	< 0.0010
1,2-Dichlorobenzene	0.6	NA	< 0.0010	< 0.0010	< 0.1	< 0.0050	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.0010	< 0.0010
1,2-Dichloroethane	0.005	NA	< 0.0010	< 0.0010	< 0.1	< 0.0050	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.0010	< 0.0010
1,2-Dichloropropane	0.005	NA	< 0.0010	< 0.0010	< 0.1	< 0.0050	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.0010	< 0.0010
1,4-Dichlorobenzene	0.075	NA	< 0.0010	< 0.0010	< 0.1	< 0.0050	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.0010	< 0.0010
2-Butanone	--	NA	**0.0058 J**	< 0.01	< 0.2	< 0.05	NA	**0.011**	**0.025**	< 0.01	< 0.01	**0.0021 J**	**0.0023 J**
2-Hexanone	--	NA	< 0.01	< 0.01	< 0.2	< 0.05	NA	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
4-Methyl-2-pentanone	--	NA	< 0.01	< 0.01	< 0.2	< 0.05	NA	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01
Acetone	--	NA	< 0.02	**0.011 J**	< 0.4	< 0.1	NA	**0.04**	**0.0058 J**	< 0.02	< 0.02	**0.0039 J**	**0.0062 J**
Benzene	0.005	NA	< 0.0010	< 0.0010	< 0.1	< 0.0050	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.0010	< 0.0010
Bromodichloromethane	0.08000[2]	NA	< 0.0010	< 0.0010	< 0.1	< 0.0050	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.0010	< 0.0010
Carbon disulfide	--	NA	**0.0022**	< 0.0010	< 0.1	< 0.0050	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.0010	< 0.0010
Carbon tetrachloride	0.005	NA	< 0.0010	< 0.0010	< 0.1	< 0.0050	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.0010	< 0.0010
Chlorobenzene	0.1	NA	< 0.0010	< 0.0010	< 0.1	< 0.0050	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.0010	< 0.0010
Chloroethane	--	NA	< 0.0020	< 0.0020	< 0.1	< 0.01	NA	< 0.0020	< 0.0020	< 0.0050	< 0.0050	< 0.0020	< 0.0020
Chloroform	0.08000[2]	NA	< 0.0010	< 0.0010	< 0.1	< 0.0050	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.0010	< 0.0010
Chloromethane	--	NA	< 0.0010	< 0.0010	< 0.1	< 0.0050	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.0010	< 0.0010
cis-1,2-Dichloroethene	0.07	NA	**0.01**	**0.083**	< 0.1	< 0.0050	NA	< 0.0010	**0.046**	**0.00079 J**	**0.00073 J**	**0.0090**	**0.0095**
Cyclohexane	--	NA	< 0.0010	< 0.0010	< 0.1	< 0.0050	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.0010	< 0.0010
Ethylbenzene	0.7	NA	< 0.0010	< 0.0010	< 0.1	< 0.0050	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.0010	< 0.0010
Isopropylbenzene (Cumene)	--	NA	< 0.0010	< 0.0010	< 0.1	< 0.0050	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.0010	< 0.0010
Methyl acetate	--	NA	< 0.0010	< 0.0010	< 0.1	< 0.0050	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0050	**0.00087 J**	**0.0012**
Methylcyclohexane	--	NA	< 0.0050	< 0.0050	< 0.1	< 0.025	NA	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050
Methylene chloride	0.005	NA	< 0.0010	< 0.0010	< 0.1	< 0.0050	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.0010	< 0.0010
Styrene	0.1	NA	< 0.0010	< 0.0010	< 0.1	< 0.0050	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.0010	< 0.0010
Tetrachloroethene	0.005	NA	**0.16**	**0.054**	**1.4**	**0.41**	NA	**0.17**	**0.091**	**0.0032 J**	**0.0020 J**	**0.0050**	**0.0056**
Toluene	1	NA	< 0.0010	< 0.0010	< 0.1	< 0.0050	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.0010	< 0.0010
trans-1,2-Dichloroethene	0.1	NA	< 0.0010	< 0.0010	< 0.1	< 0.0050	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.0010	< 0.0010
Trichloroethene	0.005	NA	**0.013**	**0.011**	< 0.1	< 0.0050	NA	**0.00094 J**	**0.0018**	< 0.0050	< 0.0050	**0.0013**	**0.0013**
Trichlorofluoromethane (Freon 11)	--	NA	< 0.0010	< 0.0010	< 0.1	< 0.0050	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.0010	< 0.0010
Trichlorotrifluoroethane (Freon 113)	--	NA	< 0.0010	< 0.0010	< 0.1	< 0.0050	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.0010	< 0.0010
Vinyl chloride	0.002	NA	< 0.0010	**0.00064 J**	< 0.04	< 0.0050	NA	< 0.0010	< 0.0010	< 0.0020	< 0.0020	< 0.0010	< 0.0010
Xylenes, total	10	NA	< 0.0010	< 0.0010	< 0.1	< 0.0050	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.0010	< 0.0010
General Chemistry (mg/L)													
Bromide	--	**0.67**	**0.62**	**0.60**	NA	NA	**0.11 J**	**0.099 J**	**0.12 J**	NA	NA	**0.16 J**	**0.15 J**
Chloride	--	NA	**56**	NA	NA	NA	NA	**4.8**	NA	NA	NA	**8.0**	**7.6**
Nitrate	10	NA	**0.43**	NA	NA	NA	NA	**1.2**	NA	NA	NA	**0.018 J**	**0.015 J**
Sulfate	--	NA	**1.6**	**5.8**	NA	NA	NA	< 1.0	< 1.0	NA	NA	**39**	**49**
Field Parameters													
pH, Field (su)	--	**4.41**	**3.98**	**5.13**	**7.49**	**5.95**	**5.38**	**5.68**	**6.39**	**5.05**	**4.59**	NA	**6.89**
Temperature, Field (°C)	--	**21.04**	**18.3**	**19.04**	**22.49**	**18.1**	**19.49**	**21.39**	**21.97**	**19.97**	**22.37**	NA	**14.98**
Specific Conductivity, Field (µS/cm)	--	**119**	**155**	**161**	**137**	**45**	**52**	**65**	**121**	**160**	**227**	NA	**443**
Dissolved Oxygen, Field (mg/L)	--	**0**	**0.12**	**0**	**0.11**	**8.62**	**1.14**	**3.5**	**0.28**	**1.26**	**2.32**	NA	**0**
Oxidation Reduction Potential, Field (mV)	--	**326**	**513**	**511**	**-8**	**178**	**229**	**69**	**-70**	**274**	**176**	NA	**-175**
Turbidity, Field (NTU)	--	**0**	**0**	**4**	**17.2**	**29.9**	**64**	**0**	**35.4**	**19.5**	**0.85**	NA	**43.7**
Iron, Ferrous, Field (mg/L)	--	**0**	**0**	**0**	NA	**0.05**	**0**	**0**	**>10**	NA	NA	NA	**>10 J**

Note: Only constituents detected in at least one sample are reported in this table.

(2) Maximum Contaminant Level; March 2018 Edition of the Drinking Water Standards and Health Advisories (USEPA, 2018).

(3) The total of combined trihalomethanes (bromodichloromethane, dibromochloromethane, bromoform and chloroform) cannot exceed 0.08 mg/L.

J - Concentration detected equal to or greater than the method detection limit but less than the reporting limit.

J+ - Concentration considered an estimate biased high based on data validation.

J- - Concentration considered an estimate biased low based on data validation.

UJ - Not detected; quantitation limit may be inaccurate or imprecise.

< - Concentration less than the Quantitation Limit.

> - Concentration greater than the Quantitation Limit.

NA - Not analyzed.

Bolding indicates constituent detection.

Shading indicates concentration exceeds comparison criteria.

Appendix B - Comprehensive Summary of Analytical Results for Groundwater Samples

CONSTITUENT	MCL[1]	RMW-23			RMW-23A					RMW-23B			
		10/31/2019	3/9/2020	3/18/2021	7/16/2014	1/28/2019	10/31/2019	3/10/2020	3/18/2021	7/16/2014	1/28/2019	10/31/2019	3/9/2020
Gases (µg/L)													
Methane	--	NA	**20000**	**20000**	NA	**12000**	NA	**8200**	**15000**	NA	**16000**	NA	**2900**
Ethane	--	NA	**0.64**	**0.54 J**	NA	**550**	NA	**390**	**210**	NA	**0.27**	NA	**0.041 J**
Ethene	--	NA	**0.25**	**0.18 J**	NA	**100**	NA	**50**	**23**	NA	**3.2**	NA	**0.67**
Volatile Organic Compounds (mg/L)													
1,1-Dichloroethane	--	NA	< 0.0010	< 0.0010	< 0.5	< 0.05	NA	< 0.02	< 0.0010	< 0.1	< 0.0050	NA	< 0.0050
1,1-Dichloroethene	0.007	NA	< 0.0010	< 0.0010	< 0.5	< 0.05	NA	< 0.02	< 0.0010	< 0.1	< 0.0050	NA	< 0.0050
1,2-Dichlorobenzene	0.6	NA	< 0.0010	< 0.0010	< 0.5	< 0.05	NA	< 0.02	< 0.0010	< 0.1	< 0.0050	NA	< 0.0050
1,2-Dichloroethane	0.005	NA	< 0.0010	< 0.0010	< 0.5	< 0.05	NA	< 0.02	< 0.0010	< 0.1	< 0.0050	NA	< 0.0050
1,2-Dichloropropane	0.005	NA	< 0.0010	< 0.0010	< 0.5	< 0.05	NA	< 0.02	< 0.0010	< 0.1	< 0.0050	NA	< 0.0050
1,4-Dichlorobenzene	0.075	NA	< 0.0010	< 0.0010	< 0.5	< 0.05	NA	< 0.02	< 0.0010	< 0.1	< 0.0050	NA	< 0.0050
2-Butanone	--	NA	< 0.01	< 0.01 UJ	< 1	< 0.5	NA	< 0.2	< 0.01	< 0.2	< 0.05	NA	< 0.05
2-Hexanone	--	NA	< 0.01	< 0.01	< 1	< 0.5	NA	< 0.2	< 0.01	< 0.2	< 0.05	NA	< 0.05
4-Methyl-2-pentanone	--	NA	< 0.01	< 0.01	< 1	< 0.5	NA	< 0.2	< 0.01	< 0.2	< 0.05	NA	< 0.05
Acetone	--	NA	< 0.02	**0.018 J-**	< 2	< 1	NA	< 0.4	< 0.02	< 0.4	< 0.1	NA	< 0.1
Benzene	0.005	NA	< 0.0010	< 0.0010	< 0.5	< 0.05	NA	< 0.02	< 0.0010	< 0.1	< 0.0050	NA	< 0.0050
Bromodichloromethane	0.08000[2]	NA	< 0.0010	< 0.0010	< 0.5	< 0.05	NA	< 0.02	< 0.0010	< 0.1	< 0.0050	NA	< 0.0050
Carbon disulfide	--	NA	< 0.0010	< 0.0010	< 0.5	< 0.05	NA	< 0.02	< 0.0010	< 0.1	< 0.0050	NA	< 0.0050
Carbon tetrachloride	0.005	NA	< 0.0010	< 0.0010	< 0.5	< 0.05	NA	< 0.02	< 0.0010	< 0.1	< 0.0050	NA	< 0.0050
Chlorobenzene	0.1	NA	< 0.0010	< 0.0010	< 0.5	< 0.05	NA	< 0.02	< 0.0010	< 0.1	< 0.0050	NA	< 0.0050
Chloroethane	--	NA	< 0.0020	< 0.0020	< 0.5	< 0.1	NA	< 0.04	**0.00092 J**	< 0.1	< 0.01	NA	< 0.01
Chloroform	0.08000[2]	NA	< 0.0010	< 0.0010	< 0.5	< 0.05	NA	< 0.02	< 0.0010	< 0.1	< 0.0050	NA	< 0.0050
Chloromethane	--	NA	< 0.0010	< 0.0010	< 0.5	< 0.05	NA	< 0.02	< 0.0010	< 0.1	< 0.0050	NA	< 0.0050
cis-1,2-Dichloroethene	0.07	NA	**0.0093**	**0.0023**	< 0.5	**2.6**	NA	**1.2**	**0.13**	< 0.1	**0.41**	NA	**0.66**
Cyclohexane	--	NA	< 0.0010	< 0.0010	< 0.5	< 0.05	NA	< 0.02	< 0.0010	< 0.1	< 0.0050	NA	< 0.0050
Ethylbenzene	0.7	NA	< 0.0010	< 0.0010	< 0.5	< 0.05	NA	< 0.02	< 0.0010	< 0.1	< 0.0050	NA	< 0.0050
Isopropylbenzene (Cumene)	--	NA	< 0.0010	< 0.0010	< 0.5	< 0.05	NA	< 0.02	< 0.0010	< 0.1	< 0.0050	NA	< 0.0050
Methyl acetate	--	NA	**0.00052 J**	< 0.0010 UJ	< 0.5	< 0.05	NA	< 0.02	**0.011**	< 0.1	< 0.0050	NA	< 0.0050
Methylcyclohexane	--	NA	< 0.0050	< 0.0050	< 0.5	< 0.25	NA	< 0.1	< 0.0050	< 0.1	< 0.025	NA	< 0.025
Methylene chloride	0.005	NA	< 0.0010	< 0.0010	< 0.5	< 0.05	NA	< 0.02	< 0.0010	< 0.1	< 0.0050	NA	< 0.0050
Styrene	0.1	NA	< 0.0010	< 0.0010	< 0.5	< 0.05	NA	< 0.02	< 0.0010	< 0.1	< 0.0050	NA	< 0.0050
Tetrachloroethene	0.005	NA	**0.017**	**0.00062 J**	**9.5**	**0.024 J**	NA	**0.21**	**0.00059 J**	**3.1**	**0.078**	NA	**0.056**
Toluene	1	NA	< 0.0010	< 0.0010	< 0.5	< 0.05	NA	< 0.02	< 0.0010	< 0.1	< 0.0050	NA	< 0.0050
trans-1,2-Dichloroethene	0.1	NA	< 0.0010	< 0.0010	< 0.5	< 0.05	NA	< 0.02	< 0.0010	< 0.1	< 0.0050	NA	**0.0021 J**
Trichloroethene	0.005	NA	**0.0024**	< 0.0010	< 0.5	< 0.05	NA	**0.011 J**	< 0.0010	**0.0091 J**	< 0.0050	NA	< 0.0050
Trichlorofluoromethane (Freon 11)	--	NA	< 0.0010	< 0.0010	< 0.5	< 0.05	NA	< 0.02	< 0.0010	< 0.1	< 0.0050	NA	< 0.0050
Trichlorotrifluoroethane (Freon 113)	--	NA	< 0.0010	< 0.0010	< 0.5	< 0.05	NA	< 0.02	< 0.0010	< 0.1	< 0.0050	NA	< 0.0050
Vinyl chloride	0.002	NA	< 0.0010	< 0.0010	< 0.2	**0.026 J**	NA	**0.01 J**	**0.0022**	< 0.04	**0.0026 J**	NA	< 0.0050
Xylenes, total	10	NA	< 0.0010	< 0.0010	< 0.5	< 0.05	NA	< 0.02	< 0.0010	< 0.1	< 0.0050	NA	< 0.0050
General Chemistry (mg/L)													
Bromide	--	< 0.20	**0.12 J**	**0.065 J**	NA	**0.25**	**0.29**	**0.24**	**0.41**	NA	**0.15 J**	**0.089 J**	**0.11 J**
Chloride	--	NA	**5.6**	NA	NA	**7.3**	NA	**7.1**	NA	NA	**4.9**	NA	**7.6**
Nitrate	10	NA	**0.063**	NA	NA	**0.12**	NA	**0.15**	NA	NA	**0.51**	NA	**0.66**
Sulfate	--	NA	**50**	**5.9**	NA	< 1.0	NA	< 1.0	< 1.0	NA	**0.53 J**	NA	< 1.0
Field Parameters													
pH, Field (su)	--	**6.28**	**6.58**	**6.49**	**5.92**	**7.22**	**6.7**	**7.02**	**6.71**	**7.96**	**7.18**	NA	**6.79**
Temperature, Field (°C)	--	**22.81**	**19.14**	**14.77**	**22.21**	**15.29**	**22.1**	**19.81**	**17.99**	**21.43**	**15.53**	NA	**19.65**
Specific Conductivity, Field (µS/cm)	--	**479**	**427**	**329**	**135**	**211**	**185**	**277**	**218**	**278**	**116**	NA	**84**
Dissolved Oxygen, Field (mg/L)	--	**6.19**	**0**	**4.84**	**0.46**	**1.06**	**0**	**0**	**0.54**	**0.80**	**0.94**	NA	**0**
Oxidation Reduction Potential, Field (mV)	--	**-130**	**-137**	**-161**	**147**	**-476**	**-185**	**-435**	**-497**	**-243**	**-132**	NA	**-82**
Turbidity, Field (NTU)	--	**213**	**26.2**	**54.8**	**0**	**0**	**0**	**55.5**	**14.3**	**26.4**	NA	NA	**8**
Iron, Ferrous, Field (mg/L)	--	**>10 J**	**>10**	**>10**	NA	**>10 J**	**>10 J**	**>10**	**>10**	NA	**>10 J**	NA	**>10**

Note: Only constituents detected in at least one sample are reported in this table.

(2) Maximum Contaminant Level; March 2018 Edition of the Drinking Water Standards and Health Advisories (USEPA, 2018).

(3) The total of combined trihalomethanes (bromodichloromethane, dibromochloromethane, bromoform and chloroform) cannot exceed 0.08 mg/L.

J - Concentration detected equal to or greater than the method detection limit but less than the reporting limit.

J+ - Concentration considered an estimate biased high based on data validation.

J- - Concentration considered an estimate biased low based on data validation.

UJ - Not detected; quantitation limit may be inaccurate or imprecise.

< - Concentration less than the Quantitation Limit.

> - Concentration greater than the Quantitation Limit.

NA - Not analyzed.

Bolding indicates constituent detection.

Shading indicates concentration exceeds comparison criteria.

Appendix B - Comprehensive Summary of Analytical Results for Groundwater Samples

CONSTITUENT	MCL[1]	RMW-23B	RMW-23C					RMW-23D		RMW-24			
		3/18/2021	7/16/2014	2/13/2019	10/31/2019	3/10/2020	3/18/2021	6/11/2015	2/13/2019	7/10/2014	2/7/2019	11/8/2019	3/30/2020
Gases (µg/L)													
Methane	--	**3400**	NA	**13000**	NA	**18000**	**16000**	NA	NA	NA	**24**	NA	**13**
Ethane	--	**0.25 J**	NA	**0.36**	NA	**2.2**	**2.4**	NA	NA	NA	**0.27**	NA	**0.27**
Ethene	--	**1.4**	NA	**1.4**	NA	**2.2**	**3.6**	NA	NA	NA	**0.33**	NA	**0.29**
Volatile Organic Compounds (mg/L)													
1,1-Dichloroethane	--	< 0.0010	< 0.1	< 0.005	NA	< 0.0050	< 0.0010	< 0.025	< 0.01	< 0.0050	< 0.0010	NA	< 0.0010
1,1-Dichloroethene	0.007	**0.0012**	< 0.1	< 0.005	NA	< 0.0050	**0.00099 J**	< 0.025	< 0.01	< 0.0050	< 0.0010	NA	< 0.0010
1,2-Dichlorobenzene	0.6	< 0.0010	< 0.1	< 0.005	NA	< 0.0050	< 0.0010	< 0.025	< 0.01	**0.0059**	**0.0063**	NA	**0.0066**
1,2-Dichloroethane	0.005	< 0.0010	< 0.1	< 0.005	NA	< 0.0050	< 0.0010	< 0.025	< 0.01	**0.0040 J**	**0.0023**	NA	**0.0028**
1,2-Dichloropropane	0.005	< 0.0010	< 0.1	< 0.005	NA	< 0.0050	< 0.0010	< 0.025	< 0.01	**0.00036 J**	< 0.0010	NA	< 0.0010
1,4-Dichlorobenzene	0.075	< 0.0010	< 0.1	< 0.005	NA	< 0.0050	< 0.0010	< 0.025	< 0.01	< 0.0050	**0.00089 J**	NA	**0.00075 J**
2-Butanone	--	< 0.01	< 0.2	**0.12**	NA	< 0.05	< 0.01	< 0.05	< 0.1	< 0.01	< 0.01	NA	< 0.01
2-Hexanone	--	< 0.01	< 0.2	< 0.05	NA	< 0.05	< 0.01	< 0.05	< 0.1	**0.011**	< 0.01	NA	< 0.01
4-Methyl-2-pentanone	--	< 0.01	< 0.2	< 0.05	NA	< 0.05	< 0.01	< 0.05	< 0.1	< 0.01	< 0.01	NA	< 0.01
Acetone	--	< 0.02	< 0.4	**0.031 J**	NA	< 0.1	< 0.02	< 0.1	< 0.2	< 0.012	**0.024**	NA	**0.026**
Benzene	0.005	< 0.0010	< 0.1	< 0.005	NA	< 0.0050	< 0.0010	< 0.025	< 0.01	**0.016**	**0.036**	NA	**0.074**
Bromodichloromethane	0.08000[2]	< 0.0010	< 0.1	< 0.005	NA	< 0.0050	< 0.0010	**0.0021 J**	< 0.01	< 0.0050	< 0.0010	NA	< 0.0010
Carbon disulfide	--	< 0.0010	< 0.1	< 0.005	NA	< 0.0050	< 0.0010	< 0.025	< 0.01	< 0.0050	< 0.0010	NA	< 0.0010
Carbon tetrachloride	0.005	< 0.0010	< 0.1	< 0.005	NA	< 0.0050	< 0.0010	< 0.025	< 0.01	< 0.0050	< 0.0010	NA	< 0.0010
Chlorobenzene	0.1	< 0.0010	< 0.1	< 0.005	NA	< 0.0050	< 0.0010	< 0.025	< 0.01	< 0.0050	**0.0019**	NA	**0.0016**
Chloroethane	--	< 0.0020	< 0.1	< 0.01	NA	< 0.01	< 0.0020	< 0.025	< 0.02	< 0.0050	< 0.0020	NA	< 0.0020
Chloroform	0.08000[2]	< 0.0010	< 0.1	< 0.005	NA	< 0.0050	< 0.0010	**0.014 J**	< 0.01	< 0.0050	**0.0013**	NA	**0.0017**
Chloromethane	--	< 0.0010	< 0.1	< 0.005	NA	< 0.0050	< 0.0010	< 0.025	< 0.01	< 0.0050	< 0.0010	NA	< 0.0010
cis-1,2-Dichloroethene	0.07	**0.68**	< 0.1	**0.69**	NA	**0.75**	**0.82**	< 0.025	< 0.01	< 0.0050	< 0.0010	NA	< 0.0010
Cyclohexane	--	< 0.0010	< 0.1	< 0.005	NA	< 0.0050	< 0.0010	< 0.025	< 0.01	**0.048**	**0.07**	NA	**0.093**
Ethylbenzene	0.7	< 0.0010	< 0.1	< 0.005	NA	< 0.0050	< 0.0010	< 0.025	< 0.01	< 0.0050	**0.028**	NA	**0.12**
Isopropylbenzene (Cumene)	--	< 0.0010	< 0.1	< 0.005	NA	< 0.0050	< 0.0010	< 0.025	< 0.01	**0.026**	**0.051**	NA	**0.088**
Methyl acetate	--	< 0.0010	< 0.1	< 0.005	NA	< 0.0050	< 0.0010	< 0.025	< 0.01	< 0.0050	< 0.0010	NA	< 0.0010
Methylcyclohexane	--	< 0.0050	< 0.1	< 0.025	NA	< 0.025	< 0.0050	< 0.025	< 0.05	**0.014**	**0.022**	NA	**0.029**
Methylene chloride	0.005	< 0.0010	< 0.1	< 0.005	NA	< 0.0050	< 0.0010	< 0.025	< 0.01	< 0.0050	< 0.0010	NA	< 0.0010
Styrene	0.1	< 0.0010	< 0.1	< 0.005	NA	< 0.0050	< 0.0010	< 0.025	< 0.01	< 0.0050	**0.0039**	NA	< 0.0010
Tetrachloroethene	0.005	**0.39**	**2.7**	**0.07**	NA	**0.1**	**0.29**	**0.39**	**0.79**	< 0.0050	**0.00067 J**	NA	< 0.0010
Toluene	1	< 0.0010	< 0.1	< 0.005	NA	< 0.0050	< 0.0010	**0.013 J**	< 0.01	< 0.0022	**0.033**	NA	**0.026**
trans-1,2-Dichloroethene	0.1	**0.0024**	< 0.1	< 0.005	NA	< 0.0050	**0.0026**	< 0.025	< 0.01	< 0.0050	< 0.0010	NA	< 0.0010
Trichloroethene	0.005	**0.0084**	< 0.1	< 0.005	NA	< 0.0050	**0.0093**	< 0.025	< 0.01	**0.00037 J**	**0.00064 J**	NA	< 0.0010
Trichlorofluoromethane (Freon 11)	--	< 0.0010	< 0.1	< 0.005	NA	< 0.0050	< 0.0010	< 0.025	< 0.01	< 0.0050	< 0.0010	NA	< 0.0010
Trichlorotrifluoroethane (Freon 113)	--	< 0.0010	< 0.1	< 0.005	NA	< 0.0050	< 0.0010	< 0.025	< 0.01	< 0.0050	< 0.0010	NA	< 0.0010
Vinyl chloride	0.002	**0.00096 J**	< 0.04	**0.0088**	NA	**0.0029 J**	**0.0026**	< 0.01	< 0.01	< 0.0020	< 0.0010	NA	< 0.0010
Xylenes, total	10	< 0.0010	< 0.1	< 0.005	NA	< 0.0050	< 0.0010	< 0.025	< 0.01	**0.0069**	**0.063**	NA	**0.085**
General Chemistry (mg/L)													
Bromide	--	**0.10 J**	NA	**0.13 J**	**0.087 J**	**0.11 J**	**0.090 J**	NA	NA	NA	**0.66**	**0.45**	**0.45**
Chloride	--	NA	NA	**2.9**	NA	**4.5**	NA	NA	NA	NA	**120**	NA	**120**
Nitrate	10	NA	NA	**0.61**	NA	**0.54**	NA	NA	NA	NA	**0.70**	NA	**1.3**
Sulfate	--	**0.46 J**	NA	**1.0**	NA	**0.42 J**	**0.34 J**	NA	NA	NA	**72**	NA	**74**
Field Parameters													
pH, Field (su)	--	**6.4**	**9.25**	**6.72**	**6.24**	**6.2**	**6.72**	**9.25**	**6.74**	**6.71**	**6.55**	**5.94**	**6.73**
Temperature, Field (°C)	--	**18.5**	**25.52**	**17.79**	**21.97**	**18.94**	**19.84**	**23.23**	**16.15**	**20.92**	**17.22**	**18.79**	**20.96**
Specific Conductivity, Field (µS/cm)	--	**91**	**153**	**226**	**232**	**133**	**128**	**61**	**81**	**1550**	**645**	**734**	**970**
Dissolved Oxygen, Field (mg/L)	--	**1.19**	**2.87**	**0**	**0**	**0**	**0.75**	**0.85**	**1.86**	**0**	**0**	**0**	**0**
Oxidation Reduction Potential, Field (mV)	--	**-109**	**-6**	**-146**	**-110**	**-40**	**-134**	**41**	**85**	**-124**	**-22**	**-25**	**-22**
Turbidity, Field (NTU)	--	**122**	**0**	**13.3**	**109**	**0.1**	**25.2**	**38.9**	**0**	**4.25**	**0**	**282**	**0**
Iron, Ferrous, Field (mg/L)	--	**10**	NA	**10**	**>10 J**	**7**	**8**		**0**	NA	**1**	**2**	**0.7**

Note: Only constituents detected in at least one sample are reported in this table.

(2) Maximum Contaminant Level; March 2018 Edition of the Drinking Water Standards and Health Advisories (USEPA, 2018).

(3) The total of combined trihalomethanes (bromodichloromethane, dibromochloromethane, bromoform and chloroform) cannot exceed 0.08 mg/L.

J - Concentration detected equal to or greater than the method detection limit but less than the reporting limit.

J+ - Concentration considered an estimate biased high based on data validation.

J- - Concentration considered an estimate biased low based on data validation.

UJ - Not detected; quantitation limit may be inaccurate or imprecise.

< - Concentration less than the Quantitation Limit.

> - Concentration greater than the Quantitation Limit.

NA - Not analyzed.

Bolding indicates constituent detection.

Shading indicates concentration exceeds comparison criteria.

Appendix B - Comprehensive Summary of Analytical Results for Groundwater Samples

CONSTITUENT	MCL[1]	RMW-24	RMW-25		RMW-26					RMW-27			
		3/24/2021	7/10/2014	2/13/2019	7/10/2014	2/6/2019	10/28/2019	3/24/2020	3/12/2021	6/10/2015	1/22/2019	1/22/2019	11/7/2019
Gases (µg/L)													
Methane	--	**24**	NA	< 0.50	NA	**190**	NA	**210**	**460**	NA	**4500**	**5100**	NA
Ethane	--	**0.16 J**	NA	< 0.10	NA	< 0.10	NA	< 0.0050	< 0.075	NA	**1.2**	**1.4**	NA
Ethene	--	**0.18 J**	NA	< 0.10	NA	**0.59**	NA	**0.39**	**0.91 J**	NA	**1.1**	**1.2**	NA
Volatile Organic Compounds (mg/L)													
1,1-Dichloroethane	--	< 0.0010	< 0.0050	< 0.001	**0.012**	**0.0026**	NA	**0.0028**	**0.0025**	< 0.25	< 0.05	< 0.05	NA
1,1-Dichloroethene	0.007	< 0.0010	< 0.0050	< 0.001	**0.0047 J**	**0.00090 J**	NA	< 0.0010	**0.00072 J**	< 0.25	< 0.05	< 0.05	NA
1,2-Dichlorobenzene	0.6	**0.0041**	< 0.0050	< 0.001	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.25	< 0.05	< 0.05	NA
1,2-Dichloroethane	0.005	< 0.0010	< 0.0050	< 0.001	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.25	< 0.05	< 0.05	NA
1,2-Dichloropropane	0.005	< 0.0010	< 0.0050	< 0.001	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.25	< 0.05	< 0.05	NA
1,4-Dichlorobenzene	0.075	**0.00050 J**	< 0.0050	< 0.001	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.25	< 0.05	< 0.05	NA
2-Butanone	--	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	NA	< 0.01	< 0.01	< 0.5	< 0.5	< 0.5	NA
2-Hexanone	--	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	NA	< 0.01	< 0.01	< 0.5	< 0.5	< 0.5	NA
4-Methyl-2-pentanone	--	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	NA	< 0.01	< 0.01	< 0.5	< 0.5	< 0.5	NA
Acetone	--	**0.0088 J**	< 0.02	< 0.02	< 0.02	< 0.02	NA	< 0.02	< 0.02	< 1	< 1	< 1	NA
Benzene	0.005	**0.0094**	< 0.0050	< 0.001	**0.0064**	**0.0060**	NA	**0.0052**	**0.0064**	< 0.25	< 0.05	< 0.05	NA
Bromodichloromethane	0.08000[2]	< 0.0010	< 0.0050	< 0.001	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.25	< 0.05	< 0.05	NA
Carbon disulfide	--	< 0.0010	< 0.0050	< 0.001	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.25	< 0.05	< 0.05	NA
Carbon tetrachloride	0.005	< 0.0010	< 0.0050	< 0.001	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.25	< 0.05	< 0.05	NA
Chlorobenzene	0.1	**0.00065 J**	< 0.0050	< 0.001	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.25	< 0.05	< 0.05	NA
Chloroethane	--	< 0.0020	< 0.0050	< 0.002	< 0.0050	< 0.002	NA	< 0.0020	< 0.0020	< 0.25	< 0.1	< 0.1	NA
Chloroform	0.08000[2]	< 0.0010	< 0.0050	< 0.001	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.25	< 0.05	< 0.05	NA
Chloromethane	--	< 0.0010	< 0.0050	< 0.001	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.25	< 0.05	< 0.05	NA
cis-1,2-Dichloroethene	0.07	< 0.0010	< 0.0050	< 0.001	**0.0021 J**	**0.00072 J**	NA	**0.00049 J**	**0.0011**	**0.018 J**	**0.03 J**	**0.029 J**	NA
Cyclohexane	--	**0.02**	< 0.0050	< 0.001	< 0.0050	< 0.001	NA	**0.00056 J**	< 0.0010	< 0.25	< 0.05	< 0.05	NA
Ethylbenzene	0.7	< 0.0010	< 0.0050	< 0.001	< 0.0050	< 0.001	NA	**0.051**	**0.02**	< 0.25	< 0.05	< 0.05	NA
Isopropylbenzene (Cumene)	--	**0.033**	< 0.0050	< 0.001	**0.0029 J**	**0.0028**	NA	**0.0023**	**0.0027**	< 0.25	< 0.05	< 0.05	NA
Methyl acetate	--	< 0.0010	< 0.0050	< 0.001	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.25	< 0.05	< 0.05	NA
Methylcyclohexane	--	**0.0083**	< 0.0050	< 0.005	< 0.0050	< 0.005	NA	**0.00082 J**	< 0.0050	< 0.25	< 0.25	< 0.25	NA
Methylene chloride	0.005	< 0.0010	< 0.0050	< 0.001	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.25	< 0.05	< 0.05	NA
Styrene	0.1	**0.0011**	< 0.0050	< 0.001	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.25	< 0.05	< 0.05	NA
Tetrachloroethene	0.005	< 0.0010	< 0.0050	< 0.001	**0.00059 J**	**0.00074 J**	NA	**0.00040 J**	< 0.0010	**4.3**	**3.5**	**3.6**	NA
Toluene	1	**0.0061**	< 0.0050	< 0.001	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.25	< 0.05	< 0.05	NA
trans-1,2-Dichloroethene	0.1	< 0.0010	< 0.0050	< 0.001	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.25	< 0.05	< 0.05	NA
Trichloroethene	0.005	< 0.0010	< 0.0050	< 0.001	**0.0019 J**	**0.00085 J**	NA	**0.00051 J**	**0.00051 J**	**0.0093 J**	< 0.05	< 0.05	NA
Trichlorofluoromethane (Freon 11)	--	< 0.0010	< 0.0050	< 0.001	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.25	< 0.05	< 0.05	NA
Trichlorotrifluoroethane (Freon 113)	--	< 0.0010	< 0.0050	< 0.001	< 0.0050	< 0.001	NA	< 0.0010	< 0.0010	< 0.25	< 0.05	< 0.05	NA
Vinyl chloride	0.002	< 0.0010	< 0.0020	< 0.001	**0.0045**	**0.0014**	NA	**0.0017**	**0.0019**	< 0.1	< 0.05	< 0.05	NA
Xylenes, total	10	**0.00066 J**	< 0.0050	< 0.001	< 0.0050	**0.00043 J**	NA	**0.064**	**0.13**	< 0.25	< 0.05	< 0.05	NA
General Chemistry (mg/L)													
Bromide	--	**0.26**	NA	< 0.2	NA	**0.92**	**0.95**	**1.2**	**0.98**	NA	**0.38**	**0.38**	**0.72**
Chloride	--	NA	NA	**14**	NA	**37**	NA	**32**	NA	NA	**80**	**79**	NA
Nitrate	10	NA	NA	**0.71**	NA	**2.2**	NA	**2.6**	NA	NA	**3.9**	**4.2**	NA
Sulfate	--	**67**	NA	**15**	NA	**19**	NA	**17**	**9.8**	NA	**110**	**110**	NA
Field Parameters													
pH, Field (su)	--	**6.55**	**4.76**	**4.61**	**5.71**	**6.33**	**5.52**	**6.08**	**6.22**	**5.10**	NA	**5.3**	**5.94**
Temperature, Field (°C)	--	**20.53**	**19.13**	**18.68**	**21.96**	**19.66**	**23.29**	**19.46**	**23.34**	**23.47**	NA	**17.25**	**22.45**
Specific Conductivity, Field (µS/cm)	--	**1520**	**57**	**58**	**467**	**260**	**197**	**244**	**181**	**614**	NA	**382**	**557**
Dissolved Oxygen, Field (mg/L)	--	**0**	**7.26**	**4.15**	**0**	**0**	**0**	**0**	**0.4**	**2.42**	NA	**4.8**	**0**
Oxidation Reduction Potential, Field (mV)	--	**-69**	**326**	**373**	**182**	**198**	**70**	**54**	**14**	**264**	NA	**131**	**-36**
Turbidity, Field (NTU)	--	**5.2**	**0**	**1.11**	**2.47**	**83.3**	**0**	**4.7**	**8.1**	**8.66**	NA	**0**	**0**
Iron, Ferrous, Field (mg/L)	--	**1.5**	NA	**0**	NA	**0**	**0.8**	**2**	**2**		NA	**0.4**	**1.5**

Note: Only constituents detected in at least one sample are reported in this table.

(2) Maximum Contaminant Level; March 2018 Edition of the Drinking Water Standards and Health Advisories (USEPA, 2018).

(3) The total of combined trihalomethanes (bromodichloromethane, dibromochloromethane, bromoform and chloroform) cannot exceed 0.08 mg/L.

J - Concentration detected equal to or greater than the method detection limit but less than the reporting limit.

J+ - Concentration considered an estimate biased high based on data validation.

J- - Concentration considered an estimate biased low based on data validation.

UJ - Not detected; quantitation limit may be inaccurate or imprecise.

< - Concentration less than the Quantitation Limit.

> - Concentration greater than the Quantitation Limit.

NA - Not analyzed.

Bolding indicates constituent detection.

Shading indicates concentration exceeds comparison criteria.

Appendix B - Comprehensive Summary of Analytical Results for Groundwater Samples

CONSTITUENT	MCL[1]	RMW-27		RMW-27A					RMW-27B				
		3/31/2020	3/23/2021	6/10/2015	1/22/2019	11/7/2019	3/25/2020	3/23/2021	6/10/2015	DU-15201 6/10/2015	1/22/2019	11/7/2019	3/25/2020
Gases (µg/L)													
Methane	--	**10000**	**8200**	NA	**16000**	NA	**20000**	**14000**	NA	NA	< 0.50	NA	**1.2**
Ethane	--	**2.9**	**3.1**	NA	**0.36**	NA	**0.37**	**1.4**	NA	NA	< 0.10	NA	**0.035 J**
Ethene	--	**3.3**	**4.3**	NA	**0.13**	NA	**0.074 J**	< 0.12	NA	NA	**0.27**	NA	**0.31**
Volatile Organic Compounds (mg/L)													
1,1-Dichloroethane	--	< 0.01	< 0.01	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010
1,1-Dichloroethene	0.007	< 0.01	< 0.01	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010
1,2-Dichlorobenzene	0.6	< 0.01	< 0.01	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010
1,2-Dichloroethane	0.005	< 0.01	< 0.01	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010
1,2-Dichloropropane	0.005	< 0.01	< 0.01	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010
1,4-Dichlorobenzene	0.075	< 0.01	< 0.01	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010
2-Butanone	--	< 0.1	< 0.1	< 0.01	< 0.01	NA	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	NA	< 0.01
2-Hexanone	--	< 0.1	< 0.1	< 0.01	< 0.01	NA	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	NA	< 0.01
4-Methyl-2-pentanone	--	< 0.1	< 0.1	< 0.01	< 0.01	NA	< 0.01	< 0.01	< 0.01	< 0.01	< 0.01	NA	< 0.01
Acetone	--	< 0.2	< 0.2	**0.0055 J**	**0.0027 J**	NA	< 0.02	< 0.02	< 0.02	**0.0017 J**	**0.0035 J**	NA	< 0.02
Benzene	0.005	< 0.01	< 0.01	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	**0.00070 J**	**0.00075 J**	< 0.0010	NA	< 0.0010
Bromodichloromethane	0.08000[2]	< 0.01	< 0.01	**0.00051 J**	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010
Carbon disulfide	--	< 0.01	< 0.01	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	**0.00059 J**	**0.00076 J**	< 0.0010	NA	< 0.0010
Carbon tetrachloride	0.005	< 0.01	< 0.01	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010
Chlorobenzene	0.1	< 0.01	< 0.01	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010
Chloroethane	--	< 0.02	< 0.02	< 0.0050	< 0.0020	NA	< 0.0020	< 0.0020	< 0.0050	< 0.0050	< 0.0020	NA	< 0.0020
Chloroform	0.08000[2]	< 0.01	< 0.01	**0.0078**	< 0.0010	NA	< 0.0010	< 0.0010	**0.00041 J**	**0.00041 J**	< 0.0010	NA	< 0.0010
Chloromethane	--	< 0.01	< 0.01	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010
cis-1,2-Dichloroethene	0.07	**0.74**	**0.37**	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0050	**0.0012**	NA	**0.03**
Cyclohexane	--	< 0.01	< 0.01	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010
Ethylbenzene	0.7	< 0.01	< 0.01	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010
Isopropylbenzene (Cumene)	--	< 0.01	< 0.01	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010
Methyl acetate	--	< 0.01	< 0.01	< 0.0050	**0.0010**	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010
Methylcyclohexane	--	< 0.05	< 0.05	< 0.0050	< 0.0050	NA	< 0.0050	< 0.0050	< 0.0050	< 0.0050	< 0.0050	NA	< 0.0050
Methylene chloride	0.005	< 0.01	< 0.01	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010
Styrene	0.1	< 0.01	< 0.01	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010
Tetrachloroethene	0.005	**0.33**	**0.9**	**0.064**	< 0.0010	NA	< 0.0010	< 0.0010	**0.084 j**	**0.13 j**	**0.19**	NA	**0.081**
Toluene	1	< 0.01	< 0.01	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	**0.0012 J**	**0.0014 J**	< 0.0010	NA	< 0.0010
trans-1,2-Dichloroethene	0.1	< 0.01	< 0.01	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010
Trichloroethene	0.005	**0.14**	**0.12**	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.0010	NA	**0.0062**
Trichlorofluoromethane (Freon 11)	--	< 0.01	< 0.01	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010
Trichlorotrifluoroethane (Freon 113)	--	< 0.01	< 0.01	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010
Vinyl chloride	0.002	< 0.01	< 0.01	< 0.0020	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0020	< 0.0020	< 0.0010	NA	< 0.0010
Xylenes, total	10	< 0.01	< 0.01	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0010	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010
General Chemistry (mg/L)													
Bromide	--	**0.34**	**0.37**	NA	**0.098 J**	< 0.20	< 0.20	**0.051 J**	NA	NA	**0.095 J**	< 0.20	< 0.20
Chloride	--	**82**	NA	NA	**1.4**	NA	**1.0**	NA	NA	NA	**1.6**	NA	**1.6**
Nitrate	10	**0.15**	NA	NA	**0.0080 J**	NA	**0.063**	NA	NA	NA	**1.5**	NA	**1.3**
Sulfate	--	**85**	**63**	NA	< 1.0	NA	< 1.0	< 1.0	NA	NA	**3.7**	NA	**2.8**
Field Parameters													
pH, Field (su)	--	**6.47**	**6.57**	**5.99**	**6.84**	**6.11**	**6.36**	**6.63**	**6.73**	NA	**6.79**	**6.75**	**6.59**
Temperature, Field (°C)	--	**20.31**	**22.45**	**22.42**	**18.04**	**20.58**	**23.52**	**19.81**	**22.08**	NA	**18.59**	**21.1**	**23.39**
Specific Conductivity, Field (µS/cm)	--	**688**	**325**	**32**	**240**	**275**	**321**	**131**	**66**	NA	**77**	**107**	**87**
Dissolved Oxygen, Field (mg/L)	--	**0**	**0.15**	**0.44**	**4.64**	**0**	**0**	**0.38**	**0.21**	NA	**6.49**	**0**	**0.31**
Oxidation Reduction Potential, Field (mV)	--	**-80**	**-63**	**65**	**-144**	**-129**	**-169**	**-124**	**-19**	NA	**-36**	**-78**	**14**
Turbidity, Field (NTU)	--	**0**	**22.5**	**4.19**	**0**	**69.5**	**6.71**	**6.9**	**5.88**	NA	**0**	**0**	**0**
Iron, Ferrous, Field (mg/L)	--	**3.5**	**4**		**>10 J**	**>10 J**	**>10**	**>10**			**0.2**	**0**	**0.1**

Note: Only constituents detected in at least one sample are reported in this table.

(2) Maximum Contaminant Level; March 2018 Edition of the Drinking Water Standards and Health Advisories (USEPA, 2018).

(3) The total of combined trihalomethanes (bromodichloromethane, dibromochloromethane, bromoform and chloroform) cannot exceed 0.08 mg/L.

J - Concentration detected equal to or greater than the method detection limit but less than the reporting limit.

J+ - Concentration considered an estimate biased high based on data validation.

J- - Concentration considered an estimate biased low based on data validation.

UJ - Not detected; quantitation limit may be inaccurate or imprecise.

< - Concentration less than the Quantitation Limit.

> - Concentration greater than the Quantitation Limit.

NA - Not analyzed.

Bolding indicates constituent detection.

Shading indicates concentration exceeds comparison criteria.

Appendix B - Comprehensive Summary of Analytical Results for Groundwater Samples

CONSTITUENT	MCL[1]	RMW-27B		RMW-28A					RMW-28B			
		3/23/2021	DU-21103 3/23/2021	6/10/2015	2/11/2019	11/6/2019	3/25/2020	3/11/2021	6/10/2015	2/11/2019	6/11/2019	DU-20103 3/25/2020
Gases (µg/L)												
Methane	--	**17 J**	**8.6 J**	NA	**0.54**	NA	**1.3**	< 2.5	NA	< 0.50	NA	**0.82**
Ethane	--	< 0.075	< 0.075	NA	< 0.10	NA	< 0.011	< 0.075	NA	< 0.10	NA	**0.018 J**
Ethene	--	**0.19 J**	**0.12 J**	NA	< 0.10	NA	< 0.0080	**0.14 J**	NA	< 0.10	NA	**0.028 J**
Volatile Organic Compounds (mg/L)												
1,1-Dichloroethane	--	< 0.0050	< 0.0050	**0.00027 J**	< 0.0010	NA	< 0.0010	< 0.0050	< 0.05	< 0.02	NA	< 0.02
1,1-Dichloroethene	0.007	< 0.0050	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0050	< 0.05	< 0.02	NA	< 0.02
1,2-Dichlorobenzene	0.6	< 0.0050	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0050	< 0.05	< 0.02	NA	< 0.02
1,2-Dichloroethane	0.005	< 0.0050	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0050	< 0.05	< 0.02	NA	< 0.02
1,2-Dichloropropane	0.005	< 0.0050	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0050	< 0.05	< 0.02	NA	< 0.02
1,4-Dichlorobenzene	0.075	< 0.0050	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0050	< 0.05	< 0.02	NA	< 0.02
2-Butanone	--	< 0.05	< 0.05	< 0.01	< 0.01	NA	< 0.01	< 0.05	< 0.1	< 0.2	NA	< 0.2
2-Hexanone	--	< 0.05	< 0.05	< 0.01	< 0.01	NA	< 0.01	< 0.05	< 0.1	< 0.2	NA	< 0.2
4-Methyl-2-pentanone	--	< 0.05	< 0.05	< 0.01	< 0.01	NA	< 0.01	< 0.05	< 0.1	< 0.2	NA	< 0.2
Acetone	--	< 0.1	< 0.1	**0.015 J**	< 0.02	NA	< 0.02	< 0.1	< 0.2	< 0.4	NA	< 0.4
Benzene	0.005	< 0.0050	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0050	< 0.05	< 0.02	NA	< 0.02
Bromodichloromethane	0.08000[2]	< 0.0050	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0050	< 0.05	< 0.02	NA	< 0.02
Carbon disulfide	--	< 0.0050	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0050	< 0.05	< 0.02	NA	< 0.02
Carbon tetrachloride	0.005	< 0.0050	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0050	< 0.05	< 0.02	NA	< 0.02
Chlorobenzene	0.1	< 0.0050	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0050	< 0.05	< 0.02	NA	< 0.02
Chloroethane	--	< 0.01	< 0.01	< 0.0050	< 0.0020	NA	< 0.0020	< 0.01	< 0.05	< 0.04	NA	< 0.04
Chloroform	0.08000[2]	< 0.0050	< 0.0050	**0.0013 J**	< 0.0010	NA	< 0.0010	< 0.0050	**0.0033 J**	< 0.02	NA	< 0.02
Chloromethane	--	< 0.0050	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0050	< 0.05	< 0.02	NA	< 0.02
cis-1,2-Dichloroethene	0.07	< 0.0050	< 0.0050	**0.0025 J**	< 0.0010	NA	< 0.0010	< 0.0050	< 0.05	< 0.02	NA	< 0.02
Cyclohexane	--	< 0.0050	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0050	< 0.05	< 0.02	NA	< 0.02
Ethylbenzene	0.7	< 0.0050	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0050	< 0.05	< 0.02	NA	< 0.02
Isopropylbenzene (Cumene)	--	< 0.0050	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0050	< 0.05	< 0.02	NA	< 0.02
Methyl acetate	--	< 0.0050	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0050	< 0.05	< 0.02	NA	< 0.02
Methylcyclohexane	--	< 0.025	< 0.025	< 0.0050	< 0.0050	NA	< 0.0050	< 0.025	< 0.05	< 0.1	NA	< 0.1
Methylene chloride	0.005	< 0.0050	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0050	< 0.05	< 0.02	NA	< 0.02
Styrene	0.1	< 0.0050	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0050	< 0.05	< 0.02	NA	< 0.02
Tetrachloroethene	0.005	**0.28**	**0.26**	**0.059**	**0.17**	NA	**0.17**	**0.56**	**0.99**	**1.4**	NA	**2.1**
Toluene	1	< 0.0050	< 0.0050	**0.0027 J**	< 0.0010	NA	< 0.0010	< 0.0050	**0.0064 J**	< 0.02	NA	< 0.02
trans-1,2-Dichloroethene	0.1	< 0.0050	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0050	< 0.05	< 0.02	NA	< 0.02
Trichloroethene	0.005	< 0.0050	< 0.0050	**0.0011 J**	**0.00050 J**	NA	< 0.0010	< 0.0050	< 0.05	< 0.02	NA	< 0.02
Trichlorofluoromethane (Freon 11)	--	< 0.0050	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0050	< 0.05	< 0.02	NA	< 0.02
Trichlorotrifluoroethane (Freon 113)	--	< 0.0050	< 0.0050	**0.00069 J**	**0.00047 J**	NA	**0.00050 J**	< 0.0050	< 0.05	< 0.02	NA	< 0.02
Vinyl chloride	0.002	< 0.0050	< 0.0050	< 0.0020	< 0.0010	NA	< 0.0010	< 0.0050	< 0.02	< 0.02	NA	< 0.02
Xylenes, total	10	< 0.0050	< 0.0050	< 0.0050	< 0.0010	NA	< 0.0010	< 0.0050	< 0.05	< 0.02	NA	< 0.02
General Chemistry (mg/L)												
Bromide	--	**0.050 J**	**0.052 J**	NA	**0.17 J**	**0.099 J**	**0.070 J**	**0.12 J**	NA	**0.11 J**	< 0.20	< 0.20
Chloride	--	NA	NA	NA	**3.2**	NA	**3.0**	NA	NA	**0.98 J**	NA	**0.94 J**
Nitrate	10	NA	NA	NA	**3.5**	NA	**3.5**	NA	NA	**1.1**	NA	**1.0**
Sulfate	--	**3.2**	**3.0**	NA	**3.7**	NA	**3.4**	**4.5**	NA	< 1.0	NA	< 1.0
Field Parameters												
pH, Field (su)	--	**6.81**	NA	**4.84**	**5.12**	**4.34**	**4.79**	**4.84**	**7.39**	**6.59**	**6.03**	NA
Temperature, Field (°C)	--	**20.1**	NA	**23.94**	**16.05**	**19.34**	**20.2**	**20.04**	**23.8**	**17.74**	**20.09**	NA
Specific Conductivity, Field (µS/cm)	--	**94**	NA	**56**	**54**	**56**	**72**	**52**	**40**	**55**	**35**	NA
Dissolved Oxygen, Field (mg/L)	--	**0**	NA	**0.76**	**1.9**	**0**	**0.32**	**3.64**	**1.17**	**0.085**	**2.85**	NA
Oxidation Reduction Potential, Field (mV)	--	**68**	NA	**-20**	**157**	**252**	**169**	**306**	**75**	**124**	**157**	NA
Turbidity, Field (NTU)	--	**0**	NA	**16.9**	**0**	**228**	**0**	**11.7**	**14.9**	**0**	**24.3**	NA
Iron, Ferrous, Field (mg/L)	--	**0**	NA		**0.8**	**0**	**0.5**	**0**		**0**	**0**	NA

Note: Only constituents detected in at least one sample are reported in this table.

(2) Maximum Contaminant Level; March 2018 Edition of the Drinking Water Standards and Health Advisories (USEPA, 2018).

(3) The total of combined trihalomethanes (bromodichloromethane, dibromochloromethane, bromoform and chloroform) cannot exceed 0.08 mg/L.

J - Concentration detected equal to or greater than the method detection limit but less than the reporting limit.

J+ - Concentration considered an estimate biased high based on data validation.

J- - Concentration considered an estimate biased low based on data validation.

UJ - Not detected; quantitation limit may be inaccurate or imprecise.

< - Concentration less than the Quantitation Limit.

> - Concentration greater than the Quantitation Limit.

NA - Not analyzed.

Bolding indicates constituent detection.

Shading indicates concentration exceeds comparison criteria.

Appendix B - Comprehensive Summary of Analytical Results for Groundwater Samples

CONSTITUENT	MCL[1]	RMW-28B		RMW-29
		3/25/2020	3/11/2021	2/13/2019
Gases (µg/L)				
Methane	--	**0.79**	< 5.0	< 0.50
Ethane	--	**0.016 J**	**0.30 J**	< 0.10
Ethene	--	**0.031 J**	< 0.12	< 0.10
Volatile Organic Compounds (mg/L)				
1,1-Dichloroethane	--	< 0.02	< 0.05	< 0.001
1,1-Dichloroethene	0.007	< 0.02	< 0.05	< 0.001
1,2-Dichlorobenzene	0.6	< 0.02	< 0.05	< 0.001
1,2-Dichloroethane	0.005	< 0.02	< 0.05	< 0.001
1,2-Dichloropropane	0.005	< 0.02	< 0.05	< 0.001
1,4-Dichlorobenzene	0.075	< 0.02	< 0.05	< 0.001
2-Butanone	--	< 0.2	< 0.5	< 0.01
2-Hexanone	--	< 0.2	< 0.5	< 0.01
4-Methyl-2-pentanone	--	< 0.2	< 0.5	< 0.01
Acetone	--	< 0.4	< 1	< 0.02
Benzene	0.005	< 0.02	< 0.05	< 0.001
Bromodichloromethane	0.08000[2]	< 0.02	< 0.05	< 0.001
Carbon disulfide	--	< 0.02	< 0.05	< 0.001
Carbon tetrachloride	0.005	< 0.02	< 0.05	< 0.001
Chlorobenzene	0.1	< 0.02	< 0.05	< 0.001
Chloroethane	--	< 0.04	< 0.1	< 0.002
Chloroform	0.08000[2]	< 0.02	< 0.05	**0.00043 J**
Chloromethane	--	< 0.02	< 0.05	< 0.001
cis-1,2-Dichloroethene	0.07	< 0.02	< 0.05	< 0.001
Cyclohexane	--	< 0.02	< 0.05	< 0.001
Ethylbenzene	0.7	< 0.02	< 0.05	< 0.001
Isopropylbenzene (Cumene)	--	< 0.02	< 0.05	< 0.001
Methyl acetate	--	< 0.02	< 0.05	< 0.001
Methylcyclohexane	--	< 0.1	< 0.25	< 0.005
Methylene chloride	0.005	< 0.02	< 0.05	< 0.001
Styrene	0.1	< 0.02	< 0.05	< 0.001
Tetrachloroethene	0.005	**2.3**	**9**	**0.0013**
Toluene	1	< 0.02	< 0.05	< 0.001
trans-1,2-Dichloroethene	0.1	< 0.02	< 0.05	< 0.001
Trichloroethene	0.005	< 0.02	< 0.05	< 0.001
Trichlorofluoromethane (Freon 11)	--	< 0.02	< 0.05	< 0.001
Trichlorotrifluoroethane (Freon 113)	--	< 0.02	< 0.05	< 0.001
Vinyl chloride	0.002	< 0.02	< 0.05	< 0.001
Xylenes, total	10	< 0.02	< 0.05	< 0.001
General Chemistry (mg/L)				
Bromide	--	< 0.20	**0.054 J**	**0.10 J**
Chloride	--	**0.94 J**	NA	**4.1**
Nitrate	10	**0.99**	NA	**2.3**
Sulfate	--	< 1.0	**1.1**	**0.42 J**
Field Parameters				
pH, Field (su)	--	**6.53**	**6.37**	**4.68**
Temperature, Field (°C)	--	**19.78**	**20.38**	**16.39**
Specific Conductivity, Field (µS/cm)	--	**38**	**37**	**28**
Dissolved Oxygen, Field (mg/L)	--	**2.14**	**1.72**	**6.31**
Oxidation Reduction Potential, Field (mV)	--	**163**	**289**	**321**
Turbidity, Field (NTU)	--	**0**	**11.1**	**2.74**
Iron, Ferrous, Field (mg/L)	--	**0**	**0**	**0**

Note: Only constituents detected in at least one sample are reported in this table.

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Bolding indicates constituent detection.

Shading indicates concentration exceeds comparison criteria.

Appendix C
Laboratory Data Sheets

SHEALY ENVIRONMENTAL SERVICES, INC.

Report of Analysis

TRC Companies, Inc.
50 International Dr.
Suite 150
Greenville, SC 29615
Attention: Lisa Clark

Project Name: WPH Clemson, SC (Well Redevelopment)

Project Number: 300688.0000.0000

Lot Number:**TJ09075**

Date Completed:10/17/2018

10/18/2018 9:07 AM
Approved and released by:
Project Manager: Lucas Odom

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Laboratory Data Quality Review Notes

Project Name: WPH-Clemson, SC

Project Number: 300688.0000.0000.000001

Lab Report: TJ09075 Shealy Environmental Services
Samples analyzed for bromide

Chain of Custody, Sample Temperature, Sample Preservation: Chain of custody (CoC) signed; sample temperature <6 ^{o}C upon arrival at the laboratory; samples were preserved properly.

Hold Time: Samples analyzed within hold time.

Surrogates: Surrogate recoveries are not applicable to bromide analyses.

Method Blank: Bromide not detected in the method blank.

Trip Blank: A trip blank was not collected with these samples.

Field Blank: A field blank was not collected with these samples.

Equipment Rinse Blank: A rinsate blank was not collected with these samples.

LCS/LCSD: LCS recovery is within QC Limits. LCSD analyses were not performed.

MS/MSD: OW-5 was used for MS/MSD analyses of bromide. MS/MSD recoveries and RPD were within QC limits.

Duplicates: A field duplicate was not collected with these samples.

No data qualifiers were assigned.

Data review performed by: Terry Hertz; TRC Environmental Corp.; 10/18/2018

Case Narrative
TRC Companies, Inc.
Lot Number: TJ09075

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

Sample Summary
TRC Companies, Inc.
Lot Number: TJ09075

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	RMW-28A	Aqueous	09/25/2018 1215	10/09/2018
002	OW-4	Aqueous	09/25/2018 1615	10/09/2018
003	OW-5	Aqueous	09/26/2018 1150	10/09/2018
004	RMW-27	Aqueous	09/26/2018 1300	10/09/2018
005	RMW-18A	Aqueous	09/26/2018 1545	10/09/2018
006	RMW-23A	Aqueous	10/02/2018 1035	10/09/2018

(6 samples)

Detection Summary

TRC Companies, Inc.

Lot Number: TJ09075

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	RMW-28A	Aqueous	Bromide	300.0	0.17	J	mg/L	5
002	OW-4	Aqueous	Bromide	300.0	0.25		mg/L	6
003	OW-5	Aqueous	Bromide	300.0	0.16	J	mg/L	7
004	RMW-27	Aqueous	Bromide	300.0	1.1		mg/L	8
005	RMW-18A	Aqueous	Bromide	300.0	0.71		mg/L	9
006	RMW-23A	Aqueous	Bromide	300.0	0.25		mg/L	10

(6 detections)

Client: TRC Companies, Inc.
Description: RMW-28A
Date Sampled: 09/25/2018 1215
Date Received: 10/09/2018

Laboratory ID: TJ09075-001
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	10/16/2018 2203	SLU		86664

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.17	J	0.20	0.050	mg/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and >_DL

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Client: TRC Companies, Inc.
Description: OW-4
Date Sampled: 09/25/2018 1615
Date Received: 10/09/2018

Laboratory ID: TJ09075-002
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	10/16/2018 2221	SLU		86664

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.25		0.20	0.050	mg/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and >_DL

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Client: TRC Companies, Inc.
Description: OW-5
Date Sampled: 09/26/2018 1150
Date Received: 10/09/2018

Laboratory ID: TJ09075-003
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	10/16/2018 2315	SLU		86664

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.16	J	0.20	0.050	mg/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and >_DL

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Client: TRC Companies, Inc.
Description: RMW-27
Date Sampled: 09/26/2018 1300
Date Received: 10/09/2018

Laboratory ID: TJ09075-004
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	10/17/2018 0009	SLU		86664

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	1.1		0.20	0.050	mg/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and >_DL

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Client: TRC Companies, Inc.
Description: RMW-18A
Date Sampled: 09/26/2018 1545
Date Received: 10/09/2018

Laboratory ID: TJ09075-005
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	10/17/2018 0027	SLU		86664

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.71		0.20	0.050	mg/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and >_DL

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Client: TRC Companies, Inc.
Description: RMW-23A
Date Sampled: 10/02/2018 1035
Date Received: 10/09/2018

Laboratory ID: TJ09075-006
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	10/17/2018 0046	SLU		86664

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.25		0.20	0.050	mg/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and >_DL

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QC Summary

Inorganic non-metals - MB

Sample ID: TQ86664-001
Batch: 86664
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Bromide	ND		1	0.20	0.050	mg/L	10/16/2018 1541

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and >_DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - LCS

Sample ID: TQ86664-002
Batch: 86664
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Bromide	8.0	7.6		1	95	90-110	10/16/2018 1808

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and >_DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MS

Sample ID: TJ09075-003MS
Matrix: Aqueous
Batch: 86664
Analytical Method: 300.0

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Bromide	0.16	8.0	7.7		1	94	90-110	10/16/2018 2333

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and >_DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MSD

Sample ID: TJ09075-003MD
Batch: 86664
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Bromide	0.16	8.0	7.7		1	94	0.00	90-110	20	10/16/2018 2351

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and >_DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Shealy Environmental Services, Inc.
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Chain of Custody
and
Miscellaneous Documents

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Chain of Custody Record

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Telephone No. 803-791-9700 Fax No. 803-791-9111
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Number 87799

Client: TRC	Report to Contact: Lisa Clark	Telephone No. / E-mail:	Quote No.
Address: 50 International Dr Suite 150	Sampler's Signature: X	Analysis (Attach list if more space is needed)	Page 1 of
City: Greenville	State: SC	Zip Code: 29615	Printed Name: Benjamin Medlin
Project Name: WPH Clemson (Well redevelopment)			
Project No.: 300688.0.0 P1	P.O. No.		

Sample ID / Description (Containers for each sample may be combined on one line.)	Date 2018	Time	Grab / Composite	Matrix: Aqueous	Soil	Wipe / Solid	No. of Containers by Preservative Type: Unpres.	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Bromide	Remarks / Cooler I.D.
RMW-28A	9-25	1215	G	X			1						X	TJ09075 I.D.
~~RMW-23A~~ 10DUP	~~9-25~~	~~1635~~	~~G~~	~~X~~			~~1~~						~~X~~	BM 10/2/18
OW-4	9-25	1615	G	X			1						X	
OW-5	9-26	1150	G	X			1						X	
RMW-27	9-26	1300	G	X			1						X	
RMW-18A	9-26	1545	G	X			1						X	
RMW-23A	10-2	1035	G	X			1						X	

Turn Around Time Required (Prior lab approval required for expedited TAT.) ☐ Standard ☐ Rush (Specify)

Sample Disposal ☐ Return to Client ☐ Disposal by Lab

Possible Hazard Identification ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

QC Requirements (Specify)

	Relinquished by	Date	Time	Received by	Date	Time
1.		10/3/18	0730	TRC Sample Storage	10/3/18	0730
2.	TRC Sample Storage	10/9/18	0910		10/9/18	0910
3.		Date	Time		Date	Time
4.		10/9/18	1702	Laboratory received by:	10.9.18	1702

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on Ice (Circle) (Yes) No Ice Pack Receipt Temp. 3.5 °C

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Client Copy

Document Number: F-AD-133 Effective Date: 08-01-2014

Shealy Environmental Services, Inc.
Document Number: ME2018C-14

Page 1 of 1
Effective Date: 8/2/2018

Sample Receipt Checklist (SRC)

Client: TRC Cooler Inspected by/date: ETB / 10-9-18 Lot #: TJ09075

Means of receipt: ☑ SESI ☐ Client ☐ UPS ☐ FedEx ☐ Other: _____

☐ Yes	☑ No		1. Were custody seals present on the cooler?
☐ Yes	☐ No	☑ NA	2. If custody seals were present, were they intact and unbroken?

pH Strip ID: _____ Chlorine Strip ID: _____ Tested by: _____

Original temperature upon receipt / Derived (Corrected) temperature upon receipt: %Solid Snap-Cup ID: _____

3.5 / 3.5 °C ____ / ____ °C ____ / ____ °C ____ / ____ °C

Method: ☑ Temperature Blank ☐ Against Bottles IR Gun ID: Le IR Gun Correction Factor: 0 °C

Method of coolant: ☑ Wet Ice ☐ Ice Packs ☐ Dry Ice ☐ None

☐ Yes	☐ No	☑ NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).
☐ Yes	☐ No	☑ NA	4. Is the commercial courier's packing slip attached to this form?
☑ Yes	☐ No		5. Were proper custody procedures (relinquished/received) followed?
☑ Yes	☐ No		6. Were sample IDs listed on the COC?
☑ Yes	☐ No		7. Were sample IDs listed on all sample containers?
☑ Yes	☐ No		8. Was collection date & time listed on the COC?
☑ Yes	☐ No		9. Was collection date & time listed on all sample containers?
☑ Yes	☐ No		10. Did all container label information (ID, date, time) agree with the COC?
☑ Yes	☐ No		11. Were tests to be performed listed on the COC?
☑ Yes	☐ No		12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)? _____
☑ Yes	☐ No		13. Was adequate sample volume available?
☐ Yes	☑ No		14. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
☐ Yes	☑ No		15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
☐ Yes	☐ No	☑ NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (¼"or 6mm in diameter) in any of the VOA vials?
☐ Yes	☐ No	☑ NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?
☐ Yes	☐ No	☑ NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
☐ Yes	☐ No	☑ NA	19. Were all applicable NH_3/TKN/cyanide/phenol/625 (< 0.5mg/L) samples free of residual chlorine?
☐ Yes	☐ No	☑ NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc…) correctly transcribed from the COC into the comment section in LIMS?
☐ Yes	☑ No		21. Was the quote number listed on the container label? If yes, Quote # _____

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) _____ _____ were received incorrectly preserved and were adjusted accordingly in sample receiving with _____mL of circle one: H_2SO_4, HNO_3, HCl, NaOH using SR # _____.
Time of preservation _____. If more than one preservative is needed, please note in the comments below.

Sample(s) _____ were received with bubbles >6 mm in diameter.

Samples(s) _____ _____ were received with TRC > 0.5 mg/L (If #19 is ***no***) and were adjusted accordingly in sample receiving with sodium thiosulfate ($Na_2S_2O_3$) with Shealy ID: _____.

SR barcode labels applied by: ETB _____ Date: 10-9-18

Comments:

SHEALY ENVIRONMENTAL SERVICES, INC.

Report of Analysis

TRC Companies, Inc.
50 International Dr.
Suite 150
Greenville, SC 29615
Attention: Lisa Clark

Project Name: WPH Clemson (Well Development)

Project Number: 300688.0000.0000

Lot Number:**TK12020**

Date Completed:11/30/2018

12/03/2018 9:25 AM
Approved and released by:
Lab Director - Greenville: Lucas Odom

The electronic signature above is the equivalent of a handwritten signature.

Shealy Environmental Services, Inc.
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Laboratory Data Quality Review Notes

Project Name: WPH-Clemson, SC

Project Number: 300688.0000.0000.000001

Lab Report: TK12020 Shealy Environmental Services
Three groundwater samples analyzed for bromide

Chain of Custody, Sample Temperature, Sample Preservation: Chain of custody (CoC) signed; sample temperature <6 ^{o}C upon arrival at the laboratory; samples were preserved properly.

Hold Time: Samples analyzed within hold time.

Surrogates: Surrogate recoveries are not applicable to bromide analyses.

Method Blank: Bromide not detected in the method blank.

Trip Blank: A trip blank was not collected with these samples.

Field Blank: A field blank was not collected with these samples.

Equipment Rinse Blank: A rinsate blank was not collected with these samples.

LCS/LCSD: LCS recovery is within QC Limits. LCSD analyses were not performed.

MS/MSD: RMW-23 was used for MS/MSD analyses of bromide. MS/MSD recoveries and RPD were within QC limits.

Duplicates: A field duplicate was not collected with these samples.

No data qualifiers were assigned.

Data review performed by: Terry Hertz; TRC Environmental Corp.; 12/3/2018

Case Narrative
TRC Companies, Inc.
Lot Number: TK12020

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

Sample Summary
TRC Companies, Inc.
Lot Number: TK12020

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	RMW-23	Aqueous	11/09/2018 1325	11/12/2018
002	OW-06A	Aqueous	11/09/2018 1430	11/12/2018
003	RMW-27A	Aqueous	11/09/2018 1535	11/12/2018

(3 samples)

Detection Summary

TRC Companies, Inc.

Lot Number: TK12020

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	RMW-23	Aqueous	Bromide	300.0	0.26		mg/L	5
002	OW-06A	Aqueous	Bromide	300.0	0.23		mg/L	6

(2 detections)

Client: TRC Companies, Inc.
Description: RMW-23
Date Sampled: 11/09/2018 1325
Date Received: 11/12/2018

Laboratory ID: TK12020-001
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	11/26/2018 2346	SLU		90595

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.26		0.20	0.050	mg/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: OW-06A
Date Sampled: 11/09/2018 1430
Date Received: 11/12/2018

Laboratory ID: TK12020-002
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	11/27/2018 0004	SLU		90595

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.23		0.20	0.050	mg/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: RMW-27A
Date Sampled: 11/09/2018 1535
Date Received: 11/12/2018

Laboratory ID: TK12020-003
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	11/27/2018 0022	SLU		90595

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	ND		0.20	0.050	mg/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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QC Summary

Inorganic non-metals - MB

Sample ID: TQ90595-001
Batch: 90595
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Bromide	ND		1	0.20	0.050	mg/L	11/26/2018 1613

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - LCS

Sample ID: TQ90595-002
Batch: 90595
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Bromide	8.0	8.1		1	101	90-110	11/26/2018 1649

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MS

Sample ID: TK12020-001MS
Batch: 90595
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Bromide	0.26	8.0	8.0		1	97	90-110	11/27/2018 0341

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MSD

Sample ID: TK12020-001MD
Matrix: Aqueous
Batch: 90595
Analytical Method: 300.0

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Bromide	0.26	8.0	8.1		1	98	1.2	90-110	20	11/27/2018 0359

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Chain of Custody

and

Miscellaneous Documents

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Telephone No. 803-791-9700 Fax No. 803-791-9111
www.shealylab.com

SHEALY Chain of Custody Record

Number 79958

Client TRC	**Report to Contact** Lisa Clark	**Telephone No. / E-mail**	**Quote No.**
Address 50 International Dr. Suite 150	**Sampler's Signature** x Bill Medlin	**Analysis (Attach list if more space is needed)**	**Page** 1 of 1
City Greenville **State** SC **Zip Code** 29615	**Printed Name** Bill Medlin		
Project Name WPH Clemson (well development)			
Project No. 300688.0000.0000 P-1	**P.O. No.**		

Sample ID / Description (Containers for each sample may be combined on one line)	Date	Time	Grab/Comp	Matrix: Aqueous	Matrix: Solid	Matrix: Non-Aqueous	No of Containers by Preservative Type: Unpres	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Bromide	TK12020 LJO
RMW-23	11-9-18	1325	G	X			1						X	
OW-06A	11-9-18	1430	G	X			1						X	
RMW-27A	11-9-18	1535	G	X			1						X	

Turn Around Time Required (Prior lab approval required for expedited TAT.) ☐ Standard ☐ Rush (Specify)

Sample Disposal ☐ Return to Client ☐ Disposal by Lab

Possible Hazard Identification ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished by Bill Medlin	11/10/18	1000	1. Received by TRC Sample Storage	11/10/18	1000
2. Relinquished by TRC Sample Storage	11/12/18	0845	2. Received by Matthew P	11/12/18	0845
3. Relinquished by	Date	Time	3. Received by	Date	Time
4. Relinquished by Matthew P	11/12/18	1327	4. Laboratory received by	11.12.18	1327

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY Received on ice (Circle) Yes / No Ice Pack — Receipt Temp. 2.3 °C

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Client Copy

Document Number: F-AD-133 Effective Date: 09-01-2014

SHEALY ENVIRONMENTAL SERVICES, INC.

Shealy Environmental Services, Inc.
Document Number: MF0018C-14

Page 1 of 1
Effective Date: 8/2/2018

Sample Receipt Checklist (SRC)

Client: TRC Cooler Inspected by/date: ECL / 11/12/18 Lot #: TK120211

Means of receipt: ☐ SESI ☐ Client ☐ UPS ☐ FedEx ☐ Other: _____

☐ Yes	☑ No		1. Were custody seals present on the cooler?
☐ Yes	☐ No	☐ NA	2. If custody seals were present, were they intact and unbroken?

pH Strip ID: _____ Chlorine Strip ID: _____ Tested by: _____

Original temperature upon receipt / Derived (Corrected) temperature upon receipt: %Solid Snap-Cup ID: _____

2.3/2.3 °C ____/____ °C ____/____ °C ____/____ °C

Method: ☑ Temperature Blank ☐ Against Bottles IR Gun ID: 6 IR Gun Correction Factor: 0 °C

Method of coolant: ☐ Wet Ice ☐ Ice Packs ☐ Dry Ice ☐ None

☐ Yes	☐ No	☑ NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).
☐ Yes	☐ No	☑ NA	4. Is the commercial courier's packing slip attached to this form?
☑ Yes	☐ No		5. Were proper custody procedures (relinquished/received) followed?
☑ Yes	☐ No		6. Were sample IDs listed on the COC?
☑ Yes	☐ No		7. Were sample IDs listed on all sample containers?
☑ Yes	☐ No		8. Was collection date & time listed on the COC?
☑ Yes	☐ No		9. Was collection date & time listed on all sample containers?
☑ Yes	☐ No		10. Did all container label information (ID, date, time) agree with the COC?
☑ Yes	☐ No		11. Were tests to be performed listed on the COC?
☑ Yes	☐ No		12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)? _____
☑ Yes	☐ No		13. Was adequate sample volume available?
☐ Yes	☑ No		14. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
☐ Yes	☑ No		15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
☐ Yes	☐ No	☑ NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (¼"or 6mm in diameter) in any of the VOA vials?
☐ Yes	☐ No	☑ NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?
☐ Yes	☐ No	☑ NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
☐ Yes	☐ No	☑ NA	19. Were all applicable NH_3/TKN/cyanide/phenol/625 (< 0.5mg/L) samples free of residual chlorine?
☐ Yes	☐ No	☑ NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc…) correctly transcribed from the COC into the comment section in LIMS?
☐ Yes	☐ No		21. Was the quote number listed on the container label? If yes, Quote # _____

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) _____ were received incorrectly preserved and were adjusted accordingly in sample receiving with _____mL of circle one: H2SO4, HNO3, HCl, NaOH using SR # _____.
Time of preservation _____. If more than one preservative is needed, please note in the comments below.

Sample(s) _____ were received with bubbles >6 mm in diameter.

Samples(s) _____ were received with TRC > 0.5 mg/L (If #19 is ***no***) and were adjusted accordingly in sample receiving with sodium thiosulfate ($Na_2S_2O_3$) with Shealy ID: _____.

SR barcode labels applied by: ECL Date: 11-12-18

Comments:

SHEALY ENVIRONMENTAL SERVICES, INC.

Report of Analysis

TRC Companies, Inc.
50 International Dr.
Suite 150
Greenville, SC 29615
Attention: Lisa Clark

Project Name: WPH Clemson

Project Number: 300688.0000.0000.0002

Lot Number:**UA15044**

Date Completed:01/17/2019

01/24/2019 8:59 AM
Approved and released by:
Lab Director - Greenville: Lucas Odom

The electronic signature above is the equivalent of a handwritten signature.

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Laboratory Data Quality Review Notes

Project Name: WPH-Clemson, SC

Project Number: 300688.0000.0000.000002

Lab Report: UA15044 Shealy Environmental Services
Six groundwater samples analyzed for nitrate.

Chain of Custody, Sample Temperature, Sample Preservation: Chain of custody (CoC) signed; sample temperature <6 ^{o}C upon arrival at the laboratory; samples were preserved properly.

Hold Time: Samples analyzed within hold time.

Surrogates: Surrogate recoveries are not applicable to nitrate analyses.

Method Blank: Nitrate not detected in the method blank.

Trip Blank: A trip blank was not collected with these samples.

Field Blank: A field blank was not collected with these samples.

Equipment Rinse Blank: A rinsate blank was not collected with these samples.

LCS/LCSD: LCS recovery is within QC Limits. LCSD analyses were not performed.

MS/MSD: MS/MSD analyses were not performed using samples included in this report.

Duplicates: A field duplicate was not collected with these samples.

No data qualifiers were assigned.

Data review performed by: Terry Hertz; TRC Environmental Corp.; 1/24/2019

Case Narrative
TRC Companies, Inc.
Lot Number: UA15044

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

Sample Summary
TRC Companies, Inc.
Lot Number: UA15044

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	DP-27	Aqueous	01/14/2019 0830	01/15/2019
002	DP-27A	Aqueous	01/14/2019 0930	01/15/2019
003	DP-27B	Aqueous	01/14/2019 1100	01/15/2019
004	DP-26	Aqueous	01/14/2019 1230	01/15/2019
005	DP-26A	Aqueous	01/14/2019 1320	01/15/2019
006	DP-26B	Aqueous	01/14/2019 1450	01/15/2019

(6 samples)

Detection Summary

TRC Companies, Inc.

Lot Number: UA15044

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	DP-27	Aqueous	Nitrate - N	353.2	2.6		mg/L	5
002	DP-27A	Aqueous	Nitrate - N	353.2	0.25		mg/L	6
003	DP-27B	Aqueous	Nitrate - N	353.2	0.30		mg/L	7
004	DP-26	Aqueous	Nitrate - N	353.2	2.8		mg/L	8
006	DP-26B	Aqueous	Nitrate - N	353.2	0.49		mg/L	10

(5 detections)

Client: TRC Companies, Inc.
Description: DP-27
Date Sampled: 01/14/2019 0830
Date Received: 01/15/2019

Laboratory ID: UA15044-001
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	2	01/15/2019 1847	MDD		94916

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Nitrate - N		353.2	2.6		0.040	0.0030	mg/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: DP-27A
Date Sampled: 01/14/2019 0930
Date Received: 01/15/2019

Laboratory ID: UA15044-002
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	1	01/15/2019 1848	MDD		94916

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Nitrate - N		353.2	0.25		0.020	0.0015	mg/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: DP-27B
Date Sampled: 01/14/2019 1100
Date Received: 01/15/2019

Laboratory ID: UA15044-003
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	1	01/15/2019 1849	MDD		94916

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Nitrate - N		353.2	0.30		0.020	0.0015	mg/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: DP-26
Date Sampled: 01/14/2019 1230
Date Received: 01/15/2019

Laboratory ID: UA15044-004
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	2	01/15/2019 1851	MDD		94916

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Nitrate - N		353.2	2.8		0.040	0.0030	mg/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: DP-26A
Date Sampled: 01/14/2019 1320
Date Received: 01/15/2019

Laboratory ID: UA15044-005
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	1	01/15/2019 1852	MDD		94916

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Nitrate - N		353.2	ND		0.020	0.0015	mg/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: DP-26B
Date Sampled: 01/14/2019 1450
Date Received: 01/15/2019

Laboratory ID: UA15044-006
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	1	01/15/2019 1857	MDD		94916

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Nitrate - N		353.2	0.49		0.020	0.0015	mg/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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QC Summary

Inorganic non-metals - MB

Sample ID: UQ94916-001
Batch: 94916
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Nitrate - N	ND		1	0.020	0.0015	mg/L	01/15/2019 1812

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - LCS

Sample ID: UQ94916-002
Batch: 94916
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	0.80	0.81		1	101	90-110	01/15/2019 1813

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Shealy Environmental Services, Inc.
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Chain of Custody

and

Miscellaneous Documents

SHEALY ENVIRONMENTAL SERVICES, INC.
106 Vantage Point Drive • West Columbia, SC 29172
Telephone No. 803-791-9700 Fax No. 803-791-9111
www.shealylab.com

Chain of Custody Record

Number 91072

Client: TRC
Address: 50 International Drive Suite 150
City: Greenville | State: SC | Zip Code: 29615
Project Name: WPH Clemson
Project No.:
P.O. No.:

Report to Contact: Terry Hertz / THertz@trcsolutions.com
Sampler's Signature: X
Printed Name: David Szymal

Telephone No. / E-mail:
Analysis (Attach list if more space is needed)

Quote No.:
Page ___ of ___

UA15044
LJO

Sample ID / Description (Containers for each sample may be combined on one line.)	Date	Time	No. of Containers	Matrix: Aqueous	Matrix: Solid	Matrix: Non-Aqueous	No. of Containers by Preservative Type: Unpres.	HNO3	H2SO4	HCl	NaOH	Zn(Ac)2 / NaOH	Nitrate	Remarks / Cooler I.D.
DP-27	1/14/19	0830	6	X									X	
DP-27A	1/14/19	0930	6	X									X	
DP-27B	1/14/19	1100	6	X									X	
DP-26	1/14/19	1230	6	X									X	
DP-26A	1/14/19	1320	6	X									X	
DP-26B	1/14/19	1450	6	X									X	

Nitrate

Turn Around Time Required (Prior lab approval required for expedited TAT.)
X Standard ☐ Rush (Specify)

Sample Disposal
☐ Return to Client X Disposal by Lab

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished by: David Szymal	1/15/19	0630	1. Received by: TRC Storage	1/15/19	0630
2. Relinquished by: TRC Storage	1/15/19	0858	2. Received by: Ken E. Mauck	1/15/19	0858
3. Relinquished by: Ken E. Mauck	1/15/19	1255	3. Received by: Matt DP	1/15/19	1255
4. Relinquished by: Matt DP	1/15/19	1646	4. Laboratory received by: L Hite	1-15-19	1646

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on ice (Circle) (Yes) No Ice Pack
Receipt Temp. 2.5 °C

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Client Copy

Document Number: F-AD-133 Effective Date: 09-01-2014

SHEALY ENVIRONMENTAL SERVICES, INC.

Shealy Environmental Services, Inc.
Document Number: ME0018C-14

Page 1 of 1
Effective Date: 8/2/2018

Sample Receipt Checklist (SRC)

Client: TRC Cooler Inspected by/date: 1-15-19 Lot #: VA15044

Means of receipt: ☑ SESI ☐ Client ☐ UPS ☐ FedEx ☐ Other: _____

☐ Yes	☑ No		1. Were custody seals present on the cooler?
☐ Yes	☐ No	☑ NA	2. If custody seals were present, were they intact and unbroken?

pH Strip ID: _____ Chlorine Strip ID: _____ Tested by: _____

Original temperature upon receipt / Derived (Corrected) temperature upon receipt: %Solid Snap-Cup ID: _____

2.5 / 2.5 °C ___ / ___ °C ___ / ___ °C ___ / ___ °C

Method: ☑ Temperature Blank ☐ Against Bottles IR Gun ID: 5 IR Gun Correction Factor: 0 °C

Method of coolant: ☑ Wet Ice ☐ Ice Packs ☐ Dry Ice ☐ None

☐ Yes	☐ No	☑ NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).
☐ Yes	☐ No	☑ NA	4. Is the commercial courier's packing slip attached to this form?
☑ Yes	☐ No		5. Were proper custody procedures (relinquished/received) followed?
☑ Yes	☐ No		6. Were sample IDs listed on the COC?
☑ Yes	☐ No		7. Were sample IDs listed on all sample containers?
☑ Yes	☐ No		8. Was collection date & time listed on the COC?
☑ Yes	☐ No		9. Was collection date & time listed on all sample containers?
☑ Yes	☐ No		10. Did all container label information (ID, date, time) agree with the COC?
☑ Yes	☐ No		11. Were tests to be performed listed on the COC?
☑ Yes	☐ No		12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)? _____
☑ Yes	☐ No		13. Was adequate sample volume available?
☑ Yes	☐ No		14. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
☐ Yes	☑ No		15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
☐ Yes	☐ No	☑ NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (¼"or 6mm in diameter) in any of the VOA vials?
☐ Yes	☐ No	☑ NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?
☐ Yes	☐ No	☑ NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
☐ Yes	☐ No	☑ NA	19. Were all applicable NH_3/TKN/cyanide/phenol/625 (< 0.5mg/L) samples free of residual chlorine?
☐ Yes	☐ No	☑ NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc…) correctly transcribed from the COC into the comment section in LIMS?
☐ Yes	☑ No		21. Was the quote number listed on the container label? If yes, Quote # _____

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) _____ were received incorrectly preserved and were adjusted accordingly in sample receiving with ____mL of circle one: H2SO4, HNO3, HCl, NaOH using SR # _____. Time of preservation _____. If more than one preservative is needed, please note in the comments below.

Sample(s) _____ were received with bubbles >6 mm in diameter.

Samples(s) _____ were received with TRC > 0.5 mg/L (If #19 is ***no***) and were adjusted accordingly in sample receiving with sodium thiosulfate ($Na_2S_2O_3$) with Shealy ID: _____.

SR barcode labels applied by: LKH Date: 1-15-19

Comments:

SHEALY ENVIRONMENTAL SERVICES, INC.

Report of Analysis

TRC Companies, Inc.
50 International Dr.
Suite 150
Greenville, SC 29615
Attention: Lisa Clark

Project Name: WPH Clemson

Project Number: 300688.0000.0000.0002

Lot Number:**UA16022**

Date Completed:01/18/2019

01/25/2019 8:40 AM
Approved and released by:
Lab Director - Greenville: Lucas Odom

The electronic signature above is the equivalent of a handwritten signature.

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Laboratory Data Quality Review Notes

Project Name: WPH-Clemson, SC

Project Number: 300688.0000.0000.000002

Lab Report: UA16022 Shealy Environmental Services
Six groundwater samples analyzed for nitrate.

Chain of Custody, Sample Temperature, Sample Preservation: Chain of custody (CoC) signed; sample temperature <6 ^{o}C upon arrival at the laboratory; samples were preserved properly.

Hold Time: Samples analyzed within hold time.

Surrogates: Surrogate recoveries are not applicable to nitrate analyses.

Method Blank: Nitrate not detected in the method blank.

Trip Blank: A trip blank was not collected with these samples.

Field Blank: A field blank was not collected with these samples.

Equipment Rinse Blank: A rinsate blank was not collected with these samples.

LCS/LCSD: LCS recovery is within QC Limits. LCSD analyses were not performed.

MS/MSD: MS/MSD analyses were not performed using samples included in this report.

Duplicates: A field duplicate was not collected with these samples.

No data qualifiers were assigned.

Data review performed by: Terry Hertz; TRC Environmental Corp.; 1/25/2019

Case Narrative
TRC Companies, Inc.
Lot Number: UA16022

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

Sample Summary
TRC Companies, Inc.
Lot Number: UA16022

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	DP-25	Aqueous	01/15/2019 0820	01/16/2019
002	DP-25A	Aqueous	01/15/2019 0920	01/16/2019
003	DP-25B	Aqueous	01/15/2019 1045	01/16/2019
004	DP-24	Aqueous	01/15/2019 1220	01/16/2019
005	DP-24A	Aqueous	01/15/2019 1320	01/16/2019
006	DP-24B	Aqueous	01/15/2019 1420	01/16/2019

(6 samples)

Detection Summary

TRC Companies, Inc.

Lot Number: UA16022

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	DP-25	Aqueous	Nitrate - N	353.2	5.5		mg/L	5
002	DP-25A	Aqueous	Nitrate - N	353.2	1.3		mg/L	6
003	DP-25B	Aqueous	Nitrate - N	353.2	0.30		mg/L	7
004	DP-24	Aqueous	Nitrate - N	353.2	4.3		mg/L	8
005	DP-24A	Aqueous	Nitrate - N	353.2	0.71		mg/L	9
006	DP-24B	Aqueous	Nitrate - N	353.2	2.3		mg/L	10

(6 detections)

Client: TRC Companies, Inc.
Description: DP-25
Date Sampled: 01/15/2019 0820
Date Received: 01/16/2019

Laboratory ID: UA16022-001
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	5	01/17/2019 0343	MDD		95077

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Nitrate - N		353.2	5.5		0.10	0.0075	mg/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: DP-25A
Date Sampled: 01/15/2019 0920
Date Received: 01/16/2019

Laboratory ID: UA16022-002
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	1	01/17/2019 0344	MDD		95077

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Nitrate - N		353.2	1.3		0.020	0.0015	mg/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: DP-25B
Date Sampled: 01/15/2019 1045
Date Received: 01/16/2019

Laboratory ID: UA16022-003
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	1	01/17/2019 0345	MDD		95077

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Nitrate - N		353.2	0.30		0.020	0.0015	mg/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: DP-24
Date Sampled: 01/15/2019 1220
Date Received: 01/16/2019

Laboratory ID: UA16022-004
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	5	01/17/2019 0352	MDD		95077

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Nitrate - N		353.2	4.3		0.10	0.0075	mg/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: DP-24A
Date Sampled: 01/15/2019 1320
Date Received: 01/16/2019

Laboratory ID: UA16022-005
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	1	01/17/2019 0348	MDD		95077

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Nitrate - N		353.2	0.71		0.020	0.0015	mg/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: DP-24B
Date Sampled: 01/15/2019 1420
Date Received: 01/16/2019

Laboratory ID: UA16022-006
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	2	01/17/2019 0349	MDD		95077

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Nitrate - N		353.2	2.3		0.040	0.0030	mg/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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QC Summary

Inorganic non-metals - MB

Sample ID: UQ95077-001
Batch: 95077
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Nitrate - N	ND		1	0.020	0.0015	mg/L	01/17/2019 0316

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - LCS

Sample ID: UQ95077-002
Batch: 95077
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	0.80	0.80		1	100	90-110	01/17/2019 0317

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Chain of Custody

and

Miscellaneous Documents

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Chain of Custody Record

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Number 91071

Client: TRC
Address: 50 International Drive Suite 150
City: Greenville State: SC Zip Code: 29615
Project Name: WPH Clemson
Project No.:
P.O. No.:

Report to Contact: Terry Hertz / thertz@trcsolutions.com
Telephone No. / E-mail:
Quote No.:
Sampler's Signature: x [signature]
Printed Name: David Szynal
Page 1 of 1

UA16022
LIO

Analysis (Attach list if more space is needed): Nitrate

Sample ID / Description (Containers for each sample may be combined on one line.)	Date	Time	G=Grab, C=Composite	Matrix: Aqueous	Matrix: Solid	Matrix: Non Aqueous	No. of Containers by Preservative Type: Unpres.	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Nitrate	Remarks / Cooler I.D.
DP-25	1/15/19	0820	6										X	Nitrate
DP-25A	1/15/19	0920	6										X	
DP-25B	1/15/19	1045	6										X	
DP-24	1/15/19	1220	6										X	
DP-24A	1/15/19	1320	6										X	
DP-24B	1/15/19	1420	6										X	

Turn Around Time Required (Prior lab approval required for expedited TAT.): ☒ Standard ☐ Rush (Specify)

Sample Disposal: ☐ Return to Client ☒ Disposal by Lab

Possible Hazard Identification: ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

QC Requirements (Specify):

Relinquished by	Date	Time	Received by	Date	Time
1. David Szynal	1/16/19	0630	1. TRC Storage	1/16/19	0630
2. TRC Storage	1/16/19	1112	2. Matt D P	1/16/19	1112
3. Matt D P	1/16/19	1332	3.		
4.			4. Laboratory received by: M Daly carlo	1/16/19	1332

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on ice (Circle): Yes No Ice Pack
Receipt Temp. 3.7 °C

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Client Copy

Document Number: F-AD-133 Effective Date: 08-01-2014

Shealy Environmental Services, Inc.
Document Number: MB0018C-14

Effective Date: 8/2/2018

Sample Receipt Checklist (SRC)

Client: TRC Cooler Inspected by/date: MEC 1619 Lot #: UA16022

Means of receipt: ☑ SESI ☐ Client ☐ UPS ☐ FedEx ☐ Other: _____

☐ Yes	☑ No		1. Were custody seals present on the cooler?
☐ Yes	☐ No	☑ NA	2. If custody seals were present, were they intact and unbroken?

pH Strip ID: _____ Chlorine Strip ID: _____ Tested by: _____

Original temperature upon receipt / Derived (Corrected) temperature upon receipt: %Solid Snap-Cup ID: _____

3.7/3.7 °C ____/____ °C ____/____ °C ____/____ °C

Method: ☑ Temperature Blank ☐ Against Bottles IR Gun ID: 5 IR Gun Correction Factor: 0 °C

Method of coolant: ☑ Wet Ice ☐ Ice Packs ☐ Dry Ice ☐ None

☐ Yes	☐ No	☑ NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).
☐ Yes	☐ No	☑ NA	4. Is the commercial courier's packing slip attached to this form?
☑ Yes	☐ No		5. Were proper custody procedures (relinquished/received) followed?
☑ Yes	☐ No		6. Were sample IDs listed on the COC?
☑ Yes	☐ No		7. Were sample IDs listed on all sample containers?
☑ Yes	☐ No		8. Was collection date & time listed on the COC?
☑ Yes	☐ No		9. Was collection date & time listed on all sample containers?
☑ Yes	☐ No		10. Did all container label information (ID, date, time) agree with the COC?
☑ Yes	☐ No		11. Were tests to be performed listed on the COC?
☑ Yes	☐ No		12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)? _____
☑ Yes	☐ No		13. Was adequate sample volume available?
☐ Yes	☑ No		14. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
☐ Yes	☑ No		15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
☐ Yes	☐ No	☑ NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (¼"or 6mm in diameter) in any of the VOA vials?
☐ Yes	☐ No	☑ NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?
☐ Yes	☐ No	☑ NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
☐ Yes	☐ No	☑ NA	19. Were all applicable NH_3/TKN/cyanide/phenol/625 (< 0.5mg/L) samples free of residual chlorine?
☐ Yes	☐ No	☑ NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc…) correctly transcribed from the COC into the comment section in LIMS?
☑ Yes	☐ No		21. Was the quote number listed on the container label? If yes, Quote # 2173

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) _____ _____ were received incorrectly preserved and were adjusted accordingly in sample receiving with _____mL of circle one: H2SO4, HNO3, HCl, NaOH using SR # _____.
Time of preservation _____ ___. If more than one preservative is needed, please note in the comments below.

Sample(s) _____ _____ were received with bubbles >6 mm in diameter.

Samples(s) _____ _____ were received with TRC > 0.5 mg/L (If #19 is *no*) and were adjusted accordingly in sample receiving with sodium thiosulfate ($Na_2S_2O_3$) with Shealy ID: _____ .

SR barcode labels applied by: MEC Date: 1619

Comments:

SHEALY ENVIRONMENTAL SERVICES, INC.

Report of Analysis

TRC Companies, Inc.
50 International Dr.
Suite 150
Greenville, SC 29615
Attention: Lisa Clark

Project Name: WPH Clemson

Project Number: 300688.0000.0000.0002

Lot Number:**UA17032**

Date Completed:01/20/2019

01/25/2019 9:26 AM
Approved and released by:
Lab Director - Greenville: Lucas Odom

The electronic signature above is the equivalent of a handwritten signature.

Shealy Environmental Services, Inc.
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Laboratory Data Quality Review Notes

Project Name: WPH-Clemson, SC

Project Number: 300688.0000.0000.000002

Lab Report: UA17032 Shealy Environmental Services
Six groundwater samples analyzed for nitrate.

Chain of Custody, Sample Temperature, Sample Preservation: Chain of custody (CoC) signed; sample temperature <6 ^{o}C upon arrival at the laboratory; samples were preserved properly.

Hold Time: Samples analyzed within hold time.

Surrogates: Surrogate recoveries are not applicable to nitrate analyses.

Method Blank: Nitrate not detected in the method blank.

Trip Blank: A trip blank was not collected with these samples.

Field Blank: A field blank was not collected with these samples.

Equipment Rinse Blank: A rinsate blank was not collected with these samples.

LCS/LCSD: LCS recovery is within QC Limits. LCSD analyses were not performed.

MS/MSD: MS/MSD analyses were not performed using samples included in this report.

Duplicates: A field duplicate was not collected with these samples.

No data qualifiers were assigned.

Data review performed by: Terry Hertz; TRC Environmental Corp.; 1/25/2019

Case Narrative
TRC Companies, Inc.
Lot Number: UA17032

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

Sample Summary
TRC Companies, Inc.
Lot Number: UA17032

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	DP-23	Aqueous	01/16/2019 0830	01/17/2019
002	DP-23A	Aqueous	01/16/2019 0940	01/17/2019
003	DP-23B	Aqueous	01/16/2019 1115	01/17/2019
004	DP-22	Aqueous	01/16/2019 1255	01/17/2019
005	DP-22A	Aqueous	01/16/2019 1345	01/17/2019
006	DP-22B	Aqueous	01/16/2019 1500	01/17/2019

(6 samples)

Detection Summary

TRC Companies, Inc.

Lot Number: UA17032

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	DP-23	Aqueous	Nitrate - N	353.2	5.2		mg/L	5
002	DP-23A	Aqueous	Nitrate - N	353.2	0.68		mg/L	6
003	DP-23B	Aqueous	Nitrate - N	353.2	0.046		mg/L	7
004	DP-22	Aqueous	Nitrate - N	353.2	5.1		mg/L	8
005	DP-22A	Aqueous	Nitrate - N	353.2	6.4		mg/L	9
006	DP-22B	Aqueous	Nitrate - N	353.2	1.3		mg/L	10

(6 detections)

Client: TRC Companies, Inc.
Description: DP-23
Date Sampled: 01/16/2019 0830
Date Received: 01/17/2019

Laboratory ID: UA17032-001
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	5	01/17/2019 2138	MDD		95186

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Nitrate - N		353.2	5.2		0.10	0.0075	mg/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: DP-23A
Date Sampled: 01/16/2019 0940
Date Received: 01/17/2019

Laboratory ID: UA17032-002
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	1	01/17/2019 2139	MDD		95186

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Nitrate - N		353.2	0.68		0.020	0.0015	mg/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: DP-23B
Date Sampled: 01/16/2019 1115
Date Received: 01/17/2019

Laboratory ID: UA17032-003
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	1	01/17/2019 2144	MDD		95186

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Nitrate - N		353.2	0.046		0.020	0.0015	mg/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: DP-22
Date Sampled: 01/16/2019 1255
Date Received: 01/17/2019

Laboratory ID: UA17032-004
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	5	01/17/2019 2146	MDD		95186

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Nitrate - N		353.2	5.1		0.10	0.0075	mg/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: DP-22A
Date Sampled: 01/16/2019 1345
Date Received: 01/17/2019

Laboratory ID: UA17032-005
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	5	01/17/2019 2147	MDD		95186

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Nitrate - N		353.2	6.4		0.10	0.0075	mg/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: DP-22B
Date Sampled: 01/16/2019 1500
Date Received: 01/17/2019

Laboratory ID: UA17032-006
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	1	01/17/2019 2234	MDD		95186

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Nitrate - N		353.2	1.3		0.020	0.0015	mg/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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QC Summary

Inorganic non-metals - MB

Sample ID: UQ95186-001
Batch: 95186
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Nitrate - N	ND		1	0.020	0.0015	mg/L	01/17/2019 2115

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - LCS

Sample ID: UQ95186-002
Batch: 95186
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	0.80	0.82		1	102	90-110	01/17/2019 2116

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Chain of Custody

and

Miscellaneous Documents

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SHEALY **Chain of Custody Record**

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Telephone No. 803-791-9700 Fax No. 803-791-9111
www.shealylab.com

Number 91062

Client: TRC	Report to Contact: Terry Hertz / Thertz@trcsolutions.com	Telephone No. / E-mail	Quote No.
Address: 50 International Drive Suite 150	Sampler's Signature: x [signature]	Analysis (Attach list if more space is needed)	Page 1 of 1
City: Greenville State: SC Zip Code: 29615	Printed Name: David Szymal		
Project Name: WPH Clemson			
Project No.	P.O. No.		

Sample ID / Description (Containers for each sample may be combined on one line.)	Date	Time	# of Grab/Comp Containers	Matrix: Aqueous	Matrix: Solid	Matrix: Non-Aqueous	Liquid Containers by Preservative Type: Unpres.	H2SO4	HNO3	HCl	NaOH	ASCB Kit	Nitrate	Remarks / Cooler I.D.
DP-23	1/16/19	0830	6									X	X	
DP-23A	1/16/19	0940	6									X	X	
DP-23B	1/16/19	1115	6									X	X	
DP-22	1/16/19	1255	6									X	X	
DP-22A	1/16/19	1345	6									X	X	
DP-22B	1/16/19	1500	6									X	X	

UA17032

Nitrate

Turn Around Time Required (Prior lab approval required for expedited TAT.) ☐ Standard ☐ Rush (Specify)

Sample Disposal ☐ Return to Client ☒ Disposal by Lab

Possible Hazard Identification ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

QC Requirements (Specify)

	Date	Time
1. Relinquished by: David Szymal	1/17/19	0600
2. Relinquished by: TRC STORAGE	1/17/19	09:58
3. Relinquished by: [signature]	1/17/19	13:40
4. Relinquished by: [signature]	1/17/19	1444

	Date	Time
1. Received by: TRC Storage	1/17/19	0600
2. Received by: [signature]	1/17/19	09:58
3. Received by: [signature]	1/17/19	1340
4. Laboratory Received by: [signature]	1/17/19	1444

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on Ice (Circle) (Yes) No Ice Pack Receipt Temp. 4 °C

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Client Copy

Document Number: F-AD-133 Effective Date: 08-01-2014

Shealy Environmental Services, Inc.
Document Number: MB0018C-14

Page 1 of 1
Effective Date: 8/2/2018

Sample Receipt Checklist (SRC)

Client: TRC Cooler Inspected by/date: MEC 1-17-19 Lot #: UA17032

Means of receipt: ☑ SESI ☐ Client ☐ UPS ☐ FedEx ☐ Other: _____

☐ Yes	☑ No		1. Were custody seals present on the cooler?
☐ Yes	☐ No	☑ NA	2. If custody seals were present, were they intact and unbroken?

pH Strip ID: _____ Chlorine Strip ID: _____ Tested by: _____

Original temperature upon receipt / Derived (Corrected) temperature upon receipt: %Solid Snap-Cup ID: _____

1.9/1.9 °C ___/___ °C ___/___ °C ___/___ °C

Method: ☑ Temperature Blank ☐ Against Bottles IR Gun ID: 5 IR Gun Correction Factor: 2 °C

Method of coolant: ☑ Wet Ice ☐ Ice Packs ☐ Dry Ice ☐ None

☐ Yes	☐ No	☑ NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).
☐ Yes	☐ No	☑ NA	4. Is the commercial courier's packing slip attached to this form?
☑ Yes	☐ No		5. Were proper custody procedures (relinquished/received) followed?
☑ Yes	☐ No		6. Were sample IDs listed on the COC?
☑ Yes	☐ No		7. Were sample IDs listed on all sample containers?
☑ Yes	☐ No		8. Was collection date & time listed on the COC?
☑ Yes	☐ No		9. Was collection date & time listed on all sample containers?
☑ Yes	☐ No		10. Did all container label information (ID, date, time) agree with the COC?
☑ Yes	☐ No		11. Were tests to be performed listed on the COC?
☑ Yes	☐ No		12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)? _____
☑ Yes	☐ No		13. Was adequate sample volume available?
☐ Yes	☑ No		14. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
☐ Yes	☑ No		15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
☐ Yes	☐ No	☑ NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (¼"or 6mm in diameter) in any of the VOA vials?
☐ Yes	☐ No	☑ NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?
☐ Yes	☐ No	☑ NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
☐ Yes	☐ No	☑ NA	19. Were all applicable NH_3/TKN/cyanide/phenol/625 (< 0.5mg/L) samples free of residual chlorine?
☐ Yes	☐ No	☑ NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc…) correctly transcribed from the COC into the comment section in LIMS?
☑ Yes	☐ No		21. Was the quote number listed on the container label? If yes, Quote # 21713

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) _____ _____ were received incorrectly preserved and were adjusted accordingly in sample receiving with _____mL of circle one: H_2SO_4, HNO_3, HCl, NaOH using SR # _____.
Time of preservation _____. If more than one preservative is needed, please note in the comments below.

Sample(s) _____ _____ were received with bubbles >6 mm in diameter.

Samples(s) _____ _____ were received with TRC > 0.5 mg/L (If #19 is ***no***) and were adjusted accordingly in sample receiving with sodium thiosulfate ($Na_2S_2O_3$) with Shealy ID: _____.

SR barcode labels applied by: MEC Date: _____

Comments:

SHEALY ENVIRONMENTAL SERVICES, INC.

Report of Analysis

TRC Companies, Inc.
50 International Dr.
Suite 150
Greenville, SC 29615
Attention: Lisa Clark

Project Name: WPH Clemson

Project Number: 300688.0000.0000.0002

Lot Number:**UA19006**

Date Completed:01/20/2019

01/29/2019 4:48 PM
Approved and released by:
Lab Director - Greenville: Lucas Odom

The electronic signature above is the equivalent of a handwritten signature.

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Laboratory Data Quality Review Notes

Project Name: WPH-Clemson, SC

Project Number: 300688.0000.0000.000002

Lab Report: UA19006 Shealy Environmental Services
Five groundwater samples and one groundwater field duplicate were analyzed for nitrate.

Chain of Custody, Sample Temperature, Sample Preservation: Chain of custody (CoC) signed; sample temperature <6 ^{o}C upon arrival at the laboratory; samples were preserved properly.

Hold Time: Samples analyzed within hold time.

Surrogates: Surrogate recoveries are not applicable to nitrate analyses.

Method Blank: Nitrate not detected in the method blank.

Trip Blank: A trip blank was not collected with these samples.

Field Blank: A field blank was not collected with these samples.

Equipment Rinse Blank: A rinsate blank was not collected with these samples.

LCS/LCSD: LCS recovery is within QC Limits. LCSD analyses were not performed.

MS/MSD: MS/MSD analyses were not performed using samples included in this report.

Duplicates: Sample DU-19105 is a field duplicate of DP-20A. The RPD for nitrate was 0% which indicates very good precision.

No data qualifiers were assigned.

Data review performed by: Terry Hertz; TRC Environmental Corp.; 1/30/2019

Case Narrative
TRC Companies, Inc.
Lot Number: UA19006

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

Sample Summary
TRC Companies, Inc.
Lot Number: UA19006

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	DP-21	Aqueous	01/18/2019 0840	01/19/2019
002	DP-21A	Aqueous	01/18/2019 1035	01/19/2019
003	DP-20	Aqueous	01/18/2019 1230	01/19/2019
004	DP-20A	Aqueous	01/18/2019 1500	01/19/2019
005	DP-20B	Aqueous	01/18/2019 1615	01/19/2019
006	DU-19105	Aqueous	01/18/2019	01/19/2019

(6 samples)

Detection Summary

TRC Companies, Inc.

Lot Number: UA19006

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	DP-21	Aqueous	Nitrate - N	353.2	11		mg/L	5
002	DP-21A	Aqueous	Nitrate - N	353.2	7.7		mg/L	6
003	DP-20	Aqueous	Nitrate - N	353.2	3.1		mg/L	7
004	DP-20A	Aqueous	Nitrate - N	353.2	2.3		mg/L	8
005	DP-20B	Aqueous	Nitrate - N	353.2	4.6		mg/L	9
006	DU-19105	Aqueous	Nitrate - N	353.2	2.3		mg/L	10

(6 detections)

Client: TRC Companies, Inc.
Description: DP-21
Date Sampled: 01/18/2019 0840
Date Received: 01/19/2019

Laboratory ID: UA19006-001
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	15	01/19/2019 1604	MDD		95285

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Nitrate - N		353.2	11		0.30	0.023	mg/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: DP-21A
Date Sampled: 01/18/2019 1035
Date Received: 01/19/2019

Laboratory ID: UA19006-002
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	5	01/19/2019 1605	MDD		95285

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Nitrate - N		353.2	7.7		0.10	0.0075	mg/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: DP-20
Date Sampled: 01/18/2019 1230
Date Received: 01/19/2019

Laboratory ID: UA19006-003
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	2	01/19/2019 1606	MDD		95285

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Nitrate - N		353.2	3.1		0.040	0.0030	mg/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: DP-20A
Date Sampled: 01/18/2019 1500
Date Received: 01/19/2019

Laboratory ID: UA19006-004
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	2	01/19/2019 1608	MDD		95285

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Nitrate - N		353.2	2.3		0.040	0.0030	mg/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: DP-20B
Date Sampled: 01/18/2019 1615
Date Received: 01/19/2019

Laboratory ID: UA19006-005
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	5	01/19/2019 1609	MDD		95285

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Nitrate - N		353.2	4.6		0.10	0.0075	mg/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: DU-19105
Date Sampled: 01/18/2019
Date Received: 01/19/2019

Laboratory ID: UA19006-006
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	2	01/19/2019 1548	MDD		95285

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Nitrate - N		353.2	2.3		0.040	0.0030	mg/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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QC Summary

Inorganic non-metals - MB

Sample ID: UQ95285-001
Batch: 95285
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Nitrate - N	ND		1	0.020	0.0015	mg/L	01/19/2019 1534

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - LCS

Sample ID: UQ95285-002
Batch: 95285
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	0.80	0.81		1	102	90-110	01/19/2019 1536

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Chain of Custody

and

Miscellaneous Documents

SHEALY ENVIRONMENTAL SERVICES, INC.
106 Vantage Point Drive • West Columbia, SC 29172
Telephone No. 803-791-9700 Fax No. 803-791-9111
www.shealylab.com

SHEALY Chain of Custody Record

Number 91063

Client: TRC
Address: 50 International Drive Suite 150
City: Greenville | State: SC | Zip Code: 29615
Project Name: WPH Herman
Project No.: | P.O. No.:

Report to Contact: Terry Hertz / thertz@trcsolutions.com
Sampler's Signature: x
Printed Name: David Szymal

Telephone No. / E-mail:
Quote No.:
Analysis (Attach list if more space is needed): Nitrate
Page ___ of ___

UA19006
LIMS
Remarks / Cooler I.D.

Sample ID / Description (Containers for each sample may be combined on one line.)	Date	Time	Matrix: Aqueous	Soil	Non-aqueous	No. of Containers by Preservative Type: Unpres	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Nitrate
DP-21	1/18/19	0840	6	X							X	X
DP-21A	1/18/19	1035	6	X							X	X
DP-20	1/18/19	1230	6	X							X	X
DP-20A	1/18/19	1500	6	X							X	X
DP-20B	1/18/19	1615	6	X							X	X
DU-19105												

Nitrate

Turn Around Time Required (Prior lab approval required for expedited TAT.): X Standard ☐ Rush (Specify)

Sample Disposal: ☐ Return to Client ☐ Disposal by Lab

Possible Hazard Identification: X Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

QC Requirements (Specify):

	Date	Time
1. Relinquished by: David Szymal	1/18/19	1745
2. Relinquished by:		
3. Relinquished by:		
4. Relinquished by: Fed EX	1-19-19	0930

	Date	Time
1. Received by: Fedex - Anderson, SC	1/18/19	1745
2. Received by:		
3. Received by:		
4. Laboratory received by: L Hite	1-19-19	0930

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on Ice (Circle) (Yes) No Ice Pack
Receipt Temp. 1.2 °C

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Client Copy

Document Number: F-AD-133 Effective Date: 08-01-2014

SHEALY ENVIRONMENTAL SERVICES, INC.

Shealy Environmental Services, Inc.
Document Number: MH001SC-14

Page 1 of 1
Effective Date: 8/2/2018

Sample Receipt Checklist (SRC)

Client: TRC Cooler Inspected by/date: LKH / 1-19-19 Lot #: UA19006

Means of receipt: ☐ SESI ☐ Client ☐ UPS ☑ FedEx ☐ Other: _____

☑ Yes	☐ No		1. Were custody seals present on the cooler?
☑ Yes	☐ No	☐ NA	2. If custody seals were present, were they intact and unbroken?

pH Strip ID: _____ Chlorine Strip ID: _____ Tested by: _____

Original temperature upon receipt / Derived (Corrected) temperature upon receipt: %Solid Snap-Cup ID: _____

1.2 / 1.2 °C ___ / ___ °C ___ / ___ °C ___ / ___ °C

Method: ☑ Temperature Blank ☐ Against Bottles IR Gun ID: 5 IR Gun Correction Factor: 0 °C

Method of coolant: ☑ Wet Ice ☐ Ice Packs ☐ Dry Ice ☐ None

☐ Yes	☐ No	☑ NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).
☑ Yes	☐ No	☐ NA	4. Is the commercial courier's packing slip attached to this form?
☑ Yes	☐ No		5. Were proper custody procedures (relinquished/received) followed?
☑ Yes	☐ No		6. Were sample IDs listed on the COC?
☑ Yes	☐ No		7. Were sample IDs listed on all sample containers?
☑ Yes	☐ No		8. Was collection date & time listed on the COC?
☑ Yes	☐ No		9. Was collection date & time listed on all sample containers?
☑ Yes	☐ No		10. Did all container label information (ID, date, time) agree with the COC?
☑ Yes	☐ No		11. Were tests to be performed listed on the COC?
☑ Yes	☐ No		12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)? _____
☑ Yes	☐ No		13. Was adequate sample volume available?
☑ Yes	☐ No		14. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
☐ Yes	☑ No		15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
☐ Yes	☐ No	☑ NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (¼"or 6mm in diameter) in any of the VOA vials?
☐ Yes	☐ No	☑ NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?
☐ Yes	☐ No	☑ NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
☐ Yes	☐ No	☑ NA	19. Were all applicable NH_3/TKN/cyanide/phenol/625 (< 0.5mg/L) samples free of residual chlorine?
☐ Yes	☐ No	☑ NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc…) correctly transcribed from the COC into the comment section in LIMS?
☐ Yes	☑ No		21. Was the quote number listed on the container label? If yes, Quote # _____.

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) _____ were received incorrectly preserved and were adjusted accordingly in sample receiving with _____mL of circle one: H2SO4, HNO3, HCl, NaOH using SR # _____. Time of preservation _____. If more than one preservative is needed, please note in the comments below.

Sample(s) _____ were received with bubbles >6 mm in diameter.

Samples(s) _____ were received with TRC > 0.5 mg/L (If #19 is ***no***) and were adjusted accordingly in sample receiving with sodium thiosulfate ($Na_2S_2O_3$) with Shealy ID: _____.

SR barcode labels applied by: LKH Date: 1-19-19

Comments: _____

10515 Research Drive
Knoxville, TN 37932
Phone: (865) 573-8188
Fax: (865) 573-8133

Client: Lisa M. Clark
TRC Environmental Corporation
50 International Drive
Suite 150
Greenville, SC 29615

Phone: 864.234.9328

Fax:

Identifier: 063QA **Date Rec:** 01/23/2019 **Report Date:** 01/29/2019

Client Project #: 300688.0000.0000.00000 **Client Project Name:** WPH Clemson

Purchase Order #: 131336

Analysis Requested: CENSUS, Miscellaneous

Reviewed By:

MICROBIAL INSIGHTS, INC.

10515 Research Dr., Knoxville, TN 37932
Tel. (865) 573-8188 Fax. (865) 573-8133

CENSUS

Client: **TRC Environmental Corporation**
Project: WPH Clemson

MI Project Number: **063QA**
Date Received: 01/23/2019

Sample Information

Client Sample ID:		**RMW-27**	**RMW-18A**	**RMW-20B**
Sample Date:		01/22/2019	01/24/2019	01/24/2019
Units:		cells/mL	cells/mL	cells/mL
Analyst/Reviewer:		JS	JS	JS
Dechlorinating Bacteria				
Dehalococcoides	*DHC*	**1.75E+01**	<5.00E-01	<5.00E-01
tceA Reductase	TCE	<3.80E+00	<5.00E-01	<5.00E-01
BAV1 Vinyl Chloride Reductase	BVC	**1.40E+00 (J)**	<5.00E-01	<5.00E-01
Vinyl Chloride Reductase	VCR	<3.80E+00	<5.00E-01	<5.00E-01

Legend:
NA = Not Analyzed NS = Not Sampled J = Estimated gene copies below PQL but above LQL I = Inhibited
< = Result not detected

Quality Assurance/Quality Control Data

Samples Received 1/23/2019

Component	Date Prepared	Date Analyzed	Arrival Temperature	Positive Control	Extraction Blank	Negative Control
DHC	01/23/2019	01/29/2019	0 °C	109%	non-detect	non-detect
BVC	01/23/2019	01/29/2019	0 °C	106%	non-detect	non-detect
TCE	01/23/2019	01/29/2019	0 °C	102%	non-detect	non-detect
VCR	01/23/2019	01/29/2019	0 °C	100%	non-detect	non-detect

Samples Received 1/25/2019

Component	Date Prepared	Date Analyzed	Arrival Temperature	Positive Control	Extraction Blank	Negative Control
DHC	01/25/2019	01/29/2019	0 °C	108%	non-detect	non-detect
BVC	01/25/2019	01/29/2019	0 °C	106%	non-detect	non-detect
TCE	01/25/2019	01/29/2019	0 °C	102%	non-detect	non-detect
VCR	01/25/2019	01/29/2019	0 °C	100%	non-detect	non-detect

SHEALY ENVIRONMENTAL SERVICES, INC.

Report of Analysis

TRC Companies, Inc.
50 International Dr.
Suite 150
Greenville, SC 29615
Attention: Lisa Clark

Project Name: WPH Clemson

Project Number: 300688.0000.0000.0002

Lot Number:**UA23037**

Date Completed:02/01/2019

02/04/2019 1:48 PM
Approved and released by:
Lab Director - Greenville: Lucas Odom

The electronic signature above is the equivalent of a handwritten signature.

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Laboratory Data Quality Review Notes

Project Name: WPH-Clemson, SC

Project Number: 300688.0000.0000.000002

Lab Report: UA23037 Shealy Environmental Services
Three groundwater samples and one groundwater field duplicate were analyzed for volatile organic compounds (VOCs), chloride, bromide, sulfate, and nitrate. One trip blank was analyzed for VOCs.

Chain of Custody, Sample Temperature, Sample Preservation: Chain of custody (CoC) signed; sample temperature <6 ^{o}C upon arrival at the laboratory; samples were preserved properly.

Hold Time: Samples analyzed within hold time.

Surrogates: VOC surrogate recoveries are within QC limits.

Method Blank: Method blank were free of detections except as follows:

- Sulfate was detected at 0.40 J mg/L and 0.39 J mg/L in the sulfate method blanks. Comparable concentrations (*i.e.*, within 5X the concentration in the method blanks) were not detected in the groundwater samples. No qualifiers were assigned.
- Chloride was detected at 0.20 J mg/L in both chloride method blanks. Comparable concentrations (*i.e.*, within 5X the concentration in the method blanks) were not detected in the groundwater samples. No qualifiers were assigned.

Trip Blank: Trip blank TBLK-19101 had no detections of VOCs.

Field Blank: A field blank was not collected with these samples.

Equipment Rinse Blank: A rinsate blank was not collected with these samples.

LCS/LCSD: LCS recoveries for anions and VOCs are within QC Limits. LCSD analyses were not performed.

MS/MSD: RMW-27 was used for VOC MS/MSD analyses. MS/MSD recoveries and RPDs were within QC limits except as follows:

- Twelve VOC analytes have MS/MSD RPDs greater than the QC limit. None of these twelve VOC analytes were detected in the unspiked parent sample. No qualifiers were assigned.

Duplicates: Sample DU-19101 is a field duplicate of RMW-27. The RPDs for bromide, chloride, nitrate, sulfate, cis-1,2-dichloroethene, and tetrachloroethene were less than 8% which is within QC limits.

No data qualifiers were assigned.

Data review performed by: Terry Hertz; TRC Environmental Corp.; 2/4/2019

Case Narrative
TRC Companies, Inc.
Lot Number: UA23037

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

Sulfate

The method blank associated with batches 96075 and 96346 yielded "J" value detections for Sulfate. No corrective action is required as these are estimated values recovered below the LOQ. Associated detections have been qualified with a "B".

Chloride

The method blank associated with batches 96077and 96343 yielded "J" value detections for Chloride. No corrective action is required as these are estimated values recovered below the LOQ. Associated detections have been qualified with a "B".

Sample Summary

TRC Companies, Inc.

Lot Number: UA23037

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	RMW-27B	Aqueous	01/22/2019 1150	01/23/2019
002	RMW-27	Aqueous	01/22/2019 1440	01/23/2019
003	RMW-27A	Aqueous	01/22/2019 1630	01/23/2019
004	DU-19101	Aqueous	01/22/2019	01/23/2019
005	TBLK-19101	Aqueous	01/22/2019	01/23/2019

(5 samples)

Detection Summary

TRC Companies, Inc.

Lot Number: UA23037

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	RMW-27B	Aqueous	Bromide	300.0	0.095	J	mg/L	5
001	RMW-27B	Aqueous	Chloride	300.0	1.6	B	mg/L	5
001	RMW-27B	Aqueous	Nitrate - N	353.2	1.5		mg/L	5
001	RMW-27B	Aqueous	Sulfate	300.0	3.7	B	mg/L	5
001	RMW-27B	Aqueous	Acetone	8260B	3.5	J	ug/L	5
001	RMW-27B	Aqueous	cis-1,2-Dichloroethene	8260B	1.2		ug/L	5
001	RMW-27B	Aqueous	Tetrachloroethene	8260B	190		ug/L	6
002	RMW-27	Aqueous	Bromide	300.0	0.38		mg/L	7
002	RMW-27	Aqueous	Chloride	300.0	79	B	mg/L	7
002	RMW-27	Aqueous	Nitrate - N	353.2	4.2		mg/L	7
002	RMW-27	Aqueous	Sulfate	300.0	110	B	mg/L	7
002	RMW-27	Aqueous	cis-1,2-Dichloroethene	8260B	29	J	ug/L	7
002	RMW-27	Aqueous	Tetrachloroethene	8260B	3600		ug/L	8
003	RMW-27A	Aqueous	Bromide	300.0	0.098	J	mg/L	9
003	RMW-27A	Aqueous	Chloride	300.0	1.4	B	mg/L	9
003	RMW-27A	Aqueous	Nitrate - N	353.2	0.0080	J	mg/L	9
003	RMW-27A	Aqueous	Acetone	8260B	2.7	J	ug/L	9
003	RMW-27A	Aqueous	Methyl acetate	8260B	1.0		ug/L	10
004	DU-19101	Aqueous	Bromide	300.0	0.38		mg/L	11
004	DU-19101	Aqueous	Chloride	300.0	80	B	mg/L	11
004	DU-19101	Aqueous	Nitrate - N	353.2	3.9		mg/L	11
004	DU-19101	Aqueous	Sulfate	300.0	110	B	mg/L	11
004	DU-19101	Aqueous	cis-1,2-Dichloroethene	8260B	30	J	ug/L	11
004	DU-19101	Aqueous	Tetrachloroethene	8260B	3500		ug/L	12

(24 detections)

Client: TRC Companies, Inc.
Description: RMW-27B
Date Sampled: 01/22/2019 1150
Date Received: 01/23/2019

Laboratory ID: UA23037-001
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	02/01/2019 0131	SLU		96078
1		(Chloride) 300.0	1	02/01/2019 0131	SLU		96077
1		(Nitrate - N) 353.2	1	01/23/2019 2153	MDD		95636
1		(Sulfate) 300.0	1	02/01/2019 0131	SLU		96075

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.095	J	0.20	0.050	mg/L	1
Chloride		300.0	1.6	B	1.0	0.20	mg/L	1
Nitrate - N		353.2	1.5		0.020	0.0015	mg/L	1
Sulfate		300.0	3.7	B	1.0	0.20	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	5	01/24/2019 1533	JJG		95669
2	5030B	8260B	1	01/26/2019 1606	STM		95837

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	3.5	J	20	2.0	ug/L	2
Benzene	71-43-2	8260B	ND		1.0	0.40	ug/L	2
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.40	ug/L	2
Bromoform	75-25-2	8260B	ND		1.0	0.40	ug/L	2
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.40	ug/L	2
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	2
Carbon disulfide	75-15-0	8260B	ND		1.0	0.40	ug/L	2
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.40	ug/L	2
Chlorobenzene	108-90-7	8260B	ND		1.0	0.40	ug/L	2
Chloroethane	75-00-3	8260B	ND		2.0	0.40	ug/L	2
Chloroform	67-66-3	8260B	ND		1.0	0.40	ug/L	2
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.50	ug/L	2
Cyclohexane	110-82-7	8260B	ND		1.0	0.40	ug/L	2
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	0.40	ug/L	2
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.40	ug/L	2
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.40	ug/L	2
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.40	ug/L	2
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.40	ug/L	2
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.40	ug/L	2
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.60	ug/L	2
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.40	ug/L	2
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.40	ug/L	2
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.40	ug/L	2
cis-1,2-Dichloroethene	156-59-2	8260B	1.2		1.0	0.40	ug/L	2
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.40	ug/L	2

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Client: TRC Companies, Inc.
Description: RMW-27B
Date Sampled: 01/22/2019 1150
Date Received: 01/23/2019

Laboratory ID: UA23037-001
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	5	01/24/2019 1533	JJG		95669
2	5030B	8260B	1	01/26/2019 1606	STM		95837

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.40	ug/L	2
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.40	ug/L	2
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.40	ug/L	2
Ethylbenzene	100-41-4	8260B	ND		1.0	0.40	ug/L	2
2-Hexanone	591-78-6	8260B	ND		10	2.0	ug/L	2
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.40	ug/L	2
Methyl acetate	79-20-9	8260B	ND		1.0	0.40	ug/L	2
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	2
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	2.0	ug/L	2
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.40	ug/L	2
Methylene chloride	75-09-2	8260B	ND		1.0	0.40	ug/L	2
Styrene	100-42-5	8260B	ND		1.0	0.41	ug/L	2
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.40	ug/L	2
Tetrachloroethene	127-18-4	8260B	190		5.0	2.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	0.40	ug/L	2
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	0.42	ug/L	2
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.40	ug/L	2
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.40	ug/L	2
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.40	ug/L	2
Trichloroethene	79-01-6	8260B	ND		1.0	0.40	ug/L	2
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	0.40	ug/L	2
Vinyl chloride	75-01-4	8260B	ND		1.0	0.40	ug/L	2
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.40	ug/L	2

Surrogate	Q	Run 1 % Recovery	Run 1 Acceptance Limits	Q	Run 2 % Recovery	Run 2 Acceptance Limits
1,2-Dichloroethane-d4		113	70-130		102	70-130
Bromofluorobenzene		97	70-130		105	70-130
Toluene-d8		94	70-130		92	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
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B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: RMW-27
Date Sampled: 01/22/2019 1440
Date Received: 01/23/2019

Laboratory ID: UA23037-002
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	02/01/2019 0149	SLU		96078
1		(Chloride) 300.0	1	02/01/2019 0149	SLU		96077
1		(Nitrate - N) 353.2	5	01/23/2019 2155	MDD		95636
1		(Sulfate) 300.0	1	02/01/2019 0149	SLU		96075

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.38		0.20	0.050	mg/L	1
Chloride		300.0	79	B	1.0	0.20	mg/L	1
Nitrate - N		353.2	4.2		0.10	0.0075	mg/L	1
Sulfate		300.0	110	B	1.0	0.20	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	50	01/24/2019 1556	JJG		95669

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	ND		1000	100	ug/L	1
Benzene	71-43-2	8260B	ND		50	20	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		50	20	ug/L	1
Bromoform	75-25-2	8260B	ND		50	20	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		100	20	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		500	100	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		50	20	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		50	20	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		50	20	ug/L	1
Chloroethane	75-00-3	8260B	ND		100	20	ug/L	1
Chloroform	67-66-3	8260B	ND		50	20	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		50	25	ug/L	1
Cyclohexane	110-82-7	8260B	ND		50	20	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		50	20	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		50	20	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		50	20	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		50	20	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		50	20	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		50	20	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		100	30	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		50	20	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		50	20	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		50	20	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	29	J	50	20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		50	20	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		50	20	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
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W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: RMW-27
Date Sampled: 01/22/2019 1440
Date Received: 01/23/2019

Laboratory ID: UA23037-002
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	50	01/24/2019 1556	JJG		95669

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		50	20	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		50	20	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		50	20	ug/L	1
2-Hexanone	591-78-6	8260B	ND		500	100	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		50	20	ug/L	1
Methyl acetate	79-20-9	8260B	ND		50	20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		50	20	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		500	100	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		250	20	ug/L	1
Methylene chloride	75-09-2	8260B	ND		50	20	ug/L	1
Styrene	100-42-5	8260B	ND		50	21	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		50	20	ug/L	1
Tetrachloroethene	127-18-4	8260B	3600		50	20	ug/L	1
Toluene	108-88-3	8260B	ND		50	20	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		50	21	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		50	20	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		50	20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		50	20	ug/L	1
Trichloroethene	79-01-6	8260B	ND		50	20	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		50	20	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		50	20	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		50	20	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		86	70-130
Bromofluorobenzene		99	70-130
Toluene-d8		96	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
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Client: TRC Companies, Inc.
Description: RMW-27A
Date Sampled: 01/22/2019 1630
Date Received: 01/23/2019

Laboratory ID: UA23037-003
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	02/01/2019 0207	SLU		96078
1		(Chloride) 300.0	1	02/01/2019 0207	SLU		96077
1		(Nitrate - N) 353.2	1	01/23/2019 2200	MDD		95636
1		(Sulfate) 300.0	1	02/01/2019 0207	SLU		96075

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.098	J	0.20	0.050	mg/L	1
Chloride		300.0	1.4	B	1.0	0.20	mg/L	1
Nitrate - N		353.2	0.0080	J	0.020	0.0015	mg/L	1
Sulfate		300.0	ND		1.0	0.20	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	01/24/2019 2347	KGT		95734

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	2.7	J	20	2.0	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
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Client: TRC Companies, Inc.
Description: RMW-27A
Date Sampled: 01/22/2019 1630
Date Received: 01/23/2019

Laboratory ID: UA23037-003
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	01/24/2019 2347	KGT		95734

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260B	1.0		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260B	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		92	70-130
Bromofluorobenzene		92	70-130
Toluene-d8		103	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: DU-19101
Date Sampled: 01/22/2019
Date Received: 01/23/2019

Laboratory ID: UA23037-004
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	02/01/2019 0450	SLU		96342
1		(Chloride) 300.0	1	02/01/2019 0450	SLU		96343
1		(Nitrate - N) 353.2	5	01/23/2019 2201	MDD		95636
1		(Sulfate) 300.0	1	02/01/2019 0450	SLU		96346

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.38		0.20	0.050	mg/L	1
Chloride		300.0	80	B	1.0	0.20	mg/L	1
Nitrate - N		353.2	3.9		0.10	0.0075	mg/L	1
Sulfate		300.0	110	B	1.0	0.20	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	50	01/24/2019 1619	JJG		95669

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	ND		1000	100	ug/L	1
Benzene	71-43-2	8260B	ND		50	20	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		50	20	ug/L	1
Bromoform	75-25-2	8260B	ND		50	20	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		100	20	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		500	100	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		50	20	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		50	20	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		50	20	ug/L	1
Chloroethane	75-00-3	8260B	ND		100	20	ug/L	1
Chloroform	67-66-3	8260B	ND		50	20	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		50	25	ug/L	1
Cyclohexane	110-82-7	8260B	ND		50	20	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		50	20	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		50	20	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		50	20	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		50	20	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		50	20	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		50	20	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		100	30	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		50	20	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		50	20	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		50	20	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	30	J	50	20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		50	20	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		50	20	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
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E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: DU-19101
Date Sampled: 01/22/2019
Date Received: 01/23/2019

Laboratory ID: UA23037-004
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	50	01/24/2019 1619	JJG		95669

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		50	20	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		50	20	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		50	20	ug/L	1
2-Hexanone	591-78-6	8260B	ND		500	100	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		50	20	ug/L	1
Methyl acetate	79-20-9	8260B	ND		50	20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		50	20	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		500	100	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		250	20	ug/L	1
Methylene chloride	75-09-2	8260B	ND		50	20	ug/L	1
Styrene	100-42-5	8260B	ND		50	21	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		50	20	ug/L	1
Tetrachloroethene	127-18-4	8260B	3500		50	20	ug/L	1
Toluene	108-88-3	8260B	ND		50	20	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		50	21	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		50	20	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		50	20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		50	20	ug/L	1
Trichloroethene	79-01-6	8260B	ND		50	20	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		50	20	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		50	20	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		50	20	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		98	70-130
Bromofluorobenzene		86	70-130
Toluene-d8		90	70-130

LOQ = Limit of Quantitation
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P = The RPD between two GC columns exceeds 40%
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J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: TBLK-19101
Date Sampled: 01/22/2019
Date Received: 01/23/2019

Laboratory ID: UA23037-005
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	01/24/2019 2325	KGT		95734

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	ND		20	2.0	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: TBLK-19101
Date Sampled: 01/22/2019
Date Received: 01/23/2019

Laboratory ID: UA23037-005
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	01/24/2019 2325	KGT		95734

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260B	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		88	70-130
Bromofluorobenzene		92	70-130
Toluene-d8		96	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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QC Summary

Inorganic non-metals - MB

Sample ID: UQ95636-001
Batch: 95636
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Nitrate - N	ND		1	0.020	0.0015	mg/L	01/23/2019 2147

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - LCS

Sample ID: UQ95636-002
Batch: 95636
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	0.80	0.83		1	104	90-110	01/23/2019 2148

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MB

Sample ID: UQ96075-001
Batch: 96075
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Sulfate	0.40	J	1	1.0	0.20	mg/L	01/31/2019 1705

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - LCS

Sample ID: UQ96075-002
Batch: 96075
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Sulfate	20	20		1	99	90-110	01/31/2019 1742

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MB

Sample ID: UQ96077-001
Batch: 96077
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Chloride	0.20	J	1	1.0	0.20	mg/L	01/31/2019 1705

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: UQ96077-002
Batch: 96077
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Chloride	20	20		1	100	90-110	01/31/2019 1742

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MB

Sample ID: UQ96078-001
Batch: 96078
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Bromide	ND		1	0.20	0.050	mg/L	01/31/2019 1705

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - LCS

Sample ID: UQ96078-002
Batch: 96078
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Bromide	8.0	8.4		1	105	90-110	01/31/2019 1742

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MB

Sample ID: UQ96342-001
Batch: 96342
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Bromide	ND		1	0.20	0.050	mg/L	02/01/2019 0019

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - LCS

Sample ID: UQ96342-002
Batch: 96342
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Bromide	8.0	8.7		1	109	90-110	02/01/2019 0225

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MB

Sample ID: UQ96343-001
Batch: 96343
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Chloride	0.20	J	1	1.0	0.20	mg/L	02/01/2019 0019

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - LCS

Sample ID: UQ96343-002
Batch: 96343
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Chloride	20	21		1	103	90-110	02/01/2019 0225

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MB

Sample ID: UQ96346-001
Batch: 96346
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Sulfate	0.39	J	1	1.0	0.20	mg/L	02/01/2019 0019

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - LCS

Sample ID: UQ96346-002
Batch: 96346
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Sulfate	20	20		1	102	90-110	02/01/2019 0225

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ95669-001
Batch: 95669
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Acetone	ND		1	20	2.0	ug/L	01/24/2019 1058
Benzene	ND		1	1.0	0.40	ug/L	01/24/2019 1058
Bromodichloromethane	ND		1	1.0	0.40	ug/L	01/24/2019 1058
Bromoform	ND		1	1.0	0.40	ug/L	01/24/2019 1058
Bromomethane (Methyl bromide)	ND		1	2.0	0.40	ug/L	01/24/2019 1058
2-Butanone (MEK)	ND		1	10	2.0	ug/L	01/24/2019 1058
Carbon disulfide	ND		1	1.0	0.40	ug/L	01/24/2019 1058
Carbon tetrachloride	ND		1	1.0	0.40	ug/L	01/24/2019 1058
Chlorobenzene	ND		1	1.0	0.40	ug/L	01/24/2019 1058
Chloroethane	ND		1	2.0	0.40	ug/L	01/24/2019 1058
Chloroform	ND		1	1.0	0.40	ug/L	01/24/2019 1058
Chloromethane (Methyl chloride)	ND		1	1.0	0.50	ug/L	01/24/2019 1058
Cyclohexane	ND		1	1.0	0.40	ug/L	01/24/2019 1058
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	0.40	ug/L	01/24/2019 1058
Dibromochloromethane	ND		1	1.0	0.40	ug/L	01/24/2019 1058
1,2-Dibromoethane (EDB)	ND		1	1.0	0.40	ug/L	01/24/2019 1058
1,2-Dichlorobenzene	ND		1	1.0	0.40	ug/L	01/24/2019 1058
1,3-Dichlorobenzene	ND		1	1.0	0.40	ug/L	01/24/2019 1058
1,4-Dichlorobenzene	ND		1	1.0	0.40	ug/L	01/24/2019 1058
Dichlorodifluoromethane	ND		1	2.0	0.60	ug/L	01/24/2019 1058
1,1-Dichloroethane	ND		1	1.0	0.40	ug/L	01/24/2019 1058
1,2-Dichloroethane	ND		1	1.0	0.40	ug/L	01/24/2019 1058
1,1-Dichloroethene	ND		1	1.0	0.40	ug/L	01/24/2019 1058
cis-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	01/24/2019 1058
trans-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	01/24/2019 1058
1,2-Dichloropropane	ND		1	1.0	0.40	ug/L	01/24/2019 1058
cis-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	01/24/2019 1058
trans-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	01/24/2019 1058
Ethylbenzene	ND		1	1.0	0.40	ug/L	01/24/2019 1058
2-Hexanone	ND		1	10	2.0	ug/L	01/24/2019 1058
Isopropylbenzene	ND		1	1.0	0.40	ug/L	01/24/2019 1058
Methyl acetate	ND		1	1.0	0.40	ug/L	01/24/2019 1058
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	0.40	ug/L	01/24/2019 1058
4-Methyl-2-pentanone	ND		1	10	2.0	ug/L	01/24/2019 1058
Methylcyclohexane	ND		1	5.0	0.40	ug/L	01/24/2019 1058
Methylene chloride	ND		1	1.0	0.40	ug/L	01/24/2019 1058
Styrene	ND		1	1.0	0.41	ug/L	01/24/2019 1058
1,1,2,2-Tetrachloroethane	ND		1	1.0	0.40	ug/L	01/24/2019 1058
Tetrachloroethene	ND		1	1.0	0.40	ug/L	01/24/2019 1058
Toluene	ND		1	1.0	0.40	ug/L	01/24/2019 1058
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	0.42	ug/L	01/24/2019 1058
1,2,4-Trichlorobenzene	ND		1	1.0	0.40	ug/L	01/24/2019 1058
1,1,1-Trichloroethane	ND		1	1.0	0.40	ug/L	01/24/2019 1058
1,1,2-Trichloroethane	ND		1	1.0	0.40	ug/L	01/24/2019 1058

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ95669-001
Batch: 95669
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Trichloroethene	ND		1	1.0	0.40	ug/L	01/24/2019 1058
Trichlorofluoromethane	ND		1	1.0	0.40	ug/L	01/24/2019 1058
Vinyl chloride	ND		1	1.0	0.40	ug/L	01/24/2019 1058
Xylenes (total)	ND		1	1.0	0.40	ug/L	01/24/2019 1058

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		92	70-130
Bromofluorobenzene		88	70-130
Toluene-d8		94	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
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ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ95669-002
Batch: 95669
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	110		1	113	60-140	01/24/2019 1012
Benzene	50	51		1	102	70-130	01/24/2019 1012
Bromodichloromethane	50	48		1	96	70-130	01/24/2019 1012
Bromoform	50	59		1	118	70-130	01/24/2019 1012
Bromomethane (Methyl bromide)	50	52		1	104	70-130	01/24/2019 1012
2-Butanone (MEK)	100	110		1	107	70-130	01/24/2019 1012
Carbon disulfide	50	55		1	111	70-130	01/24/2019 1012
Carbon tetrachloride	50	53		1	106	70-130	01/24/2019 1012
Chlorobenzene	50	49		1	98	70-130	01/24/2019 1012
Chloroethane	50	53		1	107	70-130	01/24/2019 1012
Chloroform	50	52		1	104	70-130	01/24/2019 1012
Chloromethane (Methyl chloride)	50	48		1	95	60-140	01/24/2019 1012
Cyclohexane	50	56		1	111	70-130	01/24/2019 1012
1,2-Dibromo-3-chloropropane (DBCP)	50	53		1	105	70-130	01/24/2019 1012
Dibromochloromethane	50	53		1	106	70-130	01/24/2019 1012
1,2-Dibromoethane (EDB)	50	54		1	107	70-130	01/24/2019 1012
1,2-Dichlorobenzene	50	48		1	97	70-130	01/24/2019 1012
1,3-Dichlorobenzene	50	48		1	96	70-130	01/24/2019 1012
1,4-Dichlorobenzene	50	47		1	94	70-130	01/24/2019 1012
Dichlorodifluoromethane	50	55		1	109	60-140	01/24/2019 1012
1,1-Dichloroethane	50	49		1	98	70-130	01/24/2019 1012
1,2-Dichloroethane	50	50		1	101	70-130	01/24/2019 1012
1,1-Dichloroethene	50	52		1	103	70-130	01/24/2019 1012
cis-1,2-Dichloroethene	50	49		1	98	70-130	01/24/2019 1012
trans-1,2-Dichloroethene	50	52		1	103	70-130	01/24/2019 1012
1,2-Dichloropropane	50	44		1	87	70-130	01/24/2019 1012
cis-1,3-Dichloropropene	50	44		1	88	70-130	01/24/2019 1012
trans-1,3-Dichloropropene	50	51		1	103	70-130	01/24/2019 1012
Ethylbenzene	50	56		1	111	70-130	01/24/2019 1012
2-Hexanone	100	110		1	111	70-130	01/24/2019 1012
Isopropylbenzene	50	58		1	116	70-130	01/24/2019 1012
Methyl acetate	50	49		1	97	70-130	01/24/2019 1012
Methyl tertiary butyl ether (MTBE)	50	52		1	105	70-130	01/24/2019 1012
4-Methyl-2-pentanone	100	98		1	98	70-130	01/24/2019 1012
Methylcyclohexane	50	52		1	104	70-130	01/24/2019 1012
Methylene chloride	50	49		1	98	70-130	01/24/2019 1012
Styrene	50	59		1	119	70-130	01/24/2019 1012
1,1,2,2-Tetrachloroethane	50	48		1	95	70-130	01/24/2019 1012
Tetrachloroethene	50	56		1	111	70-130	01/24/2019 1012
Toluene	50	58		1	116	70-130	01/24/2019 1012
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	50		1	101	70-130	01/24/2019 1012
1,2,4-Trichlorobenzene	50	48		1	95	70-130	01/24/2019 1012
1,1,1-Trichloroethane	50	53		1	106	70-130	01/24/2019 1012
1,1,2-Trichloroethane	50	56		1	112	70-130	01/24/2019 1012

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ95669-002
Batch: 95669
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	50		1	99	70-130	01/24/2019 1012
Trichlorofluoromethane	50	50		1	100	70-130	01/24/2019 1012
Vinyl chloride	50	54		1	108	70-130	01/24/2019 1012
Xylenes (total)	100	120		1	115	70-130	01/24/2019 1012

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		95	70-130
Bromofluorobenzene		111	70-130
Toluene-d8		107	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MS

Sample ID: UA23037-002MS
Batch: 95669
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	ND	5000	5400		50	108	60-140	01/24/2019 1705
Benzene	ND	2500	2200		50	88	70-130	01/24/2019 1705
Bromodichloromethane	ND	2500	2400		50	97	70-130	01/24/2019 1705
Bromoform	ND	2500	2500		50	101	70-130	01/24/2019 1705
Bromomethane (Methyl bromide)	ND	2500	3100		50	126	70-130	01/24/2019 1705
2-Butanone (MEK)	ND	5000	5900		50	119	70-130	01/24/2019 1705
Carbon disulfide	ND	2500	3200		50	129	70-130	01/24/2019 1705
Carbon tetrachloride	ND	2500	2900		50	115	70-130	01/24/2019 1705
Chlorobenzene	ND	2500	2400		50	98	70-130	01/24/2019 1705
Chloroethane	ND	2500	3300		50	130	70-130	01/24/2019 1705
Chloroform	ND	2500	2800		50	111	70-130	01/24/2019 1705
Chloromethane (Methyl chloride)	ND	2500	2800		50	113	60-140	01/24/2019 1705
Cyclohexane	ND	2500	2600		50	103	70-130	01/24/2019 1705
1,2-Dibromo-3-chloropropane (DBCP)	ND	2500	2600		50	105	70-130	01/24/2019 1705
Dibromochloromethane	ND	2500	2500		50	99	70-130	01/24/2019 1705
1,2-Dibromoethane (EDB)	ND	2500	2500		50	101	70-130	01/24/2019 1705
1,2-Dichlorobenzene	ND	2500	2500		50	99	70-130	01/24/2019 1705
1,3-Dichlorobenzene	ND	2500	2500		50	98	70-130	01/24/2019 1705
1,4-Dichlorobenzene	ND	2500	2400		50	97	70-130	01/24/2019 1705
Dichlorodifluoromethane	ND	2500	3500		50	140	60-140	01/24/2019 1705
1,1-Dichloroethane	ND	2500	3100		50	123	70-130	01/24/2019 1705
1,2-Dichloroethane	ND	2500	2200		50	90	70-130	01/24/2019 1705
1,1-Dichloroethene	ND	2500	3200		50	128	70-130	01/24/2019 1705
cis-1,2-Dichloroethene	29	2500	2900		50	117	70-130	01/24/2019 1705
trans-1,2-Dichloroethene	ND	2500	3100		50	124	70-130	01/24/2019 1705
1,2-Dichloropropane	ND	2500	2200		50	87	70-130	01/24/2019 1705
cis-1,3-Dichloropropene	ND	2500	2100		50	85	70-130	01/24/2019 1705
trans-1,3-Dichloropropene	ND	2500	2100		50	86	70-130	01/24/2019 1705
Ethylbenzene	ND	2500	2600		50	104	70-130	01/24/2019 1705
2-Hexanone	ND	5000	5100		50	101	70-130	01/24/2019 1705
Isopropylbenzene	ND	2500	2600		50	102	70-130	01/24/2019 1705
Methyl acetate	ND	2500	2900		50	117	70-130	01/24/2019 1705
Methyl tertiary butyl ether (MTBE)	ND	2500	3100		50	125	70-130	01/24/2019 1705
4-Methyl-2-pentanone	ND	5000	4900		50	99	70-130	01/24/2019 1705
Methylcyclohexane	ND	2500	2600		50	103	70-130	01/24/2019 1705
Methylene chloride	ND	2500	3000		50	119	70-130	01/24/2019 1705
Styrene	ND	2500	2600		50	102	70-130	01/24/2019 1705
1,1,2,2-Tetrachloroethane	ND	2500	2400		50	98	70-130	01/24/2019 1705
Tetrachloroethene	3600	2500	5800		50	90	70-130	01/24/2019 1705
Toluene	ND	2500	2500		50	102	70-130	01/24/2019 1705
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	2500	3000		50	122	70-130	01/24/2019 1705
1,2,4-Trichlorobenzene	ND	2500	2400		50	94	70-130	01/24/2019 1705
1,1,1-Trichloroethane	ND	2500	2700		50	106	70-130	01/24/2019 1705
1,1,2-Trichloroethane	ND	2500	2500		50	98	70-130	01/24/2019 1705

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MS

Sample ID: UA23037-002MS
Batch: 95669
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	ND	2500	2500		50	100	70-130	01/24/2019 1705
Trichlorofluoromethane	ND	2500	3100		50	124	70-130	01/24/2019 1705
Vinyl chloride	ND	2500	3100		50	124	70-130	01/24/2019 1705
Xylenes (total)	ND	5000	5100		50	103	70-130	01/24/2019 1705

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		83	70-130
Bromofluorobenzene		102	70-130
Toluene-d8		97	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MSD

Sample ID: UA23037-002MD
Batch: 95669
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	ND	5000	4000	+	50	80	29	60-140	20	01/24/2019 1728
Benzene	ND	2500	2600		50	103	16	70-130	20	01/24/2019 1728
Bromodichloromethane	ND	2500	2400		50	97	0.71	70-130	20	01/24/2019 1728
Bromoform	ND	2500	2600		50	104	2.9	70-130	20	01/24/2019 1728
Bromomethane (Methyl bromide)	ND	2500	1900	+	50	76	49	70-130	20	01/24/2019 1728
2-Butanone (MEK)	ND	5000	5600		50	111	6.2	70-130	20	01/24/2019 1728
Carbon disulfide	ND	2500	1900	+	50	77	51	70-130	20	01/24/2019 1728
Carbon tetrachloride	ND	2500	2700		50	108	6.4	70-130	20	01/24/2019 1728
Chlorobenzene	ND	2500	2500		50	100	1.8	70-130	20	01/24/2019 1728
Chloroethane	ND	2500	1900	+	50	78	51	70-130	20	01/24/2019 1728
Chloroform	ND	2500	2600		50	105	5.9	70-130	20	01/24/2019 1728
Chloromethane (Methyl chloride)	ND	2500	2100	+	50	84	30	60-140	20	01/24/2019 1728
Cyclohexane	ND	2500	2800		50	114	9.9	70-130	20	01/24/2019 1728
1,2-Dibromo-3-chloropropane (DBCP)	ND	2500	2700		50	107	1.9	70-130	20	01/24/2019 1728
Dibromochloromethane	ND	2500	2500		50	101	1.7	70-130	20	01/24/2019 1728
1,2-Dibromoethane (EDB)	ND	2500	2500		50	102	0.63	70-130	20	01/24/2019 1728
1,2-Dichlorobenzene	ND	2500	2500		50	99	0.18	70-130	20	01/24/2019 1728
1,3-Dichlorobenzene	ND	2500	2400		50	98	0.55	70-130	20	01/24/2019 1728
1,4-Dichlorobenzene	ND	2500	2400		50	96	0.35	70-130	20	01/24/2019 1728
Dichlorodifluoromethane	ND	2500	2700	+	50	109	24	60-140	20	01/24/2019 1728
1,1-Dichloroethane	ND	2500	2600		50	103	18	70-130	20	01/24/2019 1728
1,2-Dichloroethane	ND	2500	2600		50	103	13	70-130	20	01/24/2019 1728
1,1-Dichloroethene	ND	2500	2000	+	50	79	47	70-130	20	01/24/2019 1728
cis-1,2-Dichloroethene	29	2500	2700		50	106	9.0	70-130	20	01/24/2019 1728
trans-1,2-Dichloroethene	ND	2500	2600		50	104	17	70-130	20	01/24/2019 1728
1,2-Dichloropropane	ND	2500	2200		50	87	0.28	70-130	20	01/24/2019 1728
cis-1,3-Dichloropropene	ND	2500	2200		50	86	1.4	70-130	20	01/24/2019 1728
trans-1,3-Dichloropropene	ND	2500	2200		50	87	1.4	70-130	20	01/24/2019 1728
Ethylbenzene	ND	2500	2600		50	106	1.8	70-130	20	01/24/2019 1728
2-Hexanone	ND	5000	5100		50	102	0.84	70-130	20	01/24/2019 1728
Isopropylbenzene	ND	2500	2600		50	104	2.3	70-130	20	01/24/2019 1728
Methyl acetate	ND	2500	1700	+	50	70	51	70-130	20	01/24/2019 1728
Methyl tertiary butyl ether (MTBE)	ND	2500	2600		50	104	18	70-130	20	01/24/2019 1728
4-Methyl-2-pentanone	ND	5000	5000		50	100	1.3	70-130	20	01/24/2019 1728
Methylcyclohexane	ND	2500	2600		50	105	2.4	70-130	20	01/24/2019 1728
Methylene chloride	ND	2500	1900	+	50	78	42	70-130	20	01/24/2019 1728
Styrene	ND	2500	2600		50	105	2.7	70-130	20	01/24/2019 1728
1,1,2,2-Tetrachloroethane	ND	2500	2400		50	98	0.26	70-130	20	01/24/2019 1728
Tetrachloroethene	3600	2500	5900		50	95	2.2	70-130	20	01/24/2019 1728
Toluene	ND	2500	2600		50	103	1.6	70-130	20	01/24/2019 1728
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	2500	2000	+	50	79	43	70-130	20	01/24/2019 1728
1,2,4-Trichlorobenzene	ND	2500	2400		50	96	1.5	70-130	20	01/24/2019 1728
1,1,1-Trichloroethane	ND	2500	2700		50	108	1.9	70-130	20	01/24/2019 1728
1,1,2-Trichloroethane	ND	2500	2500		50	100	2.1	70-130	20	01/24/2019 1728

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MSD

Sample ID: UA23037-002MD
Batch: 95669
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Trichloroethene	ND	2500	2500		50	101	0.45	70-130	20	01/24/2019 1728
Trichlorofluoromethane	ND	2500	2000	+	50	82	41	70-130	20	01/24/2019 1728
Vinyl chloride	ND	2500	2400	+	50	96	25	70-130	20	01/24/2019 1728
Xylenes (total)	ND	5000	5300		50	105	2.5	70-130	20	01/24/2019 1728

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		98	70-130
Bromofluorobenzene		100	70-130
Toluene-d8		96	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
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ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ95734-001
Batch: 95734
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Acetone	ND		1	20	2.0	ug/L	01/24/2019 2137
Benzene	ND		1	1.0	0.40	ug/L	01/24/2019 2137
Bromodichloromethane	ND		1	1.0	0.40	ug/L	01/24/2019 2137
Bromoform	ND		1	1.0	0.40	ug/L	01/24/2019 2137
Bromomethane (Methyl bromide)	ND		1	2.0	0.40	ug/L	01/24/2019 2137
2-Butanone (MEK)	ND		1	10	2.0	ug/L	01/24/2019 2137
Carbon disulfide	ND		1	1.0	0.40	ug/L	01/24/2019 2137
Carbon tetrachloride	ND		1	1.0	0.40	ug/L	01/24/2019 2137
Chlorobenzene	ND		1	1.0	0.40	ug/L	01/24/2019 2137
Chloroethane	ND		1	2.0	0.40	ug/L	01/24/2019 2137
Chloroform	ND		1	1.0	0.40	ug/L	01/24/2019 2137
Chloromethane (Methyl chloride)	ND		1	1.0	0.50	ug/L	01/24/2019 2137
Cyclohexane	ND		1	1.0	0.40	ug/L	01/24/2019 2137
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	0.40	ug/L	01/24/2019 2137
Dibromochloromethane	ND		1	1.0	0.40	ug/L	01/24/2019 2137
1,2-Dibromoethane (EDB)	ND		1	1.0	0.40	ug/L	01/24/2019 2137
1,2-Dichlorobenzene	ND		1	1.0	0.40	ug/L	01/24/2019 2137
1,3-Dichlorobenzene	ND		1	1.0	0.40	ug/L	01/24/2019 2137
1,4-Dichlorobenzene	ND		1	1.0	0.40	ug/L	01/24/2019 2137
Dichlorodifluoromethane	ND		1	2.0	0.60	ug/L	01/24/2019 2137
1,1-Dichloroethane	ND		1	1.0	0.40	ug/L	01/24/2019 2137
1,2-Dichloroethane	ND		1	1.0	0.40	ug/L	01/24/2019 2137
1,1-Dichloroethene	ND		1	1.0	0.40	ug/L	01/24/2019 2137
cis-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	01/24/2019 2137
trans-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	01/24/2019 2137
1,2-Dichloropropane	ND		1	1.0	0.40	ug/L	01/24/2019 2137
cis-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	01/24/2019 2137
trans-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	01/24/2019 2137
Ethylbenzene	ND		1	1.0	0.40	ug/L	01/24/2019 2137
2-Hexanone	ND		1	10	2.0	ug/L	01/24/2019 2137
Isopropylbenzene	ND		1	1.0	0.40	ug/L	01/24/2019 2137
Methyl acetate	ND		1	1.0	0.40	ug/L	01/24/2019 2137
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	0.40	ug/L	01/24/2019 2137
4-Methyl-2-pentanone	ND		1	10	2.0	ug/L	01/24/2019 2137
Methylcyclohexane	ND		1	5.0	0.40	ug/L	01/24/2019 2137
Methylene chloride	ND		1	1.0	0.40	ug/L	01/24/2019 2137
Styrene	ND		1	1.0	0.41	ug/L	01/24/2019 2137
1,1,2,2-Tetrachloroethane	ND		1	1.0	0.40	ug/L	01/24/2019 2137
Tetrachloroethene	ND		1	1.0	0.40	ug/L	01/24/2019 2137
Toluene	ND		1	1.0	0.40	ug/L	01/24/2019 2137
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	0.42	ug/L	01/24/2019 2137
1,2,4-Trichlorobenzene	ND		1	1.0	0.40	ug/L	01/24/2019 2137
1,1,1-Trichloroethane	ND		1	1.0	0.40	ug/L	01/24/2019 2137
1,1,2-Trichloroethane	ND		1	1.0	0.40	ug/L	01/24/2019 2137

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
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Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ95734-001
Batch: 95734
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Trichloroethene	ND		1	1.0	0.40	ug/L	01/24/2019 2137
Trichlorofluoromethane	ND		1	1.0	0.40	ug/L	01/24/2019 2137
Vinyl chloride	ND		1	1.0	0.40	ug/L	01/24/2019 2137
Xylenes (total)	ND		1	1.0	0.40	ug/L	01/24/2019 2137

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		88	70-130
Bromofluorobenzene		93	70-130
Toluene-d8		89	70-130

LOQ = Limit of Quantitation
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LOD = Limit of Detection

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N = Recovery is out of criteria
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Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ95734-002
Batch: 95734
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	61		1	61	60-140	01/24/2019 2034
Benzene	50	45		1	90	70-130	01/24/2019 2034
Bromodichloromethane	50	45		1	90	70-130	01/24/2019 2034
Bromoform	50	44		1	89	70-130	01/24/2019 2034
Bromomethane (Methyl bromide)	50	42		1	83	70-130	01/24/2019 2034
2-Butanone (MEK)	100	83		1	83	70-130	01/24/2019 2034
Carbon disulfide	50	39		1	78	70-130	01/24/2019 2034
Carbon tetrachloride	50	45		1	90	70-130	01/24/2019 2034
Chlorobenzene	50	45		1	91	70-130	01/24/2019 2034
Chloroethane	50	46		1	91	70-130	01/24/2019 2034
Chloroform	50	44		1	88	70-130	01/24/2019 2034
Chloromethane (Methyl chloride)	50	45		1	90	60-140	01/24/2019 2034
Cyclohexane	50	36		1	71	70-130	01/24/2019 2034
1,2-Dibromo-3-chloropropane (DBCP)	50	46		1	93	70-130	01/24/2019 2034
Dibromochloromethane	50	45		1	90	70-130	01/24/2019 2034
1,2-Dibromoethane (EDB)	50	46		1	92	70-130	01/24/2019 2034
1,2-Dichlorobenzene	50	44		1	89	70-130	01/24/2019 2034
1,3-Dichlorobenzene	50	45		1	90	70-130	01/24/2019 2034
1,4-Dichlorobenzene	50	43		1	86	70-130	01/24/2019 2034
Dichlorodifluoromethane	50	56		1	112	60-140	01/24/2019 2034
1,1-Dichloroethane	50	45		1	90	70-130	01/24/2019 2034
1,2-Dichloroethane	50	45		1	91	70-130	01/24/2019 2034
1,1-Dichloroethene	50	43		1	86	70-130	01/24/2019 2034
cis-1,2-Dichloroethene	50	45		1	90	70-130	01/24/2019 2034
trans-1,2-Dichloroethene	50	44		1	87	70-130	01/24/2019 2034
1,2-Dichloropropane	50	41		1	82	70-130	01/24/2019 2034
cis-1,3-Dichloropropene	50	41		1	82	70-130	01/24/2019 2034
trans-1,3-Dichloropropene	50	40		1	80	70-130	01/24/2019 2034
Ethylbenzene	50	46		1	91	70-130	01/24/2019 2034
2-Hexanone	100	94		1	94	70-130	01/24/2019 2034
Isopropylbenzene	50	45		1	90	70-130	01/24/2019 2034
Methyl acetate	50	40		1	79	70-130	01/24/2019 2034
Methyl tertiary butyl ether (MTBE)	50	46		1	93	70-130	01/24/2019 2034
4-Methyl-2-pentanone	100	95		1	95	70-130	01/24/2019 2034
Methylcyclohexane	50	42		1	84	70-130	01/24/2019 2034
Methylene chloride	50	41		1	81	70-130	01/24/2019 2034
Styrene	50	47		1	94	70-130	01/24/2019 2034
1,1,2,2-Tetrachloroethane	50	47		1	93	70-130	01/24/2019 2034
Tetrachloroethene	50	45		1	89	70-130	01/24/2019 2034
Toluene	50	48		1	96	70-130	01/24/2019 2034
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	35		1	71	70-130	01/24/2019 2034
1,2,4-Trichlorobenzene	50	47		1	94	70-130	01/24/2019 2034
1,1,1-Trichloroethane	50	44		1	87	70-130	01/24/2019 2034
1,1,2-Trichloroethane	50	46		1	91	70-130	01/24/2019 2034

LOQ = Limit of Quantitation
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Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ95734-002
Batch: 95734
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	45		1	91	70-130	01/24/2019 2034
Trichlorofluoromethane	50	40		1	81	70-130	01/24/2019 2034
Vinyl chloride	50	48		1	96	70-130	01/24/2019 2034
Xylenes (total)	100	94		1	94	70-130	01/24/2019 2034

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		90	70-130
Bromofluorobenzene		98	70-130
Toluene-d8		98	70-130

LOQ = Limit of Quantitation
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P = The RPD between two GC columns exceeds 40%
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Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ95837-001
Batch: 95837
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Acetone	ND		1	20	2.0	ug/L	01/26/2019 1432
Benzene	ND		1	1.0	0.40	ug/L	01/26/2019 1432
Bromodichloromethane	ND		1	1.0	0.40	ug/L	01/26/2019 1432
Bromoform	ND		1	1.0	0.40	ug/L	01/26/2019 1432
Bromomethane (Methyl bromide)	ND		1	2.0	0.40	ug/L	01/26/2019 1432
2-Butanone (MEK)	ND		1	10	2.0	ug/L	01/26/2019 1432
Carbon disulfide	ND		1	1.0	0.40	ug/L	01/26/2019 1432
Carbon tetrachloride	ND		1	1.0	0.40	ug/L	01/26/2019 1432
Chlorobenzene	ND		1	1.0	0.40	ug/L	01/26/2019 1432
Chloroethane	ND		1	2.0	0.40	ug/L	01/26/2019 1432
Chloroform	ND		1	1.0	0.40	ug/L	01/26/2019 1432
Chloromethane (Methyl chloride)	ND		1	1.0	0.50	ug/L	01/26/2019 1432
Cyclohexane	ND		1	1.0	0.40	ug/L	01/26/2019 1432
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	0.40	ug/L	01/26/2019 1432
Dibromochloromethane	ND		1	1.0	0.40	ug/L	01/26/2019 1432
1,2-Dibromoethane (EDB)	ND		1	1.0	0.40	ug/L	01/26/2019 1432
1,2-Dichlorobenzene	ND		1	1.0	0.40	ug/L	01/26/2019 1432
1,3-Dichlorobenzene	ND		1	1.0	0.40	ug/L	01/26/2019 1432
1,4-Dichlorobenzene	ND		1	1.0	0.40	ug/L	01/26/2019 1432
Dichlorodifluoromethane	ND		1	2.0	0.60	ug/L	01/26/2019 1432
1,1-Dichloroethane	ND		1	1.0	0.40	ug/L	01/26/2019 1432
1,2-Dichloroethane	ND		1	1.0	0.40	ug/L	01/26/2019 1432
1,1-Dichloroethene	ND		1	1.0	0.40	ug/L	01/26/2019 1432
cis-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	01/26/2019 1432
trans-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	01/26/2019 1432
1,2-Dichloropropane	ND		1	1.0	0.40	ug/L	01/26/2019 1432
cis-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	01/26/2019 1432
trans-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	01/26/2019 1432
Ethylbenzene	ND		1	1.0	0.40	ug/L	01/26/2019 1432
2-Hexanone	ND		1	10	2.0	ug/L	01/26/2019 1432
Isopropylbenzene	ND		1	1.0	0.40	ug/L	01/26/2019 1432
Methyl acetate	ND		1	1.0	0.40	ug/L	01/26/2019 1432
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	0.40	ug/L	01/26/2019 1432
4-Methyl-2-pentanone	ND		1	10	2.0	ug/L	01/26/2019 1432
Methylcyclohexane	ND		1	5.0	0.40	ug/L	01/26/2019 1432
Methylene chloride	ND		1	1.0	0.40	ug/L	01/26/2019 1432
Styrene	ND		1	1.0	0.41	ug/L	01/26/2019 1432
1,1,2,2-Tetrachloroethane	ND		1	1.0	0.40	ug/L	01/26/2019 1432
Toluene	ND		1	1.0	0.40	ug/L	01/26/2019 1432
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	0.42	ug/L	01/26/2019 1432
1,2,4-Trichlorobenzene	ND		1	1.0	0.40	ug/L	01/26/2019 1432
1,1,1-Trichloroethane	ND		1	1.0	0.40	ug/L	01/26/2019 1432
1,1,2-Trichloroethane	ND		1	1.0	0.40	ug/L	01/26/2019 1432
Trichloroethene	ND		1	1.0	0.40	ug/L	01/26/2019 1432

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P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ95837-001
Batch: 95837
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Trichlorofluoromethane	ND		1	1.0	0.40	ug/L	01/26/2019 1432
Vinyl chloride	ND		1	1.0	0.40	ug/L	01/26/2019 1432
Xylenes (total)	ND		1	1.0	0.40	ug/L	01/26/2019 1432

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		98	70-130
Bromofluorobenzene		96	70-130
Toluene-d8		89	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ95837-002
Batch: 95837
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	100		1	102	60-140	01/26/2019 1257
Benzene	50	47		1	94	70-130	01/26/2019 1257
Bromodichloromethane	50	48		1	97	70-130	01/26/2019 1257
Bromoform	50	53		1	106	70-130	01/26/2019 1257
Bromomethane (Methyl bromide)	50	44		1	88	70-130	01/26/2019 1257
2-Butanone (MEK)	100	92		1	92	70-130	01/26/2019 1257
Carbon disulfide	50	48		1	96	70-130	01/26/2019 1257
Carbon tetrachloride	50	52		1	103	70-130	01/26/2019 1257
Chlorobenzene	50	48		1	96	70-130	01/26/2019 1257
Chloroethane	50	43		1	86	70-130	01/26/2019 1257
Chloroform	50	49		1	99	70-130	01/26/2019 1257
Chloromethane (Methyl chloride)	50	39		1	77	60-140	01/26/2019 1257
Cyclohexane	50	53		1	106	70-130	01/26/2019 1257
1,2-Dibromo-3-chloropropane (DBCP)	50	51		1	102	70-130	01/26/2019 1257
Dibromochloromethane	50	50		1	100	70-130	01/26/2019 1257
1,2-Dibromoethane (EDB)	50	50		1	99	70-130	01/26/2019 1257
1,2-Dichlorobenzene	50	48		1	97	70-130	01/26/2019 1257
1,3-Dichlorobenzene	50	48		1	96	70-130	01/26/2019 1257
1,4-Dichlorobenzene	50	47		1	94	70-130	01/26/2019 1257
Dichlorodifluoromethane	50	46		1	92	60-140	01/26/2019 1257
1,1-Dichloroethane	50	46		1	91	70-130	01/26/2019 1257
1,2-Dichloroethane	50	49		1	97	70-130	01/26/2019 1257
1,1-Dichloroethene	50	46		1	92	70-130	01/26/2019 1257
cis-1,2-Dichloroethene	50	49		1	99	70-130	01/26/2019 1257
trans-1,2-Dichloroethene	50	47		1	94	70-130	01/26/2019 1257
1,2-Dichloropropane	50	42		1	83	70-130	01/26/2019 1257
cis-1,3-Dichloropropene	50	43		1	86	70-130	01/26/2019 1257
trans-1,3-Dichloropropene	50	43		1	86	70-130	01/26/2019 1257
Ethylbenzene	50	50		1	100	70-130	01/26/2019 1257
2-Hexanone	100	79		1	79	70-130	01/26/2019 1257
Isopropylbenzene	50	50		1	101	70-130	01/26/2019 1257
Methyl acetate	50	41		1	81	70-130	01/26/2019 1257
Methyl tertiary butyl ether (MTBE)	50	48		1	97	70-130	01/26/2019 1257
4-Methyl-2-pentanone	100	90		1	90	70-130	01/26/2019 1257
Methylcyclohexane	50	47		1	95	70-130	01/26/2019 1257
Methylene chloride	50	44		1	88	70-130	01/26/2019 1257
Styrene	50	50		1	101	70-130	01/26/2019 1257
1,1,2,2-Tetrachloroethane	50	45		1	90	70-130	01/26/2019 1257
Toluene	50	48		1	97	70-130	01/26/2019 1257
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	44		1	88	70-130	01/26/2019 1257
1,2,4-Trichlorobenzene	50	48		1	96	70-130	01/26/2019 1257
1,1,1-Trichloroethane	50	51		1	102	70-130	01/26/2019 1257
1,1,2-Trichloroethane	50	47		1	94	70-130	01/26/2019 1257
Trichloroethene	50	50		1	100	70-130	01/26/2019 1257

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ95837-002
Batch: 95837
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichlorofluoromethane	50	43		1	87	70-130	01/26/2019 1257
Vinyl chloride	50	44		1	89	70-130	01/26/2019 1257
Xylenes (total)	100	100		1	100	70-130	01/26/2019 1257

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		95	70-130
Bromofluorobenzene		100	70-130
Toluene-d8		94	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Chain of Custody
and
Miscellaneous Documents

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Telephone No. 803-791-9700 Fax No. 803-791-9111
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SHEALY Chain of Custody Record

Number 91064

Client: TRC	Report to Contact: Lisa Clark	Telephone No. / E-mail	Quote No.
Address: 50 International Dr Suite 150	Sampler's Signature: X	Analysis (Attach list if more space is needed)	Page 1 of 1
City: Greenville / State: SC / Zip Code: 29615	Printed Name: Benjamin Medlin		UA23037
Project Name: WPH Clemson			
Project No.: 300688.0.0.2	P.O. No.:		

Sample ID / Description (Containers for each sample may be combined on one line)	Date 2019	Time	G=Grab C=Composite	Matrix: Aqueous	Matrix: Solid	Matrix: Non-aqueous	No. of Containers by Preservative Type: Unpres.	HCl	HNO3	NaOH	H2SO4	VOCs	Chloride, Sulfate, Bromide	Nitrate	Remarks / Cooler I.D.
RMW-27B	1.22.19	1150	G	X			2		3			X	X	X	
RMW-27	1.22	1440	G	X			2		3			X	X	X	
RMW-27A	1.22	1630	G	X			2		3			X	X	X	
DU-19101	1.22	/	G	X			2		3			X	X	X	
TBLK-19101	/	/	G	X					2			X			

Turn Around Time Required (Prior lab approval required for expedited TAT.) ☐ Standard ☐ Rush (Specify)

Sample Disposal ☐ Return to Client ☐ Disposal by Lab

Possible Hazard Identification ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished by	1.22.19	1910	1. Received by: TRC Sample Storage	1.22.19	1910
2. Relinquished by: TRC Sample Storage	1/23/19	0915	2. Received by	1/23/19	0915
3. Relinquished by	Date	Time	3. Received by	Date	Time
4. Relinquished by	1/23/19	1315	4. Laboratory received by: McCooley	1/23-19	1315

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY — Received on ice (Circle) Yes No Ice Pack — Receipt Temp 3.0 °C

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Client Copy

Document Number: F-AD-133 Effective Date: 08-01-2014

SHEALY ENVIRONMENTAL SERVICES, INC.

Shealy Environmental Services, Inc.
Document Number: MEOC18C-14

Page 1 of 1
Effective Date: 8/2/2018

Sample Receipt Checklist (SRC)

Client: TRC Cooler Inspected by/date: LKH/ 1-23-19 Lot #: UA23037

Means of receipt: ☑ SESI ☐ Client ☐ UPS ☐ FedEx ☐ Other: _____

☐ Yes	☑ No		1. Were custody seals present on the cooler?
☐ Yes	☐ No	☑ NA	2. If custody seals were present, were they intact and unbroken?

pH Strip ID: _____ Chlorine Strip ID: _____ Tested by: _____

Original temperature upon receipt / Derived (Corrected) temperature upon receipt: %Solid Snap-Cup ID: _____

3.2/3.2°C ____/____°C ____/____°C ____/____°C

Method: ☑ Temperature Blank ☐ Against Bottles IR Gun ID: 5 IR Gun Correction Factor: 0 °C

Method of coolant: ☑ Wet Ice ☐ Ice Packs ☐ Dry Ice ☐ None

☐ Yes	☐ No	☑ NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).
☐ Yes	☐ No	☑ NA	4. Is the commercial courier's packing slip attached to this form?
☑ Yes	☐ No		5. Were proper custody procedures (relinquished/received) followed?
☑ Yes	☐ No		6. Were sample IDs listed on the COC?
☑ Yes	☐ No		7. Were sample IDs listed on all sample containers?
☑ Yes	☐ No		8. Was collection date & time listed on the COC?
☑ Yes	☐ No		9. Was collection date & time listed on all sample containers?
☑ Yes	☐ No		10. Did all container label information (ID, date, time) agree with the COC?
☑ Yes	☐ No		11. Were tests to be performed listed on the COC?
☑ Yes	☐ No		12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)? _____
☑ Yes	☐ No		13. Was adequate sample volume available?
☑ Yes	☐ No		14. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
☐ Yes	☑ No		15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
☐ Yes	☑ No	☐ NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (¼"or 6mm in diameter) in any of the VOA vials?
☐ Yes	☐ No	☑ NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?
☐ Yes	☐ No	☑ NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
☐ Yes	☐ No	☑ NA	19. Were all applicable NH_3/TKN/cyanide/phenol/625 (< 0.5mg/L) samples free of residual chlorine?
☐ Yes	☐ No	☑ NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc…) correctly transcribed from the COC into the comment section in LIMS?
☐ Yes	☑ No		21. Was the quote number listed on the container label? If yes, Quote # _____

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) _____ were received incorrectly preserved and were adjusted accordingly in sample receiving with _____mL of circle one: H2SO4, HNO3, HCl, NaOH using SR # _____.
Time of preservation _____. If more than one preservative is needed, please note in the comments below.

Sample(s) _____ were received with bubbles >6 mm in diameter.

Samples(s) _____ were received with TRC > 0.5 mg/L (If #19 is ***no***) and were adjusted accordingly in sample receiving with sodium thiosulfate ($Na_2S_2O_3$) with Shealy ID: _____.

SR barcode labels applied by: MEC Date: 1-23-19

Comments:

SHEALY ENVIRONMENTAL SERVICES, INC.

Report of Analysis

TRC Companies, Inc.
50 International Dr.
Suite 150
Greenville, SC 29615
Attention: Lisa Clark

Project Name: WPH Clemson

Project Number: 300688.0000.0000.0002

Lot Number:**UA26008**

Date Completed:01/28/2019

02/05/2019 3:09 PM
Approved and released by:
Lab Director - Greenville: Lucas Odom

The electronic signature above is the equivalent of a handwritten signature.

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Laboratory Data Quality Review Notes

Project Name: WPH-Clemson, SC

Project Number: 300688.0000.0000.000002

Lab Report: UA26008 Shealy Environmental Services
One groundwater sample analyzed for nitrate.

Chain of Custody, Sample Temperature, Sample Preservation: Chain of custody (CoC) signed; sample temperature <6 ^{o}C upon arrival at the laboratory; samples were preserved properly.

Hold Time: Samples analyzed within hold time.

Surrogates: Surrogate recoveries are not applicable to nitrate analyses.

Method Blank: Nitrate not detected in the method blank.

Trip Blank: A trip blank was not collected with this sample.

Field Blank: A field blank was not collected with this sample.

Equipment Rinse Blank: A rinsate blank was not collected with this sample.

LCS/LCSD: LCS recovery is within QC Limits. LCSD analyses were not performed.

MS/MSD: MS/MSD analyses were not performed using the sample included in this report.

Duplicates: A field duplicate was not collected with this sample.

No data qualifiers were assigned.

Data review performed by: Terry Hertz; TRC Environmental Corp.; 2/6/2019

Case Narrative
TRC Companies, Inc.
Lot Number: UA26008

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

Sample Summary
TRC Companies, Inc.
Lot Number: UA26008

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	DP-21B	Aqueous	01/25/2019 1245	01/26/2019

(1 sample)

Detection Summary

TRC Companies, Inc.

Lot Number: UA26008

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	DP-21B	Aqueous	Nitrate - N	353.2	2.8		mg/L	5

(1 detection)

Client: TRC Companies, Inc.
Description: DP-21B
Date Sampled: 01/25/2019 1245
Date Received: 01/26/2019

Laboratory ID: UA26008-001
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Nitrate - N) 353.2	5	01/26/2019 1343	MDD		95865

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Nitrate - N		353.2	2.8		0.10	0.0075	mg/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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QC Summary

Inorganic non-metals - MB

Sample ID: UQ95865-001
Batch: 95865
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Nitrate - N	ND		1	0.020	0.0015	mg/L	01/26/2019 1312

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - LCS

Sample ID: UQ95865-002
Batch: 95865
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	0.80	0.80		1	100	90-110	01/26/2019 1313

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Chain of Custody

and

Miscellaneous Documents

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106 Vantage Point Drive • West Columbia, SC 29172
Telephone No. 803-791-9700 Fax No. 803-791-9111
www.shealylab.com

Chain of Custody Record

Number 68634

Client: TRC	Report to Contact: Terry Hertz / thertz@trcsolutions.com	Telephone No. / E-mail	Quote No.
Address: 50 International Drive Suite 150	Sampler's Signature: X	Analysis (Attach list if more space is needed)	Page ___ of ___
City: Greenville State: SC Zip Code: 29615	Printed Name: David Szymal		
Project Name: WPH Clemson			UA26008
Project No.	P.O. No.		

Sample ID / Description (Containers for each sample may be combined on one line)	Date	Time	Grab/Composite	Matrix: Aqueous	Matrix: Solid	Matrix: Non-Aqueous/Solid	No of Containers by Preservative Type: Unpres	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis: Nitrate	Remarks / Cooler I.D.
DP-21B	1/25/19	1245	G	X			X						X	Nitrate

Turn Around Time Required (Prior lab approval required for expedited TAT.) ☒ Standard ☐ Rush (Specify)

Sample Disposal ☐ Return to Client ☒ Disposal by Lab

Possible Hazard Identification ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished by: David Szymal	1/25/19	1500	1. Received by: Fedex Ship Center - Anderson, SC	1/25/19	1500
2. Relinquished by	Date	Time	2. Received by	Date	Time
3. Relinquished by	Date	Time	3. Received by	Date	Time
4. Relinquished by: Fed Ex	Date 1-26-19	Time 0840	4. Laboratory received by: L Hite	Date 1-26-19	Time 0840

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on ice (Circle) (Yes) No Ice Pack Receipt Temp. 1.7 °C

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Client Copy

Document Number: F-AD-133 Effective Date: 09-01-2014

SHEALY ENVIRONMENTAL SERVICES, INC.

Shealy Environmental Services, Inc
Document Number: ME0018C-14

Page 1 of 1
Effective Date: 8/2/2018

Sample Receipt Checklist (SRC)

Client: TRC Cooler Inspected by/date: LKH / 1-26-19 Lot #: UA26008

Means of receipt: ☐ SESI ☐ Client ☐ UPS ☑ FedEx ☐ Other: _____

☑ Yes	☐ No		1. Were custody seals present on the cooler?
☑ Yes	☐ No	☐ NA	2. If custody seals were present, were they intact and unbroken?

pH Strip ID: _____ Chlorine Strip ID: _____ Tested by: _____

Original temperature upon receipt / Derived (Corrected) temperature upon receipt: %Solid Snap-Cup ID: _____

1.7 / 1.7 °C ___ / ___ °C ___ / ___ °C ___ / ___ °C

Method: ☑ Temperature Blank ☐ Against Bottles IR Gun ID: S IR Gun Correction Factor: 0 °C

Method of coolant: ☑ Wet Ice ☐ Ice Packs ☐ Dry Ice ☐ None

☐ Yes	☐ No	☑ NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).
☑ Yes	☐ No	☐ NA	4. Is the commercial courier's packing slip attached to this form?
☑ Yes	☐ No		5. Were proper custody procedures (relinquished/received) followed?
☑ Yes	☐ No		6. Were sample IDs listed on the COC?
☑ Yes	☐ No		7. Were sample IDs listed on all sample containers?
☑ Yes	☐ No		8. Was collection date & time listed on the COC?
☑ Yes	☐ No		9. Was collection date & time listed on all sample containers?
☑ Yes	☐ No		10. Did all container label information (ID, date, time) agree with the COC?
☑ Yes	☐ No		11. Were tests to be performed listed on the COC?
☑ Yes	☐ No		12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)? _____
☑ Yes	☐ No		13. Was adequate sample volume available?
☑ Yes	☐ No		14. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
☐ Yes	☑ No		15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
☐ Yes	☐ No	☑ NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (¼"or 6mm in diameter) in any of the VOA vials?
☐ Yes	☐ No	☑ NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?
☐ Yes	☐ No	☑ NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
☐ Yes	☐ No	☑ NA	19. Were all applicable NH_3/TKN/cyanide/phenol/625 (< 0.5mg/L) samples free of residual chlorine?
☐ Yes	☐ No	☑ NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc…) correctly transcribed from the COC into the comment section in LIMS?
☑ Yes	☐ No		21. Was the quote number listed on the container label? If yes, Quote # 2713

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) _____ were received incorrectly preserved and were adjusted accordingly in sample receiving with _____mL of circle one: H2SO4, HNO3, HCl, NaOH using SR # _____.
Time of preservation _____. If more than one preservative is needed, please note in the comments below.

Sample(s) _____ were received with bubbles >6 mm in diameter.

Samples(s) _____ were received with TRC > 0.5 mg/L (If #19 is ***no***) and were adjusted accordingly in sample receiving with sodium thiosulfate ($Na_2S_2O_3$) with Shealy ID: _____.

SR barcode labels applied by: LKH Date: 1-26-19

Comments:

SHEALY ENVIRONMENTAL SERVICES, INC.

Report of Analysis

TRC Companies, Inc.
50 International Dr.
Suite 150
Greenville, SC 29615
Attention: Lisa Clark

Project Name: WPH Clemson

Project Number: 300688.0000.0000.0002

Lot Number:**UA25024**

Date Completed:02/05/2019

02/05/2019 3:53 PM
Approved and released by:
Lab Director - Greenville: Lucas Odom

The electronic signature above is the equivalent of a handwritten signature.

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Laboratory Data Quality Review Notes

Project Name: WPH-Clemson, SC

Project Number: 300688.0000.0000.000002

Lab Report: UA25024 Shealy Environmental Services
Five groundwater samples were analyzed for volatile organic compounds (VOCs), chloride, bromide, sulfate, and nitrate. One trip blank was analyzed for VOCs.

Chain of Custody, Sample Temperature, Sample Preservation: Chain of custody (CoC) signed; sample temperature <6 ^{o}C upon arrival at the laboratory; samples were preserved properly.

Hold Time: Samples analyzed within hold time.

Surrogates: VOC surrogate recoveries are within QC limits.

Method Blank: Method blank were free of detections except as follows:

- Sulfate was detected at 0.39 J mg/L and 0.29 J mg/L in sulfate method blanks associated with batches 96346 and 96358, respectively. Comparable concentrations (*i.e.*, within 5X the concentration in the method blanks) were not detected in the groundwater samples. No qualifiers were assigned.
- Chloride was detected at 0.20 J mg/L in chloride method blanks associated with batches 96343 and 96357. Comparable concentrations (*i.e.*, within 5X the concentration in the method blanks) were not detected in the groundwater samples. No qualifiers were assigned.

Trip Blank: Trip blank TBLK-19102 had a detection of acetone at 3.2 J ug/L. **A "u" qualifier is assigned to acetone in RMW-20B.**

Field Blank: A field blank was not collected with these samples.

Equipment Rinse Blank: A rinsate blank was not collected with these samples.

LCS/LCSD: LCS recoveries for anions and VOCs are within QC Limits except as noted below. LCSD analyses were typically not performed. An LCSD analysis was performed for VOC batch 95972 with recoveries and RPDs within QC limits.

Bromide had a recovery of 151% (well above the QC limit) in the LCS for batch 96341. This LCS is associated with bromide analyses in samples RMW-20A and RMW-20B. Bromide was not detected in these two samples. No qualifiers were assigned.

MS/MSD: RMW-18 and RMW-20B were used for bromide, chloride and sulfate MS/MSD analyses. RMW-20 was also used for bromide MS/MSD analyses. RMW-20A was used for VOC MS/MSD analyses. MS/MSD recoveries and RPDs were within QC limits except as follows:

- The RMW-18 bromide MSD had a recovery 4% above the upper QC limit. The RMW-18 bromide MS recovery was within QC limits. **A "j" qualifier is assigned to bromide in RMW-18.**

Duplicates: A field duplicate was not collected with these samples.

Data review performed by: Terry Hertz; TRC Environmental Corp.; 2/6/2019

Case Narrative
TRC Companies, Inc.
Lot Number: UA25024

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

VOCs by GC/MS

Insufficient sample volume was provided to perform matrix spike/matrix spike duplicate (MS/MSD) for analytical batch 95972. An LCS/LCSD was run in lieu of an MS/MSD.

Bromide

The laboratory control sample (LCS) associated with analytical batch 96341 exceeded acceptance criteria for the following analytes: Bromide. These analytes were biased high and were not detected in the samples affected: UA25024-004, UA25024-005.

The continuing calibration verification (CCV) associated with sample UA25024-004 recovered Bromide above the upper control limit. The sample associated with this CCV was non-detect therefore, the data has been reported.

The MSD associated with batch 96359 recovered above method criteria at 114% due to likely matrix interferences. The MS yielded similar recoveries but was marginally within limits at 109%

Chloride

The method blank associated with batch 96343 and 96357 yielded a "J" value detection for Chloride. No corrective action is required as this is an estimated value recovered below the LOQ.

Sulfate

The method blank associated with batch 96346 and 96358 yielded a "J" value detection for Sulfate. No corrective action is required as this is an estimated value recovered below the LOQ.

Sample Summary
TRC Companies, Inc.
Lot Number: UA25024

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	RMW-18A	Aqueous	01/24/2019 1255	01/25/2019
002	RMW-18	Aqueous	01/24/2019 1305	01/25/2019
003	RMW-20	Aqueous	01/24/2019 1615	01/25/2019
004	RMW-20A	Aqueous	01/24/2019 1730	01/25/2019
005	RMW-20B	Aqueous	01/24/2019 1715	01/25/2019
006	TBLK-19102	Aqueous	01/24/2019	01/25/2019

(6 samples)

Detection Summary

TRC Companies, Inc.

Lot Number: UA25024

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	RMW-18A	Aqueous	Bromide	300.0	0.34		mg/L	5
001	RMW-18A	Aqueous	Chloride	300.0	150	B	mg/L	5
001	RMW-18A	Aqueous	Nitrate - N	353.2	6.2		mg/L	5
001	RMW-18A	Aqueous	Sulfate	300.0	97	B	mg/L	5
001	RMW-18A	Aqueous	Tetrachloroethene	8260B	2600		ug/L	6
002	RMW-18	Aqueous	Bromide	300.0	0.38		mg/L	7
002	RMW-18	Aqueous	Chloride	300.0	51	B	mg/L	7
002	RMW-18	Aqueous	Nitrate - N	353.2	6.2		mg/L	7
002	RMW-18	Aqueous	Sulfate	300.0	40	B	mg/L	7
002	RMW-18	Aqueous	cis-1,2-Dichloroethene	8260B	30		ug/L	7
002	RMW-18	Aqueous	Tetrachloroethene	8260B	1500		ug/L	8
003	RMW-20	Aqueous	Bromide	300.0	0.27		mg/L	9
003	RMW-20	Aqueous	Chloride	300.0	13		mg/L	9
003	RMW-20	Aqueous	Nitrate - N	353.2	9.0		mg/L	9
003	RMW-20	Aqueous	Sulfate	300.0	78		mg/L	9
003	RMW-20	Aqueous	Tetrachloroethene	8260B	56		ug/L	10
004	RMW-20A	Aqueous	Chloride	300.0	1.4		mg/L	11
004	RMW-20A	Aqueous	Nitrate - N	353.2	2.5		mg/L	11
004	RMW-20A	Aqueous	Sulfate	300.0	0.59	J	mg/L	11
004	RMW-20A	Aqueous	Tetrachloroethene	8260B	5400		ug/L	12
005	RMW-20B	Aqueous	Chloride	300.0	3.3		mg/L	13
005	RMW-20B	Aqueous	Nitrate - N	353.2	1.5		mg/L	13
005	RMW-20B	Aqueous	Sulfate	300.0	0.35	J	mg/L	13
005	RMW-20B	Aqueous	Acetone	8260B	3.8	J	ug/L	13
005	RMW-20B	Aqueous	Tetrachloroethene	8260B	5.6		ug/L	14
006	TBLK-19102	Aqueous	Acetone	8260B	3.2	J	ug/L	15

(26 detections)

Client: TRC Companies, Inc.
Description: RMW-18A
Date Sampled: 01/24/2019 1255
Date Received: 01/25/2019

Laboratory ID: UA25024-001
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	02/01/2019 0638	SLU		96342
1		(Chloride) 300.0	1	02/01/2019 0638	SLU		96343
1		(Nitrate - N) 353.2	10	01/25/2019 2310	MDD		95825
1		(Sulfate) 300.0	1	02/01/2019 0638	SLU		96346

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.34		0.20	0.050	mg/L	1
Chloride		300.0	150	B	1.0	0.20	mg/L	1
Nitrate - N		353.2	6.2		0.20	0.015	mg/L	1
Sulfate		300.0	97	B	1.0	0.20	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	50	01/26/2019 2146	STM		95838

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	ND		1000	100	ug/L	1
Benzene	71-43-2	8260B	ND		50	20	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		50	20	ug/L	1
Bromoform	75-25-2	8260B	ND		50	20	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		100	20	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		500	100	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		50	20	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		50	20	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		50	20	ug/L	1
Chloroethane	75-00-3	8260B	ND		100	20	ug/L	1
Chloroform	67-66-3	8260B	ND		50	20	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		50	25	ug/L	1
Cyclohexane	110-82-7	8260B	ND		50	20	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		50	20	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		50	20	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		50	20	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		50	20	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		50	20	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		50	20	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		100	30	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		50	20	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		50	20	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		50	20	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		50	20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		50	20	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		50	20	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
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Client: TRC Companies, Inc.
Description: RMW-18A
Date Sampled: 01/24/2019 1255
Date Received: 01/25/2019

Laboratory ID: UA25024-001
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	50	01/26/2019 2146	STM		95838

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		50	20	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		50	20	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		50	20	ug/L	1
2-Hexanone	591-78-6	8260B	ND		500	100	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		50	20	ug/L	1
Methyl acetate	79-20-9	8260B	ND		50	20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		50	20	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		500	100	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		250	20	ug/L	1
Methylene chloride	75-09-2	8260B	ND		50	20	ug/L	1
Styrene	100-42-5	8260B	ND		50	21	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		50	20	ug/L	1
Tetrachloroethene	127-18-4	8260B	2600		50	20	ug/L	1
Toluene	108-88-3	8260B	ND		50	20	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		50	21	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		50	20	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		50	20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		50	20	ug/L	1
Trichloroethene	79-01-6	8260B	ND		50	20	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		50	20	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		50	20	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		50	20	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		103	70-130
Bromofluorobenzene		106	70-130
Toluene-d8		110	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
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W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: RMW-18
Date Sampled: 01/24/2019 1305
Date Received: 01/25/2019

Laboratory ID: UA25024-002
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	02/02/2019 0200	SLU		96359
1		(Chloride) 300.0	1	02/02/2019 0200	SLU		96357
1		(Nitrate - N) 353.2	5	01/25/2019 2312	MDD		95825
1		(Sulfate) 300.0	1	02/02/2019 0200	SLU		96358

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.38		0.20	0.050	mg/L	1
Chloride		300.0	51	B	1.0	0.20	mg/L	1
Nitrate - N		353.2	6.2		0.10	0.0075	mg/L	1
Sulfate		300.0	40	B	1.0	0.20	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	5030B	8260B	20	01/29/2019 0428	KGT		95972

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	ND		400	40	ug/L	2
Benzene	71-43-2	8260B	ND		20	8.0	ug/L	2
Bromodichloromethane	75-27-4	8260B	ND		20	8.0	ug/L	2
Bromoform	75-25-2	8260B	ND		20	8.0	ug/L	2
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		40	8.0	ug/L	2
2-Butanone (MEK)	78-93-3	8260B	ND		200	40	ug/L	2
Carbon disulfide	75-15-0	8260B	ND		20	8.0	ug/L	2
Carbon tetrachloride	56-23-5	8260B	ND		20	8.0	ug/L	2
Chlorobenzene	108-90-7	8260B	ND		20	8.0	ug/L	2
Chloroethane	75-00-3	8260B	ND		40	8.0	ug/L	2
Chloroform	67-66-3	8260B	ND		20	8.0	ug/L	2
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		20	10	ug/L	2
Cyclohexane	110-82-7	8260B	ND		20	8.0	ug/L	2
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		20	8.0	ug/L	2
Dibromochloromethane	124-48-1	8260B	ND		20	8.0	ug/L	2
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		20	8.0	ug/L	2
1,2-Dichlorobenzene	95-50-1	8260B	ND		20	8.0	ug/L	2
1,3-Dichlorobenzene	541-73-1	8260B	ND		20	8.0	ug/L	2
1,4-Dichlorobenzene	106-46-7	8260B	ND		20	8.0	ug/L	2
Dichlorodifluoromethane	75-71-8	8260B	ND		40	12	ug/L	2
1,1-Dichloroethane	75-34-3	8260B	ND		20	8.0	ug/L	2
1,2-Dichloroethane	107-06-2	8260B	ND		20	8.0	ug/L	2
1,1-Dichloroethene	75-35-4	8260B	ND		20	8.0	ug/L	2
cis-1,2-Dichloroethene	156-59-2	8260B	30		20	8.0	ug/L	2
trans-1,2-Dichloroethene	156-60-5	8260B	ND		20	8.0	ug/L	2
1,2-Dichloropropane	78-87-5	8260B	ND		20	8.0	ug/L	2

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: RMW-18
Date Sampled: 01/24/2019 1305
Date Received: 01/25/2019

Laboratory ID: UA25024-002
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	5030B	8260B	20	01/29/2019 0428	KGT		95972

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		20	8.0	ug/L	2
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		20	8.0	ug/L	2
Ethylbenzene	100-41-4	8260B	ND		20	8.0	ug/L	2
2-Hexanone	591-78-6	8260B	ND		200	40	ug/L	2
Isopropylbenzene	98-82-8	8260B	ND		20	8.0	ug/L	2
Methyl acetate	79-20-9	8260B	ND		20	8.0	ug/L	2
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		20	8.0	ug/L	2
4-Methyl-2-pentanone	108-10-1	8260B	ND		200	40	ug/L	2
Methylcyclohexane	108-87-2	8260B	ND		100	8.0	ug/L	2
Methylene chloride	75-09-2	8260B	ND		20	8.0	ug/L	2
Styrene	100-42-5	8260B	ND		20	8.2	ug/L	2
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		20	8.0	ug/L	2
Tetrachloroethene	127-18-4	8260B	1500		20	8.0	ug/L	2
Toluene	108-88-3	8260B	ND		20	8.0	ug/L	2
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		20	8.4	ug/L	2
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		20	8.0	ug/L	2
1,1,1-Trichloroethane	71-55-6	8260B	ND		20	8.0	ug/L	2
1,1,2-Trichloroethane	79-00-5	8260B	ND		20	8.0	ug/L	2
Trichloroethene	79-01-6	8260B	ND		20	8.0	ug/L	2
Trichlorofluoromethane	75-69-4	8260B	ND		20	8.0	ug/L	2
Vinyl chloride	75-01-4	8260B	ND		20	8.0	ug/L	2
Xylenes (total)	1330-20-7	8260B	ND		20	8.0	ug/L	2

Surrogate	Q	Run 2 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		99	70-130
Bromofluorobenzene		91	70-130
Toluene-d8		90	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: RMW-20
Date Sampled: 01/24/2019 1615
Date Received: 01/25/2019

Laboratory ID: UA25024-003
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2		(Bromide) 300.0	1	02/04/2019 1541	SLU		96591
1		(Chloride) 300.0	1	02/01/2019 0540	SLU		96340
1		(Nitrate - N) 353.2	5	01/25/2019 2313	MDD		95825
1		(Sulfate) 300.0	1	02/01/2019 0540	SLU		96339

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.27		0.20	0.050	mg/L	2
Chloride		300.0	13		1.0	0.20	mg/L	1
Nitrate - N		353.2	9.0		0.10	0.0075	mg/L	1
Sulfate		300.0	78		1.0	0.20	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	01/26/2019 1928	STM		95838

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	ND		20	2.0	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
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Client: TRC Companies, Inc.
Description: RMW-20
Date Sampled: 01/24/2019 1615
Date Received: 01/25/2019

Laboratory ID: UA25024-003
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	01/26/2019 1928	STM		95838

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	56		1.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260B	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		104	70-130
Bromofluorobenzene		105	70-130
Toluene-d8		108	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
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Client: TRC Companies, Inc.
Description: RMW-20A
Date Sampled: 01/24/2019 1730
Date Received: 01/25/2019

Laboratory ID: UA25024-004
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	02/01/2019 0606	SLU		96341
1		(Chloride) 300.0	1	02/01/2019 0606	SLU		96340
1		(Nitrate - N) 353.2	2	01/25/2019 2314	MDD		95825
1		(Sulfate) 300.0	1	02/01/2019 0606	SLU		96339

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	ND		0.20	0.050	mg/L	1
Chloride		300.0	1.4		1.0	0.20	mg/L	1
Nitrate - N		353.2	2.5		0.040	0.0030	mg/L	1
Sulfate		300.0	0.59	J	1.0	0.20	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	50	01/26/2019 2232	STM		95838

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	ND		1000	100	ug/L	1
Benzene	71-43-2	8260B	ND		50	20	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		50	20	ug/L	1
Bromoform	75-25-2	8260B	ND		50	20	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		100	20	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		500	100	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		50	20	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		50	20	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		50	20	ug/L	1
Chloroethane	75-00-3	8260B	ND		100	20	ug/L	1
Chloroform	67-66-3	8260B	ND		50	20	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		50	25	ug/L	1
Cyclohexane	110-82-7	8260B	ND		50	20	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		50	20	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		50	20	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		50	20	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		50	20	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		50	20	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		50	20	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		100	30	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		50	20	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		50	20	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		50	20	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		50	20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		50	20	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		50	20	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
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Client: TRC Companies, Inc.
Description: RMW-20A
Date Sampled: 01/24/2019 1730
Date Received: 01/25/2019

Laboratory ID: UA25024-004
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	50	01/26/2019 2232	STM		95838

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		50	20	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		50	20	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		50	20	ug/L	1
2-Hexanone	591-78-6	8260B	ND		500	100	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		50	20	ug/L	1
Methyl acetate	79-20-9	8260B	ND		50	20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		50	20	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		500	100	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		250	20	ug/L	1
Methylene chloride	75-09-2	8260B	ND		50	20	ug/L	1
Styrene	100-42-5	8260B	ND		50	21	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		50	20	ug/L	1
Tetrachloroethene	127-18-4	8260B	5400		50	20	ug/L	1
Toluene	108-88-3	8260B	ND		50	20	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		50	21	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		50	20	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		50	20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		50	20	ug/L	1
Trichloroethene	79-01-6	8260B	ND		50	20	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		50	20	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		50	20	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		50	20	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		100	70-130
Bromofluorobenzene		104	70-130
Toluene-d8		105	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: RMW-20B
Date Sampled: 01/24/2019 1715
Date Received: 01/25/2019

Laboratory ID: UA25024-005
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	02/01/2019 0724	SLU		96341
1		(Chloride) 300.0	1	02/01/2019 0724	SLU		96340
1		(Nitrate - N) 353.2	1	01/25/2019 2334	MDD		95825
1		(Sulfate) 300.0	1	02/01/2019 0724	SLU		96339

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	ND		0.20	0.050	mg/L	1
Chloride		300.0	3.3		1.0	0.20	mg/L	1
Nitrate - N		353.2	1.5		0.020	0.0015	mg/L	1
Sulfate		300.0	0.35	J	1.0	0.20	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	01/26/2019 1952	STM		95838

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	3.8	J	20	2.0	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
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Client: TRC Companies, Inc.
Description: RMW-20B
Date Sampled: 01/24/2019 1715
Date Received: 01/25/2019

Laboratory ID: UA25024-005
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	01/26/2019 1952	STM		95838

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	5.6		1.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260B	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		105	70-130
Bromofluorobenzene		106	70-130
Toluene-d8		108	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: TBLK-19102
Date Sampled: 01/24/2019
Date Received: 01/25/2019

Laboratory ID: UA25024-006
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	01/26/2019 1559	STM		95838

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	3.2	J	20	2.0	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: TBLK-19102
Date Sampled: 01/24/2019
Date Received: 01/25/2019

Laboratory ID: UA25024-006
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	01/26/2019 1559	STM		95838

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260B	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		105	70-130
Bromofluorobenzene		104	70-130
Toluene-d8		107	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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QC Summary

Inorganic non-metals - MB

Sample ID: UQ95825-001
Batch: 95825
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Nitrate - N	ND		1	0.020	0.0015	mg/L	01/25/2019 2254

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: UQ95825-002
Batch: 95825
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	0.80	0.82		1	103	90-110	01/25/2019 2256

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MB

Sample ID: UQ96339-001
Batch: 96339
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Sulfate	ND		1	1.0	0.20	mg/L	01/31/2019 2033

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - LCS

Sample ID: UQ96339-002
Batch: 96339
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Sulfate	20	20		1	100	90-110	02/01/2019 0001

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MS

Sample ID: UA25024-005MS
Batch: 96339
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Sulfate	0.35	20	19		1	94	90-110	02/01/2019 0750

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MSD

Sample ID: UA25024-005MD
Batch: 96339
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Sulfate	0.35	20	19		1	92	2.1	90-110	20	02/01/2019 0816

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MB

Sample ID: UQ96340-001
Batch: 96340
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Chloride	ND		1	1.0	0.20	mg/L	01/31/2019 2033

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - LCS

Sample ID: UQ96340-002
Batch: 96340
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Chloride	20	20		1	100	90-110	02/01/2019 0001

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MS

Sample ID: UA25024-005MS
Batch: 96340
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Chloride	3.3	20	23		1	100	90-110	02/01/2019 0750

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: UA25024-005MD
Batch: 96340
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Chloride	3.3	20	23		1	99	0.87	90-110	20	02/01/2019 0816

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MB

Sample ID: UQ96341-001
Batch: 96341
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Bromide	ND		1	0.20	0.050	mg/L	01/31/2019 2033

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - LCS

Sample ID: UQ96341-002
Batch: 96341
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Bromide	8.0	12	N	1	151	90-110	02/01/2019 0001

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MS

Sample ID: UA25024-005MS
Batch: 96341
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Bromide	ND	8.0	8.4		1	105	90-110	02/01/2019 0750

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MSD

Sample ID: UA25024-005MD
Batch: 96341
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Bromide	ND	8.0	8.3		1	104	1.2	90-110	20	02/01/2019 0816

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: UQ96342-001
Batch: 96342
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Bromide	ND		1	0.20	0.050	mg/L	02/01/2019 0019

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - LCS

Sample ID: UQ96342-002
Batch: 96342
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Bromide	8.0	8.7		1	109	90-110	02/01/2019 0225

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MB

Sample ID: UQ96343-001
Batch: 96343
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Chloride	0.20	J	1	1.0	0.20	mg/L	02/01/2019 0019

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - LCS

Sample ID: UQ96343-002
Batch: 96343
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Chloride	20	21		1	103	90-110	02/01/2019 0225

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MB

Sample ID: UQ96346-001
Batch: 96346
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Sulfate	0.39	J	1	1.0	0.20	mg/L	02/01/2019 0019

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - LCS

Sample ID: UQ96346-002
Batch: 96346
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Sulfate	20	20		1	102	90-110	02/01/2019 0225

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MB

Sample ID: UQ96357-001
Batch: 96357
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Chloride	0.20	J	1	1.0	0.20	mg/L	02/01/2019 1103

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: UQ96357-002
Batch: 96357
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Chloride	20	20		1	102	90-110	02/02/2019 0142

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MS

Sample ID: UA25024-002MS
Batch: 96357
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Chloride	51	20	70		1	96	90-110	02/02/2019 0218

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MSD

Sample ID: UA25024-002MD
Batch: 96357
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Chloride	51	20	71		1	97	0.43	90-110	20	02/02/2019 0236

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MB

Sample ID: UQ96358-001
Batch: 96358
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Sulfate	0.29	J	1	1.0	0.20	mg/L	02/01/2019 1103

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - LCS

Sample ID: UQ96358-002
Batch: 96358
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Sulfate	20	20		1	102	90-110	02/02/2019 0142

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MS

Sample ID: UA25024-002MS
Batch: 96358
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Sulfate	40	20	58		1	93	90-110	02/02/2019 0218

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MSD

Sample ID: UA25024-002MD
Batch: 96358
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Sulfate	40	20	59		1	94	0.51	90-110	20	02/02/2019 0236

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MB

Sample ID: UQ96359-001
Batch: 96359
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Bromide	ND		1	0.20	0.050	mg/L	02/01/2019 1103

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - LCS

Sample ID: UQ96359-002
Batch: 96359
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Bromide	8.0	8.7		1	109	90-110	02/02/2019 0142

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MS

Sample ID: UA25024-002MS
Batch: 96359
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Bromide	0.38	8.0	9.1		1	109	90-110	02/02/2019 0218

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: UA25024-002MD
Batch: 96359
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Bromide	0.38	8.0	9.5	N	1	114	4.3	90-110	20	02/02/2019 0236

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MB

Sample ID: UQ96591-001
Batch: 96591
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Bromide	ND		1	0.20	0.050	mg/L	02/04/2019 1429

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - LCS

Sample ID: UQ96591-002
Batch: 96591
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Bromide	8.0	8.7		1	109	90-110	02/04/2019 1505

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MS

Sample ID: UA25024-003MS
Batch: 96591
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Bromide	0.27	8.0	8.8		1	107	90-110	02/04/2019 1626

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: UA25024-003MD
Batch: 96591
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Bromide	0.27	8.0	8.8		1	107	0.00	90-110	20	02/04/2019 1644

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ95838-001
Batch: 95838
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Acetone	ND		1	20	2.0	ug/L	01/26/2019 1444
Benzene	ND		1	1.0	0.40	ug/L	01/26/2019 1444
Bromodichloromethane	ND		1	1.0	0.40	ug/L	01/26/2019 1444
Bromoform	ND		1	1.0	0.40	ug/L	01/26/2019 1444
Bromomethane (Methyl bromide)	ND		1	2.0	0.40	ug/L	01/26/2019 1444
2-Butanone (MEK)	ND		1	10	2.0	ug/L	01/26/2019 1444
Carbon disulfide	ND		1	1.0	0.40	ug/L	01/26/2019 1444
Carbon tetrachloride	ND		1	1.0	0.40	ug/L	01/26/2019 1444
Chlorobenzene	ND		1	1.0	0.40	ug/L	01/26/2019 1444
Chloroethane	ND		1	2.0	0.40	ug/L	01/26/2019 1444
Chloroform	ND		1	1.0	0.40	ug/L	01/26/2019 1444
Chloromethane (Methyl chloride)	ND		1	1.0	0.50	ug/L	01/26/2019 1444
Cyclohexane	ND		1	1.0	0.40	ug/L	01/26/2019 1444
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	0.40	ug/L	01/26/2019 1444
Dibromochloromethane	ND		1	1.0	0.40	ug/L	01/26/2019 1444
1,2-Dibromoethane (EDB)	ND		1	1.0	0.40	ug/L	01/26/2019 1444
1,2-Dichlorobenzene	ND		1	1.0	0.40	ug/L	01/26/2019 1444
1,3-Dichlorobenzene	ND		1	1.0	0.40	ug/L	01/26/2019 1444
1,4-Dichlorobenzene	ND		1	1.0	0.40	ug/L	01/26/2019 1444
Dichlorodifluoromethane	ND		1	2.0	0.60	ug/L	01/26/2019 1444
1,1-Dichloroethane	ND		1	1.0	0.40	ug/L	01/26/2019 1444
1,2-Dichloroethane	ND		1	1.0	0.40	ug/L	01/26/2019 1444
1,1-Dichloroethene	ND		1	1.0	0.40	ug/L	01/26/2019 1444
cis-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	01/26/2019 1444
trans-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	01/26/2019 1444
1,2-Dichloropropane	ND		1	1.0	0.40	ug/L	01/26/2019 1444
cis-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	01/26/2019 1444
trans-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	01/26/2019 1444
Ethylbenzene	ND		1	1.0	0.40	ug/L	01/26/2019 1444
2-Hexanone	ND		1	10	2.0	ug/L	01/26/2019 1444
Isopropylbenzene	ND		1	1.0	0.40	ug/L	01/26/2019 1444
Methyl acetate	ND		1	1.0	0.40	ug/L	01/26/2019 1444
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	0.40	ug/L	01/26/2019 1444
4-Methyl-2-pentanone	ND		1	10	2.0	ug/L	01/26/2019 1444
Methylcyclohexane	ND		1	5.0	0.40	ug/L	01/26/2019 1444
Methylene chloride	ND		1	1.0	0.40	ug/L	01/26/2019 1444
Styrene	ND		1	1.0	0.41	ug/L	01/26/2019 1444
1,1,2,2-Tetrachloroethane	ND		1	1.0	0.40	ug/L	01/26/2019 1444
Tetrachloroethene	ND		1	1.0	0.40	ug/L	01/26/2019 1444
Toluene	ND		1	1.0	0.40	ug/L	01/26/2019 1444
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	0.42	ug/L	01/26/2019 1444
1,2,4-Trichlorobenzene	ND		1	1.0	0.40	ug/L	01/26/2019 1444
1,1,1-Trichloroethane	ND		1	1.0	0.40	ug/L	01/26/2019 1444
1,1,2-Trichloroethane	ND		1	1.0	0.40	ug/L	01/26/2019 1444

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ95838-001
Batch: 95838
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Trichloroethene	ND		1	1.0	0.40	ug/L	01/26/2019 1444
Trichlorofluoromethane	ND		1	1.0	0.40	ug/L	01/26/2019 1444
Vinyl chloride	ND		1	1.0	0.40	ug/L	01/26/2019 1444
Xylenes (total)	ND		1	1.0	0.40	ug/L	01/26/2019 1444

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		100	70-130
Bromofluorobenzene		103	70-130
Toluene-d8		107	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ95838-002
Batch: 95838
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	100		1	100	60-140	01/26/2019 1346
Benzene	50	49		1	98	70-130	01/26/2019 1346
Bromodichloromethane	50	45		1	90	70-130	01/26/2019 1346
Bromoform	50	50		1	100	70-130	01/26/2019 1346
Bromomethane (Methyl bromide)	50	48		1	96	70-130	01/26/2019 1346
2-Butanone (MEK)	100	97		1	97	70-130	01/26/2019 1346
Carbon disulfide	50	50		1	99	70-130	01/26/2019 1346
Carbon tetrachloride	50	49		1	97	70-130	01/26/2019 1346
Chlorobenzene	50	49		1	98	70-130	01/26/2019 1346
Chloroethane	50	57		1	113	70-130	01/26/2019 1346
Chloroform	50	46		1	93	70-130	01/26/2019 1346
Chloromethane (Methyl chloride)	50	47		1	94	60-140	01/26/2019 1346
Cyclohexane	50	53		1	106	70-130	01/26/2019 1346
1,2-Dibromo-3-chloropropane (DBCP)	50	54		1	108	70-130	01/26/2019 1346
Dibromochloromethane	50	48		1	96	70-130	01/26/2019 1346
1,2-Dibromoethane (EDB)	50	50		1	100	70-130	01/26/2019 1346
1,2-Dichlorobenzene	50	50		1	100	70-130	01/26/2019 1346
1,3-Dichlorobenzene	50	48		1	96	70-130	01/26/2019 1346
1,4-Dichlorobenzene	50	48		1	96	70-130	01/26/2019 1346
Dichlorodifluoromethane	50	55		1	109	60-140	01/26/2019 1346
1,1-Dichloroethane	50	48		1	95	70-130	01/26/2019 1346
1,2-Dichloroethane	50	47		1	93	70-130	01/26/2019 1346
1,1-Dichloroethene	50	49		1	97	70-130	01/26/2019 1346
cis-1,2-Dichloroethene	50	47		1	93	70-130	01/26/2019 1346
trans-1,2-Dichloroethene	50	47		1	95	70-130	01/26/2019 1346
1,2-Dichloropropane	50	42		1	84	70-130	01/26/2019 1346
cis-1,3-Dichloropropene	50	43		1	87	70-130	01/26/2019 1346
trans-1,3-Dichloropropene	50	43		1	86	70-130	01/26/2019 1346
Ethylbenzene	50	50		1	101	70-130	01/26/2019 1346
2-Hexanone	100	99		1	99	70-130	01/26/2019 1346
Isopropylbenzene	50	50		1	100	70-130	01/26/2019 1346
Methyl acetate	50	49		1	98	70-130	01/26/2019 1346
Methyl tertiary butyl ether (MTBE)	50	50		1	101	70-130	01/26/2019 1346
4-Methyl-2-pentanone	100	100		1	102	70-130	01/26/2019 1346
Methylcyclohexane	50	48		1	96	70-130	01/26/2019 1346
Methylene chloride	50	50		1	101	70-130	01/26/2019 1346
Styrene	50	50		1	101	70-130	01/26/2019 1346
1,1,2,2-Tetrachloroethane	50	48		1	96	70-130	01/26/2019 1346
Tetrachloroethene	50	50		1	99	70-130	01/26/2019 1346
Toluene	50	49		1	98	70-130	01/26/2019 1346
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	49		1	99	70-130	01/26/2019 1346
1,2,4-Trichlorobenzene	50	50		1	101	70-130	01/26/2019 1346
1,1,1-Trichloroethane	50	47		1	94	70-130	01/26/2019 1346
1,1,2-Trichloroethane	50	47		1	94	70-130	01/26/2019 1346

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ95838-002
Batch: 95838
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	48		1	96	70-130	01/26/2019 1346
Trichlorofluoromethane	50	49		1	98	70-130	01/26/2019 1346
Vinyl chloride	50	49		1	97	70-130	01/26/2019 1346
Xylenes (total)	100	100		1	102	70-130	01/26/2019 1346

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		97	70-130
Bromofluorobenzene		101	70-130
Toluene-d8		104	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MS

Sample ID: UA25024-004MS
Batch: 95838
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	ND	5000	4700		50	94	60-140	01/26/2019 2255
Benzene	ND	2500	2500		50	101	70-130	01/26/2019 2255
Bromodichloromethane	ND	2500	2300		50	92	70-130	01/26/2019 2255
Bromoform	ND	2500	2400		50	97	70-130	01/26/2019 2255
Bromomethane (Methyl bromide)	ND	2500	2700		50	107	70-130	01/26/2019 2255
2-Butanone (MEK)	ND	5000	4600		50	93	70-130	01/26/2019 2255
Carbon disulfide	ND	2500	2600		50	104	70-130	01/26/2019 2255
Carbon tetrachloride	ND	2500	2600		50	105	70-130	01/26/2019 2255
Chlorobenzene	ND	2500	2500		50	98	70-130	01/26/2019 2255
Chloroethane	ND	2500	3000		50	122	70-130	01/26/2019 2255
Chloroform	ND	2500	2300		50	93	70-130	01/26/2019 2255
Chloromethane (Methyl chloride)	ND	2500	2600		50	105	60-140	01/26/2019 2255
Cyclohexane	ND	2500	2800		50	113	70-130	01/26/2019 2255
1,2-Dibromo-3-chloropropane (DBCP)	ND	2500	2600		50	103	70-130	01/26/2019 2255
Dibromochloromethane	ND	2500	2400		50	94	70-130	01/26/2019 2255
1,2-Dibromoethane (EDB)	ND	2500	2500		50	100	70-130	01/26/2019 2255
1,2-Dichlorobenzene	ND	2500	2500		50	99	70-130	01/26/2019 2255
1,3-Dichlorobenzene	ND	2500	2400		50	97	70-130	01/26/2019 2255
1,4-Dichlorobenzene	ND	2500	2400		50	95	70-130	01/26/2019 2255
Dichlorodifluoromethane	ND	2500	3200		50	127	60-140	01/26/2019 2255
1,1-Dichloroethane	ND	2500	2400		50	96	70-130	01/26/2019 2255
1,2-Dichloroethane	ND	2500	2400		50	95	70-130	01/26/2019 2255
1,1-Dichloroethene	ND	2500	2600		50	103	70-130	01/26/2019 2255
cis-1,2-Dichloroethene	ND	2500	2300		50	93	70-130	01/26/2019 2255
trans-1,2-Dichloroethene	ND	2500	2400		50	97	70-130	01/26/2019 2255
1,2-Dichloropropane	ND	2500	2100		50	84	70-130	01/26/2019 2255
cis-1,3-Dichloropropene	ND	2500	2100		50	84	70-130	01/26/2019 2255
trans-1,3-Dichloropropene	ND	2500	2000		50	82	70-130	01/26/2019 2255
Ethylbenzene	ND	2500	2500		50	101	70-130	01/26/2019 2255
2-Hexanone	ND	5000	4900		50	97	70-130	01/26/2019 2255
Isopropylbenzene	ND	2500	2500		50	101	70-130	01/26/2019 2255
Methyl acetate	ND	2500	2300		50	92	70-130	01/26/2019 2255
Methyl tertiary butyl ether (MTBE)	ND	2500	2400		50	98	70-130	01/26/2019 2255
4-Methyl-2-pentanone	ND	5000	4900		50	98	70-130	01/26/2019 2255
Methylcyclohexane	ND	2500	2700		50	109	70-130	01/26/2019 2255
Methylene chloride	ND	2500	2600		50	102	70-130	01/26/2019 2255
Styrene	ND	2500	2500		50	102	70-130	01/26/2019 2255
1,1,2,2-Tetrachloroethane	ND	2500	2300		50	93	70-130	01/26/2019 2255
Tetrachloroethene	5400	2500	7800		50	95	70-130	01/26/2019 2255
Toluene	ND	2500	2500		50	99	70-130	01/26/2019 2255
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	2500	2800		50	112	70-130	01/26/2019 2255
1,2,4-Trichlorobenzene	ND	2500	2400		50	96	70-130	01/26/2019 2255
1,1,1-Trichloroethane	ND	2500	2500		50	101	70-130	01/26/2019 2255
1,1,2-Trichloroethane	ND	2500	2300		50	92	70-130	01/26/2019 2255

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MS

Sample ID: UA25024-004MS
Batch: 95838
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	ND	2500	2500		50	100	70-130	01/26/2019 2255
Trichlorofluoromethane	ND	2500	2800		50	112	70-130	01/26/2019 2255
Vinyl chloride	ND	2500	2900		50	114	70-130	01/26/2019 2255
Xylenes (total)	ND	5000	5100		50	103	70-130	01/26/2019 2255

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		102	70-130
Bromofluorobenzene		101	70-130
Toluene-d8		106	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MSD

Sample ID: UA25024-004MD
Batch: 95838
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	ND	5000	5000		50	99	5.2	60-140	20	01/26/2019 2317
Benzene	ND	2500	2500		50	100	0.59	70-130	20	01/26/2019 2317
Bromodichloromethane	ND	2500	2300		50	91	0.87	70-130	20	01/26/2019 2317
Bromoform	ND	2500	2400		50	97	0.29	70-130	20	01/26/2019 2317
Bromomethane (Methyl bromide)	ND	2500	2600		50	103	3.6	70-130	20	01/26/2019 2317
2-Butanone (MEK)	ND	5000	4600		50	92	1.3	70-130	20	01/26/2019 2317
Carbon disulfide	ND	2500	2600		50	105	0.99	70-130	20	01/26/2019 2317
Carbon tetrachloride	ND	2500	2600		50	104	0.63	70-130	20	01/26/2019 2317
Chlorobenzene	ND	2500	2500		50	101	2.1	70-130	20	01/26/2019 2317
Chloroethane	ND	2500	3000		50	120	1.6	70-130	20	01/26/2019 2317
Chloroform	ND	2500	2300		50	93	0.52	70-130	20	01/26/2019 2317
Chloromethane (Methyl chloride)	ND	2500	2500		50	101	3.1	60-140	20	01/26/2019 2317
Cyclohexane	ND	2500	2800		50	112	0.25	70-130	20	01/26/2019 2317
1,2-Dibromo-3-chloropropane (DBCP)	ND	2500	2500		50	102	1.2	70-130	20	01/26/2019 2317
Dibromochloromethane	ND	2500	2400		50	97	2.4	70-130	20	01/26/2019 2317
1,2-Dibromoethane (EDB)	ND	2500	2500		50	101	0.95	70-130	20	01/26/2019 2317
1,2-Dichlorobenzene	ND	2500	2500		50	98	0.36	70-130	20	01/26/2019 2317
1,3-Dichlorobenzene	ND	2500	2400		50	97	0.10	70-130	20	01/26/2019 2317
1,4-Dichlorobenzene	ND	2500	2400		50	95	0.099	70-130	20	01/26/2019 2317
Dichlorodifluoromethane	ND	2500	3100		50	123	2.5	60-140	20	01/26/2019 2317
1,1-Dichloroethane	ND	2500	2400		50	97	0.29	70-130	20	01/26/2019 2317
1,2-Dichloroethane	ND	2500	2400		50	95	0.20	70-130	20	01/26/2019 2317
1,1-Dichloroethene	ND	2500	2600		50	103	0.13	70-130	20	01/26/2019 2317
cis-1,2-Dichloroethene	ND	2500	2400		50	95	1.9	70-130	20	01/26/2019 2317
trans-1,2-Dichloroethene	ND	2500	2400		50	97	0.42	70-130	20	01/26/2019 2317
1,2-Dichloropropane	ND	2500	2100		50	85	1.0	70-130	20	01/26/2019 2317
cis-1,3-Dichloropropene	ND	2500	2100		50	85	0.65	70-130	20	01/26/2019 2317
trans-1,3-Dichloropropene	ND	2500	2100		50	83	1.7	70-130	20	01/26/2019 2317
Ethylbenzene	ND	2500	2600		50	102	0.66	70-130	20	01/26/2019 2317
2-Hexanone	ND	5000	4800		50	96	1.6	70-130	20	01/26/2019 2317
Isopropylbenzene	ND	2500	2500		50	101	0.24	70-130	20	01/26/2019 2317
Methyl acetate	ND	2500	2300		50	93	0.70	70-130	20	01/26/2019 2317
Methyl tertiary butyl ether (MTBE)	ND	2500	2400		50	96	1.9	70-130	20	01/26/2019 2317
4-Methyl-2-pentanone	ND	5000	4900		50	98	0.14	70-130	20	01/26/2019 2317
Methylcyclohexane	ND	2500	2700		50	109	0.47	70-130	20	01/26/2019 2317
Methylene chloride	ND	2500	2600		50	102	0.22	70-130	20	01/26/2019 2317
Styrene	ND	2500	2500		50	102	0.18	70-130	20	01/26/2019 2317
1,1,2,2-Tetrachloroethane	ND	2500	2300		50	93	0.92	70-130	20	01/26/2019 2317
Tetrachloroethene	5400	2500	7900		50	97	0.64	70-130	20	01/26/2019 2317
Toluene	ND	2500	2500		50	101	2.5	70-130	20	01/26/2019 2317
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	2500	2800		50	110	1.2	70-130	20	01/26/2019 2317
1,2,4-Trichlorobenzene	ND	2500	2400		50	96	0.79	70-130	20	01/26/2019 2317
1,1,1-Trichloroethane	ND	2500	2500		50	99	2.9	70-130	20	01/26/2019 2317
1,1,2-Trichloroethane	ND	2500	2400		50	95	3.4	70-130	20	01/26/2019 2317

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MSD

Sample ID: UA25024-004MD
Batch: 95838
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Trichloroethene	ND	2500	2500		50	101	1.2	70-130	20	01/26/2019 2317
Trichlorofluoromethane	ND	2500	2800		50	110	1.2	70-130	20	01/26/2019 2317
Vinyl chloride	ND	2500	2700		50	106	7.1	70-130	20	01/26/2019 2317
Xylenes (total)	ND	5000	5200		50	104	0.70	70-130	20	01/26/2019 2317

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		102	70-130
Bromofluorobenzene		102	70-130
Toluene-d8		108	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
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N = Recovery is out of criteria
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Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ95972-001
Batch: 95972
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Acetone	ND		1	20	2.0	ug/L	01/28/2019 2232
Benzene	ND		1	1.0	0.40	ug/L	01/28/2019 2232
Bromodichloromethane	ND		1	1.0	0.40	ug/L	01/28/2019 2232
Bromoform	ND		1	1.0	0.40	ug/L	01/28/2019 2232
Bromomethane (Methyl bromide)	ND		1	2.0	0.40	ug/L	01/28/2019 2232
2-Butanone (MEK)	ND		1	10	2.0	ug/L	01/28/2019 2232
Carbon disulfide	ND		1	1.0	0.40	ug/L	01/28/2019 2232
Carbon tetrachloride	ND		1	1.0	0.40	ug/L	01/28/2019 2232
Chlorobenzene	ND		1	1.0	0.40	ug/L	01/28/2019 2232
Chloroethane	ND		1	2.0	0.40	ug/L	01/28/2019 2232
Chloroform	ND		1	1.0	0.40	ug/L	01/28/2019 2232
Chloromethane (Methyl chloride)	ND		1	1.0	0.50	ug/L	01/28/2019 2232
Cyclohexane	ND		1	1.0	0.40	ug/L	01/28/2019 2232
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	0.40	ug/L	01/28/2019 2232
Dibromochloromethane	ND		1	1.0	0.40	ug/L	01/28/2019 2232
1,2-Dibromoethane (EDB)	ND		1	1.0	0.40	ug/L	01/28/2019 2232
1,2-Dichlorobenzene	ND		1	1.0	0.40	ug/L	01/28/2019 2232
1,3-Dichlorobenzene	ND		1	1.0	0.40	ug/L	01/28/2019 2232
1,4-Dichlorobenzene	ND		1	1.0	0.40	ug/L	01/28/2019 2232
Dichlorodifluoromethane	ND		1	2.0	0.60	ug/L	01/28/2019 2232
1,1-Dichloroethane	ND		1	1.0	0.40	ug/L	01/28/2019 2232
1,2-Dichloroethane	ND		1	1.0	0.40	ug/L	01/28/2019 2232
1,1-Dichloroethene	ND		1	1.0	0.40	ug/L	01/28/2019 2232
cis-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	01/28/2019 2232
trans-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	01/28/2019 2232
1,2-Dichloropropane	ND		1	1.0	0.40	ug/L	01/28/2019 2232
cis-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	01/28/2019 2232
trans-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	01/28/2019 2232
Ethylbenzene	ND		1	1.0	0.40	ug/L	01/28/2019 2232
2-Hexanone	ND		1	10	2.0	ug/L	01/28/2019 2232
Isopropylbenzene	ND		1	1.0	0.40	ug/L	01/28/2019 2232
Methyl acetate	ND		1	1.0	0.40	ug/L	01/28/2019 2232
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	0.40	ug/L	01/28/2019 2232
4-Methyl-2-pentanone	ND		1	10	2.0	ug/L	01/28/2019 2232
Methylcyclohexane	ND		1	5.0	0.40	ug/L	01/28/2019 2232
Methylene chloride	ND		1	1.0	0.40	ug/L	01/28/2019 2232
Styrene	ND		1	1.0	0.41	ug/L	01/28/2019 2232
1,1,2,2-Tetrachloroethane	ND		1	1.0	0.40	ug/L	01/28/2019 2232
Tetrachloroethene	ND		1	1.0	0.40	ug/L	01/28/2019 2232
Toluene	ND		1	1.0	0.40	ug/L	01/28/2019 2232
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	0.42	ug/L	01/28/2019 2232
1,2,4-Trichlorobenzene	ND		1	1.0	0.40	ug/L	01/28/2019 2232
1,1,1-Trichloroethane	ND		1	1.0	0.40	ug/L	01/28/2019 2232
1,1,2-Trichloroethane	ND		1	1.0	0.40	ug/L	01/28/2019 2232

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ95972-001
Batch: 95972
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Trichloroethene	ND		1	1.0	0.40	ug/L	01/28/2019 2232
Trichlorofluoromethane	ND		1	1.0	0.40	ug/L	01/28/2019 2232
Vinyl chloride	ND		1	1.0	0.40	ug/L	01/28/2019 2232
Xylenes (total)	ND		1	1.0	0.40	ug/L	01/28/2019 2232

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		96	70-130
Bromofluorobenzene		92	70-130
Toluene-d8		91	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ95972-002
Batch: 95972
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	40	36		1	90	60-140	01/28/2019 2124
Benzene	20	20		1	100	70-130	01/28/2019 2124
Bromodichloromethane	20	19		1	95	70-130	01/28/2019 2124
Bromoform	20	20		1	101	70-130	01/28/2019 2124
Bromomethane (Methyl bromide)	20	18		1	91	70-130	01/28/2019 2124
2-Butanone (MEK)	40	41		1	101	70-130	01/28/2019 2124
Carbon disulfide	20	19		1	97	70-130	01/28/2019 2124
Carbon tetrachloride	20	22		1	109	70-130	01/28/2019 2124
Chlorobenzene	20	20		1	98	70-130	01/28/2019 2124
Chloroethane	20	18		1	91	70-130	01/28/2019 2124
Chloroform	20	21		1	104	70-130	01/28/2019 2124
Chloromethane (Methyl chloride)	20	15		1	75	60-140	01/28/2019 2124
Cyclohexane	20	20		1	100	70-130	01/28/2019 2124
1,2-Dibromo-3-chloropropane (DBCP)	20	20		1	100	70-130	01/28/2019 2124
Dibromochloromethane	20	20		1	98	70-130	01/28/2019 2124
1,2-Dibromoethane (EDB)	20	20		1	101	70-130	01/28/2019 2124
1,2-Dichlorobenzene	20	19		1	95	70-130	01/28/2019 2124
1,3-Dichlorobenzene	20	19		1	96	70-130	01/28/2019 2124
1,4-Dichlorobenzene	20	19		1	94	70-130	01/28/2019 2124
Dichlorodifluoromethane	20	21		1	107	60-140	01/28/2019 2124
1,1-Dichloroethane	20	19		1	93	70-130	01/28/2019 2124
1,2-Dichloroethane	20	21		1	105	70-130	01/28/2019 2124
1,1-Dichloroethene	20	18		1	92	70-130	01/28/2019 2124
cis-1,2-Dichloroethene	20	21		1	103	70-130	01/28/2019 2124
trans-1,2-Dichloroethene	20	19		1	96	70-130	01/28/2019 2124
1,2-Dichloropropane	20	16		1	82	70-130	01/28/2019 2124
cis-1,3-Dichloropropene	20	17		1	84	70-130	01/28/2019 2124
trans-1,3-Dichloropropene	20	17		1	85	70-130	01/28/2019 2124
Ethylbenzene	20	21		1	104	70-130	01/28/2019 2124
2-Hexanone	40	36		1	91	70-130	01/28/2019 2124
Isopropylbenzene	20	20		1	102	70-130	01/28/2019 2124
Methyl acetate	20	16		1	79	70-130	01/28/2019 2124
Methyl tertiary butyl ether (MTBE)	20	19		1	96	70-130	01/28/2019 2124
4-Methyl-2-pentanone	40	35		1	88	70-130	01/28/2019 2124
Methylcyclohexane	20	20		1	102	70-130	01/28/2019 2124
Methylene chloride	20	17		1	86	70-130	01/28/2019 2124
Styrene	20	20		1	101	70-130	01/28/2019 2124
1,1,2,2-Tetrachloroethane	20	18		1	89	70-130	01/28/2019 2124
Tetrachloroethene	20	21		1	104	70-130	01/28/2019 2124
Toluene	20	20		1	100	70-130	01/28/2019 2124
1,1,2-Trichloro-1,2,2-Trifluoroethane	20	19		1	95	70-130	01/28/2019 2124
1,2,4-Trichlorobenzene	20	19		1	97	70-130	01/28/2019 2124
1,1,1-Trichloroethane	20	22		1	109	70-130	01/28/2019 2124
1,1,2-Trichloroethane	20	19		1	96	70-130	01/28/2019 2124

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ95972-002
Batch: 95972
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	20	20		1	102	70-130	01/28/2019 2124
Trichlorofluoromethane	20	20		1	98	70-130	01/28/2019 2124
Vinyl chloride	20	18		1	89	70-130	01/28/2019 2124
Xylenes (total)	40	41		1	103	70-130	01/28/2019 2124

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		97	70-130
Bromofluorobenzene		96	70-130
Toluene-d8		92	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - LCSD

Sample ID: UQ95972-003
Batch: 95972
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	40	40		1	101	11	60-140	20	01/28/2019 2146
Benzene	20	20		1	101	0.90	70-130	20	01/28/2019 2146
Bromodichloromethane	20	19		1	96	1.7	70-130	20	01/28/2019 2146
Bromoform	20	21		1	107	5.3	70-130	20	01/28/2019 2146
Bromomethane (Methyl bromide)	20	18		1	90	1.2	70-130	20	01/28/2019 2146
2-Butanone (MEK)	40	39		1	98	3.1	70-130	20	01/28/2019 2146
Carbon disulfide	20	17		1	87	9.9	70-130	20	01/28/2019 2146
Carbon tetrachloride	20	22		1	110	1.1	70-130	20	01/28/2019 2146
Chlorobenzene	20	20		1	99	1.3	70-130	20	01/28/2019 2146
Chloroethane	20	17		1	87	5.3	70-130	20	01/28/2019 2146
Chloroform	20	20		1	99	4.6	70-130	20	01/28/2019 2146
Chloromethane (Methyl chloride)	20	15		1	73	1.9	60-140	20	01/28/2019 2146
Cyclohexane	20	19		1	97	3.8	70-130	20	01/28/2019 2146
1,2-Dibromo-3-chloropropane (DBCP)	20	21		1	104	3.8	70-130	20	01/28/2019 2146
Dibromochloromethane	20	20		1	102	3.3	70-130	20	01/28/2019 2146
1,2-Dibromoethane (EDB)	20	21		1	103	2.1	70-130	20	01/28/2019 2146
1,2-Dichlorobenzene	20	20		1	99	3.8	70-130	20	01/28/2019 2146
1,3-Dichlorobenzene	20	20		1	99	2.4	70-130	20	01/28/2019 2146
1,4-Dichlorobenzene	20	19		1	96	2.5	70-130	20	01/28/2019 2146
Dichlorodifluoromethane	20	21		1	106	1.6	60-140	20	01/28/2019 2146
1,1-Dichloroethane	20	18		1	90	3.1	70-130	20	01/28/2019 2146
1,2-Dichloroethane	20	21		1	106	1.7	70-130	20	01/28/2019 2146
1,1-Dichloroethene	20	18		1	90	2.5	70-130	20	01/28/2019 2146
cis-1,2-Dichloroethene	20	19		1	97	6.3	70-130	20	01/28/2019 2146
trans-1,2-Dichloroethene	20	19		1	93	3.4	70-130	20	01/28/2019 2146
1,2-Dichloropropane	20	17		1	84	1.9	70-130	20	01/28/2019 2146
cis-1,3-Dichloropropene	20	17		1	84	1.0	70-130	20	01/28/2019 2146
trans-1,3-Dichloropropene	20	17		1	86	0.99	70-130	20	01/28/2019 2146
Ethylbenzene	20	21		1	103	0.64	70-130	20	01/28/2019 2146
2-Hexanone	40	38		1	94	3.5	70-130	20	01/28/2019 2146
Isopropylbenzene	20	21		1	104	1.7	70-130	20	01/28/2019 2146
Methyl acetate	20	16		1	79	0.86	70-130	20	01/28/2019 2146
Methyl tertiary butyl ether (MTBE)	20	19		1	96	0.54	70-130	20	01/28/2019 2146
4-Methyl-2-pentanone	40	36		1	91	2.7	70-130	20	01/28/2019 2146
Methylcyclohexane	20	21		1	103	0.71	70-130	20	01/28/2019 2146
Methylene chloride	20	17		1	87	0.71	70-130	20	01/28/2019 2146
Styrene	20	20		1	102	1.6	70-130	20	01/28/2019 2146
1,1,2,2-Tetrachloroethane	20	19		1	93	4.6	70-130	20	01/28/2019 2146
Tetrachloroethene	20	20		1	102	1.3	70-130	20	01/28/2019 2146
Toluene	20	20		1	100	0.055	70-130	20	01/28/2019 2146
1,1,2-Trichloro-1,2,2-Trifluoroethane	20	19		1	93	1.6	70-130	20	01/28/2019 2146
1,2,4-Trichlorobenzene	20	19		1	96	1.4	70-130	20	01/28/2019 2146
1,1,1-Trichloroethane	20	21		1	105	4.2	70-130	20	01/28/2019 2146
1,1,2-Trichloroethane	20	20		1	99	2.8	70-130	20	01/28/2019 2146

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Shealy Environmental Services, Inc.
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Volatile Organic Compounds by GC/MS - LCSD

Sample ID: UQ95972-003
Batch: 95972
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Trichloroethene	20	20		1	101	0.064	70-130	20	01/28/2019 2146
Trichlorofluoromethane	20	19		1	96	1.5	70-130	20	01/28/2019 2146
Vinyl chloride	20	17		1	85	4.5	70-130	20	01/28/2019 2146
Xylenes (total)	40	41		1	103	0.29	70-130	20	01/28/2019 2146

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		100	70-130
Bromofluorobenzene		100	70-130
Toluene-d8		94	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Shealy Environmental Services, Inc.
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Chain of Custody
and
Miscellaneous Documents

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

SHEALY

Chain of Custody Record

SHEALY ENVIRONMENTAL SERVICES, INC.
106 Vantage Point Drive • West Columbia, SC 29172
Telephone No. 803-791-9700 Fax No. 803-791-9111
www.shealylab.com

Number 85424

Client: TRC	Report to Contact: Lisa Clark	Telephone No. / E-mail: 864-281-0030	Quote No.
Address: 50 International Dr Suite 150	Sampler's Signature: X	Analysis (Attach list if more space is needed)	Page 1 of 1
City: Greenville / State: SC / Zip Code: 29615	Printed Name: Benjamin Medlin		
Project Name: WPH Clemson			
Project No.: 300688.0.0.2	P.O. No.		

Sample ID / Description (Containers for each sample may be combined on one line)	Date 2019	Time	Grab/Composite	Matrix: Aqueous	Matrix: Solid	Matrix: Wipe/Sponge	No of Containers by Preservative Type: Unpres.	HNO3	HCl	H2SO4	NaOH	ZnAc/NaOH	VOCs	Chloride, Sulfate, Bromide	Nitrate
RMW-18A	1-24	1255	G	X			2			3			X	X	X
RMW-18	1-24	1305	G	X			2			3			X	X	X
RMW-20	1-24	1615	G	X			2			3			X	X	X
RMW-20A	1-24	1730	G	X			2			3			X	X	X
RMW-20B	1-24	1715	G	X			2			3			X	X	X
TBLK-19102	/	/	G	X						2			X		

UA25024

Turn Around Time Required (Prior lab approval required for expedited TAT.) ☐ Standard ☐ Rush (Specify)

Sample Disposal ☐ Return to Client ☐ Disposal by Lab

Possible Hazard Identification ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished by	1-24-19	1915	1. Received by: TRC Sample Storage	1-24-19	1715
2. Relinquished by: TRC SAMPLE STORAGE	1/25/19	10:47	2. Received by: Ken E Mercer	1/25/19	10:47
3. Relinquished by: 1/29/19 KEM			3. Received by		
4. Relinquished by: Ken E Mercer	1/25/19	13:45	4. Laboratory received by: Melody Cecil	1-25-19	1345

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on Ice (Circle) Yes No Ice Pack Receipt Temp. 3.3 °C

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Client Copy

Document Number: F-AD-133 Effective Date: 09-01-2014

SHEALY ENVIRONMENTAL SERVICES, INC.

Shealy Environmental Services, Inc.
Document Number: MB0018C-14

Page 1 of 1
Effective Date: 8/2/2018

Sample Receipt Checklist (SRC)

Client: TRC Cooler Inspected by/date: MK / 1-25-19 Lot #: UH25024

Means of receipt: ☑ SESI ☐ Client ☐ UPS ☐ FedEx ☐ Other: _____

☐ Yes	☑ No		1. Were custody seals present on the cooler?
☐ Yes	☐ No	☑ NA	2. If custody seals were present, were they intact and unbroken?

pH Strip ID: _____ Chlorine Strip ID: _____ _____ Tested by: _____

Original temperature upon receipt / Derived (Corrected) temperature upon receipt: %Solid Snap-Cup ID: _____ _____

3.3 / 3.3 °C ____ / ____ °C ____ / ____ °C ____ / ____ °C

Method: ☑ Temperature Blank ☐ Against Bottles IR Gun ID: 5 IR Gun Correction Factor: 0 °C

Method of coolant: ☑ Wet Ice ☐ Ice Packs ☐ Dry Ice ☐ None

☐ Yes	☐ No	☑ NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).
☐ Yes	☐ No	☑ NA	4. Is the commercial courier's packing slip attached to this form?
☑ Yes	☐ No		5. Were proper custody procedures (relinquished/received) followed?
☑ Yes	☐ No		6. Were sample IDs listed on the COC?
☑ Yes	☐ No		7. Were sample IDs listed on all sample containers?
☑ Yes	☐ No		8. Was collection date & time listed on the COC?
☑ Yes	☐ No		9. Was collection date & time listed on all sample containers?
☑ Yes	☐ No		10. Did all container label information (ID, date, time) agree with the COC?
☑ Yes	☐ No		11. Were tests to be performed listed on the COC?
☑ Yes	☐ No		12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)? _____ _____
☑ Yes	☐ No		13. Was adequate sample volume available?
☐ Yes	☑ No		14. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
☐ Yes	☑ No		15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
☐ Yes	☑ No	☐ NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (¼"or 6mm in diameter) in any of the VOA vials?
☐ Yes	☐ No	☑ NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?
☐ Yes	☐ No	☑ NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
☐ Yes	☐ No	☑ NA	19. Were all applicable NH_3/TKN/cyanide/phenol/625 (< 0.5mg/L) samples free of residual chlorine?
☐ Yes	☐ No	☑ NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc…) correctly transcribed from the COC into the comment section in LIMS?
☑ Yes	☐ No		21. Was the quote number listed on the container label? If yes, Quote # 2173

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) _____ _____ were received incorrectly preserved and were adjusted accordingly in sample receiving with _____mL of circle one: H2SO4, HNO3, HCl, NaOH using SR # _____
Time of preservation _____ . If more than one preservative is needed, please note in the comments below.

Sample(s) _____ _____ were received with bubbles >6 mm in diameter.

Samples(s) _____ were received with TRC > 0.5 mg/L (If #19 is ***no***) and were adjusted accordingly in sample receiving with sodium thiosulfate ($Na_2S_2O_3$) with Shealy ID: _____.

SR barcode labels applied by: _____ Date: _____

Comments:

SHEALY ENVIRONMENTAL SERVICES, INC.

Report of Analysis

TRC Companies, Inc.
50 International Dr.
Suite 150
Greenville, SC 29615
Attention: Lisa Clark

Project Name: WPH Clemson

Project Number: 300688.0000.0000.0002

Lot Number:**UA22027**

Date Completed:02/01/2019

02/04/2019 1:17 PM
Approved and released by:
Lab Director - Greenville: Lucas Odom

The electronic signature above is the equivalent of a handwritten signature.

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Laboratory Data Quality Review Notes

Project Name: WPH-Clemson, SC

Project Number: 300688.0000.0000.000002

Lab Report: UA22027 Shealy Environmental Services
Twenty three groundwater samples and one groundwater field duplicate were analyzed for volatile organic compounds (VOCs), chloride, bromide, and sulfate.

Chain of Custody, Sample Temperature, Sample Preservation: Chain of custody (CoC) signed; sample temperature <6 ^{o}C upon arrival at the laboratory; samples were preserved properly.

Hold Time: Samples analyzed within hold time.

Surrogates: VOC surrogate recoveries are within QC limits.

Method Blank: Method blank were free of detections except as follows:

- Sulfate was detected at 0.40 J mg/L in the sulfate method blank associated with batch 96075. Except for sulfate in DP-21A, sulfate concentrations in samples associated with batch 96075 were substantially greater than the method blank concentration. No qualifiers were assigned in these cases. The sulfate concentration in DP-21A was 0.51 BJ mg/L which is comparable to the method blank concentration. **A "u" qualifier was assigned to sulfate in DP-21A.**
- Chloride was detected at 0.20 J mg/L in chloride method blanks associated with batches 95708, 96077, and 96080. Most chloride detections associated with batches 95708, 96077, and 96080 were more than 5X the concentration detected in the associated method blank and, therefore, no qualifier was assigned. Samples DP-23A, DP-23B DP-26A, and DP-27A had detections of chloride very close to 4X the associated method blank concentration. **A "u" qualifier was assigned to chloride in samples DP-23A, DP-23B, DP-26A, and DP-27A.**

Trip Blank: A trip blank was not collected with these samples.

Field Blank: A field blank was not collected with these samples.

Equipment Rinse Blank: A rinsate blank was not collected with these samples.

LCS/LCSD: LCS recoveries for anions and VOCs are within QC limits except as noted below. LCSD analyses were not performed.

The LCS for VOC batch 95668 had recoveries for cychohexane (CHx) and 1,1,2-trichloro-1,2,2-trifluoroethane (CFC-113) nominally below their respective QC limits.

This LCS is associated with VOC analyses in samples DP-21, DP-23B, DP-24, DP-24A, DP-24B, DP-25, DP-26, DP-26A, DP-26B, DP-27, DP-27A, DP27B and DU-19105. **CFC-113 in DP-27B was assigned a "j" qualifier. CHx in DP-27B is assigned a "uj" qualifier. CHx and CFC-113 were assigned a "uj" qualifier in DP-21, DP-23B, DP-24, DP-24A, DP-24B, DP-25, DP-26, DP-26A, DP-26B, DP-27, DP-27A, and DU-19105.**

MS/MSD: DP-21 and DP-23B were used for chloride MS/MSD analyses. DP-21 and DP-27 were used for bromide and sulfate MS/MSD analyses. DP-21A, DP-22A, and DU-19105 were used for VOC MS/MSD analyses. MS/MSD recoveries and RPDs were within QC limits except as follows:

- The DP-27 chloride MS and MSD analyses had recoveries below the lower QC limit. The unspiked DP-27 chloride concentration was greater than 4X the spiking concentration. No qualifier was assigned.
- Acetone recovery in the DU-19105 MS was below the lower QC limit. Acetone recovery in the DU-19105 MSD was within the QC limits. **Acetone in DU-19105 was assigned a "uj" qualifier.**

Duplicates: Sample DU-19105 is a field duplicate of DP-20A. RPDs were calculated for analytes detected in both of these samples, namely, bromide, chloride, sulfate, and tetrachloroethene. RPDs were <= 20% and within QC limits except for bromide which had an RPD = 44.2%. Detected bromide concentrations are near the reporting limit of 0.2 mg/L and differ by less than 0.2 mg/L. No qualifiers were assigned.

Data review performed by: Terry Hertz; TRC Environmental Corp.; 2/7/2019

Case Narrative
TRC Companies, Inc.
Lot Number: UA22027

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

VOCs by GC/MS

Due to the large number of spiked analytes, there is a high probability that one or more analytes will recover outside acceptance limits. The laboratory's SOP allows for 10% of analytes to recover marginally outside criteria. The following analytes recovered marginally outside LCS/LCSD criteria: Cyclohexane and Freon 113.

Chloride

The method blank associated with batches 95708, 96077, and 96080 yielded a "J" value detection for Chloride. No corrective action is required as this is an estimated value recovered below the LOQ. Associated samples have been qualified with a "B".

Sulfate

The method blank associated with batch 96075 yielded a "J" value detection for Sulfate. No corrective action is required as this is an estimated value recovered below the LOQ. Associated samples have been qualified with a "B".

Due to suspected matrix interferences, the MS/MSD assocaited with batch 96079 recovered Sulfate at 83% and 78% respectively.

Sample Summary

TRC Companies, Inc.

Lot Number: UA22027

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	DP-27	Aqueous	01/14/2019 0830	01/22/2019
002	DP-27A	Aqueous	01/14/2019 0930	01/22/2019
003	DP-27B	Aqueous	01/14/2019 1100	01/22/2019
004	DP-26	Aqueous	01/14/2019 1230	01/22/2019
005	DP-26A	Aqueous	01/14/2019 1320	01/22/2019
006	DP-26B	Aqueous	01/14/2019 1450	01/22/2019
007	DP-25	Aqueous	01/15/2019 0820	01/22/2019
008	DP-25A	Aqueous	01/15/2019 0920	01/22/2019
009	DP-25B	Aqueous	01/15/2019 1045	01/22/2019
010	DP-24	Aqueous	01/15/2019 1220	01/22/2019
011	DP-24A	Aqueous	01/15/2019 1320	01/22/2019
012	DP-24B	Aqueous	01/15/2019 1420	01/22/2019
013	DP-23	Aqueous	01/16/2019 0830	01/22/2019
014	DP-23A	Aqueous	01/16/2019 0940	01/22/2019
015	DP-23B	Aqueous	01/16/2019 1115	01/22/2019
016	DP-22	Aqueous	01/16/2019 1255	01/22/2019
017	DP-22A	Aqueous	01/16/2019 1345	01/22/2019
018	DP-22B	Aqueous	01/16/2019 1500	01/22/2019
019	DP-21	Aqueous	01/18/2019 0840	01/22/2019
020	DP-21A	Aqueous	01/18/2019 1035	01/22/2019
021	DP-20	Aqueous	01/18/2019 1230	01/22/2019
022	DP-20A	Aqueous	01/18/2019 1500	01/22/2019
023	DP-20B	Aqueous	01/18/2019 1615	01/22/2019
024	DU-19105	Aqueous	01/14/2019	01/22/2019

(24 samples)

Detection Summary

TRC Companies, Inc.

Lot Number: UA22027

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	DP-27	Aqueous	Bromide	300.0	0.16	J	mg/L	7
001	DP-27	Aqueous	Chloride	300.0	8.8	B	mg/L	7
001	DP-27	Aqueous	Sulfate	300.0	91		mg/L	7
001	DP-27	Aqueous	Tetrachloroethene	8260B	330		ug/L	8
002	DP-27A	Aqueous	Bromide	300.0	0.094	J	mg/L	9
002	DP-27A	Aqueous	Chloride	300.0	0.79	BJ	mg/L	9
002	DP-27A	Aqueous	Sulfate	300.0	49		mg/L	9
002	DP-27A	Aqueous	Chloroform	8260B	3.9	J	ug/L	9
002	DP-27A	Aqueous	Tetrachloroethene	8260B	270		ug/L	10
003	DP-27B	Aqueous	Bromide	300.0	0.092	J	mg/L	11
003	DP-27B	Aqueous	Chloride	300.0	1.4	B	mg/L	11
003	DP-27B	Aqueous	Sulfate	300.0	5.5		mg/L	11
003	DP-27B	Aqueous	Carbon tetrachloride	8260B	0.89	J	ug/L	11
003	DP-27B	Aqueous	Chloroform	8260B	2.4		ug/L	11
003	DP-27B	Aqueous	Methylcyclohexane	8260B	0.95	J	ug/L	12
003	DP-27B	Aqueous	Tetrachloroethene	8260B	120		ug/L	12
003	DP-27B	Aqueous	Toluene	8260B	1.0		ug/L	12
003	DP-27B	Aqueous	1,1,2-Trichloro-1,2,2-	8260B	0.82	J	ug/L	12
004	DP-26	Aqueous	Bromide	300.0	0.24		mg/L	13
004	DP-26	Aqueous	Chloride	300.0	18	B	mg/L	13
004	DP-26	Aqueous	Sulfate	300.0	240	B	mg/L	13
004	DP-26	Aqueous	Tetrachloroethene	8260B	320		ug/L	14
005	DP-26A	Aqueous	Chloride	300.0	0.83	BJ	mg/L	15
005	DP-26A	Aqueous	Sulfate	300.0	1.5		mg/L	15
005	DP-26A	Aqueous	Tetrachloroethene	8260B	280		ug/L	16
006	DP-26B	Aqueous	Bromide	300.0	0.094	J	mg/L	17
006	DP-26B	Aqueous	Chloride	300.0	1.2	B	mg/L	17
006	DP-26B	Aqueous	Sulfate	300.0	4.4		mg/L	17
006	DP-26B	Aqueous	Tetrachloroethene	8260B	2200		ug/L	18
007	DP-25	Aqueous	Bromide	300.0	0.32		mg/L	19
007	DP-25	Aqueous	Chloride	300.0	17	B	mg/L	19
007	DP-25	Aqueous	Sulfate	300.0	160		mg/L	19
007	DP-25	Aqueous	Tetrachloroethene	8260B	340		ug/L	20
008	DP-25A	Aqueous	Bromide	300.0	0.094	J	mg/L	21
008	DP-25A	Aqueous	Chloride	300.0	1.4	B	mg/L	21
008	DP-25A	Aqueous	Sulfate	300.0	1.4		mg/L	21
008	DP-25A	Aqueous	Acetone	8260B	12	J	ug/L	21
008	DP-25A	Aqueous	Chloroform	8260B	5.3		ug/L	21
008	DP-25A	Aqueous	Tetrachloroethene	8260B	450		ug/L	22
009	DP-25B	Aqueous	Chloride	300.0	1.0	B	mg/L	23
009	DP-25B	Aqueous	Sulfate	300.0	1.3		mg/L	23
009	DP-25B	Aqueous	Acetone	8260B	11	J	ug/L	23
009	DP-25B	Aqueous	Chloroform	8260B	3.1	J	ug/L	23
009	DP-25B	Aqueous	Tetrachloroethene	8260B	760		ug/L	24
009	DP-25B	Aqueous	1,1,2-Trichloro-1,2,2-	8260B	3.5	J	ug/L	24

Detection Summary (Continued)

Lot Number: UA22027

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
010	DP-24	Aqueous	Bromide	300.0	0.28		mg/L	25
010	DP-24	Aqueous	Chloride	300.0	19	B	mg/L	25
010	DP-24	Aqueous	Sulfate	300.0	1.3		mg/L	25
010	DP-24	Aqueous	Tetrachloroethene	8260B	810		ug/L	26
011	DP-24A	Aqueous	Bromide	300.0	0.091	J	mg/L	27
011	DP-24A	Aqueous	Chloride	300.0	1.2	B	mg/L	27
011	DP-24A	Aqueous	Sulfate	300.0	0.52	J	mg/L	27
011	DP-24A	Aqueous	Tetrachloroethene	8260B	4200		ug/L	28
012	DP-24B	Aqueous	Bromide	300.0	0.10	J	mg/L	29
012	DP-24B	Aqueous	Chloride	300.0	1.4	B	mg/L	29
012	DP-24B	Aqueous	Sulfate	300.0	0.60	J	mg/L	29
012	DP-24B	Aqueous	Tetrachloroethene	8260B	720		ug/L	30
012	DP-24B	Aqueous	Trichloroethene	8260B	4.9	J	ug/L	30
013	DP-23	Aqueous	Bromide	300.0	0.26		mg/L	31
013	DP-23	Aqueous	Chloride	300.0	15	B	mg/L	31
013	DP-23	Aqueous	Sulfate	300.0	0.84	J	mg/L	31
013	DP-23	Aqueous	Chloroform	8260B	0.41	J	ug/L	31
013	DP-23	Aqueous	Tetrachloroethene	8260B	80		ug/L	32
014	DP-23A	Aqueous	Chloride	300.0	0.85	BJ	mg/L	33
014	DP-23A	Aqueous	Sulfate	300.0	0.44	J	mg/L	33
014	DP-23A	Aqueous	Tetrachloroethene	8260B	32		ug/L	34
014	DP-23A	Aqueous	Trichlorofluoromethane	8260B	3.5		ug/L	34
015	DP-23B	Aqueous	Chloride	300.0	0.83	BJ	mg/L	35
015	DP-23B	Aqueous	Sulfate	300.0	0.64	J	mg/L	35
015	DP-23B	Aqueous	Tetrachloroethene	8260B	11		ug/L	36
016	DP-22	Aqueous	Bromide	300.0	0.24		mg/L	37
016	DP-22	Aqueous	Chloride	300.0	31	B	mg/L	37
016	DP-22	Aqueous	Sulfate	300.0	12		mg/L	37
016	DP-22	Aqueous	Tetrachloroethene	8260B	800		ug/L	38
017	DP-22A	Aqueous	Bromide	300.0	3.2		mg/L	39
017	DP-22A	Aqueous	Chloride	300.0	220		mg/L	39
017	DP-22A	Aqueous	Sulfate	300.0	1.4		mg/L	39
017	DP-22A	Aqueous	Tetrachloroethene	8260B	2700		ug/L	40
018	DP-22B	Aqueous	Bromide	300.0	0.45		mg/L	41
018	DP-22B	Aqueous	Chloride	300.0	190		mg/L	41
018	DP-22B	Aqueous	Sulfate	300.0	0.77	J	mg/L	41
018	DP-22B	Aqueous	Tetrachloroethene	8260B	730		ug/L	42
018	DP-22B	Aqueous	Trichloroethene	8260B	7.7	J	ug/L	42
019	DP-21	Aqueous	Bromide	300.0	0.22		mg/L	43
019	DP-21	Aqueous	Chloride	300.0	11	B	mg/L	43
019	DP-21	Aqueous	Sulfate	300.0	12	B	mg/L	43
019	DP-21	Aqueous	Tetrachloroethene	8260B	38		ug/L	44
020	DP-21A	Aqueous	Bromide	300.0	1.3		mg/L	45
020	DP-21A	Aqueous	Chloride	300.0	12	B	mg/L	45
020	DP-21A	Aqueous	Sulfate	300.0	0.51	BJ	mg/L	45
020	DP-21A	Aqueous	Tetrachloroethene	8260B	1900		ug/L	46
021	DP-20	Aqueous	Bromide	300.0	0.38		mg/L	47
021	DP-20	Aqueous	Chloride	300.0	54	B	mg/L	47

Detection Summary (Continued)

Lot Number: UA22027

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
021	DP-20	Aqueous	Sulfate	300.0	96	B	mg/L	47
021	DP-20	Aqueous	cis-1,2-Dichloroethene	8260B	63		ug/L	47
021	DP-20	Aqueous	Tetrachloroethene	8260B	1200		ug/L	48
021	DP-20	Aqueous	Trichloroethene	8260B	16	J	ug/L	48
022	DP-20A	Aqueous	Bromide	300.0	0.30		mg/L	49
022	DP-20A	Aqueous	Chloride	300.0	85	B	mg/L	49
022	DP-20A	Aqueous	Sulfate	300.0	62	B	mg/L	49
022	DP-20A	Aqueous	Tetrachloroethene	8260B	2200		ug/L	50
023	DP-20B	Aqueous	Bromide	300.0	0.32		mg/L	51
023	DP-20B	Aqueous	Chloride	300.0	71	B	mg/L	51
023	DP-20B	Aqueous	Sulfate	300.0	17	B	mg/L	51
023	DP-20B	Aqueous	Tetrachloroethene	8260B	1000		ug/L	52
024	DU-19105	Aqueous	Bromide	300.0	0.47		mg/L	53
024	DU-19105	Aqueous	Chloride	300.0	84	B	mg/L	53
024	DU-19105	Aqueous	Sulfate	300.0	62	B	mg/L	53
024	DU-19105	Aqueous	Tetrachloroethene	8260B	1800		ug/L	54

(109 detections)

Client: TRC Companies, Inc.
Description: DP-27
Date Sampled: 01/14/2019 0830
Date Received: 01/22/2019

Laboratory ID: UA22027-001
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	01/29/2019 1837	SLU		96081
1		(Chloride) 300.0	1	01/24/2019 1839	HKL		95708
1		(Sulfate) 300.0	1	01/29/2019 1837	SLU		96079

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.16	J	0.20	0.050	mg/L	1
Chloride		300.0	8.8	B	1.0	0.20	mg/L	1
Sulfate		300.0	91		1.0	0.20	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	5	01/24/2019 1333	JM1		95668

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	ND		100	10	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	2.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	2.0	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	2.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		10	2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		50	10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	2.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	2.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	2.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		10	2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	2.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	2.5	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	2.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	2.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	2.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	2.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	2.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	2.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	2.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		10	3.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	2.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	2.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	2.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.0	2.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	2.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	2.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	2.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	2.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Client: TRC Companies, Inc.
Description: DP-27
Date Sampled: 01/14/2019 0830
Date Received: 01/22/2019

Laboratory ID: UA22027-001
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	5	01/24/2019 1333	JM1		95668

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Ethylbenzene	100-41-4	8260B	ND		5.0	2.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		50	10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	2.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	2.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	2.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		50	10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		25	2.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	2.0	ug/L	1
Styrene	100-42-5	8260B	ND		5.0	2.1	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	2.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	330		5.0	2.0	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	2.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	2.1	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	2.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	2.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	2.0	ug/L	1
Trichloroethene	79-01-6	8260B	ND		5.0	2.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	2.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		5.0	2.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	2.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		89	70-130
Bromofluorobenzene		92	70-130
Toluene-d8		94	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
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Client: TRC Companies, Inc.
Description: DP-27A
Date Sampled: 01/14/2019 0930
Date Received: 01/22/2019

Laboratory ID: UA22027-002
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	01/29/2019 2007	SLU		96081
1		(Chloride) 300.0	1	01/24/2019 1933	HKL		95708
1		(Sulfate) 300.0	1	01/29/2019 2007	SLU		96079

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.094	J	0.20	0.050	mg/L	1
Chloride		300.0	0.79	BJ	1.0	0.20	mg/L	1
Sulfate		300.0	49		1.0	0.20	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	5	01/24/2019 1355	JM1		95668

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	ND		100	10	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	2.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	2.0	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	2.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		10	2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		50	10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	2.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	2.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	2.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		10	2.0	ug/L	1
Chloroform	67-66-3	8260B	3.9	J	5.0	2.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	2.5	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	2.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	2.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	2.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	2.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	2.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	2.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	2.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		10	3.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	2.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	2.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	2.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.0	2.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	2.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	2.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	2.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	2.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Client: TRC Companies, Inc.
Description: DP-27A
Date Sampled: 01/14/2019 0930
Date Received: 01/22/2019

Laboratory ID: UA22027-002
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	5	01/24/2019 1355	JM1		95668

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Ethylbenzene	100-41-4	8260B	ND		5.0	2.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		50	10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	2.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	2.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	2.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		50	10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		25	2.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	2.0	ug/L	1
Styrene	100-42-5	8260B	ND		5.0	2.1	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	2.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	270		5.0	2.0	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	2.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	2.1	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	2.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	2.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	2.0	ug/L	1
Trichloroethene	79-01-6	8260B	ND		5.0	2.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	2.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		5.0	2.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	2.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		90	70-130
Bromofluorobenzene		93	70-130
Toluene-d8		96	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
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Client: TRC Companies, Inc.
Description: DP-27B
Date Sampled: 01/14/2019 1100
Date Received: 01/22/2019

Laboratory ID: UA22027-003
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	01/29/2019 2025	SLU		96081
1		(Chloride) 300.0	1	01/24/2019 1951	HKL		95708
1		(Sulfate) 300.0	1	01/29/2019 2025	SLU		96079

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.092	J	0.20	0.050	mg/L	1
Chloride		300.0	1.4	B	1.0	0.20	mg/L	1
Sulfate		300.0	5.5		1.0	0.20	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	01/24/2019 1817	JM1		95668

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	ND		20	2.0	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260B	0.89	J	1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260B	2.4		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Client: TRC Companies, Inc.
Description: DP-27B
Date Sampled: 01/14/2019 1100
Date Received: 01/22/2019

Laboratory ID: UA22027-003
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	01/24/2019 1817	JM1		95668

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Ethylbenzene	100-41-4	8260B	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260B	0.95	J	5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	120		1.0	0.40	ug/L	1
Toluene	108-88-3	8260B	1.0		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	0.82	J	1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260B	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		87	70-130
Bromofluorobenzene		93	70-130
Toluene-d8		96	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Client: TRC Companies, Inc.
Description: DP-26
Date Sampled: 01/14/2019 1230
Date Received: 01/22/2019

Laboratory ID: UA22027-004
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	01/29/2019 2043	SLU		96081
1		(Chloride) 300.0	1	01/24/2019 2009	HKL		95708
2		(Sulfate) 300.0	5	01/31/2019 2248	SLU		96075

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.24		0.20	0.050	mg/L	1
Chloride		300.0	18	B	1.0	0.20	mg/L	1
Sulfate		300.0	240	B	5.0	1.0	mg/L	2

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	5	01/24/2019 1417	JM1		95668

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	ND		100	10	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	2.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	2.0	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	2.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		10	2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		50	10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	2.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	2.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	2.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		10	2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	2.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	2.5	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	2.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	2.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	2.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	2.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	2.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	2.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	2.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		10	3.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	2.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	2.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	2.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.0	2.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	2.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	2.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	2.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	2.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Client: TRC Companies, Inc.
Description: DP-26
Date Sampled: 01/14/2019 1230
Date Received: 01/22/2019

Laboratory ID: UA22027-004
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	5	01/24/2019 1417	JM1		95668

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Ethylbenzene	100-41-4	8260B	ND		5.0	2.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		50	10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	2.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	2.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	2.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		50	10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		25	2.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	2.0	ug/L	1
Styrene	100-42-5	8260B	ND		5.0	2.1	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	2.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	320		5.0	2.0	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	2.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	2.1	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	2.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	2.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	2.0	ug/L	1
Trichloroethene	79-01-6	8260B	ND		5.0	2.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	2.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		5.0	2.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	2.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		96	70-130
Bromofluorobenzene		103	70-130
Toluene-d8		97	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Client: TRC Companies, Inc.
Description: DP-26A
Date Sampled: 01/14/2019 1320
Date Received: 01/22/2019

Laboratory ID: UA22027-005
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	01/29/2019 2101	SLU		96081
1		(Chloride) 300.0	1	01/24/2019 2027	HKL		95708
1		(Sulfate) 300.0	1	01/29/2019 2101	SLU		96079

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	ND		0.20	0.050	mg/L	1
Chloride		300.0	0.83	BJ	1.0	0.20	mg/L	1
Sulfate		300.0	1.5		1.0	0.20	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	5	01/24/2019 1439	JM1		95668

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	ND		100	10	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	2.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	2.0	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	2.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		10	2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		50	10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	2.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	2.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	2.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		10	2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	2.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	2.5	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	2.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	2.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	2.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	2.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	2.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	2.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	2.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		10	3.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	2.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	2.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	2.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.0	2.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	2.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	2.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	2.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	2.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Client: TRC Companies, Inc.
Description: DP-26A
Date Sampled: 01/14/2019 1320
Date Received: 01/22/2019

Laboratory ID: UA22027-005
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	5	01/24/2019 1439	JM1		95668

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Ethylbenzene	100-41-4	8260B	ND		5.0	2.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		50	10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	2.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	2.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	2.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		50	10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		25	2.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	2.0	ug/L	1
Styrene	100-42-5	8260B	ND		5.0	2.1	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	2.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	280		5.0	2.0	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	2.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	2.1	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	2.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	2.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	2.0	ug/L	1
Trichloroethene	79-01-6	8260B	ND		5.0	2.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	2.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		5.0	2.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	2.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		90	70-130
Bromofluorobenzene		101	70-130
Toluene-d8		96	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Client: TRC Companies, Inc.
Description: DP-26B
Date Sampled: 01/14/2019 1450
Date Received: 01/22/2019

Laboratory ID: UA22027-006
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	01/29/2019 2120	SLU		96081
1		(Chloride) 300.0	1	01/24/2019 2045	HKL		95708
1		(Sulfate) 300.0	1	01/29/2019 2120	SLU		96079

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.094	J	0.20	0.050	mg/L	1
Chloride		300.0	1.2	B	1.0	0.20	mg/L	1
Sulfate		300.0	4.4		1.0	0.20	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	50	01/24/2019 1501	JM1		95668

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	ND		1000	100	ug/L	1
Benzene	71-43-2	8260B	ND		50	20	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		50	20	ug/L	1
Bromoform	75-25-2	8260B	ND		50	20	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		100	20	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		500	100	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		50	20	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		50	20	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		50	20	ug/L	1
Chloroethane	75-00-3	8260B	ND		100	20	ug/L	1
Chloroform	67-66-3	8260B	ND		50	20	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		50	25	ug/L	1
Cyclohexane	110-82-7	8260B	ND		50	20	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		50	20	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		50	20	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		50	20	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		50	20	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		50	20	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		50	20	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		100	30	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		50	20	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		50	20	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		50	20	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		50	20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		50	20	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		50	20	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		50	20	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		50	20	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Client: TRC Companies, Inc.
Description: DP-26B
Date Sampled: 01/14/2019 1450
Date Received: 01/22/2019

Laboratory ID: UA22027-006
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	50	01/24/2019 1501	JM1		95668

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Ethylbenzene	100-41-4	8260B	ND		50	20	ug/L	1
2-Hexanone	591-78-6	8260B	ND		500	100	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		50	20	ug/L	1
Methyl acetate	79-20-9	8260B	ND		50	20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		50	20	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		500	100	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		250	20	ug/L	1
Methylene chloride	75-09-2	8260B	ND		50	20	ug/L	1
Styrene	100-42-5	8260B	ND		50	21	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		50	20	ug/L	1
Tetrachloroethene	127-18-4	8260B	2200		50	20	ug/L	1
Toluene	108-88-3	8260B	ND		50	20	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		50	21	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		50	20	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		50	20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		50	20	ug/L	1
Trichloroethene	79-01-6	8260B	ND		50	20	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		50	20	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		50	20	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		50	20	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		90	70-130
Bromofluorobenzene		91	70-130
Toluene-d8		94	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Client: TRC Companies, Inc.
Description: DP-25
Date Sampled: 01/15/2019 0820
Date Received: 01/22/2019

Laboratory ID: UA22027-007
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	01/29/2019 2138	SLU		96081
1		(Chloride) 300.0	1	01/24/2019 2103	HKL		95708
1		(Sulfate) 300.0	1	01/29/2019 2138	SLU		96079

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.32		0.20	0.050	mg/L	1
Chloride		300.0	17	B	1.0	0.20	mg/L	1
Sulfate		300.0	160		1.0	0.20	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	5	01/24/2019 1523	JM1		95668

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	ND		100	10	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	2.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	2.0	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	2.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		10	2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		50	10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	2.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	2.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	2.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		10	2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	2.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	2.5	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	2.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	2.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	2.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	2.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	2.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	2.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	2.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		10	3.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	2.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	2.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	2.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.0	2.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	2.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	2.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	2.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	2.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Client: TRC Companies, Inc.
Description: DP-25
Date Sampled: 01/15/2019 0820
Date Received: 01/22/2019

Laboratory ID: UA22027-007
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	5	01/24/2019 1523	JM1		95668

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Ethylbenzene	100-41-4	8260B	ND		5.0	2.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		50	10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	2.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	2.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	2.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		50	10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		25	2.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	2.0	ug/L	1
Styrene	100-42-5	8260B	ND		5.0	2.1	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	2.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	340		5.0	2.0	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	2.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	2.1	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	2.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	2.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	2.0	ug/L	1
Trichloroethene	79-01-6	8260B	ND		5.0	2.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	2.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		5.0	2.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	2.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		91	70-130
Bromofluorobenzene		98	70-130
Toluene-d8		103	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
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Client: TRC Companies, Inc.
Description: DP-25A
Date Sampled: 01/15/2019 0920
Date Received: 01/22/2019

Laboratory ID: UA22027-008
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	01/29/2019 2156	SLU		96081
1		(Chloride) 300.0	1	01/24/2019 2121	HKL		95708
1		(Sulfate) 300.0	1	01/29/2019 2156	SLU		96079

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.094	J	0.20	0.050	mg/L	1
Chloride		300.0	1.4	B	1.0	0.20	mg/L	1
Sulfate		300.0	1.4		1.0	0.20	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	5030B	8260B	5	01/26/2019 2126	STM		95837

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	12	J	100	10	ug/L	2
Benzene	71-43-2	8260B	ND		5.0	2.0	ug/L	2
Bromodichloromethane	75-27-4	8260B	ND		5.0	2.0	ug/L	2
Bromoform	75-25-2	8260B	ND		5.0	2.0	ug/L	2
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		10	2.0	ug/L	2
2-Butanone (MEK)	78-93-3	8260B	ND		50	10	ug/L	2
Carbon disulfide	75-15-0	8260B	ND		5.0	2.0	ug/L	2
Carbon tetrachloride	56-23-5	8260B	ND		5.0	2.0	ug/L	2
Chlorobenzene	108-90-7	8260B	ND		5.0	2.0	ug/L	2
Chloroethane	75-00-3	8260B	ND		10	2.0	ug/L	2
Chloroform	67-66-3	8260B	5.3		5.0	2.0	ug/L	2
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	2.5	ug/L	2
Cyclohexane	110-82-7	8260B	ND		5.0	2.0	ug/L	2
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	2.0	ug/L	2
Dibromochloromethane	124-48-1	8260B	ND		5.0	2.0	ug/L	2
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	2.0	ug/L	2
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	2.0	ug/L	2
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	2.0	ug/L	2
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	2.0	ug/L	2
Dichlorodifluoromethane	75-71-8	8260B	ND		10	3.0	ug/L	2
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	2.0	ug/L	2
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	2.0	ug/L	2
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	2.0	ug/L	2
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.0	2.0	ug/L	2
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	2.0	ug/L	2
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	2.0	ug/L	2
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	2.0	ug/L	2
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	2.0	ug/L	2

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Client: TRC Companies, Inc.
Description: DP-25A
Date Sampled: 01/15/2019 0920
Date Received: 01/22/2019

Laboratory ID: UA22027-008
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	5030B	8260B	5	01/26/2019 2126	STM		95837

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Ethylbenzene	100-41-4	8260B	ND		5.0	2.0	ug/L	2
2-Hexanone	591-78-6	8260B	ND		50	10	ug/L	2
Isopropylbenzene	98-82-8	8260B	ND		5.0	2.0	ug/L	2
Methyl acetate	79-20-9	8260B	ND		5.0	2.0	ug/L	2
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	2.0	ug/L	2
4-Methyl-2-pentanone	108-10-1	8260B	ND		50	10	ug/L	2
Methylcyclohexane	108-87-2	8260B	ND		25	2.0	ug/L	2
Methylene chloride	75-09-2	8260B	ND		5.0	2.0	ug/L	2
Styrene	100-42-5	8260B	ND		5.0	2.1	ug/L	2
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	2.0	ug/L	2
Tetrachloroethene	127-18-4	8260B	450		5.0	2.0	ug/L	2
Toluene	108-88-3	8260B	ND		5.0	2.0	ug/L	2
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	2.1	ug/L	2
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	2.0	ug/L	2
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	2.0	ug/L	2
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	2.0	ug/L	2
Trichloroethene	79-01-6	8260B	ND		5.0	2.0	ug/L	2
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	2.0	ug/L	2
Vinyl chloride	75-01-4	8260B	ND		5.0	2.0	ug/L	2
Xylenes (total)	1330-20-7	8260B	ND		5.0	2.0	ug/L	2

Surrogate	Q	Run 2 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		102	70-130
Bromofluorobenzene		102	70-130
Toluene-d8		95	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
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Client: TRC Companies, Inc.
Description: DP-25B
Date Sampled: 01/15/2019 1045
Date Received: 01/22/2019

Laboratory ID: UA22027-009
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	01/29/2019 2214	SLU		96081
1		(Chloride) 300.0	1	01/24/2019 2139	HKL		95708
1		(Sulfate) 300.0	1	01/29/2019 2214	SLU		96079

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	ND		0.20	0.050	mg/L	1
Chloride		300.0	1.0	B	1.0	0.20	mg/L	1
Sulfate		300.0	1.3		1.0	0.20	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	5030B	8260B	5	01/26/2019 2149	STM		95837

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	11	J	100	10	ug/L	2
Benzene	71-43-2	8260B	ND		5.0	2.0	ug/L	2
Bromodichloromethane	75-27-4	8260B	ND		5.0	2.0	ug/L	2
Bromoform	75-25-2	8260B	ND		5.0	2.0	ug/L	2
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		10	2.0	ug/L	2
2-Butanone (MEK)	78-93-3	8260B	ND		50	10	ug/L	2
Carbon disulfide	75-15-0	8260B	ND		5.0	2.0	ug/L	2
Carbon tetrachloride	56-23-5	8260B	ND		5.0	2.0	ug/L	2
Chlorobenzene	108-90-7	8260B	ND		5.0	2.0	ug/L	2
Chloroethane	75-00-3	8260B	ND		10	2.0	ug/L	2
Chloroform	67-66-3	8260B	3.1	J	5.0	2.0	ug/L	2
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	2.5	ug/L	2
Cyclohexane	110-82-7	8260B	ND		5.0	2.0	ug/L	2
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	2.0	ug/L	2
Dibromochloromethane	124-48-1	8260B	ND		5.0	2.0	ug/L	2
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	2.0	ug/L	2
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	2.0	ug/L	2
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	2.0	ug/L	2
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	2.0	ug/L	2
Dichlorodifluoromethane	75-71-8	8260B	ND		10	3.0	ug/L	2
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	2.0	ug/L	2
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	2.0	ug/L	2
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	2.0	ug/L	2
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.0	2.0	ug/L	2
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	2.0	ug/L	2
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	2.0	ug/L	2
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	2.0	ug/L	2
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	2.0	ug/L	2

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Client: TRC Companies, Inc.
Description: DP-25B
Date Sampled: 01/15/2019 1045
Date Received: 01/22/2019

Laboratory ID: UA22027-009
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	5030B	8260B	5	01/26/2019 2149	STM		95837

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Ethylbenzene	100-41-4	8260B	ND		5.0	2.0	ug/L	2
2-Hexanone	591-78-6	8260B	ND		50	10	ug/L	2
Isopropylbenzene	98-82-8	8260B	ND		5.0	2.0	ug/L	2
Methyl acetate	79-20-9	8260B	ND		5.0	2.0	ug/L	2
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	2.0	ug/L	2
4-Methyl-2-pentanone	108-10-1	8260B	ND		50	10	ug/L	2
Methylcyclohexane	108-87-2	8260B	ND		25	2.0	ug/L	2
Methylene chloride	75-09-2	8260B	ND		5.0	2.0	ug/L	2
Styrene	100-42-5	8260B	ND		5.0	2.1	ug/L	2
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	2.0	ug/L	2
Tetrachloroethene	127-18-4	8260B	760		5.0	2.0	ug/L	2
Toluene	108-88-3	8260B	ND		5.0	2.0	ug/L	2
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	3.5	J	5.0	2.1	ug/L	2
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	2.0	ug/L	2
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	2.0	ug/L	2
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	2.0	ug/L	2
Trichloroethene	79-01-6	8260B	ND		5.0	2.0	ug/L	2
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	2.0	ug/L	2
Vinyl chloride	75-01-4	8260B	ND		5.0	2.0	ug/L	2
Xylenes (total)	1330-20-7	8260B	ND		5.0	2.0	ug/L	2

Surrogate	Q	Run 2 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		103	70-130
Bromofluorobenzene		102	70-130
Toluene-d8		95	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Client: TRC Companies, Inc.
Description: DP-24
Date Sampled: 01/15/2019 1220
Date Received: 01/22/2019

Laboratory ID: UA22027-010
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	01/29/2019 2232	SLU		96081
1		(Chloride) 300.0	1	01/24/2019 2157	HKL		95708
1		(Sulfate) 300.0	1	01/29/2019 2232	SLU		96079

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.28		0.20	0.050	mg/L	1
Chloride		300.0	19	B	1.0	0.20	mg/L	1
Sulfate		300.0	1.3		1.0	0.20	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	10	01/24/2019 1628	JM1		95668

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	ND		200	20	ug/L	1
Benzene	71-43-2	8260B	ND		10	4.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		10	4.0	ug/L	1
Bromoform	75-25-2	8260B	ND		10	4.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		20	4.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		100	20	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		10	4.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		10	4.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		10	4.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		20	4.0	ug/L	1
Chloroform	67-66-3	8260B	ND		10	4.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		10	5.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		10	4.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		10	4.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		10	4.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		10	4.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		10	4.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		10	4.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		10	4.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		20	6.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		10	4.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		10	4.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		10	4.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		10	4.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		10	4.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		10	4.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		10	4.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		10	4.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Client: TRC Companies, Inc.
Description: DP-24
Date Sampled: 01/15/2019 1220
Date Received: 01/22/2019

Laboratory ID: UA22027-010
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	10	01/24/2019 1628	JM1		95668

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Ethylbenzene	100-41-4	8260B	ND		10	4.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		100	20	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		10	4.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		10	4.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		10	4.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		100	20	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		50	4.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		10	4.0	ug/L	1
Styrene	100-42-5	8260B	ND		10	4.1	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		10	4.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	810		10	4.0	ug/L	1
Toluene	108-88-3	8260B	ND		10	4.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		10	4.2	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		10	4.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		10	4.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		10	4.0	ug/L	1
Trichloroethene	79-01-6	8260B	ND		10	4.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		10	4.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		10	4.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		10	4.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		89	70-130
Bromofluorobenzene		90	70-130
Toluene-d8		95	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Client: TRC Companies, Inc.
Description: DP-24A
Date Sampled: 01/15/2019 1320
Date Received: 01/22/2019

Laboratory ID: UA22027-011
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	01/29/2019 2326	SLU		96081
1		(Chloride) 300.0	1	01/24/2019 2215	HKL		95708
1		(Sulfate) 300.0	1	01/29/2019 2326	SLU		96079

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.091	J	0.20	0.050	mg/L	1
Chloride		300.0	1.2	B	1.0	0.20	mg/L	1
Sulfate		300.0	0.52	J	1.0	0.20	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	50	01/24/2019 1650	JM1		95668

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	ND		1000	100	ug/L	1
Benzene	71-43-2	8260B	ND		50	20	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		50	20	ug/L	1
Bromoform	75-25-2	8260B	ND		50	20	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		100	20	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		500	100	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		50	20	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		50	20	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		50	20	ug/L	1
Chloroethane	75-00-3	8260B	ND		100	20	ug/L	1
Chloroform	67-66-3	8260B	ND		50	20	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		50	25	ug/L	1
Cyclohexane	110-82-7	8260B	ND		50	20	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		50	20	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		50	20	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		50	20	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		50	20	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		50	20	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		50	20	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		100	30	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		50	20	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		50	20	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		50	20	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		50	20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		50	20	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		50	20	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		50	20	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		50	20	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Client: TRC Companies, Inc.
Description: DP-24A
Date Sampled: 01/15/2019 1320
Date Received: 01/22/2019

Laboratory ID: UA22027-011
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	50	01/24/2019 1650	JM1		95668

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Ethylbenzene	100-41-4	8260B	ND		50	20	ug/L	1
2-Hexanone	591-78-6	8260B	ND		500	100	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		50	20	ug/L	1
Methyl acetate	79-20-9	8260B	ND		50	20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		50	20	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		500	100	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		250	20	ug/L	1
Methylene chloride	75-09-2	8260B	ND		50	20	ug/L	1
Styrene	100-42-5	8260B	ND		50	21	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		50	20	ug/L	1
Tetrachloroethene	127-18-4	8260B	4200		50	20	ug/L	1
Toluene	108-88-3	8260B	ND		50	20	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		50	21	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		50	20	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		50	20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		50	20	ug/L	1
Trichloroethene	79-01-6	8260B	ND		50	20	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		50	20	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		50	20	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		50	20	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		89	70-130
Bromofluorobenzene		93	70-130
Toluene-d8		97	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Client: TRC Companies, Inc.
Description: DP-24B
Date Sampled: 01/15/2019 1420
Date Received: 01/22/2019

Laboratory ID: UA22027-012
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	01/29/2019 2344	SLU		96081
1		(Chloride) 300.0	1	01/24/2019 2309	HKL		95708
1		(Sulfate) 300.0	1	01/29/2019 2344	SLU		96079

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.10	J	0.20	0.050	mg/L	1
Chloride		300.0	1.4	B	1.0	0.20	mg/L	1
Sulfate		300.0	0.60	J	1.0	0.20	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	10	01/24/2019 1712	JM1		95668

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	ND		200	20	ug/L	1
Benzene	71-43-2	8260B	ND		10	4.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		10	4.0	ug/L	1
Bromoform	75-25-2	8260B	ND		10	4.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		20	4.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		100	20	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		10	4.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		10	4.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		10	4.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		20	4.0	ug/L	1
Chloroform	67-66-3	8260B	ND		10	4.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		10	5.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		10	4.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		10	4.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		10	4.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		10	4.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		10	4.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		10	4.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		10	4.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		20	6.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		10	4.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		10	4.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		10	4.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		10	4.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		10	4.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		10	4.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		10	4.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		10	4.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Client: TRC Companies, Inc.
Description: DP-24B
Date Sampled: 01/15/2019 1420
Date Received: 01/22/2019

Laboratory ID: UA22027-012
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	10	01/24/2019 1712	JM1		95668

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Ethylbenzene	100-41-4	8260B	ND		10	4.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		100	20	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		10	4.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		10	4.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		10	4.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		100	20	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		50	4.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		10	4.0	ug/L	1
Styrene	100-42-5	8260B	ND		10	4.1	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		10	4.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	720		10	4.0	ug/L	1
Toluene	108-88-3	8260B	ND		10	4.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		10	4.2	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		10	4.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		10	4.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		10	4.0	ug/L	1
Trichloroethene	79-01-6	8260B	4.9	J	10	4.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		10	4.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		10	4.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		10	4.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		90	70-130
Bromofluorobenzene		96	70-130
Toluene-d8		99	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Client: TRC Companies, Inc.
Description: DP-23
Date Sampled: 01/16/2019 0830
Date Received: 01/22/2019

Laboratory ID: UA22027-013
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	01/30/2019 0002	SLU		96081
1		(Chloride) 300.0	1	01/24/2019 2327	HKL		95708
1		(Sulfate) 300.0	1	01/30/2019 0002	SLU		96079

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.26		0.20	0.050	mg/L	1
Chloride		300.0	15	B	1.0	0.20	mg/L	1
Sulfate		300.0	0.84	J	1.0	0.20	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	01/23/2019 2343	KGT		95629

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	ND		20	2.0	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260B	0.41	J	1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Client: TRC Companies, Inc.
Description: DP-23
Date Sampled: 01/16/2019 0830
Date Received: 01/22/2019

Laboratory ID: UA22027-013
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	01/23/2019 2343	KGT		95629

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Ethylbenzene	100-41-4	8260B	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	80		1.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260B	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		91	70-130
Bromofluorobenzene		94	70-130
Toluene-d8		105	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Client: TRC Companies, Inc.
Description: DP-23A
Date Sampled: 01/16/2019 0940
Date Received: 01/22/2019

Laboratory ID: UA22027-014
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	01/30/2019 0020	SLU		96081
1		(Chloride) 300.0	1	01/24/2019 2346	HKL		95708
1		(Sulfate) 300.0	1	01/30/2019 0020	SLU		96079

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	ND		0.20	0.050	mg/L	1
Chloride		300.0	0.85	BJ	1.0	0.20	mg/L	1
Sulfate		300.0	0.44	J	1.0	0.20	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	01/24/2019 0005	KGT		95629

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	ND		20	2.0	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
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Client: TRC Companies, Inc.
Description: DP-23A
Date Sampled: 01/16/2019 0940
Date Received: 01/22/2019

Laboratory ID: UA22027-014
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	01/24/2019 0005	KGT		95629

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Ethylbenzene	100-41-4	8260B	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	32		1.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260B	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	3.5		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		88	70-130
Bromofluorobenzene		92	70-130
Toluene-d8		95	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
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Client: TRC Companies, Inc.
Description: DP-23B
Date Sampled: 01/16/2019 1115
Date Received: 01/22/2019

Laboratory ID: UA22027-015
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	01/30/2019 0038	SLU		96081
1		(Chloride) 300.0	1	01/25/2019 0004	HKL		95708
1		(Sulfate) 300.0	1	01/30/2019 0038	SLU		96079

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	ND		0.20	0.050	mg/L	1
Chloride		300.0	0.83	BJ	1.0	0.20	mg/L	1
Sulfate		300.0	0.64	J	1.0	0.20	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	01/24/2019 1248	JM1		95668

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	ND		20	2.0	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Client: TRC Companies, Inc.
Description: DP-23B
Date Sampled: 01/16/2019 1115
Date Received: 01/22/2019

Laboratory ID: UA22027-015
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	01/24/2019 1248	JM1		95668

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Ethylbenzene	100-41-4	8260B	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	11		1.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260B	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		90	70-130
Bromofluorobenzene		95	70-130
Toluene-d8		96	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
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Client: TRC Companies, Inc.
Description: DP-22
Date Sampled: 01/16/2019 1255
Date Received: 01/22/2019

Laboratory ID: UA22027-016
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	01/30/2019 0056	SLU		96081
1		(Chloride) 300.0	1	01/30/2019 0056	SLU		96080
1		(Sulfate) 300.0	1	01/30/2019 0056	SLU		96079

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.24		0.20	0.050	mg/L	1
Chloride		300.0	31	B	1.0	0.20	mg/L	1
Sulfate		300.0	12		1.0	0.20	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	5030B	8260B	10	01/25/2019 0433	KGT		95734

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	ND		200	20	ug/L	2
Benzene	71-43-2	8260B	ND		10	4.0	ug/L	2
Bromodichloromethane	75-27-4	8260B	ND		10	4.0	ug/L	2
Bromoform	75-25-2	8260B	ND		10	4.0	ug/L	2
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		20	4.0	ug/L	2
2-Butanone (MEK)	78-93-3	8260B	ND		100	20	ug/L	2
Carbon disulfide	75-15-0	8260B	ND		10	4.0	ug/L	2
Carbon tetrachloride	56-23-5	8260B	ND		10	4.0	ug/L	2
Chlorobenzene	108-90-7	8260B	ND		10	4.0	ug/L	2
Chloroethane	75-00-3	8260B	ND		20	4.0	ug/L	2
Chloroform	67-66-3	8260B	ND		10	4.0	ug/L	2
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		10	5.0	ug/L	2
Cyclohexane	110-82-7	8260B	ND		10	4.0	ug/L	2
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		10	4.0	ug/L	2
Dibromochloromethane	124-48-1	8260B	ND		10	4.0	ug/L	2
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		10	4.0	ug/L	2
1,2-Dichlorobenzene	95-50-1	8260B	ND		10	4.0	ug/L	2
1,3-Dichlorobenzene	541-73-1	8260B	ND		10	4.0	ug/L	2
1,4-Dichlorobenzene	106-46-7	8260B	ND		10	4.0	ug/L	2
Dichlorodifluoromethane	75-71-8	8260B	ND		20	6.0	ug/L	2
1,1-Dichloroethane	75-34-3	8260B	ND		10	4.0	ug/L	2
1,2-Dichloroethane	107-06-2	8260B	ND		10	4.0	ug/L	2
1,1-Dichloroethene	75-35-4	8260B	ND		10	4.0	ug/L	2
cis-1,2-Dichloroethene	156-59-2	8260B	ND		10	4.0	ug/L	2
trans-1,2-Dichloroethene	156-60-5	8260B	ND		10	4.0	ug/L	2
1,2-Dichloropropane	78-87-5	8260B	ND		10	4.0	ug/L	2
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		10	4.0	ug/L	2
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		10	4.0	ug/L	2

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Client: TRC Companies, Inc.
Description: DP-22
Date Sampled: 01/16/2019 1255
Date Received: 01/22/2019

Laboratory ID: UA22027-016
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	5030B	8260B	10	01/25/2019 0433	KGT		95734

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Ethylbenzene	100-41-4	8260B	ND		10	4.0	ug/L	2
2-Hexanone	591-78-6	8260B	ND		100	20	ug/L	2
Isopropylbenzene	98-82-8	8260B	ND		10	4.0	ug/L	2
Methyl acetate	79-20-9	8260B	ND		10	4.0	ug/L	2
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		10	4.0	ug/L	2
4-Methyl-2-pentanone	108-10-1	8260B	ND		100	20	ug/L	2
Methylcyclohexane	108-87-2	8260B	ND		50	4.0	ug/L	2
Methylene chloride	75-09-2	8260B	ND		10	4.0	ug/L	2
Styrene	100-42-5	8260B	ND		10	4.1	ug/L	2
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		10	4.0	ug/L	2
Tetrachloroethene	127-18-4	8260B	800		10	4.0	ug/L	2
Toluene	108-88-3	8260B	ND		10	4.0	ug/L	2
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		10	4.2	ug/L	2
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		10	4.0	ug/L	2
1,1,1-Trichloroethane	71-55-6	8260B	ND		10	4.0	ug/L	2
1,1,2-Trichloroethane	79-00-5	8260B	ND		10	4.0	ug/L	2
Trichloroethene	79-01-6	8260B	ND		10	4.0	ug/L	2
Trichlorofluoromethane	75-69-4	8260B	ND		10	4.0	ug/L	2
Vinyl chloride	75-01-4	8260B	ND		10	4.0	ug/L	2
Xylenes (total)	1330-20-7	8260B	ND		10	4.0	ug/L	2

Surrogate	Q	Run 2 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		90	70-130
Bromofluorobenzene		88	70-130
Toluene-d8		97	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
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Client: TRC Companies, Inc.
Description: DP-22A
Date Sampled: 01/16/2019 1345
Date Received: 01/22/2019

Laboratory ID: UA22027-017
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	01/30/2019 0525	SLU		96254
2		(Chloride) 300.0	5	02/01/2019 0422	SLU		96340
1		(Sulfate) 300.0	1	01/30/2019 0525	SLU		96255

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	3.2		0.20	0.050	mg/L	1
Chloride		300.0	220		5.0	1.0	mg/L	2
Sulfate		300.0	1.4		1.0	0.20	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	50	01/24/2019 0536	KGT		95629

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	ND		1000	100	ug/L	1
Benzene	71-43-2	8260B	ND		50	20	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		50	20	ug/L	1
Bromoform	75-25-2	8260B	ND		50	20	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		100	20	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		500	100	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		50	20	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		50	20	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		50	20	ug/L	1
Chloroethane	75-00-3	8260B	ND		100	20	ug/L	1
Chloroform	67-66-3	8260B	ND		50	20	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		50	25	ug/L	1
Cyclohexane	110-82-7	8260B	ND		50	20	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		50	20	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		50	20	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		50	20	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		50	20	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		50	20	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		50	20	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		100	30	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		50	20	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		50	20	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		50	20	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		50	20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		50	20	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		50	20	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		50	20	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		50	20	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Client: TRC Companies, Inc.
Description: DP-22A
Date Sampled: 01/16/2019 1345
Date Received: 01/22/2019

Laboratory ID: UA22027-017
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	50	01/24/2019 0536	KGT		95629

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Ethylbenzene	100-41-4	8260B	ND		50	20	ug/L	1
2-Hexanone	591-78-6	8260B	ND		500	100	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		50	20	ug/L	1
Methyl acetate	79-20-9	8260B	ND		50	20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		50	20	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		500	100	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		250	20	ug/L	1
Methylene chloride	75-09-2	8260B	ND		50	20	ug/L	1
Styrene	100-42-5	8260B	ND		50	21	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		50	20	ug/L	1
Tetrachloroethene	127-18-4	8260B	2700		50	20	ug/L	1
Toluene	108-88-3	8260B	ND		50	20	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		50	21	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		50	20	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		50	20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		50	20	ug/L	1
Trichloroethene	79-01-6	8260B	ND		50	20	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		50	20	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		50	20	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		50	20	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		90	70-130
Bromofluorobenzene		91	70-130
Toluene-d8		96	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
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Client: TRC Companies, Inc.
Description: DP-22B
Date Sampled: 01/16/2019 1500
Date Received: 01/22/2019

Laboratory ID: UA22027-018
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	01/30/2019 0551	SLU		96254
1		(Chloride) 300.0	1	01/30/2019 0551	SLU		96256
1		(Sulfate) 300.0	1	01/30/2019 0551	SLU		96255

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.45		0.20	0.050	mg/L	1
Chloride		300.0	190		1.0	0.20	mg/L	1
Sulfate		300.0	0.77	J	1.0	0.20	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	10	01/24/2019 0324	KGT		95629

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	ND		200	20	ug/L	1
Benzene	71-43-2	8260B	ND		10	4.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		10	4.0	ug/L	1
Bromoform	75-25-2	8260B	ND		10	4.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		20	4.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		100	20	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		10	4.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		10	4.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		10	4.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		20	4.0	ug/L	1
Chloroform	67-66-3	8260B	ND		10	4.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		10	5.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		10	4.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		10	4.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		10	4.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		10	4.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		10	4.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		10	4.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		10	4.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		20	6.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		10	4.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		10	4.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		10	4.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		10	4.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		10	4.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		10	4.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		10	4.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		10	4.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
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Client: TRC Companies, Inc.
Description: DP-22B
Date Sampled: 01/16/2019 1500
Date Received: 01/22/2019

Laboratory ID: UA22027-018
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	10	01/24/2019 0324	KGT		95629

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Ethylbenzene	100-41-4	8260B	ND		10	4.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		100	20	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		10	4.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		10	4.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		10	4.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		100	20	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		50	4.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		10	4.0	ug/L	1
Styrene	100-42-5	8260B	ND		10	4.1	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		10	4.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	730		10	4.0	ug/L	1
Toluene	108-88-3	8260B	ND		10	4.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		10	4.2	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		10	4.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		10	4.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		10	4.0	ug/L	1
Trichloroethene	79-01-6	8260B	7.7	J	10	4.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		10	4.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		10	4.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		10	4.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		91	70-130
Bromofluorobenzene		92	70-130
Toluene-d8		96	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: DP-21
Date Sampled: 01/18/2019 0840
Date Received: 01/22/2019

Laboratory ID: UA22027-019
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	01/31/2019 1800	SLU		96078
1		(Chloride) 300.0	1	01/31/2019 1800	SLU		96077
1		(Sulfate) 300.0	1	01/31/2019 1800	SLU		96075

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.22		0.20	0.050	mg/L	1
Chloride		300.0	11	B	1.0	0.20	mg/L	1
Sulfate		300.0	12	B	1.0	0.20	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	01/24/2019 1311	JM1		95668

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	ND		20	2.0	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
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Client: TRC Companies, Inc.
Description: DP-21
Date Sampled: 01/18/2019 0840
Date Received: 01/22/2019

Laboratory ID: UA22027-019
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	01/24/2019 1311	JM1		95668

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Ethylbenzene	100-41-4	8260B	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	38		1.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260B	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		90	70-130
Bromofluorobenzene		90	70-130
Toluene-d8		93	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
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Client: TRC Companies, Inc.
Description: DP-21A
Date Sampled: 01/18/2019 1035
Date Received: 01/22/2019

Laboratory ID: UA22027-020
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	01/31/2019 1854	SLU		96078
1		(Chloride) 300.0	1	01/31/2019 1854	SLU		96077
1		(Sulfate) 300.0	1	01/31/2019 1854	SLU		96075

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	1.3		0.20	0.050	mg/L	1
Chloride		300.0	12	B	1.0	0.20	mg/L	1
Sulfate		300.0	0.51	BJ	1.0	0.20	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	5030B	8260B	20	01/25/2019 0517	KGT		95734

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	ND		400	40	ug/L	2
Benzene	71-43-2	8260B	ND		20	8.0	ug/L	2
Bromodichloromethane	75-27-4	8260B	ND		20	8.0	ug/L	2
Bromoform	75-25-2	8260B	ND		20	8.0	ug/L	2
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		40	8.0	ug/L	2
2-Butanone (MEK)	78-93-3	8260B	ND		200	40	ug/L	2
Carbon disulfide	75-15-0	8260B	ND		20	8.0	ug/L	2
Carbon tetrachloride	56-23-5	8260B	ND		20	8.0	ug/L	2
Chlorobenzene	108-90-7	8260B	ND		20	8.0	ug/L	2
Chloroethane	75-00-3	8260B	ND		40	8.0	ug/L	2
Chloroform	67-66-3	8260B	ND		20	8.0	ug/L	2
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		20	10	ug/L	2
Cyclohexane	110-82-7	8260B	ND		20	8.0	ug/L	2
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		20	8.0	ug/L	2
Dibromochloromethane	124-48-1	8260B	ND		20	8.0	ug/L	2
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		20	8.0	ug/L	2
1,2-Dichlorobenzene	95-50-1	8260B	ND		20	8.0	ug/L	2
1,3-Dichlorobenzene	541-73-1	8260B	ND		20	8.0	ug/L	2
1,4-Dichlorobenzene	106-46-7	8260B	ND		20	8.0	ug/L	2
Dichlorodifluoromethane	75-71-8	8260B	ND		40	12	ug/L	2
1,1-Dichloroethane	75-34-3	8260B	ND		20	8.0	ug/L	2
1,2-Dichloroethane	107-06-2	8260B	ND		20	8.0	ug/L	2
1,1-Dichloroethene	75-35-4	8260B	ND		20	8.0	ug/L	2
cis-1,2-Dichloroethene	156-59-2	8260B	ND		20	8.0	ug/L	2
trans-1,2-Dichloroethene	156-60-5	8260B	ND		20	8.0	ug/L	2
1,2-Dichloropropane	78-87-5	8260B	ND		20	8.0	ug/L	2
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		20	8.0	ug/L	2
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		20	8.0	ug/L	2

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
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Client: TRC Companies, Inc.
Description: DP-21A
Date Sampled: 01/18/2019 1035
Date Received: 01/22/2019

Laboratory ID: UA22027-020
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	5030B	8260B	20	01/25/2019 0517	KGT		95734

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Ethylbenzene	100-41-4	8260B	ND		20	8.0	ug/L	2
2-Hexanone	591-78-6	8260B	ND		200	40	ug/L	2
Isopropylbenzene	98-82-8	8260B	ND		20	8.0	ug/L	2
Methyl acetate	79-20-9	8260B	ND		20	8.0	ug/L	2
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		20	8.0	ug/L	2
4-Methyl-2-pentanone	108-10-1	8260B	ND		200	40	ug/L	2
Methylcyclohexane	108-87-2	8260B	ND		100	8.0	ug/L	2
Methylene chloride	75-09-2	8260B	ND		20	8.0	ug/L	2
Styrene	100-42-5	8260B	ND		20	8.2	ug/L	2
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		20	8.0	ug/L	2
Tetrachloroethene	127-18-4	8260B	1900		20	8.0	ug/L	2
Toluene	108-88-3	8260B	ND		20	8.0	ug/L	2
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		20	8.4	ug/L	2
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		20	8.0	ug/L	2
1,1,1-Trichloroethane	71-55-6	8260B	ND		20	8.0	ug/L	2
1,1,2-Trichloroethane	79-00-5	8260B	ND		20	8.0	ug/L	2
Trichloroethene	79-01-6	8260B	ND		20	8.0	ug/L	2
Trichlorofluoromethane	75-69-4	8260B	ND		20	8.0	ug/L	2
Vinyl chloride	75-01-4	8260B	ND		20	8.0	ug/L	2
Xylenes (total)	1330-20-7	8260B	ND		20	8.0	ug/L	2

Surrogate	Q	Run 2 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		92	70-130
Bromofluorobenzene		98	70-130
Toluene-d8		96	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
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Client: TRC Companies, Inc.
Description: DP-20
Date Sampled: 01/18/2019 1230
Date Received: 01/22/2019

Laboratory ID: UA22027-021
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	01/31/2019 1912	SLU		96078
1		(Chloride) 300.0	1	01/31/2019 1912	SLU		96077
1		(Sulfate) 300.0	1	01/31/2019 1912	SLU		96075

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.38		0.20	0.050	mg/L	1
Chloride		300.0	54	B	1.0	0.20	mg/L	1
Sulfate		300.0	96	B	1.0	0.20	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	20	01/24/2019 0408	KGT		95629

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	ND		400	40	ug/L	1
Benzene	71-43-2	8260B	ND		20	8.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		20	8.0	ug/L	1
Bromoform	75-25-2	8260B	ND		20	8.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		40	8.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		200	40	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		20	8.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		20	8.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		20	8.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		40	8.0	ug/L	1
Chloroform	67-66-3	8260B	ND		20	8.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		20	10	ug/L	1
Cyclohexane	110-82-7	8260B	ND		20	8.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		20	8.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		20	8.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		20	8.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		20	8.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		20	8.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		20	8.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		40	12	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		20	8.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		20	8.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		20	8.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	63		20	8.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		20	8.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		20	8.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		20	8.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		20	8.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
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Client: TRC Companies, Inc.
Description: DP-20
Date Sampled: 01/18/2019 1230
Date Received: 01/22/2019

Laboratory ID: UA22027-021
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	20	01/24/2019 0408	KGT		95629

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Ethylbenzene	100-41-4	8260B	ND		20	8.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		200	40	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		20	8.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		20	8.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		20	8.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		200	40	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		100	8.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		20	8.0	ug/L	1
Styrene	100-42-5	8260B	ND		20	8.2	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		20	8.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	1200		20	8.0	ug/L	1
Toluene	108-88-3	8260B	ND		20	8.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		20	8.4	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		20	8.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		20	8.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		20	8.0	ug/L	1
Trichloroethene	79-01-6	8260B	16	J	20	8.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		20	8.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		20	8.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		20	8.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		92	70-130
Bromofluorobenzene		91	70-130
Toluene-d8		96	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: DP-20A
Date Sampled: 01/18/2019 1500
Date Received: 01/22/2019

Laboratory ID: UA22027-022
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	01/31/2019 1930	SLU		96078
1		(Chloride) 300.0	1	01/31/2019 1930	SLU		96077
1		(Sulfate) 300.0	1	01/31/2019 1930	SLU		96075

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.30		0.20	0.050	mg/L	1
Chloride		300.0	85	B	1.0	0.20	mg/L	1
Sulfate		300.0	62	B	1.0	0.20	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	50	01/24/2019 0514	KGT		95629

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	ND		1000	100	ug/L	1
Benzene	71-43-2	8260B	ND		50	20	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		50	20	ug/L	1
Bromoform	75-25-2	8260B	ND		50	20	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		100	20	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		500	100	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		50	20	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		50	20	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		50	20	ug/L	1
Chloroethane	75-00-3	8260B	ND		100	20	ug/L	1
Chloroform	67-66-3	8260B	ND		50	20	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		50	25	ug/L	1
Cyclohexane	110-82-7	8260B	ND		50	20	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		50	20	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		50	20	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		50	20	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		50	20	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		50	20	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		50	20	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		100	30	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		50	20	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		50	20	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		50	20	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		50	20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		50	20	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		50	20	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		50	20	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		50	20	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Client: TRC Companies, Inc.
Description: DP-20A
Date Sampled: 01/18/2019 1500
Date Received: 01/22/2019

Laboratory ID: UA22027-022
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	50	01/24/2019 0514	KGT		95629

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Ethylbenzene	100-41-4	8260B	ND		50	20	ug/L	1
2-Hexanone	591-78-6	8260B	ND		500	100	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		50	20	ug/L	1
Methyl acetate	79-20-9	8260B	ND		50	20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		50	20	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		500	100	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		250	20	ug/L	1
Methylene chloride	75-09-2	8260B	ND		50	20	ug/L	1
Styrene	100-42-5	8260B	ND		50	21	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		50	20	ug/L	1
Tetrachloroethene	127-18-4	8260B	2200		50	20	ug/L	1
Toluene	108-88-3	8260B	ND		50	20	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		50	21	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		50	20	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		50	20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		50	20	ug/L	1
Trichloroethene	79-01-6	8260B	ND		50	20	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		50	20	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		50	20	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		50	20	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		92	70-130
Bromofluorobenzene		93	70-130
Toluene-d8		99	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: DP-20B
Date Sampled: 01/18/2019 1615
Date Received: 01/22/2019

Laboratory ID: UA22027-023
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	01/31/2019 1948	SLU		96078
1		(Chloride) 300.0	1	01/31/2019 1948	SLU		96077
1		(Sulfate) 300.0	1	01/31/2019 1948	SLU		96075

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.32		0.20	0.050	mg/L	1
Chloride		300.0	71	B	1.0	0.20	mg/L	1
Sulfate		300.0	17	B	1.0	0.20	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	20	01/24/2019 0430	KGT		95629

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	ND		400	40	ug/L	1
Benzene	71-43-2	8260B	ND		20	8.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		20	8.0	ug/L	1
Bromoform	75-25-2	8260B	ND		20	8.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		40	8.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		200	40	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		20	8.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		20	8.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		20	8.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		40	8.0	ug/L	1
Chloroform	67-66-3	8260B	ND		20	8.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		20	10	ug/L	1
Cyclohexane	110-82-7	8260B	ND		20	8.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		20	8.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		20	8.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		20	8.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		20	8.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		20	8.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		20	8.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		40	12	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		20	8.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		20	8.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		20	8.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		20	8.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		20	8.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		20	8.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		20	8.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		20	8.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: DP-20B
Date Sampled: 01/18/2019 1615
Date Received: 01/22/2019

Laboratory ID: UA22027-023
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	20	01/24/2019 0430	KGT		95629

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Ethylbenzene	100-41-4	8260B	ND		20	8.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		200	40	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		20	8.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		20	8.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		20	8.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		200	40	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		100	8.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		20	8.0	ug/L	1
Styrene	100-42-5	8260B	ND		20	8.2	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		20	8.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	1000		20	8.0	ug/L	1
Toluene	108-88-3	8260B	ND		20	8.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		20	8.4	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		20	8.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		20	8.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		20	8.0	ug/L	1
Trichloroethene	79-01-6	8260B	ND		20	8.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		20	8.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		20	8.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		20	8.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		91	70-130
Bromofluorobenzene		93	70-130
Toluene-d8		96	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: DU-19105
Date Sampled: 01/14/2019
Date Received: 01/22/2019

Laboratory ID: UA22027-024
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	01/31/2019 2006	SLU		96078
1		(Chloride) 300.0	1	01/31/2019 2006	SLU		96077
1		(Sulfate) 300.0	1	01/31/2019 2006	SLU		96075

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.47		0.20	0.050	mg/L	1
Chloride		300.0	84	B	1.0	0.20	mg/L	1
Sulfate		300.0	62	B	1.0	0.20	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	20	01/24/2019 1734	JM1		95668

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	ND		400	40	ug/L	1
Benzene	71-43-2	8260B	ND		20	8.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		20	8.0	ug/L	1
Bromoform	75-25-2	8260B	ND		20	8.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		40	8.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		200	40	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		20	8.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		20	8.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		20	8.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		40	8.0	ug/L	1
Chloroform	67-66-3	8260B	ND		20	8.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		20	10	ug/L	1
Cyclohexane	110-82-7	8260B	ND		20	8.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		20	8.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		20	8.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		20	8.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		20	8.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		20	8.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		20	8.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		40	12	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		20	8.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		20	8.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		20	8.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		20	8.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		20	8.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		20	8.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		20	8.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		20	8.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: DU-19105
Date Sampled: 01/14/2019
Date Received: 01/22/2019

Laboratory ID: UA22027-024
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	20	01/24/2019 1734	JM1		95668

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Ethylbenzene	100-41-4	8260B	ND		20	8.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		200	40	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		20	8.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		20	8.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		20	8.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		200	40	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		100	8.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		20	8.0	ug/L	1
Styrene	100-42-5	8260B	ND		20	8.2	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		20	8.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	1800		20	8.0	ug/L	1
Toluene	108-88-3	8260B	ND		20	8.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		20	8.4	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		20	8.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		20	8.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		20	8.0	ug/L	1
Trichloroethene	79-01-6	8260B	ND		20	8.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		20	8.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		20	8.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		20	8.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		93	70-130
Bromofluorobenzene		96	70-130
Toluene-d8		92	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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QC Summary

Inorganic non-metals - MB

Sample ID: UQ95708-001
Batch: 95708
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Chloride	0.20	J	1	1.0	0.20	mg/L	01/24/2019 1536

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - LCS

Sample ID: UQ95708-002
Batch: 95708
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Chloride	20	20		1	101	90-110	01/24/2019 1614

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MS

Sample ID: UA22027-015MS
Batch: 95708
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Chloride	0.83	20	20		1	98	90-110	01/25/2019 0022

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MSD

Sample ID: UA22027-015MD
Batch: 95708
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Chloride	0.83	20	20		1	98	0.00	90-110	20	01/25/2019 0040

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MB

Sample ID: UQ96075-001
Batch: 96075
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Sulfate	0.40	J	1	1.0	0.20	mg/L	01/31/2019 1705

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Shealy Environmental Services, Inc.
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Inorganic non-metals - LCS

Sample ID: UQ96075-002
Batch: 96075
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Sulfate	20	20		1	99	90-110	01/31/2019 1742

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MS

Sample ID: UA22027-019MS
Batch: 96075
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Sulfate	12	20	31		1	94	90-110	01/31/2019 1818

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Shealy Environmental Services, Inc.
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Inorganic non-metals - MSD

Sample ID: UA22027-019MD
Matrix: Aqueous
Batch: 96075
Analytical Method: 300.0

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Sulfate	12	20	30		1	93	0.66	90-110	20	01/31/2019 1836

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MB

Sample ID: UQ96077-001
Batch: 96077
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Chloride	0.20	J	1	1.0	0.20	mg/L	01/31/2019 1705

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: UQ96077-002
Batch: 96077
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Chloride	20	20		1	100	90-110	01/31/2019 1742

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MS

Sample ID: UA22027-019MS
Matrix: Aqueous
Batch: 96077
Analytical Method: 300.0

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Chloride	11	20	30		1	99	90-110	01/31/2019 1818

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: UA22027-019MD
Matrix: Aqueous
Batch: 96077
Analytical Method: 300.0

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Chloride	11	20	30		1	98	0.33	90-110	20	01/31/2019 1836

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MB

Sample ID: UQ96078-001
Batch: 96078
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Bromide	ND		1	0.20	0.050	mg/L	01/31/2019 1705

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - LCS

Sample ID: UQ96078-002
Batch: 96078
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Bromide	8.0	8.4		1	105	90-110	01/31/2019 1742

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MS

Sample ID: UA22027-019MS
Batch: 96078
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Bromide	0.22	8.0	8.6		1	105	90-110	01/31/2019 1818

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: UA22027-019MD
Matrix: Aqueous
Batch: 96078
Analytical Method: 300.0

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Bromide	0.22	8.0	8.4		1	102	2.4	90-110	20	01/31/2019 1836

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MB

Sample ID: UQ96079-001
Batch: 96079
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Sulfate	ND		1	1.0	0.20	mg/L	01/29/2019 1555

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: UQ96079-002
Batch: 96079
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Sulfate	20	20		1	99	90-110	01/29/2019 1631

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MS

Sample ID: UA22027-001MS
Batch: 96079
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Sulfate	91	20	110	N	1	83	90-110	01/29/2019 1855

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: UA22027-001MD
Batch: 96079
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Sulfate	91	20	110	N	1	78	0.94	90-110	20	01/29/2019 1949

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MB

Sample ID: UQ96080-001
Batch: 96080
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Chloride	0.20	J	1	1.0	0.20	mg/L	01/29/2019 1555

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: UQ96080-002
Batch: 96080
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Chloride	20	20		1	100	90-110	01/29/2019 1631

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MB

Sample ID: UQ96081-001
Batch: 96081
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Bromide	ND		1	0.20	0.050	mg/L	01/29/2019 1555

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - LCS

Sample ID: UQ96081-002
Batch: 96081
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Bromide	8.0	8.4		1	105	90-110	01/29/2019 1631

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MS

Sample ID: UA22027-001MS
Batch: 96081
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Bromide	0.16	8.0	8.4		1	103	90-110	01/29/2019 1855

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: UA22027-001MD
Batch: 96081
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Bromide	0.16	8.0	8.5		1	104	1.2	90-110	20	01/29/2019 1949

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MB

Sample ID: UQ96254-001
Batch: 96254
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Bromide	ND		1	0.20	0.050	mg/L	01/30/2019 0130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - LCS

Sample ID: UQ96254-002
Batch: 96254
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Bromide	8.0	8.3		1	104	90-110	01/30/2019 1437

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MB

Sample ID: UQ96255-001
Batch: 96255
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Sulfate	ND		1	1.0	0.20	mg/L	01/30/2019 0130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - LCS

Sample ID: UQ96255-002
Batch: 96255
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Sulfate	20	20		1	98	90-110	01/30/2019 1437

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MB

Sample ID: UQ96256-001
Batch: 96256
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Chloride	ND		1	1.0	0.20	mg/L	01/30/2019 0130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - LCS

Sample ID: UQ96256-002
Batch: 96256
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Chloride	20	20		1	100	90-110	01/30/2019 1437

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MB

Sample ID: UQ96340-001
Batch: 96340
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Chloride	ND		1	1.0	0.20	mg/L	01/31/2019 2033

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - LCS

Sample ID: UQ96340-002
Batch: 96340
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Chloride	20	20		1	100	90-110	02/01/2019 0001

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ95629-001
Batch: 95629
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Acetone	ND		1	20	2.0	ug/L	01/23/2019 2157
Benzene	ND		1	1.0	0.40	ug/L	01/23/2019 2157
Bromodichloromethane	ND		1	1.0	0.40	ug/L	01/23/2019 2157
Bromoform	ND		1	1.0	0.40	ug/L	01/23/2019 2157
Bromomethane (Methyl bromide)	ND		1	2.0	0.40	ug/L	01/23/2019 2157
2-Butanone (MEK)	ND		1	10	2.0	ug/L	01/23/2019 2157
Carbon disulfide	ND		1	1.0	0.40	ug/L	01/23/2019 2157
Carbon tetrachloride	ND		1	1.0	0.40	ug/L	01/23/2019 2157
Chlorobenzene	ND		1	1.0	0.40	ug/L	01/23/2019 2157
Chloroethane	ND		1	2.0	0.40	ug/L	01/23/2019 2157
Chloroform	ND		1	1.0	0.40	ug/L	01/23/2019 2157
Chloromethane (Methyl chloride)	ND		1	1.0	0.50	ug/L	01/23/2019 2157
Cyclohexane	ND		1	1.0	0.40	ug/L	01/23/2019 2157
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	0.40	ug/L	01/23/2019 2157
Dibromochloromethane	ND		1	1.0	0.40	ug/L	01/23/2019 2157
1,2-Dibromoethane (EDB)	ND		1	1.0	0.40	ug/L	01/23/2019 2157
1,2-Dichlorobenzene	ND		1	1.0	0.40	ug/L	01/23/2019 2157
1,3-Dichlorobenzene	ND		1	1.0	0.40	ug/L	01/23/2019 2157
1,4-Dichlorobenzene	ND		1	1.0	0.40	ug/L	01/23/2019 2157
Dichlorodifluoromethane	ND		1	2.0	0.60	ug/L	01/23/2019 2157
1,1-Dichloroethane	ND		1	1.0	0.40	ug/L	01/23/2019 2157
1,2-Dichloroethane	ND		1	1.0	0.40	ug/L	01/23/2019 2157
1,1-Dichloroethene	ND		1	1.0	0.40	ug/L	01/23/2019 2157
cis-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	01/23/2019 2157
trans-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	01/23/2019 2157
1,2-Dichloropropane	ND		1	1.0	0.40	ug/L	01/23/2019 2157
cis-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	01/23/2019 2157
trans-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	01/23/2019 2157
Ethylbenzene	ND		1	1.0	0.40	ug/L	01/23/2019 2157
2-Hexanone	ND		1	10	2.0	ug/L	01/23/2019 2157
Isopropylbenzene	ND		1	1.0	0.40	ug/L	01/23/2019 2157
Methyl acetate	ND		1	1.0	0.40	ug/L	01/23/2019 2157
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	0.40	ug/L	01/23/2019 2157
4-Methyl-2-pentanone	ND		1	10	2.0	ug/L	01/23/2019 2157
Methylcyclohexane	ND		1	5.0	0.40	ug/L	01/23/2019 2157
Methylene chloride	ND		1	1.0	0.40	ug/L	01/23/2019 2157
Styrene	ND		1	1.0	0.41	ug/L	01/23/2019 2157
1,1,2,2-Tetrachloroethane	ND		1	1.0	0.40	ug/L	01/23/2019 2157
Tetrachloroethene	ND		1	1.0	0.40	ug/L	01/23/2019 2157
Toluene	ND		1	1.0	0.40	ug/L	01/23/2019 2157
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	0.42	ug/L	01/23/2019 2157
1,2,4-Trichlorobenzene	ND		1	1.0	0.40	ug/L	01/23/2019 2157
1,1,1-Trichloroethane	ND		1	1.0	0.40	ug/L	01/23/2019 2157
1,1,2-Trichloroethane	ND		1	1.0	0.40	ug/L	01/23/2019 2157

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ95629-001
Batch: 95629
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Trichloroethene	ND		1	1.0	0.40	ug/L	01/23/2019 2157
Trichlorofluoromethane	ND		1	1.0	0.40	ug/L	01/23/2019 2157
Vinyl chloride	ND		1	1.0	0.40	ug/L	01/23/2019 2157
Xylenes (total)	ND		1	1.0	0.40	ug/L	01/23/2019 2157

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		92	70-130
Bromofluorobenzene		94	70-130
Toluene-d8		98	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ95629-002
Batch: 95629
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	63		1	63	60-140	01/23/2019 2022
Benzene	50	49		1	97	70-130	01/23/2019 2022
Bromodichloromethane	50	48		1	96	70-130	01/23/2019 2022
Bromoform	50	48		1	95	70-130	01/23/2019 2022
Bromomethane (Methyl bromide)	50	46		1	92	70-130	01/23/2019 2022
2-Butanone (MEK)	100	85		1	85	70-130	01/23/2019 2022
Carbon disulfide	50	42		1	84	70-130	01/23/2019 2022
Carbon tetrachloride	50	52		1	104	70-130	01/23/2019 2022
Chlorobenzene	50	47		1	94	70-130	01/23/2019 2022
Chloroethane	50	48		1	95	70-130	01/23/2019 2022
Chloroform	50	48		1	95	70-130	01/23/2019 2022
Chloromethane (Methyl chloride)	50	50		1	100	60-140	01/23/2019 2022
Cyclohexane	50	46		1	92	70-130	01/23/2019 2022
1,2-Dibromo-3-chloropropane (DBCP)	50	49		1	99	70-130	01/23/2019 2022
Dibromochloromethane	50	46		1	93	70-130	01/23/2019 2022
1,2-Dibromoethane (EDB)	50	47		1	95	70-130	01/23/2019 2022
1,2-Dichlorobenzene	50	47		1	94	70-130	01/23/2019 2022
1,3-Dichlorobenzene	50	47		1	95	70-130	01/23/2019 2022
1,4-Dichlorobenzene	50	46		1	93	70-130	01/23/2019 2022
Dichlorodifluoromethane	50	62		1	124	60-140	01/23/2019 2022
1,1-Dichloroethane	50	47		1	94	70-130	01/23/2019 2022
1,2-Dichloroethane	50	50		1	99	70-130	01/23/2019 2022
1,1-Dichloroethene	50	43		1	85	70-130	01/23/2019 2022
cis-1,2-Dichloroethene	50	47		1	93	70-130	01/23/2019 2022
trans-1,2-Dichloroethene	50	47		1	93	70-130	01/23/2019 2022
1,2-Dichloropropane	50	44		1	88	70-130	01/23/2019 2022
cis-1,3-Dichloropropene	50	45		1	91	70-130	01/23/2019 2022
trans-1,3-Dichloropropene	50	42		1	83	70-130	01/23/2019 2022
Ethylbenzene	50	51		1	102	70-130	01/23/2019 2022
2-Hexanone	100	97		1	97	70-130	01/23/2019 2022
Isopropylbenzene	50	49		1	98	70-130	01/23/2019 2022
Methyl acetate	50	40		1	81	70-130	01/23/2019 2022
Methyl tertiary butyl ether (MTBE)	50	49		1	99	70-130	01/23/2019 2022
4-Methyl-2-pentanone	100	100		1	102	70-130	01/23/2019 2022
Methylcyclohexane	50	48		1	97	70-130	01/23/2019 2022
Methylene chloride	50	42		1	83	70-130	01/23/2019 2022
Styrene	50	52		1	103	70-130	01/23/2019 2022
1,1,2,2-Tetrachloroethane	50	49		1	98	70-130	01/23/2019 2022
Tetrachloroethene	50	47		1	94	70-130	01/23/2019 2022
Toluene	50	49		1	97	70-130	01/23/2019 2022
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	40		1	80	70-130	01/23/2019 2022
1,2,4-Trichlorobenzene	50	51		1	102	70-130	01/23/2019 2022
1,1,1-Trichloroethane	50	48		1	97	70-130	01/23/2019 2022
1,1,2-Trichloroethane	50	47		1	94	70-130	01/23/2019 2022

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ95629-002
Batch: 95629
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	49		1	98	70-130	01/23/2019 2022
Trichlorofluoromethane	50	46		1	91	70-130	01/23/2019 2022
Vinyl chloride	50	55		1	109	70-130	01/23/2019 2022
Xylenes (total)	100	100		1	101	70-130	01/23/2019 2022

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		89	70-130
Bromofluorobenzene		90	70-130
Toluene-d8		93	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MS

Sample ID: UA22027-017MS
Batch: 95629
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	ND	5000	3800		50	77	60-140	01/24/2019 0558
Benzene	ND	2500	2500		50	100	70-130	01/24/2019 0558
Bromodichloromethane	ND	2500	2400		50	97	70-130	01/24/2019 0558
Bromoform	ND	2500	2400		50	95	70-130	01/24/2019 0558
Bromomethane (Methyl bromide)	ND	2500	2300		50	94	70-130	01/24/2019 0558
2-Butanone (MEK)	ND	5000	4500		50	90	70-130	01/24/2019 0558
Carbon disulfide	ND	2500	2200		50	88	70-130	01/24/2019 0558
Carbon tetrachloride	ND	2500	2600		50	102	70-130	01/24/2019 0558
Chlorobenzene	ND	2500	2400		50	97	70-130	01/24/2019 0558
Chloroethane	ND	2500	2700		50	107	70-130	01/24/2019 0558
Chloroform	ND	2500	2400		50	97	70-130	01/24/2019 0558
Chloromethane (Methyl chloride)	ND	2500	2700		50	106	60-140	01/24/2019 0558
Cyclohexane	ND	2500	2100		50	82	70-130	01/24/2019 0558
1,2-Dibromo-3-chloropropane (DBCP)	ND	2500	2400		50	96	70-130	01/24/2019 0558
Dibromochloromethane	ND	2500	2400		50	97	70-130	01/24/2019 0558
1,2-Dibromoethane (EDB)	ND	2500	2500		50	99	70-130	01/24/2019 0558
1,2-Dichlorobenzene	ND	2500	2400		50	96	70-130	01/24/2019 0558
1,3-Dichlorobenzene	ND	2500	2300		50	93	70-130	01/24/2019 0558
1,4-Dichlorobenzene	ND	2500	2300		50	91	70-130	01/24/2019 0558
Dichlorodifluoromethane	ND	2500	3000		50	121	60-140	01/24/2019 0558
1,1-Dichloroethane	ND	2500	2500		50	99	70-130	01/24/2019 0558
1,2-Dichloroethane	ND	2500	2400		50	98	70-130	01/24/2019 0558
1,1-Dichloroethene	ND	2500	2500		50	100	70-130	01/24/2019 0558
cis-1,2-Dichloroethene	ND	2500	2500		50	99	70-130	01/24/2019 0558
trans-1,2-Dichloroethene	ND	2500	2400		50	96	70-130	01/24/2019 0558
1,2-Dichloropropane	ND	2500	2200		50	90	70-130	01/24/2019 0558
cis-1,3-Dichloropropene	ND	2500	2200		50	86	70-130	01/24/2019 0558
trans-1,3-Dichloropropene	ND	2500	2100		50	85	70-130	01/24/2019 0558
Ethylbenzene	ND	2500	2600		50	103	70-130	01/24/2019 0558
2-Hexanone	ND	5000	5000		50	101	70-130	01/24/2019 0558
Isopropylbenzene	ND	2500	2500		50	101	70-130	01/24/2019 0558
Methyl acetate	ND	2500	2000		50	80	70-130	01/24/2019 0558
Methyl tertiary butyl ether (MTBE)	ND	2500	2700		50	109	70-130	01/24/2019 0558
4-Methyl-2-pentanone	ND	5000	5000		50	99	70-130	01/24/2019 0558
Methylcyclohexane	ND	2500	2400		50	96	70-130	01/24/2019 0558
Methylene chloride	ND	2500	2200		50	87	70-130	01/24/2019 0558
Styrene	ND	2500	2500		50	102	70-130	01/24/2019 0558
1,1,2,2-Tetrachloroethane	ND	2500	2500		50	99	70-130	01/24/2019 0558
Tetrachloroethene	2700	2500	5300		50	102	70-130	01/24/2019 0558
Toluene	ND	2500	2500		50	102	70-130	01/24/2019 0558
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	2500	2100		50	84	70-130	01/24/2019 0558
1,2,4-Trichlorobenzene	ND	2500	2500		50	99	70-130	01/24/2019 0558
1,1,1-Trichloroethane	ND	2500	2500		50	98	70-130	01/24/2019 0558
1,1,2-Trichloroethane	ND	2500	2400		50	98	70-130	01/24/2019 0558

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MS

Sample ID: UA22027-017MS
Batch: 95629
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	ND	2500	2500		50	100	70-130	01/24/2019 0558
Trichlorofluoromethane	ND	2500	2500		50	101	70-130	01/24/2019 0558
Vinyl chloride	ND	2500	2800		50	112	70-130	01/24/2019 0558
Xylenes (total)	ND	5000	5100		50	102	70-130	01/24/2019 0558

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		89	70-130
Bromofluorobenzene		94	70-130
Toluene-d8		97	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MSD

Sample ID: UA22027-017MD
Batch: 95629
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	ND	5000	3200		50	65	17	60-140	20	01/24/2019 0620
Benzene	ND	2500	2400		50	96	4.1	70-130	20	01/24/2019 0620
Bromodichloromethane	ND	2500	2400		50	94	2.8	70-130	20	01/24/2019 0620
Bromoform	ND	2500	2300		50	93	2.4	70-130	20	01/24/2019 0620
Bromomethane (Methyl bromide)	ND	2500	2100		50	86	9.0	70-130	20	01/24/2019 0620
2-Butanone (MEK)	ND	5000	4200		50	85	5.8	70-130	20	01/24/2019 0620
Carbon disulfide	ND	2500	2200		50	88	0.19	70-130	20	01/24/2019 0620
Carbon tetrachloride	ND	2500	2400		50	97	5.1	70-130	20	01/24/2019 0620
Chlorobenzene	ND	2500	2400		50	95	1.6	70-130	20	01/24/2019 0620
Chloroethane	ND	2500	2500		50	100	6.9	70-130	20	01/24/2019 0620
Chloroform	ND	2500	2400		50	96	1.6	70-130	20	01/24/2019 0620
Chloromethane (Methyl chloride)	ND	2500	2500		50	98	7.9	60-140	20	01/24/2019 0620
Cyclohexane	ND	2500	2100		50	84	2.1	70-130	20	01/24/2019 0620
1,2-Dibromo-3-chloropropane (DBCP)	ND	2500	2300		50	94	1.9	70-130	20	01/24/2019 0620
Dibromochloromethane	ND	2500	2400		50	94	3.1	70-130	20	01/24/2019 0620
1,2-Dibromoethane (EDB)	ND	2500	2400		50	96	2.9	70-130	20	01/24/2019 0620
1,2-Dichlorobenzene	ND	2500	2300		50	94	1.8	70-130	20	01/24/2019 0620
1,3-Dichlorobenzene	ND	2500	2300		50	94	1.4	70-130	20	01/24/2019 0620
1,4-Dichlorobenzene	ND	2500	2300		50	91	0.33	70-130	20	01/24/2019 0620
Dichlorodifluoromethane	ND	2500	3100		50	125	3.2	60-140	20	01/24/2019 0620
1,1-Dichloroethane	ND	2500	2500		50	98	0.67	70-130	20	01/24/2019 0620
1,2-Dichloroethane	ND	2500	2300		50	93	5.2	70-130	20	01/24/2019 0620
1,1-Dichloroethene	ND	2500	2300		50	92	7.8	70-130	20	01/24/2019 0620
cis-1,2-Dichloroethene	ND	2500	2400		50	97	2.1	70-130	20	01/24/2019 0620
trans-1,2-Dichloroethene	ND	2500	2400		50	95	1.0	70-130	20	01/24/2019 0620
1,2-Dichloropropane	ND	2500	2200		50	87	2.7	70-130	20	01/24/2019 0620
cis-1,3-Dichloropropene	ND	2500	2100		50	84	2.6	70-130	20	01/24/2019 0620
trans-1,3-Dichloropropene	ND	2500	2200		50	87	2.9	70-130	20	01/24/2019 0620
Ethylbenzene	ND	2500	2500		50	100	2.7	70-130	20	01/24/2019 0620
2-Hexanone	ND	5000	4900		50	98	2.4	70-130	20	01/24/2019 0620
Isopropylbenzene	ND	2500	2500		50	99	1.9	70-130	20	01/24/2019 0620
Methyl acetate	ND	2500	1900		50	78	2.9	70-130	20	01/24/2019 0620
Methyl tertiary butyl ether (MTBE)	ND	2500	2700		50	107	1.9	70-130	20	01/24/2019 0620
4-Methyl-2-pentanone	ND	5000	4800		50	96	3.0	70-130	20	01/24/2019 0620
Methylcyclohexane	ND	2500	2500		50	99	3.2	70-130	20	01/24/2019 0620
Methylene chloride	ND	2500	2200		50	87	0.41	70-130	20	01/24/2019 0620
Styrene	ND	2500	2500		50	100	2.0	70-130	20	01/24/2019 0620
1,1,2,2-Tetrachloroethane	ND	2500	2400		50	95	3.7	70-130	20	01/24/2019 0620
Tetrachloroethene	2700	2500	5300		50	103	0.44	70-130	20	01/24/2019 0620
Toluene	ND	2500	2600		50	105	3.5	70-130	20	01/24/2019 0620
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	2500	2100		50	84	0.98	70-130	20	01/24/2019 0620
1,2,4-Trichlorobenzene	ND	2500	2500		50	100	0.98	70-130	20	01/24/2019 0620
1,1,1-Trichloroethane	ND	2500	2400		50	97	1.0	70-130	20	01/24/2019 0620
1,1,2-Trichloroethane	ND	2500	2400		50	97	0.71	70-130	20	01/24/2019 0620

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MSD

Sample ID: UA22027-017MD
Batch: 95629
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Trichloroethene	ND	2500	2400		50	97	3.3	70-130	20	01/24/2019 0620
Trichlorofluoromethane	ND	2500	2200		50	90	12	70-130	20	01/24/2019 0620
Vinyl chloride	ND	2500	2700		50	107	4.4	70-130	20	01/24/2019 0620
Xylenes (total)	ND	5000	5000		50	100	2.4	70-130	20	01/24/2019 0620

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		88	70-130
Bromofluorobenzene		94	70-130
Toluene-d8		102	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ95668-001
Batch: 95668
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Acetone	ND		1	20	2.0	ug/L	01/24/2019 1035
Benzene	ND		1	1.0	0.40	ug/L	01/24/2019 1035
Bromodichloromethane	ND		1	1.0	0.40	ug/L	01/24/2019 1035
Bromoform	ND		1	1.0	0.40	ug/L	01/24/2019 1035
Bromomethane (Methyl bromide)	ND		1	2.0	0.40	ug/L	01/24/2019 1035
2-Butanone (MEK)	ND		1	10	2.0	ug/L	01/24/2019 1035
Carbon disulfide	ND		1	1.0	0.40	ug/L	01/24/2019 1035
Carbon tetrachloride	ND		1	1.0	0.40	ug/L	01/24/2019 1035
Chlorobenzene	ND		1	1.0	0.40	ug/L	01/24/2019 1035
Chloroethane	ND		1	2.0	0.40	ug/L	01/24/2019 1035
Chloroform	ND		1	1.0	0.40	ug/L	01/24/2019 1035
Chloromethane (Methyl chloride)	ND		1	1.0	0.50	ug/L	01/24/2019 1035
Cyclohexane	ND		1	1.0	0.40	ug/L	01/24/2019 1035
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	0.40	ug/L	01/24/2019 1035
Dibromochloromethane	ND		1	1.0	0.40	ug/L	01/24/2019 1035
1,2-Dibromoethane (EDB)	ND		1	1.0	0.40	ug/L	01/24/2019 1035
1,2-Dichlorobenzene	ND		1	1.0	0.40	ug/L	01/24/2019 1035
1,3-Dichlorobenzene	ND		1	1.0	0.40	ug/L	01/24/2019 1035
1,4-Dichlorobenzene	ND		1	1.0	0.40	ug/L	01/24/2019 1035
Dichlorodifluoromethane	ND		1	2.0	0.60	ug/L	01/24/2019 1035
1,1-Dichloroethane	ND		1	1.0	0.40	ug/L	01/24/2019 1035
1,2-Dichloroethane	ND		1	1.0	0.40	ug/L	01/24/2019 1035
1,1-Dichloroethene	ND		1	1.0	0.40	ug/L	01/24/2019 1035
cis-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	01/24/2019 1035
trans-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	01/24/2019 1035
1,2-Dichloropropane	ND		1	1.0	0.40	ug/L	01/24/2019 1035
cis-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	01/24/2019 1035
trans-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	01/24/2019 1035
Ethylbenzene	ND		1	1.0	0.40	ug/L	01/24/2019 1035
2-Hexanone	ND		1	10	2.0	ug/L	01/24/2019 1035
Isopropylbenzene	ND		1	1.0	0.40	ug/L	01/24/2019 1035
Methyl acetate	ND		1	1.0	0.40	ug/L	01/24/2019 1035
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	0.40	ug/L	01/24/2019 1035
4-Methyl-2-pentanone	ND		1	10	2.0	ug/L	01/24/2019 1035
Methylcyclohexane	ND		1	5.0	0.40	ug/L	01/24/2019 1035
Methylene chloride	ND		1	1.0	0.40	ug/L	01/24/2019 1035
Styrene	ND		1	1.0	0.41	ug/L	01/24/2019 1035
1,1,2,2-Tetrachloroethane	ND		1	1.0	0.40	ug/L	01/24/2019 1035
Tetrachloroethene	ND		1	1.0	0.40	ug/L	01/24/2019 1035
Toluene	ND		1	1.0	0.40	ug/L	01/24/2019 1035
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	0.42	ug/L	01/24/2019 1035
1,2,4-Trichlorobenzene	ND		1	1.0	0.40	ug/L	01/24/2019 1035
1,1,1-Trichloroethane	ND		1	1.0	0.40	ug/L	01/24/2019 1035
1,1,2-Trichloroethane	ND		1	1.0	0.40	ug/L	01/24/2019 1035

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ95668-001
Batch: 95668
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Trichloroethene	ND		1	1.0	0.40	ug/L	01/24/2019 1035
Trichlorofluoromethane	ND		1	1.0	0.40	ug/L	01/24/2019 1035
Vinyl chloride	ND		1	1.0	0.40	ug/L	01/24/2019 1035
Xylenes (total)	ND		1	1.0	0.40	ug/L	01/24/2019 1035

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		88	70-130
Bromofluorobenzene		91	70-130
Toluene-d8		94	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ95668-002
Batch: 95668
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	70		1	70	60-140	01/24/2019 0951
Benzene	50	45		1	90	70-130	01/24/2019 0951
Bromodichloromethane	50	45		1	90	70-130	01/24/2019 0951
Bromoform	50	47		1	93	70-130	01/24/2019 0951
Bromomethane (Methyl bromide)	50	43		1	86	70-130	01/24/2019 0951
2-Butanone (MEK)	100	86		1	86	70-130	01/24/2019 0951
Carbon disulfide	50	39		1	78	70-130	01/24/2019 0951
Carbon tetrachloride	50	45		1	91	70-130	01/24/2019 0951
Chlorobenzene	50	45		1	90	70-130	01/24/2019 0951
Chloroethane	50	48		1	96	70-130	01/24/2019 0951
Chloroform	50	45		1	89	70-130	01/24/2019 0951
Chloromethane (Methyl chloride)	50	47		1	93	60-140	01/24/2019 0951
Cyclohexane	50	34	N	1	68	70-130	01/24/2019 0951
1,2-Dibromo-3-chloropropane (DBCP)	50	48		1	97	70-130	01/24/2019 0951
Dibromochloromethane	50	46		1	91	70-130	01/24/2019 0951
1,2-Dibromoethane (EDB)	50	47		1	94	70-130	01/24/2019 0951
1,2-Dichlorobenzene	50	45		1	90	70-130	01/24/2019 0951
1,3-Dichlorobenzene	50	45		1	90	70-130	01/24/2019 0951
1,4-Dichlorobenzene	50	44		1	87	70-130	01/24/2019 0951
Dichlorodifluoromethane	50	53		1	106	60-140	01/24/2019 0951
1,1-Dichloroethane	50	45		1	90	70-130	01/24/2019 0951
1,2-Dichloroethane	50	45		1	91	70-130	01/24/2019 0951
1,1-Dichloroethene	50	41		1	82	70-130	01/24/2019 0951
cis-1,2-Dichloroethene	50	45		1	90	70-130	01/24/2019 0951
trans-1,2-Dichloroethene	50	42		1	85	70-130	01/24/2019 0951
1,2-Dichloropropane	50	41		1	82	70-130	01/24/2019 0951
cis-1,3-Dichloropropene	50	41		1	82	70-130	01/24/2019 0951
trans-1,3-Dichloropropene	50	39		1	78	70-130	01/24/2019 0951
Ethylbenzene	50	47		1	93	70-130	01/24/2019 0951
2-Hexanone	100	99		1	99	70-130	01/24/2019 0951
Isopropylbenzene	50	46		1	92	70-130	01/24/2019 0951
Methyl acetate	50	40		1	79	70-130	01/24/2019 0951
Methyl tertiary butyl ether (MTBE)	50	48		1	96	70-130	01/24/2019 0951
4-Methyl-2-pentanone	100	96		1	96	70-130	01/24/2019 0951
Methylcyclohexane	50	41		1	82	70-130	01/24/2019 0951
Methylene chloride	50	40		1	81	70-130	01/24/2019 0951
Styrene	50	48		1	95	70-130	01/24/2019 0951
1,1,2,2-Tetrachloroethane	50	47		1	95	70-130	01/24/2019 0951
Tetrachloroethene	50	45		1	90	70-130	01/24/2019 0951
Toluene	50	43		1	86	70-130	01/24/2019 0951
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	33	N	1	67	70-130	01/24/2019 0951
1,2,4-Trichlorobenzene	50	46		1	92	70-130	01/24/2019 0951
1,1,1-Trichloroethane	50	43		1	85	70-130	01/24/2019 0951
1,1,2-Trichloroethane	50	46		1	92	70-130	01/24/2019 0951

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ95668-002
Batch: 95668
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	46		1	92	70-130	01/24/2019 0951
Trichlorofluoromethane	50	41		1	83	70-130	01/24/2019 0951
Vinyl chloride	50	50		1	100	70-130	01/24/2019 0951
Xylenes (total)	100	95		1	95	70-130	01/24/2019 0951

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		89	70-130
Bromofluorobenzene		95	70-130
Toluene-d8		90	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MS

Sample ID: UA22027-024MS
Batch: 95668
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	ND	2000	1100	N	20	56	60-140	01/24/2019 1839
Benzene	ND	1000	930		20	93	70-130	01/24/2019 1839
Bromodichloromethane	ND	1000	880		20	88	70-130	01/24/2019 1839
Bromoform	ND	1000	850		20	85	70-130	01/24/2019 1839
Bromomethane (Methyl bromide)	ND	1000	880		20	88	70-130	01/24/2019 1839
2-Butanone (MEK)	ND	2000	1700		20	84	70-130	01/24/2019 1839
Carbon disulfide	ND	1000	830		20	83	70-130	01/24/2019 1839
Carbon tetrachloride	ND	1000	960		20	96	70-130	01/24/2019 1839
Chlorobenzene	ND	1000	890		20	89	70-130	01/24/2019 1839
Chloroethane	ND	1000	980		20	98	70-130	01/24/2019 1839
Chloroform	ND	1000	920		20	92	70-130	01/24/2019 1839
Chloromethane (Methyl chloride)	ND	1000	980		20	98	60-140	01/24/2019 1839
Cyclohexane	ND	1000	780		20	78	70-130	01/24/2019 1839
1,2-Dibromo-3-chloropropane (DBCP)	ND	1000	910		20	91	70-130	01/24/2019 1839
Dibromochloromethane	ND	1000	870		20	87	70-130	01/24/2019 1839
1,2-Dibromoethane (EDB)	ND	1000	910		20	91	70-130	01/24/2019 1839
1,2-Dichlorobenzene	ND	1000	860		20	86	70-130	01/24/2019 1839
1,3-Dichlorobenzene	ND	1000	860		20	86	70-130	01/24/2019 1839
1,4-Dichlorobenzene	ND	1000	820		20	82	70-130	01/24/2019 1839
Dichlorodifluoromethane	ND	1000	1200		20	117	60-140	01/24/2019 1839
1,1-Dichloroethane	ND	1000	960		20	96	70-130	01/24/2019 1839
1,2-Dichloroethane	ND	1000	900		20	90	70-130	01/24/2019 1839
1,1-Dichloroethene	ND	1000	870		20	87	70-130	01/24/2019 1839
cis-1,2-Dichloroethene	ND	1000	940		20	94	70-130	01/24/2019 1839
trans-1,2-Dichloroethene	ND	1000	920		20	92	70-130	01/24/2019 1839
1,2-Dichloropropane	ND	1000	850		20	85	70-130	01/24/2019 1839
cis-1,3-Dichloropropene	ND	1000	820		20	82	70-130	01/24/2019 1839
trans-1,3-Dichloropropene	ND	1000	790		20	79	70-130	01/24/2019 1839
Ethylbenzene	ND	1000	930		20	93	70-130	01/24/2019 1839
2-Hexanone	ND	2000	1900		20	95	70-130	01/24/2019 1839
Isopropylbenzene	ND	1000	900		20	90	70-130	01/24/2019 1839
Methyl acetate	ND	1000	830		20	83	70-130	01/24/2019 1839
Methyl tertiary butyl ether (MTBE)	ND	1000	1000		20	100	70-130	01/24/2019 1839
4-Methyl-2-pentanone	ND	2000	1900		20	94	70-130	01/24/2019 1839
Methylcyclohexane	ND	1000	890		20	89	70-130	01/24/2019 1839
Methylene chloride	ND	1000	850		20	85	70-130	01/24/2019 1839
Styrene	ND	1000	930		20	93	70-130	01/24/2019 1839
1,1,2,2-Tetrachloroethane	ND	1000	930		20	93	70-130	01/24/2019 1839
Tetrachloroethene	1800	1000	2900		20	107	70-130	01/24/2019 1839
Toluene	ND	1000	930		20	93	70-130	01/24/2019 1839
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	1000	850		20	85	70-130	01/24/2019 1839
1,2,4-Trichlorobenzene	ND	1000	870		20	87	70-130	01/24/2019 1839
1,1,1-Trichloroethane	ND	1000	930		20	93	70-130	01/24/2019 1839
1,1,2-Trichloroethane	ND	1000	900		20	90	70-130	01/24/2019 1839

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MS

Sample ID: UA22027-024MS
Batch: 95668
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	ND	1000	920		20	92	70-130	01/24/2019 1839
Trichlorofluoromethane	ND	1000	870		20	87	70-130	01/24/2019 1839
Vinyl chloride	ND	1000	1000		20	103	70-130	01/24/2019 1839
Xylenes (total)	ND	2000	1800		20	92	70-130	01/24/2019 1839

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		90	70-130
Bromofluorobenzene		94	70-130
Toluene-d8		97	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MSD

Sample ID: UA22027-024MD
Batch: 95668
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	ND	2000	1200		20	61	7.5	60-140	20	01/24/2019 1901
Benzene	ND	1000	960		20	96	3.2	70-130	20	01/24/2019 1901
Bromodichloromethane	ND	1000	940		20	94	6.5	70-130	20	01/24/2019 1901
Bromoform	ND	1000	920		20	92	8.5	70-130	20	01/24/2019 1901
Bromomethane (Methyl bromide)	ND	1000	950		20	95	8.4	70-130	20	01/24/2019 1901
2-Butanone (MEK)	ND	2000	1600		20	80	4.7	70-130	20	01/24/2019 1901
Carbon disulfide	ND	1000	870		20	87	4.7	70-130	20	01/24/2019 1901
Carbon tetrachloride	ND	1000	980		20	98	2.0	70-130	20	01/24/2019 1901
Chlorobenzene	ND	1000	930		20	93	5.0	70-130	20	01/24/2019 1901
Chloroethane	ND	1000	1000		20	103	5.4	70-130	20	01/24/2019 1901
Chloroform	ND	1000	940		20	94	2.9	70-130	20	01/24/2019 1901
Chloromethane (Methyl chloride)	ND	1000	1000		20	103	5.1	60-140	20	01/24/2019 1901
Cyclohexane	ND	1000	770		20	77	0.88	70-130	20	01/24/2019 1901
1,2-Dibromo-3-chloropropane (DBCP)	ND	1000	940		20	94	3.5	70-130	20	01/24/2019 1901
Dibromochloromethane	ND	1000	930		20	93	7.0	70-130	20	01/24/2019 1901
1,2-Dibromoethane (EDB)	ND	1000	950		20	95	3.7	70-130	20	01/24/2019 1901
1,2-Dichlorobenzene	ND	1000	940		20	94	8.3	70-130	20	01/24/2019 1901
1,3-Dichlorobenzene	ND	1000	910		20	91	5.7	70-130	20	01/24/2019 1901
1,4-Dichlorobenzene	ND	1000	880		20	88	6.7	70-130	20	01/24/2019 1901
Dichlorodifluoromethane	ND	1000	1200		20	122	4.1	60-140	20	01/24/2019 1901
1,1-Dichloroethane	ND	1000	960		20	96	0.24	70-130	20	01/24/2019 1901
1,2-Dichloroethane	ND	1000	950		20	95	5.3	70-130	20	01/24/2019 1901
1,1-Dichloroethene	ND	1000	930		20	93	6.4	70-130	20	01/24/2019 1901
cis-1,2-Dichloroethene	ND	1000	950		20	95	1.0	70-130	20	01/24/2019 1901
trans-1,2-Dichloroethene	ND	1000	960		20	96	5.0	70-130	20	01/24/2019 1901
1,2-Dichloropropane	ND	1000	870		20	87	2.1	70-130	20	01/24/2019 1901
cis-1,3-Dichloropropene	ND	1000	850		20	85	3.7	70-130	20	01/24/2019 1901
trans-1,3-Dichloropropene	ND	1000	840		20	84	5.5	70-130	20	01/24/2019 1901
Ethylbenzene	ND	1000	980		20	98	5.8	70-130	20	01/24/2019 1901
2-Hexanone	ND	2000	1900		20	97	1.5	70-130	20	01/24/2019 1901
Isopropylbenzene	ND	1000	960		20	96	6.7	70-130	20	01/24/2019 1901
Methyl acetate	ND	1000	810		20	81	2.4	70-130	20	01/24/2019 1901
Methyl tertiary butyl ether (MTBE)	ND	1000	1000		20	102	1.5	70-130	20	01/24/2019 1901
4-Methyl-2-pentanone	ND	2000	1900		20	97	2.5	70-130	20	01/24/2019 1901
Methylcyclohexane	ND	1000	900		20	90	1.5	70-130	20	01/24/2019 1901
Methylene chloride	ND	1000	850		20	85	0.36	70-130	20	01/24/2019 1901
Styrene	ND	1000	970		20	97	5.2	70-130	20	01/24/2019 1901
1,1,2,2-Tetrachloroethane	ND	1000	950		20	95	2.7	70-130	20	01/24/2019 1901
Tetrachloroethene	1800	1000	3000		20	112	1.7	70-130	20	01/24/2019 1901
Toluene	ND	1000	970		20	97	4.1	70-130	20	01/24/2019 1901
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	1000	750		20	75	12	70-130	20	01/24/2019 1901
1,2,4-Trichlorobenzene	ND	1000	950		20	95	8.6	70-130	20	01/24/2019 1901
1,1,1-Trichloroethane	ND	1000	940		20	94	1.3	70-130	20	01/24/2019 1901
1,1,2-Trichloroethane	ND	1000	940		20	94	4.7	70-130	20	01/24/2019 1901

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MSD

Sample ID: UA22027-024MD
Batch: 95668
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Trichloroethene	ND	1000	980		20	98	6.2	70-130	20	01/24/2019 1901
Trichlorofluoromethane	ND	1000	920		20	92	5.5	70-130	20	01/24/2019 1901
Vinyl chloride	ND	1000	1100		20	111	7.9	70-130	20	01/24/2019 1901
Xylenes (total)	ND	2000	1900		20	97	5.1	70-130	20	01/24/2019 1901

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		90	70-130
Bromofluorobenzene		94	70-130
Toluene-d8		96	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ95734-001
Batch: 95734
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Acetone	ND		1	20	2.0	ug/L	01/24/2019 2137
Benzene	ND		1	1.0	0.40	ug/L	01/24/2019 2137
Bromodichloromethane	ND		1	1.0	0.40	ug/L	01/24/2019 2137
Bromoform	ND		1	1.0	0.40	ug/L	01/24/2019 2137
Bromomethane (Methyl bromide)	ND		1	2.0	0.40	ug/L	01/24/2019 2137
2-Butanone (MEK)	ND		1	10	2.0	ug/L	01/24/2019 2137
Carbon disulfide	ND		1	1.0	0.40	ug/L	01/24/2019 2137
Carbon tetrachloride	ND		1	1.0	0.40	ug/L	01/24/2019 2137
Chlorobenzene	ND		1	1.0	0.40	ug/L	01/24/2019 2137
Chloroethane	ND		1	2.0	0.40	ug/L	01/24/2019 2137
Chloroform	ND		1	1.0	0.40	ug/L	01/24/2019 2137
Chloromethane (Methyl chloride)	ND		1	1.0	0.50	ug/L	01/24/2019 2137
Cyclohexane	ND		1	1.0	0.40	ug/L	01/24/2019 2137
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	0.40	ug/L	01/24/2019 2137
Dibromochloromethane	ND		1	1.0	0.40	ug/L	01/24/2019 2137
1,2-Dibromoethane (EDB)	ND		1	1.0	0.40	ug/L	01/24/2019 2137
1,2-Dichlorobenzene	ND		1	1.0	0.40	ug/L	01/24/2019 2137
1,3-Dichlorobenzene	ND		1	1.0	0.40	ug/L	01/24/2019 2137
1,4-Dichlorobenzene	ND		1	1.0	0.40	ug/L	01/24/2019 2137
Dichlorodifluoromethane	ND		1	2.0	0.60	ug/L	01/24/2019 2137
1,1-Dichloroethane	ND		1	1.0	0.40	ug/L	01/24/2019 2137
1,2-Dichloroethane	ND		1	1.0	0.40	ug/L	01/24/2019 2137
1,1-Dichloroethene	ND		1	1.0	0.40	ug/L	01/24/2019 2137
cis-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	01/24/2019 2137
trans-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	01/24/2019 2137
1,2-Dichloropropane	ND		1	1.0	0.40	ug/L	01/24/2019 2137
cis-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	01/24/2019 2137
trans-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	01/24/2019 2137
Ethylbenzene	ND		1	1.0	0.40	ug/L	01/24/2019 2137
2-Hexanone	ND		1	10	2.0	ug/L	01/24/2019 2137
Isopropylbenzene	ND		1	1.0	0.40	ug/L	01/24/2019 2137
Methyl acetate	ND		1	1.0	0.40	ug/L	01/24/2019 2137
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	0.40	ug/L	01/24/2019 2137
4-Methyl-2-pentanone	ND		1	10	2.0	ug/L	01/24/2019 2137
Methylcyclohexane	ND		1	5.0	0.40	ug/L	01/24/2019 2137
Methylene chloride	ND		1	1.0	0.40	ug/L	01/24/2019 2137
Styrene	ND		1	1.0	0.41	ug/L	01/24/2019 2137
1,1,2,2-Tetrachloroethane	ND		1	1.0	0.40	ug/L	01/24/2019 2137
Tetrachloroethene	ND		1	1.0	0.40	ug/L	01/24/2019 2137
Toluene	ND		1	1.0	0.40	ug/L	01/24/2019 2137
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	0.42	ug/L	01/24/2019 2137
1,2,4-Trichlorobenzene	ND		1	1.0	0.40	ug/L	01/24/2019 2137
1,1,1-Trichloroethane	ND		1	1.0	0.40	ug/L	01/24/2019 2137
1,1,2-Trichloroethane	ND		1	1.0	0.40	ug/L	01/24/2019 2137

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ95734-001
Batch: 95734
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Trichloroethene	ND		1	1.0	0.40	ug/L	01/24/2019 2137
Trichlorofluoromethane	ND		1	1.0	0.40	ug/L	01/24/2019 2137
Vinyl chloride	ND		1	1.0	0.40	ug/L	01/24/2019 2137
Xylenes (total)	ND		1	1.0	0.40	ug/L	01/24/2019 2137

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		88	70-130
Bromofluorobenzene		93	70-130
Toluene-d8		89	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ95734-002
Batch: 95734
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	61		1	61	60-140	01/24/2019 2034
Benzene	50	45		1	90	70-130	01/24/2019 2034
Bromodichloromethane	50	45		1	90	70-130	01/24/2019 2034
Bromoform	50	44		1	89	70-130	01/24/2019 2034
Bromomethane (Methyl bromide)	50	42		1	83	70-130	01/24/2019 2034
2-Butanone (MEK)	100	83		1	83	70-130	01/24/2019 2034
Carbon disulfide	50	39		1	78	70-130	01/24/2019 2034
Carbon tetrachloride	50	45		1	90	70-130	01/24/2019 2034
Chlorobenzene	50	45		1	91	70-130	01/24/2019 2034
Chloroethane	50	46		1	91	70-130	01/24/2019 2034
Chloroform	50	44		1	88	70-130	01/24/2019 2034
Chloromethane (Methyl chloride)	50	45		1	90	60-140	01/24/2019 2034
Cyclohexane	50	36		1	71	70-130	01/24/2019 2034
1,2-Dibromo-3-chloropropane (DBCP)	50	46		1	93	70-130	01/24/2019 2034
Dibromochloromethane	50	45		1	90	70-130	01/24/2019 2034
1,2-Dibromoethane (EDB)	50	46		1	92	70-130	01/24/2019 2034
1,2-Dichlorobenzene	50	44		1	89	70-130	01/24/2019 2034
1,3-Dichlorobenzene	50	45		1	90	70-130	01/24/2019 2034
1,4-Dichlorobenzene	50	43		1	86	70-130	01/24/2019 2034
Dichlorodifluoromethane	50	56		1	112	60-140	01/24/2019 2034
1,1-Dichloroethane	50	45		1	90	70-130	01/24/2019 2034
1,2-Dichloroethane	50	45		1	91	70-130	01/24/2019 2034
1,1-Dichloroethene	50	43		1	86	70-130	01/24/2019 2034
cis-1,2-Dichloroethene	50	45		1	90	70-130	01/24/2019 2034
trans-1,2-Dichloroethene	50	44		1	87	70-130	01/24/2019 2034
1,2-Dichloropropane	50	41		1	82	70-130	01/24/2019 2034
cis-1,3-Dichloropropene	50	41		1	82	70-130	01/24/2019 2034
trans-1,3-Dichloropropene	50	40		1	80	70-130	01/24/2019 2034
Ethylbenzene	50	46		1	91	70-130	01/24/2019 2034
2-Hexanone	100	94		1	94	70-130	01/24/2019 2034
Isopropylbenzene	50	45		1	90	70-130	01/24/2019 2034
Methyl acetate	50	40		1	79	70-130	01/24/2019 2034
Methyl tertiary butyl ether (MTBE)	50	46		1	93	70-130	01/24/2019 2034
4-Methyl-2-pentanone	100	95		1	95	70-130	01/24/2019 2034
Methylcyclohexane	50	42		1	84	70-130	01/24/2019 2034
Methylene chloride	50	41		1	81	70-130	01/24/2019 2034
Styrene	50	47		1	94	70-130	01/24/2019 2034
1,1,2,2-Tetrachloroethane	50	47		1	93	70-130	01/24/2019 2034
Tetrachloroethene	50	45		1	89	70-130	01/24/2019 2034
Toluene	50	48		1	96	70-130	01/24/2019 2034
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	35		1	71	70-130	01/24/2019 2034
1,2,4-Trichlorobenzene	50	47		1	94	70-130	01/24/2019 2034
1,1,1-Trichloroethane	50	44		1	87	70-130	01/24/2019 2034
1,1,2-Trichloroethane	50	46		1	91	70-130	01/24/2019 2034

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ95734-002
Batch: 95734
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	45		1	91	70-130	01/24/2019 2034
Trichlorofluoromethane	50	40		1	81	70-130	01/24/2019 2034
Vinyl chloride	50	48		1	96	70-130	01/24/2019 2034
Xylenes (total)	100	94		1	94	70-130	01/24/2019 2034

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		90	70-130
Bromofluorobenzene		98	70-130
Toluene-d8		98	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MS

Sample ID: UA22027-020MS
Batch: 95734
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	ND	2000	1400		20	70	60-140	01/25/2019 0538
Benzene	ND	1000	960		20	96	70-130	01/25/2019 0538
Bromodichloromethane	ND	1000	980		20	98	70-130	01/25/2019 0538
Bromoform	ND	1000	940		20	94	70-130	01/25/2019 0538
Bromomethane (Methyl bromide)	ND	1000	950		20	95	70-130	01/25/2019 0538
2-Butanone (MEK)	ND	2000	1800		20	91	70-130	01/25/2019 0538
Carbon disulfide	ND	1000	890		20	89	70-130	01/25/2019 0538
Carbon tetrachloride	ND	1000	980		20	98	70-130	01/25/2019 0538
Chlorobenzene	ND	1000	940		20	94	70-130	01/25/2019 0538
Chloroethane	ND	1000	1000		20	104	70-130	01/25/2019 0538
Chloroform	ND	1000	950		20	95	70-130	01/25/2019 0538
Chloromethane (Methyl chloride)	ND	1000	1000		20	104	60-140	01/25/2019 0538
Cyclohexane	ND	1000	880		20	88	70-130	01/25/2019 0538
1,2-Dibromo-3-chloropropane (DBCP)	ND	1000	960		20	96	70-130	01/25/2019 0538
Dibromochloromethane	ND	1000	940		20	94	70-130	01/25/2019 0538
1,2-Dibromoethane (EDB)	ND	1000	950		20	95	70-130	01/25/2019 0538
1,2-Dichlorobenzene	ND	1000	910		20	91	70-130	01/25/2019 0538
1,3-Dichlorobenzene	ND	1000	890		20	89	70-130	01/25/2019 0538
1,4-Dichlorobenzene	ND	1000	870		20	87	70-130	01/25/2019 0538
Dichlorodifluoromethane	ND	1000	1200		20	125	60-140	01/25/2019 0538
1,1-Dichloroethane	ND	1000	970		20	97	70-130	01/25/2019 0538
1,2-Dichloroethane	ND	1000	950		20	95	70-130	01/25/2019 0538
1,1-Dichloroethene	ND	1000	1000		20	100	70-130	01/25/2019 0538
cis-1,2-Dichloroethene	ND	1000	980		20	98	70-130	01/25/2019 0538
trans-1,2-Dichloroethene	ND	1000	950		20	95	70-130	01/25/2019 0538
1,2-Dichloropropane	ND	1000	940		20	94	70-130	01/25/2019 0538
cis-1,3-Dichloropropene	ND	1000	840		20	84	70-130	01/25/2019 0538
trans-1,3-Dichloropropene	ND	1000	820		20	82	70-130	01/25/2019 0538
Ethylbenzene	ND	1000	990		20	99	70-130	01/25/2019 0538
2-Hexanone	ND	2000	2000		20	98	70-130	01/25/2019 0538
Isopropylbenzene	ND	1000	970		20	97	70-130	01/25/2019 0538
Methyl acetate	ND	1000	830		20	83	70-130	01/25/2019 0538
Methyl tertiary butyl ether (MTBE)	ND	1000	1000		20	101	70-130	01/25/2019 0538
4-Methyl-2-pentanone	ND	2000	2000		20	99	70-130	01/25/2019 0538
Methylcyclohexane	ND	1000	1000		20	102	70-130	01/25/2019 0538
Methylene chloride	ND	1000	870		20	87	70-130	01/25/2019 0538
Styrene	ND	1000	1000		20	101	70-130	01/25/2019 0538
1,1,2,2-Tetrachloroethane	ND	1000	950		20	95	70-130	01/25/2019 0538
Tetrachloroethene	1900	1000	2900		20	104	70-130	01/25/2019 0538
Toluene	ND	1000	960		20	96	70-130	01/25/2019 0538
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	1000	810		20	81	70-130	01/25/2019 0538
1,2,4-Trichlorobenzene	ND	1000	910		20	91	70-130	01/25/2019 0538
1,1,1-Trichloroethane	ND	1000	970		20	97	70-130	01/25/2019 0538
1,1,2-Trichloroethane	ND	1000	940		20	94	70-130	01/25/2019 0538

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MS

Sample ID: UA22027-020MS
Batch: 95734
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	ND	1000	1000		20	101	70-130	01/25/2019 0538
Trichlorofluoromethane	ND	1000	890		20	89	70-130	01/25/2019 0538
Vinyl chloride	ND	1000	1100		20	110	70-130	01/25/2019 0538
Xylenes (total)	ND	2000	2000		20	98	70-130	01/25/2019 0538

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		91	70-130
Bromofluorobenzene		97	70-130
Toluene-d8		98	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MSD

Sample ID: UA22027-020MD
Batch: 95734
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	ND	2000	1300		20	67	3.8	60-140	20	01/25/2019 0601
Benzene	ND	1000	970		20	97	1.9	70-130	20	01/25/2019 0601
Bromodichloromethane	ND	1000	1000		20	101	2.8	70-130	20	01/25/2019 0601
Bromoform	ND	1000	980		20	98	4.7	70-130	20	01/25/2019 0601
Bromomethane (Methyl bromide)	ND	1000	970		20	97	1.6	70-130	20	01/25/2019 0601
2-Butanone (MEK)	ND	2000	1900		20	94	3.6	70-130	20	01/25/2019 0601
Carbon disulfide	ND	1000	910		20	91	3.0	70-130	20	01/25/2019 0601
Carbon tetrachloride	ND	1000	1000		20	103	5.4	70-130	20	01/25/2019 0601
Chlorobenzene	ND	1000	970		20	97	3.5	70-130	20	01/25/2019 0601
Chloroethane	ND	1000	1100		20	106	2.2	70-130	20	01/25/2019 0601
Chloroform	ND	1000	1000		20	100	5.1	70-130	20	01/25/2019 0601
Chloromethane (Methyl chloride)	ND	1000	1100		20	108	3.6	60-140	20	01/25/2019 0601
Cyclohexane	ND	1000	870		20	87	0.53	70-130	20	01/25/2019 0601
1,2-Dibromo-3-chloropropane (DBCP)	ND	1000	970		20	97	0.68	70-130	20	01/25/2019 0601
Dibromochloromethane	ND	1000	970		20	97	3.3	70-130	20	01/25/2019 0601
1,2-Dibromoethane (EDB)	ND	1000	990		20	99	4.2	70-130	20	01/25/2019 0601
1,2-Dichlorobenzene	ND	1000	930		20	93	3.0	70-130	20	01/25/2019 0601
1,3-Dichlorobenzene	ND	1000	930		20	93	3.9	70-130	20	01/25/2019 0601
1,4-Dichlorobenzene	ND	1000	900		20	90	3.4	70-130	20	01/25/2019 0601
Dichlorodifluoromethane	ND	1000	1200		20	124	0.65	60-140	20	01/25/2019 0601
1,1-Dichloroethane	ND	1000	990		20	99	2.0	70-130	20	01/25/2019 0601
1,2-Dichloroethane	ND	1000	970		20	97	2.3	70-130	20	01/25/2019 0601
1,1-Dichloroethene	ND	1000	950		20	95	5.9	70-130	20	01/25/2019 0601
cis-1,2-Dichloroethene	ND	1000	990		20	99	1.2	70-130	20	01/25/2019 0601
trans-1,2-Dichloroethene	ND	1000	980		20	98	2.9	70-130	20	01/25/2019 0601
1,2-Dichloropropane	ND	1000	900		20	90	3.6	70-130	20	01/25/2019 0601
cis-1,3-Dichloropropene	ND	1000	880		20	88	4.3	70-130	20	01/25/2019 0601
trans-1,3-Dichloropropene	ND	1000	850		20	85	4.4	70-130	20	01/25/2019 0601
Ethylbenzene	ND	1000	1000		20	100	0.70	70-130	20	01/25/2019 0601
2-Hexanone	ND	2000	2000		20	101	3.6	70-130	20	01/25/2019 0601
Isopropylbenzene	ND	1000	1000		20	102	4.4	70-130	20	01/25/2019 0601
Methyl acetate	ND	1000	850		20	85	3.2	70-130	20	01/25/2019 0601
Methyl tertiary butyl ether (MTBE)	ND	1000	1100		20	107	5.5	70-130	20	01/25/2019 0601
4-Methyl-2-pentanone	ND	2000	2000		20	101	2.9	70-130	20	01/25/2019 0601
Methylcyclohexane	ND	1000	990		20	99	3.6	70-130	20	01/25/2019 0601
Methylene chloride	ND	1000	900		20	90	3.4	70-130	20	01/25/2019 0601
Styrene	ND	1000	1100		20	105	4.3	70-130	20	01/25/2019 0601
1,1,2,2-Tetrachloroethane	ND	1000	1000		20	103	7.7	70-130	20	01/25/2019 0601
Tetrachloroethene	1900	1000	2900		20	98	2.1	70-130	20	01/25/2019 0601
Toluene	ND	1000	1000		20	100	3.5	70-130	20	01/25/2019 0601
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	1000	870		20	87	7.7	70-130	20	01/25/2019 0601
1,2,4-Trichlorobenzene	ND	1000	940		20	94	3.4	70-130	20	01/25/2019 0601
1,1,1-Trichloroethane	ND	1000	1000		20	101	3.6	70-130	20	01/25/2019 0601
1,1,2-Trichloroethane	ND	1000	970		20	97	2.8	70-130	20	01/25/2019 0601

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MSD

Sample ID: UA22027-020MD
Batch: 95734
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Trichloroethene	ND	1000	1000		20	101	0.087	70-130	20	01/25/2019 0601
Trichlorofluoromethane	ND	1000	950		20	95	6.1	70-130	20	01/25/2019 0601
Vinyl chloride	ND	1000	1100		20	115	4.4	70-130	20	01/25/2019 0601
Xylenes (total)	ND	2000	2000		20	101	3.1	70-130	20	01/25/2019 0601

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		91	70-130
Bromofluorobenzene		98	70-130
Toluene-d8		96	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ95837-001
Batch: 95837
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Acetone	ND		1	20	2.0	ug/L	01/26/2019 1432
Benzene	ND		1	1.0	0.40	ug/L	01/26/2019 1432
Bromodichloromethane	ND		1	1.0	0.40	ug/L	01/26/2019 1432
Bromoform	ND		1	1.0	0.40	ug/L	01/26/2019 1432
Bromomethane (Methyl bromide)	ND		1	2.0	0.40	ug/L	01/26/2019 1432
2-Butanone (MEK)	ND		1	10	2.0	ug/L	01/26/2019 1432
Carbon disulfide	ND		1	1.0	0.40	ug/L	01/26/2019 1432
Carbon tetrachloride	ND		1	1.0	0.40	ug/L	01/26/2019 1432
Chlorobenzene	ND		1	1.0	0.40	ug/L	01/26/2019 1432
Chloroethane	ND		1	2.0	0.40	ug/L	01/26/2019 1432
Chloroform	ND		1	1.0	0.40	ug/L	01/26/2019 1432
Chloromethane (Methyl chloride)	ND		1	1.0	0.50	ug/L	01/26/2019 1432
Cyclohexane	ND		1	1.0	0.40	ug/L	01/26/2019 1432
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	0.40	ug/L	01/26/2019 1432
Dibromochloromethane	ND		1	1.0	0.40	ug/L	01/26/2019 1432
1,2-Dibromoethane (EDB)	ND		1	1.0	0.40	ug/L	01/26/2019 1432
1,2-Dichlorobenzene	ND		1	1.0	0.40	ug/L	01/26/2019 1432
1,3-Dichlorobenzene	ND		1	1.0	0.40	ug/L	01/26/2019 1432
1,4-Dichlorobenzene	ND		1	1.0	0.40	ug/L	01/26/2019 1432
Dichlorodifluoromethane	ND		1	2.0	0.60	ug/L	01/26/2019 1432
1,1-Dichloroethane	ND		1	1.0	0.40	ug/L	01/26/2019 1432
1,2-Dichloroethane	ND		1	1.0	0.40	ug/L	01/26/2019 1432
1,1-Dichloroethene	ND		1	1.0	0.40	ug/L	01/26/2019 1432
cis-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	01/26/2019 1432
trans-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	01/26/2019 1432
1,2-Dichloropropane	ND		1	1.0	0.40	ug/L	01/26/2019 1432
cis-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	01/26/2019 1432
trans-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	01/26/2019 1432
Ethylbenzene	ND		1	1.0	0.40	ug/L	01/26/2019 1432
2-Hexanone	ND		1	10	2.0	ug/L	01/26/2019 1432
Isopropylbenzene	ND		1	1.0	0.40	ug/L	01/26/2019 1432
Methyl acetate	ND		1	1.0	0.40	ug/L	01/26/2019 1432
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	0.40	ug/L	01/26/2019 1432
4-Methyl-2-pentanone	ND		1	10	2.0	ug/L	01/26/2019 1432
Methylcyclohexane	ND		1	5.0	0.40	ug/L	01/26/2019 1432
Methylene chloride	ND		1	1.0	0.40	ug/L	01/26/2019 1432
Styrene	ND		1	1.0	0.41	ug/L	01/26/2019 1432
1,1,2,2-Tetrachloroethane	ND		1	1.0	0.40	ug/L	01/26/2019 1432
Tetrachloroethene	ND		1	1.0	0.40	ug/L	01/26/2019 1432
Toluene	ND		1	1.0	0.40	ug/L	01/26/2019 1432
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	0.42	ug/L	01/26/2019 1432
1,2,4-Trichlorobenzene	ND		1	1.0	0.40	ug/L	01/26/2019 1432
1,1,1-Trichloroethane	ND		1	1.0	0.40	ug/L	01/26/2019 1432
1,1,2-Trichloroethane	ND		1	1.0	0.40	ug/L	01/26/2019 1432

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ95837-001
Batch: 95837
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Trichloroethene	ND		1	1.0	0.40	ug/L	01/26/2019 1432
Trichlorofluoromethane	ND		1	1.0	0.40	ug/L	01/26/2019 1432
Vinyl chloride	ND		1	1.0	0.40	ug/L	01/26/2019 1432
Xylenes (total)	ND		1	1.0	0.40	ug/L	01/26/2019 1432

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		98	70-130
Bromofluorobenzene		96	70-130
Toluene-d8		89	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Shealy Environmental Services, Inc.
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Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ95837-002
Batch: 95837
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	100		1	102	60-140	01/26/2019 1257
Benzene	50	47		1	94	70-130	01/26/2019 1257
Bromodichloromethane	50	48		1	97	70-130	01/26/2019 1257
Bromoform	50	53		1	106	70-130	01/26/2019 1257
Bromomethane (Methyl bromide)	50	44		1	88	70-130	01/26/2019 1257
2-Butanone (MEK)	100	92		1	92	70-130	01/26/2019 1257
Carbon disulfide	50	48		1	96	70-130	01/26/2019 1257
Carbon tetrachloride	50	52		1	103	70-130	01/26/2019 1257
Chlorobenzene	50	48		1	96	70-130	01/26/2019 1257
Chloroethane	50	43		1	86	70-130	01/26/2019 1257
Chloroform	50	49		1	99	70-130	01/26/2019 1257
Chloromethane (Methyl chloride)	50	39		1	77	60-140	01/26/2019 1257
Cyclohexane	50	53		1	106	70-130	01/26/2019 1257
1,2-Dibromo-3-chloropropane (DBCP)	50	51		1	102	70-130	01/26/2019 1257
Dibromochloromethane	50	50		1	100	70-130	01/26/2019 1257
1,2-Dibromoethane (EDB)	50	50		1	99	70-130	01/26/2019 1257
1,2-Dichlorobenzene	50	48		1	97	70-130	01/26/2019 1257
1,3-Dichlorobenzene	50	48		1	96	70-130	01/26/2019 1257
1,4-Dichlorobenzene	50	47		1	94	70-130	01/26/2019 1257
Dichlorodifluoromethane	50	46		1	92	60-140	01/26/2019 1257
1,1-Dichloroethane	50	46		1	91	70-130	01/26/2019 1257
1,2-Dichloroethane	50	49		1	97	70-130	01/26/2019 1257
1,1-Dichloroethene	50	46		1	92	70-130	01/26/2019 1257
cis-1,2-Dichloroethene	50	49		1	99	70-130	01/26/2019 1257
trans-1,2-Dichloroethene	50	47		1	94	70-130	01/26/2019 1257
1,2-Dichloropropane	50	42		1	83	70-130	01/26/2019 1257
cis-1,3-Dichloropropene	50	43		1	86	70-130	01/26/2019 1257
trans-1,3-Dichloropropene	50	43		1	86	70-130	01/26/2019 1257
Ethylbenzene	50	50		1	100	70-130	01/26/2019 1257
2-Hexanone	100	79		1	79	70-130	01/26/2019 1257
Isopropylbenzene	50	50		1	101	70-130	01/26/2019 1257
Methyl acetate	50	41		1	81	70-130	01/26/2019 1257
Methyl tertiary butyl ether (MTBE)	50	48		1	97	70-130	01/26/2019 1257
4-Methyl-2-pentanone	100	90		1	90	70-130	01/26/2019 1257
Methylcyclohexane	50	47		1	95	70-130	01/26/2019 1257
Methylene chloride	50	44		1	88	70-130	01/26/2019 1257
Styrene	50	50		1	101	70-130	01/26/2019 1257
1,1,2,2-Tetrachloroethane	50	45		1	90	70-130	01/26/2019 1257
Tetrachloroethene	50	49		1	98	70-130	01/26/2019 1257
Toluene	50	48		1	97	70-130	01/26/2019 1257
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	44		1	88	70-130	01/26/2019 1257
1,2,4-Trichlorobenzene	50	48		1	96	70-130	01/26/2019 1257
1,1,1-Trichloroethane	50	51		1	102	70-130	01/26/2019 1257
1,1,2-Trichloroethane	50	47		1	94	70-130	01/26/2019 1257

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ95837-002
Batch: 95837
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	50		1	100	70-130	01/26/2019 1257
Trichlorofluoromethane	50	43		1	87	70-130	01/26/2019 1257
Vinyl chloride	50	44		1	89	70-130	01/26/2019 1257
Xylenes (total)	100	100		1	100	70-130	01/26/2019 1257

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		95	70-130
Bromofluorobenzene		100	70-130
Toluene-d8		94	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Chain of Custody
and
Miscellaneous Documents

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www.shealylab.com

SHEALY Chain of Custody Record

Number 91073

Client	Report to Contact	Telephone No. / E-mail	Quote No.
TRC	Terry Hertz / Thertz@trcsolutions.com		

Address	Samplers Signature	Analysis (Attach list if more space is needed)	Page 1 of 3
50 International Drive Suite 150	x		

City	State	Zip Code	Printed Name
Greenville	SC	29615	David Szymal

Project Name	P.O. No.
WPH Clemson	

Project No.	

UA22027

Lab Remarks / Cooler I.D.

Sample ID / Description (Containers for each sample may be combined on one line.)	Date	Time	# Containers	Matrix: Aqueous	Matrix: Soil	Matrix: Non-Aqueous	No of Containers by Preservative Type: Unpres	HNO3	H2SO4	NaOH	ZnAc	Other	VOC	Chloride Sulfate, Bromide (Cl,SO4,Br)	
DP-27	1/14/19	0830	6	X			X			X			X	X	
DP-27A	1/14/19	0930	6	X			X			X			X	X	
DP-27B	1/14/19	1100	6	X			X			X			X	X	
DP-26	1/14/19	1230	6	X			X			X			X	X	
DP-26A	1/14/19	1320	6	X			X			X			X	X	
DP-26B	1/14/19	1456	6	X			X			X			X	X	
DP-25	1/15/19	0820	6	X			X			X			X	X	
DP-25A	1/15/19	0920	6	X			X			X			X	X	
DP-25B	1/15/19	1045	6	X			X			X			X	X	
DP-24	1/15/19	1220	6	X			X			X			X	X	

Turn Around Time Required (Prior lab approval required for expedited TAT.) ☒ Standard ☐ Rush (Specify)

Sample Disposal ☐ Return to Client ☒ Disposal by Lab

Possible Hazard Identification ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished by: David Szymal	1/21/19	1300	1. Received by: TRC Storage	1/21/19	1300
2. Relinquished by: TRC Storage	1/22/19	1030	2. Received by: Matt DP	1/22/19	1030
3. Relinquished by: Matt DP	1/22/19	1245	3. Received by: Terri E. Mauldin	1/22/19	12:45
4. Relinquished by: Terri E. Mauldin	1/22/19	14:27	4. Laboratory received by: Mallory Cash	1-22-19	1421

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY Received on Ice (Circle) Yes No Ice Pack Receipt Temp. 4.8 °C

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Client Copy

Document Number: F-AD-133 Effective Date: 08-01-2014

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www.shealylab.com

SHEALY Chain of Custody Record

Number 91070

Client: TRC	Report to Contact: Terry Hertz / thertz@trcsolutions.com	Telephone No. / E-mail	Quote No.
Address: 50 International Drive Suite 150	Sampler's Signature: X	Analysis (Attach list if more space is needed)	Page 2 of 3
City: Greenville	State: SC	Zip Code: 29615	
Project Name: WPH Clemson	Printed Name: David Szynal		
Project No.	P.O. No.		

UA22027
LJO

Sample ID / Description (Containers for each sample may be combined on one line.)	Date	Time	# Grab Containers	Matrix: Aqueous	Solid	Non-aqueous	No of Containers by Preservative Type: Unpres.	HNO3	H2SO4	HCl	NaOH	ZnAc/ NaOH	VOC Chloride, Sulfate & Bromide (Total)		
DP-24A	1/15/19	1320	6	X			X			X			X	X	
DP-24B	1/15/19	1420	6	X			X			X			X	X	
DP-23	1/16/19	0830	6	X			X			X			X	X	
DP-23A	1/16/19	0940	6	X			X			X			X	X	
DP-23B	1/16/19	1115	6	X			X			X			X	X	
DP-22	1/16/19	1255	6	X			X			X			X	X	
DP-22A	1/16/19	1345	6	X			X			X			X	X	
DP-22B	1/16/19	1500	6	X			X			X			X	X	
DP-21	1/18/19	0840	6	X			X			X			X	X	
DP-21	1/18/19	1035	6	X			X			X			X	X	

Turn Around Time Required (Prior lab approval required for expedited TAT.)
X Standard ☐ Rush (Specify)

Sample Disposal
☐ Return to Client ☒ Disposal by Lab

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

QC Requirements (Specify)

	Date	Time
1. Relinquished by: David Szynal	1/21/19	1300
2. Relinquished by: TRC Storage	1/22/19	1030
3. Relinquished by: Matt DP	1/22/19	1245
4. Relinquished by: Ken E. Mauk	1/22/19	14:27

	Date	Time
1. Received by: TRC Storage	1/21/19	1300
2. Received by: Matt DP	1/22/19	1030
3. Received by: Ken E. Mauk	1/22/19	12:45
4. Laboratory Received by: Mallory Cato	1/22-19	1427

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on ice (Circle) Yes No Ice Pack
Receipt Temp: 4-8 °C

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Client Copy

Document Number: F-AD-133 Effective Date: 09-01-2014

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SHEALY Chain of Custody Record

Number 91068

Client: TRC
Address: 56 International Drive Suite 150
City: Greenville State: SC Zip Code: 29615
Project Name: WPH Clemson
Project No.:
P.O. No.:
Report to Contact: Terry Hertz / Hertz@trcsolutions.com
Sampler's Signature: X
Printed Name: David Szynal
Telephone No. / E-mail:
Quote No.:
Analysis (Attach list if more space is needed)
Page 3 of 3

UA22027

Sample ID / Description (Containers for each sample may be combined on one line.)	Date	Time	No. of Containers	Matrix: Aqueous	Matrix: Solid	Matrix: Non-Aqueous	No. of Containers by Preservative Type: Unpres.	HNO3	H2SO4	HCl	NaOH	Other	VOC	Chloride, Sulfate, Bromide (Total)
DP-20	1/18/19	1230	6	X				X		X			X	X
DP-20A	1/18/19	1500	6	X				X		X			X	X
DP-20B	1/18/19	1615	6	X				X		X			X	X
DU-19105														

Turn Around Time Required (Prior lab approval required for expedited TAT.): X Standard ☐ Rush (Specify)

Sample Disposal: ☐ Return to Client ☒ Disposal by Lab

Possible Hazard Identification: ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

QC Requirements (Specify)

	Date	Time
1. Relinquished by:	1/21/19	1300
2. Relinquished by: TRC Storage	1/22/19	1030
3. Relinquished by:	1/22/19	1245
4. Relinquished by:	1/22/19	1427

	Date	Time
1. Received by: TRC Storage	1/22/19	1300
2. Received by:	1/22/19	1030
3. Received by:	1/22/19	1245
4. Laboratory received by:	1-22-19	1427

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on Ice (Circle) Yes No Ice Pack
Receipt Temp. 4.8 °C

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Client Copy

Document Number: F-AD-133 Effective Date: 08-01-2014

SHEALY ENVIRONMENTAL SERVICES, INC.

Shealy Environmental Services, Inc.
Document Number: ME6018C-14

Page 1 of 1
Effective Date: 8/2/2018

Sample Receipt Checklist (SRC)

Client: TRC Cooler Inspected by/date: LKH / 1-22-19 Lot #: UA22027

Means of receipt: ☑ SESI ☐ Client ☐ UPS ☐ FedEx ☐ Other: _____

☐ Yes	☑ No		1. Were custody seals present on the cooler?
☐ Yes	☐ No	☑ NA	2. If custody seals were present, were they intact and unbroken?

pH Strip ID: _____ Chlorine Strip ID: _____ Tested by: _____

Original temperature upon receipt / Derived (Corrected) temperature upon receipt: %Solid Snap-Cup ID:

4.8/4.8 °C ____/____ °C ____/____ °C ____/____ °C

Method: ☑ Temperature Blank ☐ Against Bottles IR Gun ID: 5 IR Gun Correction Factor: 0 °C

Method of coolant: ☑ Wet Ice ☐ Ice Packs ☐ Dry Ice ☐ None

☐ Yes	☐ No	☑ NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).
☐ Yes	☐ No	☑ NA	4. Is the commercial courier's packing slip attached to this form?
☑ Yes	☐ No		5. Were proper custody procedures (relinquished/received) followed?
☑ Yes	☐ No		6. Were sample IDs listed on the COC?
☑ Yes	☐ No		7. Were sample IDs listed on all sample containers?
☑ Yes	☐ No		8. Was collection date & time listed on the COC?
☐ Yes	☑ No		9. Was collection date & time listed on all sample containers?
☑ Yes	☐ No		10. Did all container label information (ID, date, time) agree with the COC?
☑ Yes	☐ No		11. Were tests to be performed listed on the COC?
☑ Yes	☐ No		12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)?
☑ Yes	☐ No		13. Was adequate sample volume available?
☑ Yes	☐ No		14. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
☐ Yes	☑ No		15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
☐ Yes	☑ No	☐ NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (¼"or 6mm in diameter) in any of the VOA vials?
☐ Yes	☐ No	☑ NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?
☐ Yes	☐ No	☑ NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
☐ Yes	☐ No	☑ NA	19. Were all applicable NH_3/TKN/cyanide/phenol/625 (< 0.5mg/L) samples free of residual chlorine?
☐ Yes	☐ No	☑ NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc…) correctly transcribed from the COC into the comment section in LIMS?
☐ Yes	☑ No		21. Was the quote number listed on the container label? If yes, Quote # _____

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) _____ were received incorrectly preserved and were adjusted accordingly in sample receiving with _____mL of circle one: H2SO4, HNO3, HCl, NaOH using SR # _____.
Time of preservation _____. If more than one preservative is needed, please note in the comments below.

Sample(s) _____ were received with bubbles >6 mm in diameter.

Samples(s) _____ were received with TRC > 0.5 mg/L. (If #19 is *no*) and were adjusted accordingly in sample receiving with sodium thiosulfate ($Na_2S_2O_3$) with Shealy ID: _____

SR barcode labels applied by: LKH Date: 1-22-19

Comments: The last sample listed, "DU-1910$" does not have a collection date nor time on bottles or COC.

SHEALY ENVIRONMENTAL SERVICES, INC.

Report of Analysis

TRC Companies, Inc.
50 International Dr.
Suite 150
Greenville, SC 29615
Attention: Lisa Clark

Project Name: WPH Clemson

Project Number: 300688.0000.0000.0002

Lot Number:**UA29024**

Date Completed:02/11/2019

02/12/2019 9:43 AM
Approved and released by:
Lab Director - Greenville: Lucas Odom

The electronic signature above is the equivalent of a handwritten signature.

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Laboratory Data Quality Review Notes

Project Name: WPH-Clemson, SC

Project Number: 300688.0000.0000.000002

Lab Report: UA29024 Shealy Environmental Services
One groundwater sample was analyzed for volatile organic compounds (VOCs), chloride, bromide, and sulfate.

Chain of Custody, Sample Temperature, Sample Preservation: Chain of custody (CoC) signed; sample temperature <6 ^{o}C upon arrival at the laboratory; samples were preserved properly.

Hold Time: Samples analyzed within hold time.

Surrogates: VOC surrogate recoveries are within QC limits.

Method Blank: Method blanks were free of detections.

Trip Blank: A trip blank was not collected with this sample.

Field Blank: A field blank was not collected with this sample.

Equipment Rinse Blank: A rinsate blank was not collected with this sample.

LCS/LCSD: LCS recoveries for anions and VOCs are within QC limits. LCSD analyses were not performed.

MS/MSD: DP-21B was used for VOC, bromide, chloride, and sulfate MS/MSD analyses. MS/MSD recoveries and RPDs were within QC limits except as follows:

- Trichlorofluoromethane recovery in the VOC MS was above the upper QC limit. The trichlorofluoromethane RPD was above the QC limit. Trichlorofluoromethane was not detected in the unspiked parent sample. No qualifier was assigned.

Duplicates: A field duplicate was not collected with the sample submitted for analysis.

No qualifiers were assigned.

Data review performed by: Terry Hertz; TRC Environmental Corp.; 2/12/2019

Case Narrative
TRC Companies, Inc.
Lot Number: UA29024

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

Sulfate

A second pair of matrix spike/matrix spike duplicate (MS/MSD) was not analyzed for analytical batch 97118. All other quality control standards were analyzed and recover within acceptance criteria. Results will be reported.

Chloride

A second pair of matrix spike/matrix spike duplicate (MS/MSD) was not analyzed for analytical batch 97124. All other quality control standards were analyzed and recover within acceptance criteria. Results will be reported.

Bromide

A second pair of matrix spike/matrix spike duplicate (MS/MSD) was not analyzed for analytical batch 97125. All other quality control standards were analyzed and recover within acceptance criteria. Results will be reported.

Sample Summary
TRC Companies, Inc.
Lot Number: UA29024

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	DP-21B	Aqueous	01/25/2019 1245	01/29/2019

(1 sample)

Detection Summary

TRC Companies, Inc.

Lot Number: UA29024

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	DP-21B	Aqueous	Bromide	300.0	0.14	J	mg/L	5
001	DP-21B	Aqueous	Chloride	300.0	6.5		mg/L	5
001	DP-21B	Aqueous	Tetrachloroethene	8260B	2500		ug/L	6

(3 detections)

Client: TRC Companies, Inc.
Description: DP-21B
Date Sampled: 01/25/2019 1245
Date Received: 01/29/2019

Laboratory ID: UA29024-001
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	02/08/2019 1628	SLU		97125
1		(Chloride) 300.0	1	02/08/2019 1628	SLU		97124
1		(Sulfate) 300.0	1	02/08/2019 1628	SLU		97118

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.14	J	0.20	0.050	mg/L	1
Chloride		300.0	6.5		1.0	0.20	mg/L	1
Sulfate		300.0	ND		1.0	0.20	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	50	01/30/2019 1900	JJG		96168

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	ND		1000	100	ug/L	1
Benzene	71-43-2	8260B	ND		50	20	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		50	20	ug/L	1
Bromoform	75-25-2	8260B	ND		50	20	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		100	20	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		500	100	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		50	20	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		50	20	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		50	20	ug/L	1
Chloroethane	75-00-3	8260B	ND		100	20	ug/L	1
Chloroform	67-66-3	8260B	ND		50	20	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		50	25	ug/L	1
Cyclohexane	110-82-7	8260B	ND		50	20	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		50	20	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		50	20	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		50	20	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		50	20	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		50	20	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		50	20	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		100	30	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		50	20	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		50	20	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		50	20	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		50	20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		50	20	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		50	20	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		50	20	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		50	20	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: DP-21B
Date Sampled: 01/25/2019 1245
Date Received: 01/29/2019

Laboratory ID: UA29024-001
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	50	01/30/2019 1900	JJG		96168

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Ethylbenzene	100-41-4	8260B	ND		50	20	ug/L	1
2-Hexanone	591-78-6	8260B	ND		500	100	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		50	20	ug/L	1
Methyl acetate	79-20-9	8260B	ND		50	20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		50	20	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		500	100	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		250	20	ug/L	1
Methylene chloride	75-09-2	8260B	ND		50	20	ug/L	1
Styrene	100-42-5	8260B	ND		50	21	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		50	20	ug/L	1
Tetrachloroethene	127-18-4	8260B	2500		50	20	ug/L	1
Toluene	108-88-3	8260B	ND		50	20	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		50	21	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		50	20	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		50	20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		50	20	ug/L	1
Trichloroethene	79-01-6	8260B	ND		50	20	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		50	20	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		50	20	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		50	20	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		101	70-130
Bromofluorobenzene		101	70-130
Toluene-d8		103	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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QC Summary

Inorganic non-metals - MB

Sample ID: UQ97118-001
Batch: 97118
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Sulfate	ND		1	1.0	0.20	mg/L	02/08/2019 1352

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - LCS

Sample ID: UQ97118-002
Batch: 97118
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Sulfate	20	20		1	98	90-110	02/08/2019 1444

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MS

Sample ID: UA29024-001MS
Batch: 97118
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Sulfate	ND	20	19		1	94	90-110	02/08/2019 1654

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MSD

Sample ID: UA29024-001MD
Batch: 97118
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Sulfate	ND	20	19		1	96	1.6	90-110	20	02/08/2019 1720

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MB

Sample ID: UQ97124-001
Batch: 97124
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Chloride	ND		1	1.0	0.20	mg/L	02/08/2019 1352

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - LCS

Sample ID: UQ97124-002
Batch: 97124
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Chloride	20	19		1	94	90-110	02/08/2019 1444

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MS

Sample ID: UA29024-001MS
Batch: 97124
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Chloride	6.5	20	25		1	91	90-110	02/08/2019 1654

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MSD

Sample ID: UA29024-001MD
Batch: 97124
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Chloride	6.5	20	25		1	93	1.2	90-110	20	02/08/2019 1720

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MB

Sample ID: UQ97125-001
Batch: 97125
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Bromide	ND		1	0.20	0.050	mg/L	02/08/2019 1352

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - LCS

Sample ID: UQ97125-002
Batch: 97125
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Bromide	8.0	8.2		1	102	90-110	02/08/2019 1444

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MS

Sample ID: UA29024-001MS
Batch: 97125
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Bromide	0.14	8.0	8.3		1	102	90-110	02/08/2019 1654

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MSD

Sample ID: UA29024-001MD
Batch: 97125
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Bromide	0.14	8.0	8.4		1	103	1.2	90-110	20	02/08/2019 1720

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ96168-001
Batch: 96168
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Acetone	ND		1	20	2.0	ug/L	01/30/2019 1053
Benzene	ND		1	1.0	0.40	ug/L	01/30/2019 1053
Bromodichloromethane	ND		1	1.0	0.40	ug/L	01/30/2019 1053
Bromoform	ND		1	1.0	0.40	ug/L	01/30/2019 1053
Bromomethane (Methyl bromide)	ND		1	2.0	0.40	ug/L	01/30/2019 1053
2-Butanone (MEK)	ND		1	10	2.0	ug/L	01/30/2019 1053
Carbon disulfide	ND		1	1.0	0.40	ug/L	01/30/2019 1053
Carbon tetrachloride	ND		1	1.0	0.40	ug/L	01/30/2019 1053
Chlorobenzene	ND		1	1.0	0.40	ug/L	01/30/2019 1053
Chloroethane	ND		1	2.0	0.40	ug/L	01/30/2019 1053
Chloroform	ND		1	1.0	0.40	ug/L	01/30/2019 1053
Chloromethane (Methyl chloride)	ND		1	1.0	0.50	ug/L	01/30/2019 1053
Cyclohexane	ND		1	1.0	0.40	ug/L	01/30/2019 1053
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	0.40	ug/L	01/30/2019 1053
Dibromochloromethane	ND		1	1.0	0.40	ug/L	01/30/2019 1053
1,2-Dibromoethane (EDB)	ND		1	1.0	0.40	ug/L	01/30/2019 1053
1,2-Dichlorobenzene	ND		1	1.0	0.40	ug/L	01/30/2019 1053
1,3-Dichlorobenzene	ND		1	1.0	0.40	ug/L	01/30/2019 1053
1,4-Dichlorobenzene	ND		1	1.0	0.40	ug/L	01/30/2019 1053
Dichlorodifluoromethane	ND		1	2.0	0.60	ug/L	01/30/2019 1053
1,1-Dichloroethane	ND		1	1.0	0.40	ug/L	01/30/2019 1053
1,2-Dichloroethane	ND		1	1.0	0.40	ug/L	01/30/2019 1053
1,1-Dichloroethene	ND		1	1.0	0.40	ug/L	01/30/2019 1053
cis-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	01/30/2019 1053
trans-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	01/30/2019 1053
1,2-Dichloropropane	ND		1	1.0	0.40	ug/L	01/30/2019 1053
cis-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	01/30/2019 1053
trans-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	01/30/2019 1053
Ethylbenzene	ND		1	1.0	0.40	ug/L	01/30/2019 1053
2-Hexanone	ND		1	10	2.0	ug/L	01/30/2019 1053
Isopropylbenzene	ND		1	1.0	0.40	ug/L	01/30/2019 1053
Methyl acetate	ND		1	1.0	0.40	ug/L	01/30/2019 1053
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	0.40	ug/L	01/30/2019 1053
4-Methyl-2-pentanone	ND		1	10	2.0	ug/L	01/30/2019 1053
Methylcyclohexane	ND		1	5.0	0.40	ug/L	01/30/2019 1053
Methylene chloride	ND		1	1.0	0.40	ug/L	01/30/2019 1053
Styrene	ND		1	1.0	0.41	ug/L	01/30/2019 1053
1,1,2,2-Tetrachloroethane	ND		1	1.0	0.40	ug/L	01/30/2019 1053
Tetrachloroethene	ND		1	1.0	0.40	ug/L	01/30/2019 1053
Toluene	ND		1	1.0	0.40	ug/L	01/30/2019 1053
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	0.42	ug/L	01/30/2019 1053
1,2,4-Trichlorobenzene	ND		1	1.0	0.40	ug/L	01/30/2019 1053
1,1,1-Trichloroethane	ND		1	1.0	0.40	ug/L	01/30/2019 1053
1,1,2-Trichloroethane	ND		1	1.0	0.40	ug/L	01/30/2019 1053

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ96168-001
Batch: 96168
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Trichloroethene	ND		1	1.0	0.40	ug/L	01/30/2019 1053
Trichlorofluoromethane	ND		1	1.0	0.40	ug/L	01/30/2019 1053
Vinyl chloride	ND		1	1.0	0.40	ug/L	01/30/2019 1053
Xylenes (total)	ND		1	1.0	0.40	ug/L	01/30/2019 1053

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		100	70-130
Bromofluorobenzene		100	70-130
Toluene-d8		103	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ96168-002
Batch: 96168
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	110		1	114	60-140	01/30/2019 1008
Benzene	50	48		1	96	70-130	01/30/2019 1008
Bromodichloromethane	50	45		1	90	70-130	01/30/2019 1008
Bromoform	50	50		1	99	70-130	01/30/2019 1008
Bromomethane (Methyl bromide)	50	58		1	116	70-130	01/30/2019 1008
2-Butanone (MEK)	100	100		1	103	70-130	01/30/2019 1008
Carbon disulfide	50	48		1	95	70-130	01/30/2019 1008
Carbon tetrachloride	50	47		1	95	70-130	01/30/2019 1008
Chlorobenzene	50	49		1	97	70-130	01/30/2019 1008
Chloroethane	50	57		1	114	70-130	01/30/2019 1008
Chloroform	50	42		1	85	70-130	01/30/2019 1008
Chloromethane (Methyl chloride)	50	54		1	108	60-140	01/30/2019 1008
Cyclohexane	50	49		1	99	70-130	01/30/2019 1008
1,2-Dibromo-3-chloropropane (DBCP)	50	49		1	98	70-130	01/30/2019 1008
Dibromochloromethane	50	48		1	96	70-130	01/30/2019 1008
1,2-Dibromoethane (EDB)	50	50		1	100	70-130	01/30/2019 1008
1,2-Dichlorobenzene	50	47		1	94	70-130	01/30/2019 1008
1,3-Dichlorobenzene	50	48		1	95	70-130	01/30/2019 1008
1,4-Dichlorobenzene	50	49		1	97	70-130	01/30/2019 1008
Dichlorodifluoromethane	50	57		1	113	60-140	01/30/2019 1008
1,1-Dichloroethane	50	43		1	86	70-130	01/30/2019 1008
1,2-Dichloroethane	50	46		1	91	70-130	01/30/2019 1008
1,1-Dichloroethene	50	47		1	94	70-130	01/30/2019 1008
cis-1,2-Dichloroethene	50	42		1	85	70-130	01/30/2019 1008
trans-1,2-Dichloroethene	50	43		1	86	70-130	01/30/2019 1008
1,2-Dichloropropane	50	42		1	85	70-130	01/30/2019 1008
cis-1,3-Dichloropropene	50	43		1	86	70-130	01/30/2019 1008
trans-1,3-Dichloropropene	50	43		1	85	70-130	01/30/2019 1008
Ethylbenzene	50	50		1	99	70-130	01/30/2019 1008
2-Hexanone	100	110		1	113	70-130	01/30/2019 1008
Isopropylbenzene	50	48		1	96	70-130	01/30/2019 1008
Methyl acetate	50	45		1	90	70-130	01/30/2019 1008
Methyl tertiary butyl ether (MTBE)	50	44		1	87	70-130	01/30/2019 1008
4-Methyl-2-pentanone	100	110		1	106	70-130	01/30/2019 1008
Methylcyclohexane	50	50		1	100	70-130	01/30/2019 1008
Methylene chloride	50	47		1	93	70-130	01/30/2019 1008
Styrene	50	50		1	99	70-130	01/30/2019 1008
1,1,2,2-Tetrachloroethane	50	47		1	94	70-130	01/30/2019 1008
Tetrachloroethene	50	51		1	102	70-130	01/30/2019 1008
Toluene	50	48		1	95	70-130	01/30/2019 1008
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	47		1	95	70-130	01/30/2019 1008
1,2,4-Trichlorobenzene	50	45		1	89	70-130	01/30/2019 1008
1,1,1-Trichloroethane	50	46		1	92	70-130	01/30/2019 1008
1,1,2-Trichloroethane	50	46		1	91	70-130	01/30/2019 1008

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ96168-002
Batch: 96168
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	49		1	98	70-130	01/30/2019 1008
Trichlorofluoromethane	50	52		1	104	70-130	01/30/2019 1008
Vinyl chloride	50	58		1	115	70-130	01/30/2019 1008
Xylenes (total)	100	99		1	99	70-130	01/30/2019 1008

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		98	70-130
Bromofluorobenzene		102	70-130
Toluene-d8		101	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MS

Sample ID: UA29024-001MS
Batch: 96168
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	ND	5000	4800		50	95	60-140	01/30/2019 1923
Benzene	ND	2500	2400		50	96	70-130	01/30/2019 1923
Bromodichloromethane	ND	2500	2200		50	89	70-130	01/30/2019 1923
Bromoform	ND	2500	2300		50	93	70-130	01/30/2019 1923
Bromomethane (Methyl bromide)	ND	2500	3000		50	119	70-130	01/30/2019 1923
2-Butanone (MEK)	ND	5000	4600		50	93	70-130	01/30/2019 1923
Carbon disulfide	ND	2500	2000		50	81	70-130	01/30/2019 1923
Carbon tetrachloride	ND	2500	2500		50	99	70-130	01/30/2019 1923
Chlorobenzene	ND	2500	2400		50	98	70-130	01/30/2019 1923
Chloroethane	ND	2500	3300		50	130	70-130	01/30/2019 1923
Chloroform	ND	2500	2200		50	90	70-130	01/30/2019 1923
Chloromethane (Methyl chloride)	ND	2500	2500		50	101	60-140	01/30/2019 1923
Cyclohexane	ND	2500	2500		50	101	70-130	01/30/2019 1923
1,2-Dibromo-3-chloropropane (DBCP)	ND	2500	2500		50	100	70-130	01/30/2019 1923
Dibromochloromethane	ND	2500	2300		50	92	70-130	01/30/2019 1923
1,2-Dibromoethane (EDB)	ND	2500	2500		50	99	70-130	01/30/2019 1923
1,2-Dichlorobenzene	ND	2500	2400		50	95	70-130	01/30/2019 1923
1,3-Dichlorobenzene	ND	2500	2300		50	93	70-130	01/30/2019 1923
1,4-Dichlorobenzene	ND	2500	2400		50	95	70-130	01/30/2019 1923
Dichlorodifluoromethane	ND	2500	2800		50	114	60-140	01/30/2019 1923
1,1-Dichloroethane	ND	2500	2300		50	91	70-130	01/30/2019 1923
1,2-Dichloroethane	ND	2500	2400		50	94	70-130	01/30/2019 1923
1,1-Dichloroethene	ND	2500	2300		50	92	70-130	01/30/2019 1923
cis-1,2-Dichloroethene	ND	2500	2200		50	89	70-130	01/30/2019 1923
trans-1,2-Dichloroethene	ND	2500	2300		50	91	70-130	01/30/2019 1923
1,2-Dichloropropane	ND	2500	2000		50	82	70-130	01/30/2019 1923
cis-1,3-Dichloropropene	ND	2500	2100		50	82	70-130	01/30/2019 1923
trans-1,3-Dichloropropene	ND	2500	2000		50	80	70-130	01/30/2019 1923
Ethylbenzene	ND	2500	2500		50	99	70-130	01/30/2019 1923
2-Hexanone	ND	5000	4900		50	99	70-130	01/30/2019 1923
Isopropylbenzene	ND	2500	2400		50	97	70-130	01/30/2019 1923
Methyl acetate	ND	2500	2300		50	92	70-130	01/30/2019 1923
Methyl tertiary butyl ether (MTBE)	ND	2500	2300		50	92	70-130	01/30/2019 1923
4-Methyl-2-pentanone	ND	5000	5000		50	99	70-130	01/30/2019 1923
Methylcyclohexane	ND	2500	2500		50	101	70-130	01/30/2019 1923
Methylene chloride	ND	2500	2300		50	93	70-130	01/30/2019 1923
Styrene	ND	2500	2400		50	98	70-130	01/30/2019 1923
1,1,2,2-Tetrachloroethane	ND	2500	2300		50	91	70-130	01/30/2019 1923
Tetrachloroethene	2500	2500	4900		50	95	70-130	01/30/2019 1923
Toluene	ND	2500	2400		50	95	70-130	01/30/2019 1923
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	2500	2500		50	98	70-130	01/30/2019 1923
1,2,4-Trichlorobenzene	ND	2500	2300		50	93	70-130	01/30/2019 1923
1,1,1-Trichloroethane	ND	2500	2400		50	94	70-130	01/30/2019 1923
1,1,2-Trichloroethane	ND	2500	2300		50	92	70-130	01/30/2019 1923

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MS

Sample ID: UA29024-001MS
Batch: 96168
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	ND	2500	2400		50	98	70-130	01/30/2019 1923
Trichlorofluoromethane	ND	2500	3300	N	50	132	70-130	01/30/2019 1923
Vinyl chloride	ND	2500	2900		50	118	70-130	01/30/2019 1923
Xylenes (total)	ND	5000	5000		50	100	70-130	01/30/2019 1923

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		99	70-130
Bromofluorobenzene		99	70-130
Toluene-d8		103	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MSD

Sample ID: UA29024-001MD
Batch: 96168
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	ND	5000	4700		50	93	1.8	60-140	20	01/30/2019 1946
Benzene	ND	2500	2400		50	98	2.0	70-130	20	01/30/2019 1946
Bromodichloromethane	ND	2500	2300		50	90	1.7	70-130	20	01/30/2019 1946
Bromoform	ND	2500	2300		50	91	1.4	70-130	20	01/30/2019 1946
Bromomethane (Methyl bromide)	ND	2500	2900		50	118	1.4	70-130	20	01/30/2019 1946
2-Butanone (MEK)	ND	5000	4600		50	93	0.064	70-130	20	01/30/2019 1946
Carbon disulfide	ND	2500	2100		50	85	3.8	70-130	20	01/30/2019 1946
Carbon tetrachloride	ND	2500	2500		50	100	0.83	70-130	20	01/30/2019 1946
Chlorobenzene	ND	2500	2500		50	98	0.46	70-130	20	01/30/2019 1946
Chloroethane	ND	2500	3000		50	118	9.7	70-130	20	01/30/2019 1946
Chloroform	ND	2500	2200		50	88	1.8	70-130	20	01/30/2019 1946
Chloromethane (Methyl chloride)	ND	2500	2700		50	109	7.6	60-140	20	01/30/2019 1946
Cyclohexane	ND	2500	2500		50	102	0.52	70-130	20	01/30/2019 1946
1,2-Dibromo-3-chloropropane (DBCP)	ND	2500	2500		50	101	1.3	70-130	20	01/30/2019 1946
Dibromochloromethane	ND	2500	2400		50	94	1.9	70-130	20	01/30/2019 1946
1,2-Dibromoethane (EDB)	ND	2500	2500		50	99	0.21	70-130	20	01/30/2019 1946
1,2-Dichlorobenzene	ND	2500	2400		50	97	1.5	70-130	20	01/30/2019 1946
1,3-Dichlorobenzene	ND	2500	2400		50	97	3.9	70-130	20	01/30/2019 1946
1,4-Dichlorobenzene	ND	2500	2400		50	97	2.2	70-130	20	01/30/2019 1946
Dichlorodifluoromethane	ND	2500	2900		50	117	2.9	60-140	20	01/30/2019 1946
1,1-Dichloroethane	ND	2500	2300		50	91	0.24	70-130	20	01/30/2019 1946
1,2-Dichloroethane	ND	2500	2400		50	95	0.89	70-130	20	01/30/2019 1946
1,1-Dichloroethene	ND	2500	2300		50	92	0.26	70-130	20	01/30/2019 1946
cis-1,2-Dichloroethene	ND	2500	2200		50	90	0.26	70-130	20	01/30/2019 1946
trans-1,2-Dichloroethene	ND	2500	2300		50	91	0.26	70-130	20	01/30/2019 1946
1,2-Dichloropropane	ND	2500	2000		50	82	0.35	70-130	20	01/30/2019 1946
cis-1,3-Dichloropropene	ND	2500	2100		50	83	1.4	70-130	20	01/30/2019 1946
trans-1,3-Dichloropropene	ND	2500	2000		50	81	0.81	70-130	20	01/30/2019 1946
Ethylbenzene	ND	2500	2500		50	99	0.29	70-130	20	01/30/2019 1946
2-Hexanone	ND	5000	5000		50	100	1.2	70-130	20	01/30/2019 1946
Isopropylbenzene	ND	2500	2400		50	98	0.43	70-130	20	01/30/2019 1946
Methyl acetate	ND	2500	2300		50	90	1.4	70-130	20	01/30/2019 1946
Methyl tertiary butyl ether (MTBE)	ND	2500	2300		50	93	1.4	70-130	20	01/30/2019 1946
4-Methyl-2-pentanone	ND	5000	5000		50	100	0.15	70-130	20	01/30/2019 1946
Methylcyclohexane	ND	2500	2500		50	101	0.28	70-130	20	01/30/2019 1946
Methylene chloride	ND	2500	2300		50	94	0.10	70-130	20	01/30/2019 1946
Styrene	ND	2500	2500		50	99	0.87	70-130	20	01/30/2019 1946
1,1,2,2-Tetrachloroethane	ND	2500	2400		50	95	3.6	70-130	20	01/30/2019 1946
Tetrachloroethene	2500	2500	4900		50	94	0.52	70-130	20	01/30/2019 1946
Toluene	ND	2500	2400		50	96	1.1	70-130	20	01/30/2019 1946
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	2500	2500		50	99	0.81	70-130	20	01/30/2019 1946
1,2,4-Trichlorobenzene	ND	2500	2400		50	96	3.2	70-130	20	01/30/2019 1946
1,1,1-Trichloroethane	ND	2500	2400		50	95	0.80	70-130	20	01/30/2019 1946
1,1,2-Trichloroethane	ND	2500	2300		50	91	0.51	70-130	20	01/30/2019 1946

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MSD

Sample ID: UA29024-001MD
Batch: 96168
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Trichloroethene	ND	2500	2500		50	98	0.79	70-130	20	01/30/2019 1946
Trichlorofluoromethane	ND	2500	2600	+	50	105	22	70-130	20	01/30/2019 1946
Vinyl chloride	ND	2500	2900		50	115	2.9	70-130	20	01/30/2019 1946
Xylenes (total)	ND	5000	5000		50	101	0.65	70-130	20	01/30/2019 1946

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		101	70-130
Bromofluorobenzene		102	70-130
Toluene-d8		104	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Chain of Custody

and

Miscellaneous Documents

Shealy Environmental Services, Inc.
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Chain of Custody Record

SHEALY ENVIRONMENTAL SERVICES, INC.
106 Vantage Point Drive • West Columbia, SC 29172
Telephone No. 803-791-9700 Fax No. 803-791-9111
www.shealylab.com

Number 85425

Client: TRC
Report to Contact: Terry Hertz / thertz@trcsolutions.com
Telephone No. / E-mail:
Quote No.:
Address: 50 International Drive Suite 150
Sampler's Signature: x
Analysis (Attach list if more space is needed)
Page ___ of ___
City: Greenville | State: SC | Zip Code: 29615
Project Name: WPH Clemson
Printed Name: David Szymal
Project No.:
P.O. No.:
UA29024
Preservative / Bottle ID

Sample ID / Description (Containers for each sample may be combined on one line.)	Date	Time	# of Containers	Matrix: Aqueous	Matrix: Solid	Matrix: Non-Aqueous	No. of Containers by Preservative Type: Unpres.	HNO3	HCl	NaOH	ZnAc	VOC	Chloride, Sulfate, Boron (Mel)			
DP-21B	1/25/2019	1245	6	X			X		X			X	X			

Turn Around Time Required (Prior lab approval required for expedited TAT.)
X Standard ☐ Rush (Specify)

Sample Disposal
☐ Return to Client X Disposal by Lab

Possible Hazard Identification
X Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished by: David Szymal	1/25/19	1900	1. Received by: TRC Storage	1/25/19	1900
2. Relinquished by: TRC Storage	1/29/19	0845	2. Received by: Matt. DP	1/29/19	0845
3. Relinquished by:	Date	Time	3. Received by:	Date	Time
4. Relinquished by: Matt. DP	1/29/19	1347	4. Laboratory received by: L Hite	1-29-19	1347

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on ice (Circle) (Yes) No Ice Pack Receipt Temp. 1.3 °C

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Client Copy

Document Number: F-AD-133 Effective Date: 09-01-2014

Sample Receipt Checklist (SRC)

Client: TRC Cooler Inspected by/date: LKH / 1-29-19 Lot #: UA29024

Means of receipt: ☑ SESI ☐ Client ☐ UPS ☐ FedEx ☐ Other: _____

☐ Yes	☑ No		1. Were custody seals present on the cooler?
☐ Yes	☐ No	☑ NA	2. If custody seals were present, were they intact and unbroken?

pH Strip ID: _____ Chlorine Strip ID: _____ Tested by: _____

Original temperature upon receipt / Derived (Corrected) temperature upon receipt: %Solid Snap-Cup ID: _____

1.3 / 1.3 °C ____ / ____ °C ____ / ____ °C ____ / ____ °C

Method: ☑ Temperature Blank ☐ Against Bottles IR Gun ID: 5 IR Gun Correction Factor: 0 °C

Method of coolant: ☑ Wet Ice ☐ Ice Packs ☐ Dry Ice ☐ None

☐ Yes	☐ No	☑ NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).
☐ Yes	☐ No	☑ NA	4. Is the commercial courier's packing slip attached to this form?
☑ Yes	☐ No		5. Were proper custody procedures (relinquished/received) followed?
☑ Yes	☐ No		6. Were sample IDs listed on the COC?
☑ Yes	☐ No		7. Were sample IDs listed on all sample containers?
☑ Yes	☐ No		8. Was collection date & time listed on the COC?
☑ Yes	☐ No		9. Was collection date & time listed on all sample containers?
☑ Yes	☐ No		10. Did all container label information (ID, date, time) agree with the COC?
☑ Yes	☐ No		11. Were tests to be performed listed on the COC?
☑ Yes	☐ No		12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)? _____
☑ Yes	☐ No		13. Was adequate sample volume available?
☑ Yes	☐ No		14. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
☐ Yes	☑ No		15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
☐ Yes	☑ No	☐ NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (¼"or 6mm in diameter) in any of the VOA vials?
☐ Yes	☐ No	☑ NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?
☐ Yes	☐ No	☑ NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
☐ Yes	☐ No	☑ NA	19. Were all applicable NH_3/TKN/cyanide/phenol/625 (< 0.5mg/L) samples free of residual chlorine?
☐ Yes	☐ No	☑ NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc…) correctly transcribed from the COC into the comment section in LIMS?
☐ Yes	☑ No		21. Was the quote number listed on the container label? If yes, Quote # _____.

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) _____ were received incorrectly preserved and were adjusted accordingly in sample receiving with _____mL of circle one: H2SO4, HNO3, HCl, NaOH using SR # _____.
Time of preservation _____. If more than one preservative is needed, please note in the comments below.

Sample(s) _____ were received with bubbles >6 mm in diameter.

Samples(s) _____ were received with TRC > 0.5 mg/L (If #19 is ***no***) and were adjusted accordingly in sample receiving with sodium thiosulfate ($Na_2S_2O_3$) with Shealy ID: _____.

SR barcode labels applied by: LKH Date: 1-29-19

Comments:

SHEALY ENVIRONMENTAL SERVICES, INC.

Report of Analysis

TRC Companies, Inc.
50 International Dr.
Suite 150
Greenville, SC 29615
Attention: Lisa Clark

Project Name: WPH Clemson

Project Number: 300688.0000.0000.0002

Lot Number:**UA30029**

Date Completed:02/11/2019

02/12/2019 3:30 PM
Approved and released by:
Lab Director - Greenville: Lucas Odom

The electronic signature above is the equivalent of a handwritten signature.

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Laboratory Data Quality Review Notes

Project Name: WPH-Clemson, SC

Project Number: 300688.0000.0000.000002

Lab Report: UA30029 Shealy Environmental Services
Three groundwater samples were analyzed for volatile organic compounds (VOCs), chloride, bromide, sulfate, and nitrate. One trip blank was analyzed for VOCs.

Chain of Custody, Sample Temperature, Sample Preservation: Chain of custody (CoC) signed; sample temperature <6 ^{o}C upon arrival at the laboratory; samples were preserved properly.

Hold Time: Samples analyzed within hold time.

Surrogates: VOC surrogate recoveries are within QC limits.

Method Blank: Method blanks were free of detections.

Trip Blank: Trip blank TBLK-19104 had no detections of target analytes.

Field Blank: A field blank was not collected with these samples.

Equipment Rinse Blank: A rinsate blank was not collected with these samples.

LCS/LCSD: LCS recoveries for anions and VOCs are within QC Limits.

MS/MSD: RMW-1C was used for nitrate MS/MSD analyses. MS/MSD recoveries and RPD were within QC limits.

Duplicates: A field duplicate was not collected with these samples.

Corrective Action: The report was reissued on 2/12/2019 to correct inaccurate statements in the Case Narrative.

No qualifiers were assigned.

Data review performed by: Terry Hertz; TRC Environmental Corp.; 2/12/2019

Case Narrative
TRC Companies, Inc.
Lot Number: UA30029

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

Sulfate
The continuing calibration verification (CCV) associated with sample -004 and laboratory control sample (LCS) recovered above the upper control limit. The sample associated with this CCV only contained "J" value detections for the affected analytes; therefore, the data has been reported. The opening continuing calibration verification (CCV) of this batch Sulfate eluted outside of the acceptable retention time windows. The remaining CCV retention times are within acceptance range.

A second pair of matrix spike/matrix spike duplicate (MS/MSD) was not analyzed for analytical batch 97118. All other quality control standards were analyzed and recover within acceptance criteria.

Chloride
The continuing calibration verification (CCV) associated with sample -004 and laboratory control sample (LCS) recovered above the upper control limit. The sample associated with this CCV only contained "J" value detections for the affected analytes; therefore, the data has been reported. The opening continuing calibration verification (CCV) of this batch Chloride eluted outside of the acceptable retention time windows. The remaining CCV retention times are within acceptance range.

A second pair of matrix spike/matrix spike duplicate (MS/MSD) was not analyzed for analytical batch 97124. All other quality control standards were analyzed and recover within acceptance criteria.

Bromide
The continuing calibration verification (CCV) associated with sample -004 and laboratory control sample (LCS) recovered above the upper control limit. The sample associated with this CCV only contained "J" value detections for the affected analytes; therefore, the data has been reported. The opening continuing calibration verification (CCV) of this batch Bromide eluted outside of the acceptable retention time windows. The remaining CCV retention times are within acceptance range.

A second pair of matrix spike/matrix spike duplicate (MS/MSD) was not analyzed for analytical batch 97125. All other quality control standards were analyzed and recover within acceptance criteria.

Sample Summary
TRC Companies, Inc.
Lot Number: UA30029

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	TBLK - 19104	Aqueous	01/29/2019	01/30/2019
002	RMW-14A	Aqueous	01/29/2019 1435	01/30/2019
003	RMW-14B	Aqueous	01/29/2019 1655	01/30/2019
004	RMW-14C	Aqueous	01/29/2019 1710	01/30/2019

(4 samples)

Detection Summary

TRC Companies, Inc.

Lot Number: UA30029

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
002	RMW-14A	Aqueous	Chloride	300.0	0.71	J	mg/L	8
002	RMW-14A	Aqueous	Nitrate - N	353.2	0.83		mg/L	8
002	RMW-14A	Aqueous	Sulfate	300.0	170		mg/L	8
002	RMW-14A	Aqueous	Chloroform	8260B	7.3		ug/L	8
002	RMW-14A	Aqueous	1,1-Dichloroethene	8260B	3.4	J	ug/L	8
002	RMW-14A	Aqueous	Tetrachloroethene	8260B	300		ug/L	9
003	RMW-14B	Aqueous	Bromide	300.0	0.10	J	mg/L	10
003	RMW-14B	Aqueous	Chloride	300.0	0.84	J	mg/L	10
003	RMW-14B	Aqueous	Nitrate - N	353.2	0.34		mg/L	10
003	RMW-14B	Aqueous	Sulfate	300.0	0.71	J	mg/L	10
003	RMW-14B	Aqueous	cis-1,2-Dichloroethene	8260B	0.62	J	ug/L	10
003	RMW-14B	Aqueous	Tetrachloroethene	8260B	2.1		ug/L	11
004	RMW-14C	Aqueous	Bromide	300.0	0.094	J	mg/L	12
004	RMW-14C	Aqueous	Chloride	300.0	0.96	J	mg/L	12
004	RMW-14C	Aqueous	Nitrate - N	353.2	0.43		mg/L	12
004	RMW-14C	Aqueous	Sulfate	300.0	0.66	J	mg/L	12
004	RMW-14C	Aqueous	Acetone	8260B	2.4	J	ug/L	12
004	RMW-14C	Aqueous	Carbon disulfide	8260B	0.52	J	ug/L	12
004	RMW-14C	Aqueous	Tetrachloroethene	8260B	1.0		ug/L	13

(19 detections)

Client: TRC Companies, Inc.
Description: TBLK - 19104
Date Sampled: 01/29/2019
Date Received: 01/30/2019

Laboratory ID: UA30029-001
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	01/31/2019 1157	JJG		96265

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	ND		20	2.0	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
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Client: TRC Companies, Inc.
Description: TBLK - 19104
Date Sampled: 01/29/2019
Date Received: 01/30/2019

Laboratory ID: UA30029-001
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	01/31/2019 1157	JJG		96265

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260B	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		104	70-130
Bromofluorobenzene		100	70-130
Toluene-d8		103	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Client: TRC Companies, Inc.
Description: RMW-14A
Date Sampled: 01/29/2019 1435
Date Received: 01/30/2019

Laboratory ID: UA30029-002
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	02/08/2019 2303	SLU		97125
1		(Chloride) 300.0	1	02/08/2019 2303	SLU		97124
1		(Nitrate - N) 353.2	1	01/30/2019 2050	MDD		96214
1		(Sulfate) 300.0	1	02/08/2019 2303	SLU		97118

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	ND		0.20	0.050	mg/L	1
Chloride		300.0	0.71	J	1.0	0.20	mg/L	1
Nitrate - N		353.2	0.83		0.020	0.0015	mg/L	1
Sulfate		300.0	170		1.0	0.20	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	5	02/01/2019 1659	JJG		96369

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	ND		100	10	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	2.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	2.0	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	2.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		10	2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		50	10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	2.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	2.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	2.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		10	2.0	ug/L	1
Chloroform	67-66-3	8260B	7.3		5.0	2.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	2.5	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	2.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	2.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	2.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	2.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	2.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	2.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	2.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		10	3.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	2.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	2.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	3.4	J	5.0	2.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.0	2.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	2.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	2.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: RMW-14A
Date Sampled: 01/29/2019 1435
Date Received: 01/30/2019

Laboratory ID: UA30029-002
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	5	02/01/2019 1659	JJG		96369

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	2.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	2.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	2.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		50	10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	2.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	2.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	2.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		50	10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		25	2.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	2.0	ug/L	1
Styrene	100-42-5	8260B	ND		5.0	2.1	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	2.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	300		5.0	2.0	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	2.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	2.1	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	2.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	2.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	2.0	ug/L	1
Trichloroethene	79-01-6	8260B	ND		5.0	2.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	2.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		5.0	2.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	2.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		101	70-130
Bromofluorobenzene		97	70-130
Toluene-d8		103	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: RMW-14B
Date Sampled: 01/29/2019 1655
Date Received: 01/30/2019

Laboratory ID: UA30029-003
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	02/08/2019 2329	SLU		97125
1		(Chloride) 300.0	1	02/08/2019 2329	SLU		97124
1		(Nitrate - N) 353.2	1	01/30/2019 2051	MDD		96214
1		(Sulfate) 300.0	1	02/08/2019 2329	SLU		97118

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.10	J	0.20	0.050	mg/L	1
Chloride		300.0	0.84	J	1.0	0.20	mg/L	1
Nitrate - N		353.2	0.34		0.020	0.0015	mg/L	1
Sulfate		300.0	0.71	J	1.0	0.20	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/01/2019 1116	JJG		96369

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	ND		20	2.0	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	0.62	J	1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: RMW-14B
Date Sampled: 01/29/2019 1655
Date Received: 01/30/2019

Laboratory ID: UA30029-003
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/01/2019 1116	JJG		96369

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	2.1		1.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260B	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		100	70-130
Bromofluorobenzene		101	70-130
Toluene-d8		105	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: RMW-14C
Date Sampled: 01/29/2019 1710
Date Received: 01/30/2019

Laboratory ID: UA30029-004
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	02/07/2019 1954	SLU		96995
1		(Chloride) 300.0	1	02/07/2019 1954	SLU		96993
1		(Nitrate - N) 353.2	1	01/30/2019 2052	MDD		96214
1		(Sulfate) 300.0	1	02/07/2019 1954	SLU		96987

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.094	J	0.20	0.050	mg/L	1
Chloride		300.0	0.96	J	1.0	0.20	mg/L	1
Nitrate - N		353.2	0.43		0.020	0.0015	mg/L	1
Sulfate		300.0	0.66	J	1.0	0.20	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/01/2019 1139	JJG		96369

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	2.4	J	20	2.0	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260B	0.52	J	1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Client: TRC Companies, Inc.
Description: RMW-14C
Date Sampled: 01/29/2019 1710
Date Received: 01/30/2019

Laboratory ID: UA30029-004
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/01/2019 1139	JJG		96369

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	1.0		1.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260B	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		103	70-130
Bromofluorobenzene		98	70-130
Toluene-d8		104	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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QC Summary

Inorganic non-metals - MB

Sample ID: UQ96214-001
Batch: 96214
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Nitrate - N	ND		1	0.020	0.0015	mg/L	01/30/2019 2046

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - LCS

Sample ID: UQ96214-002
Batch: 96214
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	0.80	0.80		1	100	90-110	01/30/2019 2047

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MS

Sample ID: UA30029-004MS
Batch: 96214
Analytical Method: 353.2
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	0.43	0.80	1.2		1	97	90-110	01/30/2019 2054

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: UA30029-004MD
Batch: 96214
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Nitrate - N	0.43	0.80	1.2		1	94	2.4	90-110	20	01/30/2019 2059

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MB

Sample ID: UQ96987-001
Batch: 96987
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Sulfate	ND		1	1.0	0.20	mg/L	02/07/2019 1018

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - LCS

Sample ID: UQ96987-002
Batch: 96987
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Sulfate	20	20		1	101	90-110	02/07/2019 1055

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MB

Sample ID: UQ96993-001
Batch: 96993
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Chloride	ND		1	1.0	0.20	mg/L	02/07/2019 1018

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - LCS

Sample ID: UQ96993-002
Batch: 96993
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Chloride	20	20		1	101	90-110	02/07/2019 1055

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MB

Sample ID: UQ96995-001
Batch: 96995
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Bromide	ND		1	0.20	0.050	mg/L	02/07/2019 1018

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - LCS

Sample ID: UQ96995-002
Batch: 96995
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Bromide	8.0	8.6		1	108	90-110	02/07/2019 1055

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MB

Sample ID: UQ97118-001
Batch: 97118
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Sulfate	ND		1	1.0	0.20	mg/L	02/08/2019 1352

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - LCS

Sample ID: UQ97118-002
Batch: 97118
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Sulfate	20	20		1	98	90-110	02/08/2019 1444

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MB

Sample ID: UQ97124-001
Batch: 97124
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Chloride	ND		1	1.0	0.20	mg/L	02/08/2019 1352

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - LCS

Sample ID: UQ97124-002
Batch: 97124
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Chloride	20	19		1	94	90-110	02/08/2019 1444

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MB

Sample ID: UQ97125-001
Batch: 97125
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Bromide	ND		1	0.20	0.050	mg/L	02/08/2019 1352

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - LCS

Sample ID: UQ97125-002
Batch: 97125
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Bromide	8.0	8.2		1	102	90-110	02/08/2019 1444

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Shealy Environmental Services, Inc.
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Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ96265-001
Batch: 96265
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Acetone	ND		1	20	2.0	ug/L	01/31/2019 1048
Benzene	ND		1	1.0	0.40	ug/L	01/31/2019 1048
Bromodichloromethane	ND		1	1.0	0.40	ug/L	01/31/2019 1048
Bromoform	ND		1	1.0	0.40	ug/L	01/31/2019 1048
Bromomethane (Methyl bromide)	ND		1	2.0	0.40	ug/L	01/31/2019 1048
2-Butanone (MEK)	ND		1	10	2.0	ug/L	01/31/2019 1048
Carbon disulfide	ND		1	1.0	0.40	ug/L	01/31/2019 1048
Carbon tetrachloride	ND		1	1.0	0.40	ug/L	01/31/2019 1048
Chlorobenzene	ND		1	1.0	0.40	ug/L	01/31/2019 1048
Chloroethane	ND		1	2.0	0.40	ug/L	01/31/2019 1048
Chloroform	ND		1	1.0	0.40	ug/L	01/31/2019 1048
Chloromethane (Methyl chloride)	ND		1	1.0	0.50	ug/L	01/31/2019 1048
Cyclohexane	ND		1	1.0	0.40	ug/L	01/31/2019 1048
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	0.40	ug/L	01/31/2019 1048
Dibromochloromethane	ND		1	1.0	0.40	ug/L	01/31/2019 1048
1,2-Dibromoethane (EDB)	ND		1	1.0	0.40	ug/L	01/31/2019 1048
1,2-Dichlorobenzene	ND		1	1.0	0.40	ug/L	01/31/2019 1048
1,3-Dichlorobenzene	ND		1	1.0	0.40	ug/L	01/31/2019 1048
1,4-Dichlorobenzene	ND		1	1.0	0.40	ug/L	01/31/2019 1048
Dichlorodifluoromethane	ND		1	2.0	0.60	ug/L	01/31/2019 1048
1,1-Dichloroethane	ND		1	1.0	0.40	ug/L	01/31/2019 1048
1,2-Dichloroethane	ND		1	1.0	0.40	ug/L	01/31/2019 1048
1,1-Dichloroethene	ND		1	1.0	0.40	ug/L	01/31/2019 1048
cis-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	01/31/2019 1048
trans-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	01/31/2019 1048
1,2-Dichloropropane	ND		1	1.0	0.40	ug/L	01/31/2019 1048
cis-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	01/31/2019 1048
trans-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	01/31/2019 1048
Ethylbenzene	ND		1	1.0	0.40	ug/L	01/31/2019 1048
2-Hexanone	ND		1	10	2.0	ug/L	01/31/2019 1048
Isopropylbenzene	ND		1	1.0	0.40	ug/L	01/31/2019 1048
Methyl acetate	ND		1	1.0	0.40	ug/L	01/31/2019 1048
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	0.40	ug/L	01/31/2019 1048
4-Methyl-2-pentanone	ND		1	10	2.0	ug/L	01/31/2019 1048
Methylcyclohexane	ND		1	5.0	0.40	ug/L	01/31/2019 1048
Methylene chloride	ND		1	1.0	0.40	ug/L	01/31/2019 1048
Styrene	ND		1	1.0	0.41	ug/L	01/31/2019 1048
1,1,2,2-Tetrachloroethane	ND		1	1.0	0.40	ug/L	01/31/2019 1048
Tetrachloroethene	ND		1	1.0	0.40	ug/L	01/31/2019 1048
Toluene	ND		1	1.0	0.40	ug/L	01/31/2019 1048
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	0.42	ug/L	01/31/2019 1048
1,2,4-Trichlorobenzene	ND		1	1.0	0.40	ug/L	01/31/2019 1048
1,1,1-Trichloroethane	ND		1	1.0	0.40	ug/L	01/31/2019 1048
1,1,2-Trichloroethane	ND		1	1.0	0.40	ug/L	01/31/2019 1048

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ96265-001
Batch: 96265
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Trichloroethene	ND		1	1.0	0.40	ug/L	01/31/2019 1048
Trichlorofluoromethane	ND		1	1.0	0.40	ug/L	01/31/2019 1048
Vinyl chloride	ND		1	1.0	0.40	ug/L	01/31/2019 1048
Xylenes (total)	ND		1	1.0	0.40	ug/L	01/31/2019 1048

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		103	70-130
Bromofluorobenzene		101	70-130
Toluene-d8		103	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ96265-002
Batch: 96265
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	120		1	119	60-140	01/31/2019 1001
Benzene	50	47		1	95	70-130	01/31/2019 1001
Bromodichloromethane	50	45		1	90	70-130	01/31/2019 1001
Bromoform	50	49		1	98	70-130	01/31/2019 1001
Bromomethane (Methyl bromide)	50	55		1	110	70-130	01/31/2019 1001
2-Butanone (MEK)	100	100		1	102	70-130	01/31/2019 1001
Carbon disulfide	50	48		1	96	70-130	01/31/2019 1001
Carbon tetrachloride	50	49		1	97	70-130	01/31/2019 1001
Chlorobenzene	50	48		1	96	70-130	01/31/2019 1001
Chloroethane	50	59		1	118	70-130	01/31/2019 1001
Chloroform	50	44		1	88	70-130	01/31/2019 1001
Chloromethane (Methyl chloride)	50	45		1	91	60-140	01/31/2019 1001
Cyclohexane	50	54		1	107	70-130	01/31/2019 1001
1,2-Dibromo-3-chloropropane (DBCP)	50	50		1	101	70-130	01/31/2019 1001
Dibromochloromethane	50	48		1	95	70-130	01/31/2019 1001
1,2-Dibromoethane (EDB)	50	48		1	96	70-130	01/31/2019 1001
1,2-Dichlorobenzene	50	47		1	93	70-130	01/31/2019 1001
1,3-Dichlorobenzene	50	47		1	94	70-130	01/31/2019 1001
1,4-Dichlorobenzene	50	47		1	95	70-130	01/31/2019 1001
Dichlorodifluoromethane	50	53		1	107	60-140	01/31/2019 1001
1,1-Dichloroethane	50	45		1	89	70-130	01/31/2019 1001
1,2-Dichloroethane	50	46		1	92	70-130	01/31/2019 1001
1,1-Dichloroethene	50	48		1	95	70-130	01/31/2019 1001
cis-1,2-Dichloroethene	50	43		1	87	70-130	01/31/2019 1001
trans-1,2-Dichloroethene	50	45		1	90	70-130	01/31/2019 1001
1,2-Dichloropropane	50	41		1	81	70-130	01/31/2019 1001
cis-1,3-Dichloropropene	50	42		1	85	70-130	01/31/2019 1001
trans-1,3-Dichloropropene	50	42		1	84	70-130	01/31/2019 1001
Ethylbenzene	50	49		1	98	70-130	01/31/2019 1001
2-Hexanone	100	100		1	103	70-130	01/31/2019 1001
Isopropylbenzene	50	47		1	95	70-130	01/31/2019 1001
Methyl acetate	50	45		1	91	70-130	01/31/2019 1001
Methyl tertiary butyl ether (MTBE)	50	45		1	89	70-130	01/31/2019 1001
4-Methyl-2-pentanone	100	100		1	103	70-130	01/31/2019 1001
Methylcyclohexane	50	50		1	100	70-130	01/31/2019 1001
Methylene chloride	50	47		1	95	70-130	01/31/2019 1001
Styrene	50	49		1	99	70-130	01/31/2019 1001
1,1,2,2-Tetrachloroethane	50	46		1	91	70-130	01/31/2019 1001
Tetrachloroethene	50	50		1	101	70-130	01/31/2019 1001
Toluene	50	48		1	95	70-130	01/31/2019 1001
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	49		1	97	70-130	01/31/2019 1001
1,2,4-Trichlorobenzene	50	47		1	94	70-130	01/31/2019 1001
1,1,1-Trichloroethane	50	46		1	92	70-130	01/31/2019 1001
1,1,2-Trichloroethane	50	46		1	92	70-130	01/31/2019 1001

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ96265-002
Batch: 96265
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	48		1	96	70-130	01/31/2019 1001
Trichlorofluoromethane	50	59		1	118	70-130	01/31/2019 1001
Vinyl chloride	50	54		1	107	70-130	01/31/2019 1001
Xylenes (total)	100	99		1	99	70-130	01/31/2019 1001

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		99	70-130
Bromofluorobenzene		102	70-130
Toluene-d8		103	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ96369-001
Batch: 96369
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Acetone	ND		1	20	2.0	ug/L	02/01/2019 1029
Benzene	ND		1	1.0	0.40	ug/L	02/01/2019 1029
Bromodichloromethane	ND		1	1.0	0.40	ug/L	02/01/2019 1029
Bromoform	ND		1	1.0	0.40	ug/L	02/01/2019 1029
Bromomethane (Methyl bromide)	ND		1	2.0	0.40	ug/L	02/01/2019 1029
2-Butanone (MEK)	ND		1	10	2.0	ug/L	02/01/2019 1029
Carbon disulfide	ND		1	1.0	0.40	ug/L	02/01/2019 1029
Carbon tetrachloride	ND		1	1.0	0.40	ug/L	02/01/2019 1029
Chlorobenzene	ND		1	1.0	0.40	ug/L	02/01/2019 1029
Chloroethane	ND		1	2.0	0.40	ug/L	02/01/2019 1029
Chloroform	ND		1	1.0	0.40	ug/L	02/01/2019 1029
Chloromethane (Methyl chloride)	ND		1	1.0	0.50	ug/L	02/01/2019 1029
Cyclohexane	ND		1	1.0	0.40	ug/L	02/01/2019 1029
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	0.40	ug/L	02/01/2019 1029
Dibromochloromethane	ND		1	1.0	0.40	ug/L	02/01/2019 1029
1,2-Dibromoethane (EDB)	ND		1	1.0	0.40	ug/L	02/01/2019 1029
1,2-Dichlorobenzene	ND		1	1.0	0.40	ug/L	02/01/2019 1029
1,3-Dichlorobenzene	ND		1	1.0	0.40	ug/L	02/01/2019 1029
1,4-Dichlorobenzene	ND		1	1.0	0.40	ug/L	02/01/2019 1029
Dichlorodifluoromethane	ND		1	2.0	0.60	ug/L	02/01/2019 1029
1,1-Dichloroethane	ND		1	1.0	0.40	ug/L	02/01/2019 1029
1,2-Dichloroethane	ND		1	1.0	0.40	ug/L	02/01/2019 1029
1,1-Dichloroethene	ND		1	1.0	0.40	ug/L	02/01/2019 1029
cis-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	02/01/2019 1029
trans-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	02/01/2019 1029
1,2-Dichloropropane	ND		1	1.0	0.40	ug/L	02/01/2019 1029
cis-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	02/01/2019 1029
trans-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	02/01/2019 1029
Ethylbenzene	ND		1	1.0	0.40	ug/L	02/01/2019 1029
2-Hexanone	ND		1	10	2.0	ug/L	02/01/2019 1029
Isopropylbenzene	ND		1	1.0	0.40	ug/L	02/01/2019 1029
Methyl acetate	ND		1	1.0	0.40	ug/L	02/01/2019 1029
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	0.40	ug/L	02/01/2019 1029
4-Methyl-2-pentanone	ND		1	10	2.0	ug/L	02/01/2019 1029
Methylcyclohexane	ND		1	5.0	0.40	ug/L	02/01/2019 1029
Methylene chloride	ND		1	1.0	0.40	ug/L	02/01/2019 1029
Styrene	ND		1	1.0	0.41	ug/L	02/01/2019 1029
1,1,2,2-Tetrachloroethane	ND		1	1.0	0.40	ug/L	02/01/2019 1029
Tetrachloroethene	ND		1	1.0	0.40	ug/L	02/01/2019 1029
Toluene	ND		1	1.0	0.40	ug/L	02/01/2019 1029
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	0.42	ug/L	02/01/2019 1029
1,2,4-Trichlorobenzene	ND		1	1.0	0.40	ug/L	02/01/2019 1029
1,1,1-Trichloroethane	ND		1	1.0	0.40	ug/L	02/01/2019 1029
1,1,2-Trichloroethane	ND		1	1.0	0.40	ug/L	02/01/2019 1029

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ96369-001
Batch: 96369
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Trichloroethene	ND		1	1.0	0.40	ug/L	02/01/2019 1029
Trichlorofluoromethane	ND		1	1.0	0.40	ug/L	02/01/2019 1029
Vinyl chloride	ND		1	1.0	0.40	ug/L	02/01/2019 1029
Xylenes (total)	ND		1	1.0	0.40	ug/L	02/01/2019 1029

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		100	70-130
Bromofluorobenzene		99	70-130
Toluene-d8		104	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ96369-002
Batch: 96369
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	99		1	99	60-140	02/01/2019 0944
Benzene	50	47		1	93	70-130	02/01/2019 0944
Bromodichloromethane	50	45		1	89	70-130	02/01/2019 0944
Bromoform	50	48		1	96	70-130	02/01/2019 0944
Bromomethane (Methyl bromide)	50	57		1	114	70-130	02/01/2019 0944
2-Butanone (MEK)	100	90		1	90	70-130	02/01/2019 0944
Carbon disulfide	50	44		1	87	70-130	02/01/2019 0944
Carbon tetrachloride	50	48		1	96	70-130	02/01/2019 0944
Chlorobenzene	50	48		1	96	70-130	02/01/2019 0944
Chloroethane	50	56		1	112	70-130	02/01/2019 0944
Chloroform	50	42		1	84	70-130	02/01/2019 0944
Chloromethane (Methyl chloride)	50	45		1	90	60-140	02/01/2019 0944
Cyclohexane	50	53		1	106	70-130	02/01/2019 0944
1,2-Dibromo-3-chloropropane (DBCP)	50	48		1	96	70-130	02/01/2019 0944
Dibromochloromethane	50	46		1	93	70-130	02/01/2019 0944
1,2-Dibromoethane (EDB)	50	49		1	98	70-130	02/01/2019 0944
1,2-Dichlorobenzene	50	46		1	92	70-130	02/01/2019 0944
1,3-Dichlorobenzene	50	46		1	93	70-130	02/01/2019 0944
1,4-Dichlorobenzene	50	47		1	93	70-130	02/01/2019 0944
Dichlorodifluoromethane	50	54		1	109	60-140	02/01/2019 0944
1,1-Dichloroethane	50	43		1	86	70-130	02/01/2019 0944
1,2-Dichloroethane	50	45		1	91	70-130	02/01/2019 0944
1,1-Dichloroethene	50	43		1	86	70-130	02/01/2019 0944
cis-1,2-Dichloroethene	50	42		1	83	70-130	02/01/2019 0944
trans-1,2-Dichloroethene	50	43		1	86	70-130	02/01/2019 0944
1,2-Dichloropropane	50	40		1	80	70-130	02/01/2019 0944
cis-1,3-Dichloropropene	50	42		1	84	70-130	02/01/2019 0944
trans-1,3-Dichloropropene	50	42		1	83	70-130	02/01/2019 0944
Ethylbenzene	50	49		1	99	70-130	02/01/2019 0944
2-Hexanone	100	99		1	99	70-130	02/01/2019 0944
Isopropylbenzene	50	48		1	96	70-130	02/01/2019 0944
Methyl acetate	50	43		1	86	70-130	02/01/2019 0944
Methyl tertiary butyl ether (MTBE)	50	42		1	84	70-130	02/01/2019 0944
4-Methyl-2-pentanone	100	99		1	99	70-130	02/01/2019 0944
Methylcyclohexane	50	50		1	99	70-130	02/01/2019 0944
Methylene chloride	50	43		1	86	70-130	02/01/2019 0944
Styrene	50	49		1	98	70-130	02/01/2019 0944
1,1,2,2-Tetrachloroethane	50	46		1	92	70-130	02/01/2019 0944
Tetrachloroethene	50	51		1	101	70-130	02/01/2019 0944
Toluene	50	47		1	95	70-130	02/01/2019 0944
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	47		1	93	70-130	02/01/2019 0944
1,2,4-Trichlorobenzene	50	46		1	92	70-130	02/01/2019 0944
1,1,1-Trichloroethane	50	44		1	88	70-130	02/01/2019 0944
1,1,2-Trichloroethane	50	45		1	91	70-130	02/01/2019 0944

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Shealy Environmental Services, Inc.
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Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ96369-002
Batch: 96369
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	48		1	95	70-130	02/01/2019 0944
Trichlorofluoromethane	50	51		1	101	70-130	02/01/2019 0944
Vinyl chloride	50	49		1	97	70-130	02/01/2019 0944
Xylenes (total)	100	98		1	98	70-130	02/01/2019 0944

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		97	70-130
Bromofluorobenzene		99	70-130
Toluene-d8		103	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Chain of Custody

and

Miscellaneous Documents

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

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Chain of Custody Record

SHEALY ENVIRONMENTAL SERVICES, INC.
106 Vantage Point Drive • West Columbia, SC 29172
Telephone No. 803-791-9700 Fax No. 803-791-9111
www.shealylab.com

Number 91066

Client	Report to Contact	Telephone No. / E-mail	Quote No.
TRC	Lisa Clark		

Address	Sampler's Signature	Analysis (Attach list if more space is needed)	Page 1 of 1
50 International Dr Suite 150	X		

City	State	Zip Code	Printed Name
Greenville	SC		Benjamin Medlin

Project Name: WPH Clemson

Project No.: 300688.0.0.2

P.O. No.:

UA30029
L.D.

Sample ID / Description (Containers for each sample may be combined on one line.)	Date 2019	Time	Grab/Composite	Matrix: Aqueous	Matrix: Solid	Matrix: Other (Specify)	No of Containers by Preservative Type: Unpres.	HNO3	H2SO4	HCl	NaOH	ZnAc+NaOH	VOCs	Chloride, Sulfate, Bromide	Nitrate	Remarks / Cooler I.D.
TBLK-19104	1	1	G	X						2			X			
RMW-14A	1-29	1435	G	X			2			3			X	X	X	
RMW-14B	1-29	1655	G	X			2			3			X	X	X	
RMW-14C	1-29	1710	G	X			2			3			X	X	X	

Turn Around Time Required (Prior lab approval required for expedited TAT.)
☐ Standard ☐ Rush (Specify)

Sample Disposal
☐ Return to Client ☐ Disposal by Lab

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished by	1.29.19	1905	1. Received by: TRC Sample storage	1-29-19	1905
2. Relinquished by: TRC Sample Storage	1/30/19	1155	2. Received by: Matt O P	1/30/19	1155
3. Relinquished by	Date	Time	3. Received by	Date	Time
4. Relinquished by: Matt O P	1/30/19	1415	4. Laboratory received by: Erin Brannon	1-30-19	Time 1415

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on Ice (Circle) Yes / No Ice Pack

Receipt Temp. 1.0 °C

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Client Copy

Document Number: F-AD-133 Effective Date: 06-01-2014

SHEALY ENVIRONMENTAL SERVICES, INC.

Shealy Environmental Services, Inc.
Document Number: MF0018C-14

Page 1 of 1
Effective Date: 8/2/2018

Sample Receipt Checklist (SRC)

Client: TRC Cooler Inspected by/date: ETB / 1-30-19 Lot #: UA30029

Means of receipt: ☑ SESI ☐ Client ☐ UPS ☐ FedEx ☐ Other: _____

☐ Yes	☐ No		1. Were custody seals present on the cooler?
☐ Yes	☐ No	☐ NA	2. If custody seals were present, were they intact and unbroken?

pH Strip ID: _____ Chlorine Strip ID: _____ Tested by: _____

Original temperature upon receipt / Derived (Corrected) temperature upon receipt: %Solid Snap-Cup ID: _____

1.0 / 1.0 °C ___ / ___ °C ___ / ___ °C ___ / ___ °C

Method: ☐ Temperature Blank ☐ Against Bottles IR Gun ID: 5 IR Gun Correction Factor: 0 °C

Method of coolant: ☐ Wet Ice ☐ Ice Packs ☐ Dry Ice ☐ None

☐ Yes	☐ No	☐ NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).
☐ Yes	☐ No	☐ NA	4. Is the commercial courier's packing slip attached to this form?
☑ Yes	☐ No		5. Were proper custody procedures (relinquished/received) followed?
☑ Yes	☐ No		6. Were sample IDs listed on the COC?
☑ Yes	☐ No		7. Were sample IDs listed on all sample containers?
☑ Yes	☐ No		8. Was collection date & time listed on the COC?
☑ Yes	☐ No		9. Was collection date & time listed on all sample containers?
☑ Yes	☐ No		10. Did all container label information (ID, date, time) agree with the COC?
☑ Yes	☐ No		11. Were tests to be performed listed on the COC?
☑ Yes	☐ No		12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)? _____
☑ Yes	☐ No		13. Was adequate sample volume available?
☑ Yes	☐ No		14. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
☐ Yes	☑ No		15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
☐ Yes	☑ No	☐ NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (¼"or 6mm in diameter) in any of the VOA vials?
☐ Yes	☐ No	☑ NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?
☐ Yes	☐ No	☑ NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
☐ Yes	☐ No	☑ NA	19. Were all applicable NH_3/TKN/cyanide/phenol/625 (< 0.5mg/L) samples free of residual chlorine?
☐ Yes	☐ No	☑ NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc…) correctly transcribed from the COC into the comment section in LIMS?
☑ Yes	☐ No		21. Was the quote number listed on the container label? If yes, Quote # 21713

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) _____ were received incorrectly preserved and were adjusted accordingly in sample receiving with _____mL of circle one: H_2SO_4, HNO_3, HCl, NaOH using SR # _____.
Time of preservation ___ _____. If more than one preservative is needed, please note in the comments below.

Sample(s) _____ were received with bubbles >6 mm in diameter.

Samples(s) _____ were received with TRC > 0.5 mg/L (If #19 is *no*) and were adjusted accordingly in sample receiving with sodium thiosulfate ($Na_2S_2O_3$) with Shealy ID: _____

SR barcode labels applied by: ETB Date: 1-30-19

Comments:

SHEALY ENVIRONMENTAL SERVICES, INC.

Report of Analysis

TRC Companies, Inc.
50 International Dr.
Suite 150
Greenville, SC 29615
Attention: Lisa Clark

Project Name: WPH Clemson

Project Number: 300688.0000.0000.0002

Lot Number:**UA29023**

Date Completed:02/12/2019

02/13/2019 9:20 AM
Approved and released by:
Lab Director - Greenville: Lucas Odom

The electronic signature above is the equivalent of a handwritten signature.

Shealy Environmental Services, Inc.
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Laboratory Data Quality Review Notes

Project Name: WPH-Clemson, SC

Project Number: 300688.0000.0000.000002

Lab Report: UA29023 Shealy Environmental Services
Three groundwater samples and one groundwater field duplicate were analyzed for volatile organic compounds (VOCs), chloride, bromide, sulfate, and nitrate. One trip blank was analyzed for VOCs.

Chain of Custody, Sample Temperature, Sample Preservation: Chain of custody (CoC) signed; sample temperature <6 ^{o}C upon arrival at the laboratory; samples were preserved properly.

Hold Time: Samples analyzed within hold time.

Surrogates: VOC surrogate recoveries are within QC limits.

Method Blank: Method blanks were free of detections.

Trip Blank: Trip blank TBLK-19103 had no detections.

Field Blank: A field blank was not collected with these samples.

Equipment Rinse Blank: A rinsate blank was not collected with these samples.

LCS/LCSD: LCS recoveries for anions and VOCs are within QC Limits. LCSD analyses were not performed.

MS/MSD: RMW-23B was used for bromide, chloride and sulfate MS/MSD analyses. MS/MSD recoveries and RPDs were within QC limits.

Duplicates: DU-19103 is a field duplicate of RMW-23. RPDs were calculated for analytes detected in both the parent and field duplicate samples (*i.e.*, bromide, chloride, nitrate, sulfate, acetone, 2-butanone, cis-1,2-dichloroethene, methyl acetate, tetrachloroethene, and trichloroethene). RPDs were less than the QC limit of 25% except for acetone and methyl acetate. Both acetone and methyl acetate had detected concentrations in the parent and field duplicate samples that were either qualified with a lab "J" or within 2X of the LOQ. In these cases, comparison of absolute difference is a better measure of precision than RPD. The measured concentrations for acetone and methyl acetate are comparable (within 2.3 ug/L) between the parent and field duplicate samples. No qualifiers were assigned.

No data qualifiers assigned.

Data review performed by: Terry Hertz; TRC Environmental Corp.; 2/13/2019

Case Narrative
TRC Companies, Inc.
Lot Number: UA29023

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

Sulfate

A second pair of matrix spike/matrix spike duplicate (MS/MSD) was not analyzed for analytical batch 97118. All other quality control standards were analyzed and recover within acceptance criteria. Results will be reported.

Sample Summary
TRC Companies, Inc.
Lot Number: UA29023

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	RMW-23	Aqueous	01/28/2019 1200	01/29/2019
002	RMW-23A	Aqueous	01/28/2019 1345	01/29/2019
003	RMW-23B	Aqueous	01/28/2019 1600	01/29/2019
004	DU-19103	Aqueous	01/28/2019	01/29/2019
005	TBLK-19103	Aqueous	01/28/2019	01/29/2019

(5 samples)

Detection Summary

TRC Companies, Inc.

Lot Number: UA29023

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	RMW-23	Aqueous	Bromide	300.0	0.15	J	mg/L	5
001	RMW-23	Aqueous	Chloride	300.0	7.6		mg/L	5
001	RMW-23	Aqueous	Nitrate - N	353.2	0.015	J	mg/L	5
001	RMW-23	Aqueous	Sulfate	300.0	49		mg/L	5
001	RMW-23	Aqueous	Acetone	8260B	6.2	J	ug/L	5
001	RMW-23	Aqueous	2-Butanone (MEK)	8260B	2.3	J	ug/L	5
001	RMW-23	Aqueous	cis-1,2-Dichloroethene	8260B	9.5		ug/L	5
001	RMW-23	Aqueous	Methyl acetate	8260B	1.2		ug/L	6
001	RMW-23	Aqueous	Tetrachloroethene	8260B	5.6		ug/L	6
001	RMW-23	Aqueous	Trichloroethene	8260B	1.3		ug/L	6
002	RMW-23A	Aqueous	Bromide	300.0	0.25		mg/L	7
002	RMW-23A	Aqueous	Chloride	300.0	7.3		mg/L	7
002	RMW-23A	Aqueous	Nitrate - N	353.2	0.12		mg/L	7
002	RMW-23A	Aqueous	cis-1,2-Dichloroethene	8260B	2600		ug/L	7
002	RMW-23A	Aqueous	Tetrachloroethene	8260B	24	J	ug/L	8
002	RMW-23A	Aqueous	Vinyl chloride	8260B	26	J	ug/L	8
003	RMW-23B	Aqueous	Bromide	300.0	0.15	J	mg/L	9
003	RMW-23B	Aqueous	Chloride	300.0	4.9		mg/L	9
003	RMW-23B	Aqueous	Nitrate - N	353.2	0.51		mg/L	9
003	RMW-23B	Aqueous	Sulfate	300.0	0.53	J	mg/L	9
003	RMW-23B	Aqueous	cis-1,2-Dichloroethene	8260B	410		ug/L	9
003	RMW-23B	Aqueous	Tetrachloroethene	8260B	78		ug/L	10
003	RMW-23B	Aqueous	Vinyl chloride	8260B	2.6	J	ug/L	10
004	DU-19103	Aqueous	Bromide	300.0	0.16	J	mg/L	11
004	DU-19103	Aqueous	Chloride	300.0	8.0		mg/L	11
004	DU-19103	Aqueous	Nitrate - N	353.2	0.018	J	mg/L	11
004	DU-19103	Aqueous	Sulfate	300.0	39		mg/L	11
004	DU-19103	Aqueous	Acetone	8260B	3.9	J	ug/L	11
004	DU-19103	Aqueous	2-Butanone (MEK)	8260B	2.1	J	ug/L	11
004	DU-19103	Aqueous	cis-1,2-Dichloroethene	8260B	9.0		ug/L	11
004	DU-19103	Aqueous	Methyl acetate	8260B	0.87	J	ug/L	12
004	DU-19103	Aqueous	Tetrachloroethene	8260B	5.0		ug/L	12
004	DU-19103	Aqueous	Trichloroethene	8260B	1.3		ug/L	12

(33 detections)

Client: TRC Companies, Inc.
Description: RMW-23
Date Sampled: 01/28/2019 1200
Date Received: 01/29/2019

Laboratory ID: UA29023-001
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	02/07/2019 1427	SLU		97021
1		(Chloride) 300.0	1	02/07/2019 1427	SLU		97020
1		(Nitrate - N) 353.2	1	01/29/2019 2250	MDD		96119
1		(Sulfate) 300.0	1	02/07/2019 1427	SLU		97022

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.15	J	0.20	0.050	mg/L	1
Chloride		300.0	7.6		1.0	0.20	mg/L	1
Nitrate - N		353.2	0.015	J	0.020	0.0015	mg/L	1
Sulfate		300.0	49		1.0	0.20	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	01/30/2019 1620	JJG		96168

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	6.2	J	20	2.0	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	2.3	J	10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	9.5		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Client: TRC Companies, Inc.
Description: RMW-23
Date Sampled: 01/28/2019 1200
Date Received: 01/29/2019

Laboratory ID: UA29023-001
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	01/30/2019 1620	JJG		96168

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260B	1.2		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	5.6		1.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260B	1.3		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		102	70-130
Bromofluorobenzene		103	70-130
Toluene-d8		105	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Client: TRC Companies, Inc.
Description: RMW-23A
Date Sampled: 01/28/2019 1345
Date Received: 01/29/2019

Laboratory ID: UA29023-002
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2		(Bromide) 300.0	1	02/11/2019 2034	SLU		97264
1		(Chloride) 300.0	1	02/07/2019 1453	SLU		97020
1		(Nitrate - N) 353.2	1	01/29/2019 2251	MDD		96119
1		(Sulfate) 300.0	1	02/07/2019 1453	SLU		97022

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.25		0.20	0.050	mg/L	2
Chloride		300.0	7.3		1.0	0.20	mg/L	1
Nitrate - N		353.2	0.12		0.020	0.0015	mg/L	1
Sulfate		300.0	ND		1.0	0.20	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	50	01/30/2019 1815	JJG		96168

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	ND		1000	100	ug/L	1
Benzene	71-43-2	8260B	ND		50	20	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		50	20	ug/L	1
Bromoform	75-25-2	8260B	ND		50	20	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		100	20	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		500	100	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		50	20	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		50	20	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		50	20	ug/L	1
Chloroethane	75-00-3	8260B	ND		100	20	ug/L	1
Chloroform	67-66-3	8260B	ND		50	20	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		50	25	ug/L	1
Cyclohexane	110-82-7	8260B	ND		50	20	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		50	20	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		50	20	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		50	20	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		50	20	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		50	20	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		50	20	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		100	30	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		50	20	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		50	20	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		50	20	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	2600		50	20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		50	20	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		50	20	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: RMW-23A
Date Sampled: 01/28/2019 1345
Date Received: 01/29/2019

Laboratory ID: UA29023-002
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	50	01/30/2019 1815	JJG		96168

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		50	20	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		50	20	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		50	20	ug/L	1
2-Hexanone	591-78-6	8260B	ND		500	100	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		50	20	ug/L	1
Methyl acetate	79-20-9	8260B	ND		50	20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		50	20	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		500	100	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		250	20	ug/L	1
Methylene chloride	75-09-2	8260B	ND		50	20	ug/L	1
Styrene	100-42-5	8260B	ND		50	21	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		50	20	ug/L	1
Tetrachloroethene	127-18-4	8260B	24	J	50	20	ug/L	1
Toluene	108-88-3	8260B	ND		50	20	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		50	21	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		50	20	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		50	20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		50	20	ug/L	1
Trichloroethene	79-01-6	8260B	ND		50	20	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		50	20	ug/L	1
Vinyl chloride	75-01-4	8260B	26	J	50	20	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		50	20	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		101	70-130
Bromofluorobenzene		103	70-130
Toluene-d8		105	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
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E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: RMW-23B
Date Sampled: 01/28/2019 1600
Date Received: 01/29/2019

Laboratory ID: UA29023-003
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	02/07/2019 1519	SLU		97021
1		(Chloride) 300.0	1	02/07/2019 1519	SLU		97020
1		(Nitrate - N) 353.2	1	01/29/2019 2252	MDD		96119
1		(Sulfate) 300.0	1	02/07/2019 1519	SLU		97022

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.15	J	0.20	0.050	mg/L	1
Chloride		300.0	4.9		1.0	0.20	mg/L	1
Nitrate - N		353.2	0.51		0.020	0.0015	mg/L	1
Sulfate		300.0	0.53	J	1.0	0.20	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	5	01/30/2019 1837	JJG		96168

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	ND		100	10	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	2.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	2.0	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	2.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		10	2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		50	10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	2.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	2.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	2.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		10	2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	2.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	2.5	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	2.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	2.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	2.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	2.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	2.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	2.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	2.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		10	3.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	2.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	2.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	2.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	410		5.0	2.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	2.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	2.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
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J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: RMW-23B
Date Sampled: 01/28/2019 1600
Date Received: 01/29/2019

Laboratory ID: UA29023-003
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	5	01/30/2019 1837	JJG		96168

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	2.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	2.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	2.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		50	10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	2.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	2.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	2.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		50	10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		25	2.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	2.0	ug/L	1
Styrene	100-42-5	8260B	ND		5.0	2.1	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	2.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	78		5.0	2.0	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	2.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	2.1	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	2.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	2.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	2.0	ug/L	1
Trichloroethene	79-01-6	8260B	ND		5.0	2.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	2.0	ug/L	1
Vinyl chloride	75-01-4	8260B	2.6	J	5.0	2.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	2.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		103	70-130
Bromofluorobenzene		101	70-130
Toluene-d8		103	70-130

LOQ = Limit of Quantitation
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J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: DU-19103
Date Sampled: 01/28/2019
Date Received: 01/29/2019

Laboratory ID: UA29023-004
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	02/11/2019 2101	SLU		97264
1		(Chloride) 300.0	1	02/11/2019 2101	SLU		97265
1		(Nitrate - N) 353.2	1	01/29/2019 2254	MDD		96119
1		(Sulfate) 300.0	1	02/08/2019 1602	SLU		97118

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.16	J	0.20	0.050	mg/L	1
Chloride		300.0	8.0		1.0	0.20	mg/L	1
Nitrate - N		353.2	0.018	J	0.020	0.0015	mg/L	1
Sulfate		300.0	39		1.0	0.20	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	01/30/2019 1643	JJG		96168

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	3.9	J	20	2.0	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	2.1	J	10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	9.0		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
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W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Client: TRC Companies, Inc.
Description: DU-19103
Date Sampled: 01/28/2019
Date Received: 01/29/2019

Laboratory ID: UA29023-004
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	01/30/2019 1643	JJG		96168

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260B	0.87	J	1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	5.0		1.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260B	1.3		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		101	70-130
Bromofluorobenzene		102	70-130
Toluene-d8		104	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
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P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Client: TRC Companies, Inc.
Description: TBLK-19103
Date Sampled: 01/28/2019
Date Received: 01/29/2019

Laboratory ID: UA29023-005
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	01/30/2019 1706	JJG		96168

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	ND		20	2.0	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: TBLK-19103
Date Sampled: 01/28/2019
Date Received: 01/29/2019

Laboratory ID: UA29023-005
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	01/30/2019 1706	JJG		96168

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260B	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		103	70-130
Bromofluorobenzene		98	70-130
Toluene-d8		105	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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QC Summary

Inorganic non-metals - MB

Sample ID: UQ96119-001
Batch: 96119
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Nitrate - N	ND		1	0.020	0.0015	mg/L	01/29/2019 2247

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: UQ96119-002
Batch: 96119
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	0.80	0.80		1	100	90-110	01/29/2019 2248

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MB

Sample ID: UQ97020-001
Batch: 97020
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Chloride	ND		1	1.0	0.20	mg/L	02/07/2019 1026

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - LCS

Sample ID: UQ97020-002
Batch: 97020
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Chloride	20	19		1	96	90-110	02/07/2019 1118

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Sample ID: UA29023-003MS
Batch: 97020
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Chloride	4.9	20	23		1	91	90-110	02/07/2019 1545

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: UA29023-003MD
Batch: 97020
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Chloride	4.9	20	24		1	94	1.7	90-110	20	02/07/2019 1611

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MB

Sample ID: UQ97021-001
Batch: 97021
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Bromide	ND		1	0.20	0.050	mg/L	02/07/2019 1026

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - LCS

Sample ID: UQ97021-002
Batch: 97021
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Bromide	8.0	8.5		1	106	90-110	02/07/2019 1118

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MS

Sample ID: UA29023-003MS
Batch: 97021
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Bromide	0.15	8.0	8.4		1	103	90-110	02/07/2019 1545

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: UA29023-003MD
Batch: 97021
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Bromide	0.15	8.0	7.9		1	97	6.1	90-110	20	02/07/2019 1611

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MB

Sample ID: UQ97022-001
Batch: 97022
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Sulfate	ND		1	1.0	0.20	mg/L	02/07/2019 1026

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - LCS

Sample ID: UQ97022-002
Batch: 97022
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Sulfate	20	21		1	103	90-110	02/07/2019 1118

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MS

Sample ID: UA29023-003MS
Batch: 97022
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Sulfate	0.53	20	19		1	92	90-110	02/07/2019 1545

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: UA29023-003MD
Batch: 97022
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Sulfate	0.53	20	19		1	94	1.6	90-110	20	02/07/2019 1611

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MB

Sample ID: UQ97118-001
Batch: 97118
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Sulfate	ND		1	1.0	0.20	mg/L	02/08/2019 1352

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - LCS

Sample ID: UQ97118-002
Batch: 97118
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Sulfate	20	20		1	98	90-110	02/08/2019 1444

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MB

Sample ID: UQ97264-001
Batch: 97264
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Bromide	ND		1	0.20	0.050	mg/L	02/11/2019 1916

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - LCS

Sample ID: UQ97264-002
Batch: 97264
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Bromide	8.0	8.5		1	106	90-110	02/11/2019 2008

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MB

Sample ID: UQ97265-001
Batch: 97265
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Chloride	ND		1	1.0	0.20	mg/L	02/11/2019 1916

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - LCS

Sample ID: UQ97265-002
Batch: 97265
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Chloride	20	20		1	100	90-110	02/11/2019 2008

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ96168-001
Batch: 96168
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Acetone	ND		1	20	2.0	ug/L	01/30/2019 1053
Benzene	ND		1	1.0	0.40	ug/L	01/30/2019 1053
Bromodichloromethane	ND		1	1.0	0.40	ug/L	01/30/2019 1053
Bromoform	ND		1	1.0	0.40	ug/L	01/30/2019 1053
Bromomethane (Methyl bromide)	ND		1	2.0	0.40	ug/L	01/30/2019 1053
2-Butanone (MEK)	ND		1	10	2.0	ug/L	01/30/2019 1053
Carbon disulfide	ND		1	1.0	0.40	ug/L	01/30/2019 1053
Carbon tetrachloride	ND		1	1.0	0.40	ug/L	01/30/2019 1053
Chlorobenzene	ND		1	1.0	0.40	ug/L	01/30/2019 1053
Chloroethane	ND		1	2.0	0.40	ug/L	01/30/2019 1053
Chloroform	ND		1	1.0	0.40	ug/L	01/30/2019 1053
Chloromethane (Methyl chloride)	ND		1	1.0	0.50	ug/L	01/30/2019 1053
Cyclohexane	ND		1	1.0	0.40	ug/L	01/30/2019 1053
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	0.40	ug/L	01/30/2019 1053
Dibromochloromethane	ND		1	1.0	0.40	ug/L	01/30/2019 1053
1,2-Dibromoethane (EDB)	ND		1	1.0	0.40	ug/L	01/30/2019 1053
1,2-Dichlorobenzene	ND		1	1.0	0.40	ug/L	01/30/2019 1053
1,3-Dichlorobenzene	ND		1	1.0	0.40	ug/L	01/30/2019 1053
1,4-Dichlorobenzene	ND		1	1.0	0.40	ug/L	01/30/2019 1053
Dichlorodifluoromethane	ND		1	2.0	0.60	ug/L	01/30/2019 1053
1,1-Dichloroethane	ND		1	1.0	0.40	ug/L	01/30/2019 1053
1,2-Dichloroethane	ND		1	1.0	0.40	ug/L	01/30/2019 1053
1,1-Dichloroethene	ND		1	1.0	0.40	ug/L	01/30/2019 1053
cis-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	01/30/2019 1053
trans-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	01/30/2019 1053
1,2-Dichloropropane	ND		1	1.0	0.40	ug/L	01/30/2019 1053
cis-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	01/30/2019 1053
trans-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	01/30/2019 1053
Ethylbenzene	ND		1	1.0	0.40	ug/L	01/30/2019 1053
2-Hexanone	ND		1	10	2.0	ug/L	01/30/2019 1053
Isopropylbenzene	ND		1	1.0	0.40	ug/L	01/30/2019 1053
Methyl acetate	ND		1	1.0	0.40	ug/L	01/30/2019 1053
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	0.40	ug/L	01/30/2019 1053
4-Methyl-2-pentanone	ND		1	10	2.0	ug/L	01/30/2019 1053
Methylcyclohexane	ND		1	5.0	0.40	ug/L	01/30/2019 1053
Methylene chloride	ND		1	1.0	0.40	ug/L	01/30/2019 1053
Styrene	ND		1	1.0	0.41	ug/L	01/30/2019 1053
1,1,2,2-Tetrachloroethane	ND		1	1.0	0.40	ug/L	01/30/2019 1053
Tetrachloroethene	ND		1	1.0	0.40	ug/L	01/30/2019 1053
Toluene	ND		1	1.0	0.40	ug/L	01/30/2019 1053
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	0.42	ug/L	01/30/2019 1053
1,2,4-Trichlorobenzene	ND		1	1.0	0.40	ug/L	01/30/2019 1053
1,1,1-Trichloroethane	ND		1	1.0	0.40	ug/L	01/30/2019 1053
1,1,2-Trichloroethane	ND		1	1.0	0.40	ug/L	01/30/2019 1053

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ96168-001
Batch: 96168
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Trichloroethene	ND		1	1.0	0.40	ug/L	01/30/2019 1053
Trichlorofluoromethane	ND		1	1.0	0.40	ug/L	01/30/2019 1053
Vinyl chloride	ND		1	1.0	0.40	ug/L	01/30/2019 1053
Xylenes (total)	ND		1	1.0	0.40	ug/L	01/30/2019 1053

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		100	70-130
Bromofluorobenzene		100	70-130
Toluene-d8		103	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Shealy Environmental Services, Inc.
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Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ96168-002
Batch: 96168
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	110		1	114	60-140	01/30/2019 1008
Benzene	50	48		1	96	70-130	01/30/2019 1008
Bromodichloromethane	50	45		1	90	70-130	01/30/2019 1008
Bromoform	50	50		1	99	70-130	01/30/2019 1008
Bromomethane (Methyl bromide)	50	58		1	116	70-130	01/30/2019 1008
2-Butanone (MEK)	100	100		1	103	70-130	01/30/2019 1008
Carbon disulfide	50	48		1	95	70-130	01/30/2019 1008
Carbon tetrachloride	50	47		1	95	70-130	01/30/2019 1008
Chlorobenzene	50	49		1	97	70-130	01/30/2019 1008
Chloroethane	50	57		1	114	70-130	01/30/2019 1008
Chloroform	50	42		1	85	70-130	01/30/2019 1008
Chloromethane (Methyl chloride)	50	54		1	108	60-140	01/30/2019 1008
Cyclohexane	50	49		1	99	70-130	01/30/2019 1008
1,2-Dibromo-3-chloropropane (DBCP)	50	49		1	98	70-130	01/30/2019 1008
Dibromochloromethane	50	48		1	96	70-130	01/30/2019 1008
1,2-Dibromoethane (EDB)	50	50		1	100	70-130	01/30/2019 1008
1,2-Dichlorobenzene	50	47		1	94	70-130	01/30/2019 1008
1,3-Dichlorobenzene	50	48		1	95	70-130	01/30/2019 1008
1,4-Dichlorobenzene	50	49		1	97	70-130	01/30/2019 1008
Dichlorodifluoromethane	50	57		1	113	60-140	01/30/2019 1008
1,1-Dichloroethane	50	43		1	86	70-130	01/30/2019 1008
1,2-Dichloroethane	50	46		1	91	70-130	01/30/2019 1008
1,1-Dichloroethene	50	47		1	94	70-130	01/30/2019 1008
cis-1,2-Dichloroethene	50	42		1	85	70-130	01/30/2019 1008
trans-1,2-Dichloroethene	50	43		1	86	70-130	01/30/2019 1008
1,2-Dichloropropane	50	42		1	85	70-130	01/30/2019 1008
cis-1,3-Dichloropropene	50	43		1	86	70-130	01/30/2019 1008
trans-1,3-Dichloropropene	50	43		1	85	70-130	01/30/2019 1008
Ethylbenzene	50	50		1	99	70-130	01/30/2019 1008
2-Hexanone	100	110		1	113	70-130	01/30/2019 1008
Isopropylbenzene	50	48		1	96	70-130	01/30/2019 1008
Methyl acetate	50	45		1	90	70-130	01/30/2019 1008
Methyl tertiary butyl ether (MTBE)	50	44		1	87	70-130	01/30/2019 1008
4-Methyl-2-pentanone	100	110		1	106	70-130	01/30/2019 1008
Methylcyclohexane	50	50		1	100	70-130	01/30/2019 1008
Methylene chloride	50	47		1	93	70-130	01/30/2019 1008
Styrene	50	50		1	99	70-130	01/30/2019 1008
1,1,2,2-Tetrachloroethane	50	47		1	94	70-130	01/30/2019 1008
Tetrachloroethene	50	51		1	102	70-130	01/30/2019 1008
Toluene	50	48		1	95	70-130	01/30/2019 1008
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	47		1	95	70-130	01/30/2019 1008
1,2,4-Trichlorobenzene	50	45		1	89	70-130	01/30/2019 1008
1,1,1-Trichloroethane	50	46		1	92	70-130	01/30/2019 1008
1,1,2-Trichloroethane	50	46		1	91	70-130	01/30/2019 1008

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ96168-002
Batch: 96168
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	49		1	98	70-130	01/30/2019 1008
Trichlorofluoromethane	50	52		1	104	70-130	01/30/2019 1008
Vinyl chloride	50	58		1	115	70-130	01/30/2019 1008
Xylenes (total)	100	99		1	99	70-130	01/30/2019 1008

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		98	70-130
Bromofluorobenzene		102	70-130
Toluene-d8		101	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Shealy Environmental Services, Inc.
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Chain of Custody

and

Miscellaneous Documents

Shealy Environmental Services, Inc.
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Chain of Custody Record

SHEALY ENVIRONMENTAL SERVICES, INC.
106 Vantage Point Drive • West Columbia, SC 29172
Telephone No. 803-791-9700 Fax No. 803-791-9111
www.shealylab.com

Number 91065

Client: TRC	Report to Contact: Lisa Clark	Telephone No. / E-mail:	Quote No.
Address: 50 International Dr suite 150	Sampler's Signature: X	Analysis (Attach list if more space is needed)	Page 1 of 1
City: Greenville	State: SC	Zip Code: 29615	Printed Name: Benjamin Medlin
Project Name: WPH Clemson			
Project No.: 300688.0.0.2	P.O. No.		

Sample ID / Description (Containers for each sample may be combined on one line.)	Date 2019	Time	G=Grab C=Composite	Matrix: Aqueous	Soil	Other	No. of Containers by Preservative Type: Unpres.	H2SO4	HNO3	HCl	NaOH	Na2S2O3	VOCs	Chloride, Sulfate, Bromide	Nitrate
RMW-23	1-28	1200	G	X			2			3			X	X	X
RMW-23A	1-28	1345	G	X			2			3			X	X	X
RMW-23B	1-28	1600	G	X			2			3			X	X	X
DU-19103	/	/	G	X			2			3			X	X	X
TBLK-19103	/	/	G	X						2			X		

UA29023

Turn Around Time Required (Prior lab approval required for expedited TAT.) ☐ Standard ☐ Rush (Specify)

Sample Disposal ☐ Return to Client ☐ Disposal by Lab

Possible Hazard Identification ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished by	1-28-19	1810	1. Received by: TRC Sample Storage	1-28-19	1810
2. Relinquished by: TRC Sample Storage	1/29/19	0845	2. Received by: Matt DP	1/29/19	0845
3. Relinquished by	Date	Time	3. Received by	Date	Time
4. Relinquished by: Matt DP	1/29/19	1347	4. Laboratory received by: Melody Carter	1-29-19	1347

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on ice (Circle) (Yes) No Ice Pack Receipt Temp 2.7 °C

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Client Copy

SHEALY ENVIRONMENTAL SERVICES, INC.

Shealy Environmental Services, Inc.
Document Number: ME0018C-14

Page 1 of 1
Effective Date: 8/2/2018

Sample Receipt Checklist (SRC)

Client: TRC / Cooler Inspected by/date: KH; 12-9-19 Lot #: 419023

Means of receipt: ☑ SESI ☐ Client ☐ UPS ☐ FedEx ☐ Other: _____

☐ Yes	☑ No		1. Were custody seals present on the cooler?
☐ Yes	☐ No	☑ NA	2. If custody seals were present, were they intact and unbroken?

pH Strip ID: _____ Chlorine Strip ID: _____ Tested by: _____

Original temperature upon receipt / Derived (Corrected) temperature upon receipt: %Solid Snap-Cup ID: _____

2.7/2.7 °C ____/____ °C ____/____ °C ____/____ °C

Method: ☑ Temperature Blank ☐ Against Bottles IR Gun ID: 5 IR Gun Correction Factor: 0 °C

Method of coolant: ☑ Wet Ice ☐ Ice Packs ☐ Dry Ice ☐ None

☐ Yes	☐ No	☑ NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).
☐ Yes	☐ No	☑ NA	4. Is the commercial courier's packing slip attached to this form?
☑ Yes	☐ No		5. Were proper custody procedures (relinquished/received) followed?
☑ Yes	☐ No		6. Were sample IDs listed on the COC?
☑ Yes	☐ No		7. Were sample IDs listed on all sample containers?
☑ Yes	☐ No		8. Was collection date & time listed on the COC?
☑ Yes	☐ No		9. Was collection date & time listed on all sample containers?
☑ Yes	☐ No		10. Did all container label information (ID, date, time) agree with the COC?
☑ Yes	☐ No		11. Were tests to be performed listed on the COC?
☑ Yes	☐ No		12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)?
☑ Yes	☐ No		13. Was adequate sample volume available?
☐ Yes	☑ No		14. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
☐ Yes	☑ No		15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
☐ Yes	☑ No	☐ NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (¼" or 6mm in diameter) in any of the VOA vials?
☐ Yes	☐ No	☑ NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?
☐ Yes	☐ No	☑ NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
☐ Yes	☐ No	☑ NA	19. Were all applicable NH_3/TKN/cyanide/phenol/625 (< 0.5mg/L) samples free of residual chlorine?
☐ Yes	☐ No	☑ NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc…) correctly transcribed from the COC into the comment section in LIMS?
☑ Yes	☐ No		21. Was the quote number listed on the container label? If yes, Quote # 2173

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) _____ were received incorrectly preserved and were adjusted accordingly in sample receiving with _____ mL of circle one: H2SO4, HNO3, HCl, NaOH using SR # _____. Time of preservation _____. If more than one preservative is needed, please note in the comments below.

Sample(s) _____ were received with bubbles >6 mm in diameter.

Samples(s) _____ were received with TRC > 0.5 mg/L (If #19 is ***no***) and were adjusted accordingly in sample receiving with sodium thiosulfate ($Na_2S_2O_3$) with Shealy ID: _____.

SR barcode labels applied by: RMP Date: 12-9-19

Comments:

SHEALY ENVIRONMENTAL SERVICES, INC.

Report of Analysis

TRC Companies, Inc.
50 International Dr.
Suite 150
Greenville, SC 29615
Attention: Lisa Clark

Project Name: WPH Clemson

Project Number: 300688.0000.0000.0002

Lot Number:**UB01028**

Date Completed:02/13/2019

02/13/2019 1:39 PM
Approved and released by:
Lab Director - Greenville: Lucas Odom

The electronic signature above is the equivalent of a handwritten signature.

Shealy Environmental Services, Inc.
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Laboratory Data Quality Review Notes

Project Name: WPH-Clemson, SC

Project Number: 300688.0000.0000.000002

Lab Report: UB01028 Shealy Environmental Services
Four groundwater samples were analyzed for volatile organic compounds (VOCs), chloride, bromide, sulfate, and nitrate. One trip blank was analyzed for VOCs.

Chain of Custody, Sample Temperature, Sample Preservation: Chain of custody (CoC) signed; sample temperature <6 ^{o}C upon arrival at the laboratory; samples were preserved properly.

Hold Time: Samples analyzed within hold time.

Surrogates: VOC surrogate recoveries are within QC limits.

Method Blank: Method blanks were free of detections.

Trip Blank: Trip blank TBLK-19105 had a detection of acetone at 2.6 J ug/L. **A "u" qualifier is assigned to acetone in RMW-06A and RMW-19A.**

Field Blank: A field blank was not collected with these samples.

Equipment Rinse Blank: A rinsate blank was not collected with these samples.

LCS/LCSD: LCS recoveries for anions and VOCs are within QC Limits except as noted below. LCSD analyses were not performed.

Bromomethane, dichlorodifluoromethane, and vinyl chloride had recoveries above the upper QC limit in the LCS associated with batch 96707. These three analytes were reported in association with batch 96707 for sample RMW-19A where they were not detected. No qualifiers were assigned.

MS/MSD: RMW-21A was used for VOC MS/MSD analyses. MS/MSD recoveries and RPDs were within QC limits.

Duplicates: A field duplicate was not collected with these samples.

Data review performed by: Terry Hertz; TRC Environmental Corp.; 2/13/2019

Case Narrative
TRC Companies, Inc.
Lot Number: UB01028

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

VOCs by GC/MS

The continuing calibration verification (CCV) associated with sample UB01028-004 recovered Bromomethane above the upper control limit. The sample associated with this CCV is non-detect for this compound; therefore, the data has been reported.

The laboratory control sample (LCS) for analytical batch 96707 exceeded acceptance criteria for Bromomethane, Dichlorodifluoromethane and Vinyl Chloride. These analytes were biased high and are not detected in the samples affected: UB01028-004.

Sample Summary
TRC Companies, Inc.
Lot Number: UB01028

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	TBLK-19105	Aqueous	01/31/2019	02/01/2019
002	RMW-06	Aqueous	01/31/2019 1130	02/01/2019
003	RMW-06A	Aqueous	01/31/2019 1145	02/01/2019
004	RMW-19A	Aqueous	01/31/2019 1410	02/01/2019
005	RMW-21A	Aqueous	01/31/2019 1425	02/01/2019

(5 samples)

Detection Summary

TRC Companies, Inc.

Lot Number: UB01028

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	TBLK-19105	Aqueous	Acetone	8260B	2.6	J	ug/L	5
002	RMW-06	Aqueous	Chloride	300.0	12		mg/L	7
002	RMW-06	Aqueous	Nitrate - N	353.2	3.3		mg/L	7
002	RMW-06	Aqueous	Sulfate	300.0	45		mg/L	7
002	RMW-06	Aqueous	Chloroform	8260B	0.71	J	ug/L	7
002	RMW-06	Aqueous	Tetrachloroethene	8260B	66		ug/L	8
003	RMW-06A	Aqueous	Bromide	300.0	0.11	J	mg/L	9
003	RMW-06A	Aqueous	Chloride	300.0	1.2		mg/L	9
003	RMW-06A	Aqueous	Nitrate - N	353.2	2.1		mg/L	9
003	RMW-06A	Aqueous	Sulfate	300.0	0.88	J	mg/L	9
003	RMW-06A	Aqueous	Acetone	8260B	2.3	J	ug/L	9
003	RMW-06A	Aqueous	1,2-Dichloroethane	8260B	1.1		ug/L	9
003	RMW-06A	Aqueous	Tetrachloroethene	8260B	36		ug/L	10
004	RMW-19A	Aqueous	Bromide	300.0	0.11	J	mg/L	11
004	RMW-19A	Aqueous	Chloride	300.0	1.2		mg/L	11
004	RMW-19A	Aqueous	Nitrate - N	353.2	2.1		mg/L	11
004	RMW-19A	Aqueous	Sulfate	300.0	0.92	J	mg/L	11
004	RMW-19A	Aqueous	Acetone	8260B	2.3	J	ug/L	11
004	RMW-19A	Aqueous	Chloroform	8260B	19		ug/L	11
004	RMW-19A	Aqueous	Tetrachloroethene	8260B	190		ug/L	12
004	RMW-19A	Aqueous	Trichlorofluoromethane	8260B	0.44	J	ug/L	12
005	RMW-21A	Aqueous	Bromide	300.0	0.65		mg/L	13
005	RMW-21A	Aqueous	Chloride	300.0	190		mg/L	13
005	RMW-21A	Aqueous	Nitrate - N	353.2	7.1		mg/L	13
005	RMW-21A	Aqueous	Sulfate	300.0	120		mg/L	13
005	RMW-21A	Aqueous	Tetrachloroethene	8260B	6100		ug/L	14

(26 detections)

Client: TRC Companies, Inc.
Description: TBLK-19105
Date Sampled: 01/31/2019
Date Received: 02/01/2019

Laboratory ID: UB01028-001
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/04/2019 1339	JJG		96536
2	5030B	8260B	1	02/05/2019 2351	KGT		96707

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	2.6	J	20	2.0	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	0.40	ug/L	2
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Client: TRC Companies, Inc.
Description: TBLK-19105
Date Sampled: 01/31/2019
Date Received: 02/01/2019

Laboratory ID: UB01028-001
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/04/2019 1339	JJG		96536
2	5030B	8260B	1	02/05/2019 2351	KGT		96707

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Toluene	108-88-3	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260B	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Run 1 Acceptance Limits	Q	Run 2 % Recovery	Run 2 Acceptance Limits
1,2-Dichloroethane-d4		108	70-130		103	70-130
Bromofluorobenzene		108	70-130		105	70-130
Toluene-d8		108	70-130		105	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Client: TRC Companies, Inc.
Description: RMW-06
Date Sampled: 01/31/2019 1130
Date Received: 02/01/2019

Laboratory ID: UB01028-002
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	02/11/2019 2337	SLU		97264
1		(Chloride) 300.0	1	02/11/2019 2337	SLU		97265
1		(Nitrate - N) 353.2	2	02/01/2019 2142	MDD		96427
1		(Sulfate) 300.0	1	02/11/2019 2337	SLU		97266

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	ND		0.20	0.050	mg/L	1
Chloride		300.0	12		1.0	0.20	mg/L	1
Nitrate - N		353.2	3.3		0.040	0.0030	mg/L	1
Sulfate		300.0	45		1.0	0.20	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/04/2019 1402	JJG		96536
2	5030B	8260B	1	02/06/2019 0209	KGT		96707

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	ND		20	2.0	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	0.40	ug/L	2
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260B	0.71	J	1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Client: TRC Companies, Inc.
Description: RMW-06
Date Sampled: 01/31/2019 1130
Date Received: 02/01/2019

Laboratory ID: UB01028-002
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/04/2019 1402	JJG		96536
2	5030B	8260B	1	02/06/2019 0209	KGT		96707

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	66		1.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260B	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Run 1 Acceptance Limits	Q	Run 2 % Recovery	Run 2 Acceptance Limits
1,2-Dichloroethane-d4		106	70-130		105	70-130
Bromofluorobenzene		104	70-130		105	70-130
Toluene-d8		110	70-130		107	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Client: TRC Companies, Inc.
Description: RMW-06A
Date Sampled: 01/31/2019 1145
Date Received: 02/01/2019

Laboratory ID: UB01028-003
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	02/12/2019 0055	SLU		97264
1		(Chloride) 300.0	1	02/12/2019 0055	SLU		97265
1		(Nitrate - N) 353.2	2	02/01/2019 2143	MDD		96427
1		(Sulfate) 300.0	1	02/12/2019 0055	SLU		97266

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.11	J	0.20	0.050	mg/L	1
Chloride		300.0	1.2		1.0	0.20	mg/L	1
Nitrate - N		353.2	2.1		0.040	0.0030	mg/L	1
Sulfate		300.0	0.88	J	1.0	0.20	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/04/2019 1424	JJG		96536
2	5030B	8260B	1	02/06/2019 0232	KGT		96707

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	2.3	J	20	2.0	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	0.40	ug/L	2
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	1.1		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Client: TRC Companies, Inc.
Description: RMW-06A
Date Sampled: 01/31/2019 1145
Date Received: 02/01/2019

Laboratory ID: UB01028-003
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/04/2019 1424	JJG		96536
2	5030B	8260B	1	02/06/2019 0232	KGT		96707

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	36		1.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260B	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Run 1 Acceptance Limits	Q	Run 2 % Recovery	Run 2 Acceptance Limits
1,2-Dichloroethane-d4		108	70-130		105	70-130
Bromofluorobenzene		107	70-130		108	70-130
Toluene-d8		109	70-130		108	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Client: TRC Companies, Inc.
Description: RMW-19A
Date Sampled: 01/31/2019 1410
Date Received: 02/01/2019

Laboratory ID: UB01028-004
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	02/12/2019 0121	SLU		97264
1		(Chloride) 300.0	1	02/12/2019 0121	SLU		97265
1		(Nitrate - N) 353.2	2	02/01/2019 2145	MDD		96427
1		(Sulfate) 300.0	1	02/12/2019 0121	SLU		97266

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.11	J	0.20	0.050	mg/L	1
Chloride		300.0	1.2		1.0	0.20	mg/L	1
Nitrate - N		353.2	2.1		0.040	0.0030	mg/L	1
Sulfate		300.0	0.92	J	1.0	0.20	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	5	02/04/2019 1727	JJG		96536
2	5030B	8260B	1	02/06/2019 0254	KGT		96707

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	2.3	J	20	2.0	ug/L	2
Benzene	71-43-2	8260B	ND		1.0	0.40	ug/L	2
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.40	ug/L	2
Bromoform	75-25-2	8260B	ND		1.0	0.40	ug/L	2
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.40	ug/L	2
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	2
Carbon disulfide	75-15-0	8260B	ND		1.0	0.40	ug/L	2
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.40	ug/L	2
Chlorobenzene	108-90-7	8260B	ND		1.0	0.40	ug/L	2
Chloroethane	75-00-3	8260B	ND		2.0	0.40	ug/L	2
Chloroform	67-66-3	8260B	19		1.0	0.40	ug/L	2
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.50	ug/L	2
Cyclohexane	110-82-7	8260B	ND		1.0	0.40	ug/L	2
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	0.40	ug/L	2
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.40	ug/L	2
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.40	ug/L	2
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.40	ug/L	2
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.40	ug/L	2
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.40	ug/L	2
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.60	ug/L	2
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.40	ug/L	2
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.40	ug/L	2
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.40	ug/L	2
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	0.40	ug/L	2
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.40	ug/L	2

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: RMW-19A
Date Sampled: 01/31/2019 1410
Date Received: 02/01/2019

Laboratory ID: UB01028-004
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	5	02/04/2019 1727	JJG		96536
2	5030B	8260B	1	02/06/2019 0254	KGT		96707

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.40	ug/L	2
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.40	ug/L	2
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.40	ug/L	2
Ethylbenzene	100-41-4	8260B	ND		1.0	0.40	ug/L	2
2-Hexanone	591-78-6	8260B	ND		10	2.0	ug/L	2
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.40	ug/L	2
Methyl acetate	79-20-9	8260B	ND		1.0	0.40	ug/L	2
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	2
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	2.0	ug/L	2
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.40	ug/L	2
Methylene chloride	75-09-2	8260B	ND		1.0	0.40	ug/L	2
Styrene	100-42-5	8260B	ND		1.0	0.41	ug/L	2
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.40	ug/L	2
Tetrachloroethene	127-18-4	8260B	190		5.0	2.0	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	0.40	ug/L	2
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	0.42	ug/L	2
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.40	ug/L	2
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.40	ug/L	2
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.40	ug/L	2
Trichloroethene	79-01-6	8260B	ND		1.0	0.40	ug/L	2
Trichlorofluoromethane	75-69-4	8260B	0.44	J	1.0	0.40	ug/L	2
Vinyl chloride	75-01-4	8260B	ND		1.0	0.40	ug/L	2
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.40	ug/L	2

Surrogate	Q	Run 1 % Recovery	Run 1 Acceptance Limits	Q	Run 2 % Recovery	Run 2 Acceptance Limits
1,2-Dichloroethane-d4		109	70-130		105	70-130
Bromofluorobenzene		107	70-130		104	70-130
Toluene-d8		111	70-130		106	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: RMW-21A
Date Sampled: 01/31/2019 1425
Date Received: 02/01/2019

Laboratory ID: UB01028-005
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	02/12/2019 0147	SLU		97264
1		(Chloride) 300.0	1	02/12/2019 0147	SLU		97265
1		(Nitrate - N) 353.2	10	02/01/2019 2146	MDD		96427
1		(Sulfate) 300.0	1	02/12/2019 0147	SLU		97266

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.65		0.20	0.050	mg/L	1
Chloride		300.0	190		1.0	0.20	mg/L	1
Nitrate - N		353.2	7.1		0.20	0.015	mg/L	1
Sulfate		300.0	120		1.0	0.20	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	100	02/04/2019 1750	JJG		96536
2	5030B	8260B	100	02/06/2019 0620	KGT		96707

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	ND		2000	200	ug/L	1
Benzene	71-43-2	8260B	ND		100	40	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		100	40	ug/L	1
Bromoform	75-25-2	8260B	ND		100	40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		200	40	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		1000	200	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		100	40	ug/L	2
Carbon tetrachloride	56-23-5	8260B	ND		100	40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		100	40	ug/L	1
Chloroethane	75-00-3	8260B	ND		200	40	ug/L	1
Chloroform	67-66-3	8260B	ND		100	40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		100	50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		100	40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		100	40	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		100	40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		100	40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		100	40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		100	40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		100	40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		200	60	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		100	40	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		100	40	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		100	40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		100	40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		100	40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: RMW-21A
Date Sampled: 01/31/2019 1425
Date Received: 02/01/2019

Laboratory ID: UB01028-005
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	100	02/04/2019 1750	JJG		96536
2	5030B	8260B	100	02/06/2019 0620	KGT		96707

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
1,2-Dichloropropane	78-87-5	8260B	ND		100	40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		100	40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		100	40	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		100	40	ug/L	1
2-Hexanone	591-78-6	8260B	ND		1000	200	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		100	40	ug/L	1
Methyl acetate	79-20-9	8260B	ND		100	40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		100	40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		1000	200	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		500	40	ug/L	1
Methylene chloride	75-09-2	8260B	ND		100	40	ug/L	1
Styrene	100-42-5	8260B	ND		100	41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		100	40	ug/L	1
Tetrachloroethene	127-18-4	8260B	6100		100	40	ug/L	1
Toluene	108-88-3	8260B	ND		100	40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		100	42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		100	40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		100	40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		100	40	ug/L	1
Trichloroethene	79-01-6	8260B	ND		100	40	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		100	40	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		100	40	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		100	40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Run 1 Acceptance Limits	Q	Run 2 % Recovery	Run 2 Acceptance Limits
1,2-Dichloroethane-d4		106	70-130		106	70-130
Bromofluorobenzene		105	70-130		107	70-130
Toluene-d8		108	70-130		107	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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QC Summary

Inorganic non-metals - MB

Sample ID: UQ96427-001
Batch: 96427
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Nitrate - N	ND		1	0.020	0.0015	mg/L	02/01/2019 2139

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: UQ96427-002
Batch: 96427
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	0.80	0.83		1	104	90-110	02/01/2019 2141

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MB

Sample ID: UQ97264-001
Batch: 97264
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Bromide	ND		1	0.20	0.050	mg/L	02/11/2019 1916

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - LCS

Sample ID: UQ97264-002
Batch: 97264
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Bromide	8.0	8.5		1	106	90-110	02/11/2019 2008

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MB

Sample ID: UQ97265-001
Batch: 97265
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Chloride	ND		1	1.0	0.20	mg/L	02/11/2019 1916

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - LCS

Sample ID: UQ97265-002
Batch: 97265
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Chloride	20	20		1	100	90-110	02/11/2019 2008

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MB

Sample ID: UQ97266-001
Batch: 97266
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Sulfate	ND		1	1.0	0.20	mg/L	02/11/2019 1916

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - LCS

Sample ID: UQ97266-002
Batch: 97266
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Sulfate	20	20		1	99	90-110	02/11/2019 2008

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ96536-001
Batch: 96536
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Acetone	ND		1	20	2.0	ug/L	02/04/2019 1041
Benzene	ND		1	1.0	0.40	ug/L	02/04/2019 1041
Bromodichloromethane	ND		1	1.0	0.40	ug/L	02/04/2019 1041
Bromoform	ND		1	1.0	0.40	ug/L	02/04/2019 1041
Bromomethane (Methyl bromide)	ND		1	2.0	0.40	ug/L	02/04/2019 1041
2-Butanone (MEK)	ND		1	10	2.0	ug/L	02/04/2019 1041
Carbon tetrachloride	ND		1	1.0	0.40	ug/L	02/04/2019 1041
Chlorobenzene	ND		1	1.0	0.40	ug/L	02/04/2019 1041
Chloroethane	ND		1	2.0	0.40	ug/L	02/04/2019 1041
Chloroform	ND		1	1.0	0.40	ug/L	02/04/2019 1041
Chloromethane (Methyl chloride)	ND		1	1.0	0.50	ug/L	02/04/2019 1041
Cyclohexane	ND		1	1.0	0.40	ug/L	02/04/2019 1041
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	0.40	ug/L	02/04/2019 1041
Dibromochloromethane	ND		1	1.0	0.40	ug/L	02/04/2019 1041
1,2-Dibromoethane (EDB)	ND		1	1.0	0.40	ug/L	02/04/2019 1041
1,2-Dichlorobenzene	ND		1	1.0	0.40	ug/L	02/04/2019 1041
1,3-Dichlorobenzene	ND		1	1.0	0.40	ug/L	02/04/2019 1041
1,4-Dichlorobenzene	ND		1	1.0	0.40	ug/L	02/04/2019 1041
Dichlorodifluoromethane	ND		1	2.0	0.60	ug/L	02/04/2019 1041
1,1-Dichloroethane	ND		1	1.0	0.40	ug/L	02/04/2019 1041
1,2-Dichloroethane	ND		1	1.0	0.40	ug/L	02/04/2019 1041
1,1-Dichloroethene	ND		1	1.0	0.40	ug/L	02/04/2019 1041
cis-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	02/04/2019 1041
trans-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	02/04/2019 1041
1,2-Dichloropropane	ND		1	1.0	0.40	ug/L	02/04/2019 1041
cis-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	02/04/2019 1041
trans-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	02/04/2019 1041
Ethylbenzene	ND		1	1.0	0.40	ug/L	02/04/2019 1041
2-Hexanone	ND		1	10	2.0	ug/L	02/04/2019 1041
Isopropylbenzene	ND		1	1.0	0.40	ug/L	02/04/2019 1041
Methyl acetate	ND		1	1.0	0.40	ug/L	02/04/2019 1041
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	0.40	ug/L	02/04/2019 1041
4-Methyl-2-pentanone	ND		1	10	2.0	ug/L	02/04/2019 1041
Methylcyclohexane	ND		1	5.0	0.40	ug/L	02/04/2019 1041
Methylene chloride	ND		1	1.0	0.40	ug/L	02/04/2019 1041
Styrene	ND		1	1.0	0.41	ug/L	02/04/2019 1041
1,1,2,2-Tetrachloroethane	ND		1	1.0	0.40	ug/L	02/04/2019 1041
Tetrachloroethene	ND		1	1.0	0.40	ug/L	02/04/2019 1041
Toluene	ND		1	1.0	0.40	ug/L	02/04/2019 1041
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	0.42	ug/L	02/04/2019 1041
1,2,4-Trichlorobenzene	ND		1	1.0	0.40	ug/L	02/04/2019 1041
1,1,1-Trichloroethane	ND		1	1.0	0.40	ug/L	02/04/2019 1041
1,1,2-Trichloroethane	ND		1	1.0	0.40	ug/L	02/04/2019 1041
Trichloroethene	ND		1	1.0	0.40	ug/L	02/04/2019 1041

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ96536-001
Batch: 96536
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Trichlorofluoromethane	ND		1	1.0	0.40	ug/L	02/04/2019 1041
Vinyl chloride	ND		1	1.0	0.40	ug/L	02/04/2019 1041
Xylenes (total)	ND		1	1.0	0.40	ug/L	02/04/2019 1041

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		112	70-130
Bromofluorobenzene		110	70-130
Toluene-d8		113	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ96536-002
Batch: 96536
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	110		1	106	60-140	02/04/2019 0955
Benzene	50	53		1	107	70-130	02/04/2019 0955
Bromodichloromethane	50	51		1	102	70-130	02/04/2019 0955
Bromoform	50	58		1	116	70-130	02/04/2019 0955
Bromomethane (Methyl bromide)	50	59		1	119	70-130	02/04/2019 0955
2-Butanone (MEK)	100	110		1	106	70-130	02/04/2019 0955
Carbon tetrachloride	50	55		1	111	70-130	02/04/2019 0955
Chlorobenzene	50	55		1	110	70-130	02/04/2019 0955
Chloroethane	50	58		1	116	70-130	02/04/2019 0955
Chloroform	50	50		1	100	70-130	02/04/2019 0955
Chloromethane (Methyl chloride)	50	48		1	97	60-140	02/04/2019 0955
Cyclohexane	50	57		1	114	70-130	02/04/2019 0955
1,2-Dibromo-3-chloropropane (DBCP)	50	56		1	111	70-130	02/04/2019 0955
Dibromochloromethane	50	54		1	108	70-130	02/04/2019 0955
1,2-Dibromoethane (EDB)	50	56		1	112	70-130	02/04/2019 0955
1,2-Dichlorobenzene	50	54		1	108	70-130	02/04/2019 0955
1,3-Dichlorobenzene	50	53		1	107	70-130	02/04/2019 0955
1,4-Dichlorobenzene	50	54		1	107	70-130	02/04/2019 0955
Dichlorodifluoromethane	50	56		1	111	60-140	02/04/2019 0955
1,1-Dichloroethane	50	50		1	100	70-130	02/04/2019 0955
1,2-Dichloroethane	50	53		1	106	70-130	02/04/2019 0955
1,1-Dichloroethene	50	52		1	103	70-130	02/04/2019 0955
cis-1,2-Dichloroethene	50	50		1	100	70-130	02/04/2019 0955
trans-1,2-Dichloroethene	50	51		1	101	70-130	02/04/2019 0955
1,2-Dichloropropane	50	47		1	94	70-130	02/04/2019 0955
cis-1,3-Dichloropropene	50	49		1	98	70-130	02/04/2019 0955
trans-1,3-Dichloropropene	50	48		1	96	70-130	02/04/2019 0955
Ethylbenzene	50	56		1	112	70-130	02/04/2019 0955
2-Hexanone	100	120		1	120	70-130	02/04/2019 0955
Isopropylbenzene	50	54		1	108	70-130	02/04/2019 0955
Methyl acetate	50	50		1	100	70-130	02/04/2019 0955
Methyl tertiary butyl ether (MTBE)	50	49		1	98	70-130	02/04/2019 0955
4-Methyl-2-pentanone	100	120		1	116	70-130	02/04/2019 0955
Methylcyclohexane	50	57		1	114	70-130	02/04/2019 0955
Methylene chloride	50	52		1	103	70-130	02/04/2019 0955
Styrene	50	55		1	111	70-130	02/04/2019 0955
1,1,2,2-Tetrachloroethane	50	51		1	103	70-130	02/04/2019 0955
Tetrachloroethene	50	59		1	118	70-130	02/04/2019 0955
Toluene	50	54		1	108	70-130	02/04/2019 0955
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	54		1	108	70-130	02/04/2019 0955
1,2,4-Trichlorobenzene	50	51		1	102	70-130	02/04/2019 0955
1,1,1-Trichloroethane	50	52		1	104	70-130	02/04/2019 0955
1,1,2-Trichloroethane	50	52		1	105	70-130	02/04/2019 0955
Trichloroethene	50	56		1	112	70-130	02/04/2019 0955

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ96536-002
Batch: 96536
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichlorofluoromethane	50	55		1	109	70-130	02/04/2019 0955
Vinyl chloride	50	52		1	104	70-130	02/04/2019 0955
Xylenes (total)	100	110		1	113	70-130	02/04/2019 0955

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		107	70-130
Bromofluorobenzene		110	70-130
Toluene-d8		112	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MS

Sample ID: UB01028-005MS
Batch: 96536
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	ND	10000	11000		100	110	60-140	02/04/2019 1900
Benzene	ND	5000	5200		100	105	70-130	02/04/2019 1900
Bromodichloromethane	ND	5000	4900		100	99	70-130	02/04/2019 1900
Bromoform	ND	5000	5200		100	104	70-130	02/04/2019 1900
Bromomethane (Methyl bromide)	ND	5000	6100		100	122	70-130	02/04/2019 1900
2-Butanone (MEK)	ND	10000	11000		100	112	70-130	02/04/2019 1900
Carbon tetrachloride	ND	5000	5400		100	108	70-130	02/04/2019 1900
Chlorobenzene	ND	5000	5400		100	108	70-130	02/04/2019 1900
Chloroethane	ND	5000	5800		100	116	70-130	02/04/2019 1900
Chloroform	ND	5000	5000		100	100	70-130	02/04/2019 1900
Chloromethane (Methyl chloride)	ND	5000	4800		100	95	60-140	02/04/2019 1900
Cyclohexane	ND	5000	5600		100	112	70-130	02/04/2019 1900
1,2-Dibromo-3-chloropropane (DBCP)	ND	5000	5400		100	108	70-130	02/04/2019 1900
Dibromochloromethane	ND	5000	5100		100	102	70-130	02/04/2019 1900
1,2-Dibromoethane (EDB)	ND	5000	5600		100	111	70-130	02/04/2019 1900
1,2-Dichlorobenzene	ND	5000	5300		100	105	70-130	02/04/2019 1900
1,3-Dichlorobenzene	ND	5000	5200		100	104	70-130	02/04/2019 1900
1,4-Dichlorobenzene	ND	5000	5300		100	106	70-130	02/04/2019 1900
Dichlorodifluoromethane	ND	5000	5600		100	112	60-140	02/04/2019 1900
1,1-Dichloroethane	ND	5000	5000		100	100	70-130	02/04/2019 1900
1,2-Dichloroethane	ND	5000	5300		100	106	70-130	02/04/2019 1900
1,1-Dichloroethene	ND	5000	5100		100	101	70-130	02/04/2019 1900
cis-1,2-Dichloroethene	ND	5000	4900		100	98	70-130	02/04/2019 1900
trans-1,2-Dichloroethene	ND	5000	5000		100	100	70-130	02/04/2019 1900
1,2-Dichloropropane	ND	5000	4600		100	91	70-130	02/04/2019 1900
cis-1,3-Dichloropropene	ND	5000	4500		100	91	70-130	02/04/2019 1900
trans-1,3-Dichloropropene	ND	5000	4500		100	90	70-130	02/04/2019 1900
Ethylbenzene	ND	5000	5500		100	110	70-130	02/04/2019 1900
2-Hexanone	ND	10000	12000		100	115	70-130	02/04/2019 1900
Isopropylbenzene	ND	5000	5300		100	106	70-130	02/04/2019 1900
Methyl acetate	ND	5000	5200		100	104	70-130	02/04/2019 1900
Methyl tertiary butyl ether (MTBE)	ND	5000	5000		100	101	70-130	02/04/2019 1900
4-Methyl-2-pentanone	ND	10000	11000		100	113	70-130	02/04/2019 1900
Methylcyclohexane	ND	5000	5500		100	111	70-130	02/04/2019 1900
Methylene chloride	ND	5000	5100		100	101	70-130	02/04/2019 1900
Styrene	ND	5000	5400		100	107	70-130	02/04/2019 1900
1,1,2,2-Tetrachloroethane	ND	5000	5300		100	105	70-130	02/04/2019 1900
Tetrachloroethene	6100	5000	11000		100	100	70-130	02/04/2019 1900
Toluene	ND	5000	5200		100	105	70-130	02/04/2019 1900
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	5000	5400		100	108	70-130	02/04/2019 1900
1,2,4-Trichlorobenzene	ND	5000	4900		100	98	70-130	02/04/2019 1900
1,1,1-Trichloroethane	ND	5000	5200		100	104	70-130	02/04/2019 1900
1,1,2-Trichloroethane	ND	5000	5200		100	103	70-130	02/04/2019 1900
Trichloroethene	ND	5000	5400		100	107	70-130	02/04/2019 1900

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MS

Sample ID: UB01028-005MS
Batch: 96536
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichlorofluoromethane	ND	5000	5500		100	110	70-130	02/04/2019 1900
Vinyl chloride	ND	5000	5100		100	103	70-130	02/04/2019 1900
Xylenes (total)	ND	10000	11000		100	109	70-130	02/04/2019 1900

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		106	70-130
Bromofluorobenzene		111	70-130
Toluene-d8		111	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MSD

Sample ID: UB01028-005MD
Batch: 96536
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	ND	10000	10000		100	104	5.3	60-140	20	02/04/2019 1923
Benzene	ND	5000	5200		100	104	0.98	70-130	20	02/04/2019 1923
Bromodichloromethane	ND	5000	4900		100	98	0.42	70-130	20	02/04/2019 1923
Bromoform	ND	5000	5100		100	103	0.89	70-130	20	02/04/2019 1923
Bromomethane (Methyl bromide)	ND	5000	6200		100	124	1.4	70-130	20	02/04/2019 1923
2-Butanone (MEK)	ND	10000	10000		100	104	7.4	70-130	20	02/04/2019 1923
Carbon tetrachloride	ND	5000	5500		100	110	2.2	70-130	20	02/04/2019 1923
Chlorobenzene	ND	5000	5200		100	105	3.3	70-130	20	02/04/2019 1923
Chloroethane	ND	5000	5800		100	115	0.79	70-130	20	02/04/2019 1923
Chloroform	ND	5000	4900		100	99	0.68	70-130	20	02/04/2019 1923
Chloromethane (Methyl chloride)	ND	5000	4800		100	96	0.092	60-140	20	02/04/2019 1923
Cyclohexane	ND	5000	5400		100	108	4.1	70-130	20	02/04/2019 1923
1,2-Dibromo-3-chloropropane (DBCP)	ND	5000	5300		100	106	2.1	70-130	20	02/04/2019 1923
Dibromochloromethane	ND	5000	5100		100	102	0.34	70-130	20	02/04/2019 1923
1,2-Dibromoethane (EDB)	ND	5000	5500		100	109	2.0	70-130	20	02/04/2019 1923
1,2-Dichlorobenzene	ND	5000	5200		100	104	1.8	70-130	20	02/04/2019 1923
1,3-Dichlorobenzene	ND	5000	5300		100	106	1.1	70-130	20	02/04/2019 1923
1,4-Dichlorobenzene	ND	5000	5300		100	105	1.1	70-130	20	02/04/2019 1923
Dichlorodifluoromethane	ND	5000	5500		100	110	1.4	60-140	20	02/04/2019 1923
1,1-Dichloroethane	ND	5000	5000		100	100	0.79	70-130	20	02/04/2019 1923
1,2-Dichloroethane	ND	5000	5200		100	103	2.1	70-130	20	02/04/2019 1923
1,1-Dichloroethene	ND	5000	5100		100	101	0.075	70-130	20	02/04/2019 1923
cis-1,2-Dichloroethene	ND	5000	4800		100	97	1.5	70-130	20	02/04/2019 1923
trans-1,2-Dichloroethene	ND	5000	5000		100	100	0.46	70-130	20	02/04/2019 1923
1,2-Dichloropropane	ND	5000	4500		100	90	1.6	70-130	20	02/04/2019 1923
cis-1,3-Dichloropropene	ND	5000	4400		100	89	2.4	70-130	20	02/04/2019 1923
trans-1,3-Dichloropropene	ND	5000	4400		100	89	1.2	70-130	20	02/04/2019 1923
Ethylbenzene	ND	5000	5400		100	107	2.7	70-130	20	02/04/2019 1923
2-Hexanone	ND	10000	11000		100	108	6.6	70-130	20	02/04/2019 1923
Isopropylbenzene	ND	5000	5200		100	103	2.1	70-130	20	02/04/2019 1923
Methyl acetate	ND	5000	5000		100	100	3.7	70-130	20	02/04/2019 1923
Methyl tertiary butyl ether (MTBE)	ND	5000	4900		100	98	2.5	70-130	20	02/04/2019 1923
4-Methyl-2-pentanone	ND	10000	11000		100	110	3.2	70-130	20	02/04/2019 1923
Methylcyclohexane	ND	5000	5500		100	110	0.15	70-130	20	02/04/2019 1923
Methylene chloride	ND	5000	5100		100	101	0.0036	70-130	20	02/04/2019 1923
Styrene	ND	5000	5100		100	103	4.4	70-130	20	02/04/2019 1923
1,1,2,2-Tetrachloroethane	ND	5000	5200		100	103	2.1	70-130	20	02/04/2019 1923
Tetrachloroethene	6100	5000	11000		100	98	0.62	70-130	20	02/04/2019 1923
Toluene	ND	5000	5100		100	103	2.2	70-130	20	02/04/2019 1923
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	5000	5300		100	106	2.1	70-130	20	02/04/2019 1923
1,2,4-Trichlorobenzene	ND	5000	4900		100	98	0.43	70-130	20	02/04/2019 1923
1,1,1-Trichloroethane	ND	5000	5200		100	103	0.29	70-130	20	02/04/2019 1923
1,1,2-Trichloroethane	ND	5000	5000		100	100	3.1	70-130	20	02/04/2019 1923
Trichloroethene	ND	5000	5300		100	107	0.44	70-130	20	02/04/2019 1923

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MSD

Sample ID: UB01028-005MD
Batch: 96536
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Trichlorofluoromethane	ND	5000	5400		100	108	1.5	70-130	20	02/04/2019 1923
Vinyl chloride	ND	5000	5200		100	104	1.3	70-130	20	02/04/2019 1923
Xylenes (total)	ND	10000	11000		100	106	2.9	70-130	20	02/04/2019 1923

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		103	70-130
Bromofluorobenzene		104	70-130
Toluene-d8		109	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ96707-001
Batch: 96707
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Acetone	ND		1	20	2.0	ug/L	02/05/2019 2225
Benzene	ND		1	1.0	0.40	ug/L	02/05/2019 2225
Bromodichloromethane	ND		1	1.0	0.40	ug/L	02/05/2019 2225
Bromoform	ND		1	1.0	0.40	ug/L	02/05/2019 2225
Bromomethane (Methyl bromide)	ND		1	2.0	0.40	ug/L	02/05/2019 2225
2-Butanone (MEK)	ND		1	10	2.0	ug/L	02/05/2019 2225
Carbon disulfide	ND		1	1.0	0.40	ug/L	02/05/2019 2225
Carbon tetrachloride	ND		1	1.0	0.40	ug/L	02/05/2019 2225
Chlorobenzene	ND		1	1.0	0.40	ug/L	02/05/2019 2225
Chloroethane	ND		1	2.0	0.40	ug/L	02/05/2019 2225
Chloroform	ND		1	1.0	0.40	ug/L	02/05/2019 2225
Chloromethane (Methyl chloride)	ND		1	1.0	0.50	ug/L	02/05/2019 2225
Cyclohexane	ND		1	1.0	0.40	ug/L	02/05/2019 2225
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	0.40	ug/L	02/05/2019 2225
Dibromochloromethane	ND		1	1.0	0.40	ug/L	02/05/2019 2225
1,2-Dibromoethane (EDB)	ND		1	1.0	0.40	ug/L	02/05/2019 2225
1,2-Dichlorobenzene	ND		1	1.0	0.40	ug/L	02/05/2019 2225
1,3-Dichlorobenzene	ND		1	1.0	0.40	ug/L	02/05/2019 2225
1,4-Dichlorobenzene	ND		1	1.0	0.40	ug/L	02/05/2019 2225
Dichlorodifluoromethane	ND		1	2.0	0.60	ug/L	02/05/2019 2225
1,1-Dichloroethane	ND		1	1.0	0.40	ug/L	02/05/2019 2225
1,2-Dichloroethane	ND		1	1.0	0.40	ug/L	02/05/2019 2225
1,1-Dichloroethene	ND		1	1.0	0.40	ug/L	02/05/2019 2225
cis-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	02/05/2019 2225
trans-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	02/05/2019 2225
1,2-Dichloropropane	ND		1	1.0	0.40	ug/L	02/05/2019 2225
cis-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	02/05/2019 2225
trans-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	02/05/2019 2225
Ethylbenzene	ND		1	1.0	0.40	ug/L	02/05/2019 2225
2-Hexanone	ND		1	10	2.0	ug/L	02/05/2019 2225
Isopropylbenzene	ND		1	1.0	0.40	ug/L	02/05/2019 2225
Methyl acetate	ND		1	1.0	0.40	ug/L	02/05/2019 2225
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	0.40	ug/L	02/05/2019 2225
4-Methyl-2-pentanone	ND		1	10	2.0	ug/L	02/05/2019 2225
Methylcyclohexane	ND		1	5.0	0.40	ug/L	02/05/2019 2225
Methylene chloride	ND		1	1.0	0.40	ug/L	02/05/2019 2225
Styrene	ND		1	1.0	0.41	ug/L	02/05/2019 2225
1,1,2,2-Tetrachloroethane	ND		1	1.0	0.40	ug/L	02/05/2019 2225
Toluene	ND		1	1.0	0.40	ug/L	02/05/2019 2225
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	0.42	ug/L	02/05/2019 2225
1,2,4-Trichlorobenzene	ND		1	1.0	0.40	ug/L	02/05/2019 2225
1,1,1-Trichloroethane	ND		1	1.0	0.40	ug/L	02/05/2019 2225
1,1,2-Trichloroethane	ND		1	1.0	0.40	ug/L	02/05/2019 2225
Trichloroethene	ND		1	1.0	0.40	ug/L	02/05/2019 2225

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ96707-001
Batch: 96707
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Trichlorofluoromethane	ND		1	1.0	0.40	ug/L	02/05/2019 2225
Vinyl chloride	ND		1	1.0	0.40	ug/L	02/05/2019 2225
Xylenes (total)	ND		1	1.0	0.40	ug/L	02/05/2019 2225

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		103	70-130
Bromofluorobenzene		105	70-130
Toluene-d8		106	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Shealy Environmental Services, Inc.
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Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ96707-002
Batch: 96707
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	110		1	115	60-140	02/05/2019 2126
Benzene	50	52		1	105	70-130	02/05/2019 2126
Bromodichloromethane	50	50		1	99	70-130	02/05/2019 2126
Bromoform	50	48		1	96	70-130	02/05/2019 2126
Bromomethane (Methyl bromide)	50	74	N	1	149	70-130	02/05/2019 2126
2-Butanone (MEK)	100	110		1	109	70-130	02/05/2019 2126
Carbon disulfide	50	50		1	101	70-130	02/05/2019 2126
Carbon tetrachloride	50	53		1	107	70-130	02/05/2019 2126
Chlorobenzene	50	51		1	103	70-130	02/05/2019 2126
Chloroethane	50	64		1	129	70-130	02/05/2019 2126
Chloroform	50	49		1	99	70-130	02/05/2019 2126
Chloromethane (Methyl chloride)	50	59		1	118	60-140	02/05/2019 2126
Cyclohexane	50	55		1	110	70-130	02/05/2019 2126
1,2-Dibromo-3-chloropropane (DBCP)	50	55		1	110	70-130	02/05/2019 2126
Dibromochloromethane	50	48		1	97	70-130	02/05/2019 2126
1,2-Dibromoethane (EDB)	50	53		1	105	70-130	02/05/2019 2126
1,2-Dichlorobenzene	50	53		1	106	70-130	02/05/2019 2126
1,3-Dichlorobenzene	50	53		1	106	70-130	02/05/2019 2126
1,4-Dichlorobenzene	50	53		1	105	70-130	02/05/2019 2126
Dichlorodifluoromethane	50	71	N	1	142	60-140	02/05/2019 2126
1,1-Dichloroethane	50	50		1	100	70-130	02/05/2019 2126
1,2-Dichloroethane	50	53		1	105	70-130	02/05/2019 2126
1,1-Dichloroethene	50	52		1	104	70-130	02/05/2019 2126
cis-1,2-Dichloroethene	50	49		1	98	70-130	02/05/2019 2126
trans-1,2-Dichloroethene	50	49		1	99	70-130	02/05/2019 2126
1,2-Dichloropropane	50	45		1	91	70-130	02/05/2019 2126
cis-1,3-Dichloropropene	50	47		1	93	70-130	02/05/2019 2126
trans-1,3-Dichloropropene	50	44		1	87	70-130	02/05/2019 2126
Ethylbenzene	50	52		1	104	70-130	02/05/2019 2126
2-Hexanone	100	110		1	108	70-130	02/05/2019 2126
Isopropylbenzene	50	51		1	103	70-130	02/05/2019 2126
Methyl acetate	50	50		1	99	70-130	02/05/2019 2126
Methyl tertiary butyl ether (MTBE)	50	52		1	104	70-130	02/05/2019 2126
4-Methyl-2-pentanone	100	110		1	114	70-130	02/05/2019 2126
Methylcyclohexane	50	55		1	111	70-130	02/05/2019 2126
Methylene chloride	50	51		1	102	70-130	02/05/2019 2126
Styrene	50	51		1	102	70-130	02/05/2019 2126
1,1,2,2-Tetrachloroethane	50	52		1	104	70-130	02/05/2019 2126
Toluene	50	51		1	102	70-130	02/05/2019 2126
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	55		1	110	70-130	02/05/2019 2126
1,2,4-Trichlorobenzene	50	52		1	105	70-130	02/05/2019 2126
1,1,1-Trichloroethane	50	52		1	104	70-130	02/05/2019 2126
1,1,2-Trichloroethane	50	49		1	98	70-130	02/05/2019 2126
Trichloroethene	50	54		1	107	70-130	02/05/2019 2126

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ96707-002
Batch: 96707
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichlorofluoromethane	50	61		1	122	70-130	02/05/2019 2126
Vinyl chloride	50	67	N	1	134	70-130	02/05/2019 2126
Xylenes (total)	100	100		1	104	70-130	02/05/2019 2126

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		106	70-130
Bromofluorobenzene		102	70-130
Toluene-d8		104	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Shealy Environmental Services, Inc.
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Chain of Custody
and
Miscellaneous Documents

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Chain of Custody Record

SHEALY ENVIRONMENTAL SERVICES, INC.
106 Vantage Point Drive • West Columbia, SC 29172
Telephone No. 803-791-9700 Fax No. 803-791-9111
www.shealylab.com

Number 85428

Client: TRC	Report to Contact: Lisa Clark	Telephone No. / E-mail:	Quote No.:
Address: 50 International	Sampler's Signature: X	Analysis (Attach list if more space is needed)	Page 1 of 1
City: Greenville / State: SC / Zip Code: 29615	Printed Name: Benjamin Medlin		
Project Name: WPH Clemson			
Project No.: 300688.0.0.2	P.O. No.:		

Sample ID / Description (Containers for each sample may be combined on one line)	Date 2019	Time	Matrix: Grab/Composite	Aqueous	Solid	Non-Aqueous	No of Containers by Preservative Type: Unpres	HNO3	H2SO4	HCl	NaOH	ZnAc/NaOH	VOCs	Chloride, Sulfate, Bromide	Nitrate
TBLK-19105	1	1	G	x						2			X		
RMW-06	1.31	1130	G	x			2			3			x	x	x
RMW-06A	1.31	1145	G	x			2			3			x	x	x
RMW-19A	1.31	1410	G	x			2			3			x	x	x
RMW-21A	1.31	1425	G	x			2			3			x	x	x

UB01028

LJC

Turn Around Time Required (Prior lab approval required for expedited TAT.): ☐ Standard ☐ Rush (Specify)

Sample Disposal: ☐ Return to Client ☐ Disposal by Lab

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished by	1-31-19	1630	1. Received by: TRC Sample Storage	1-31-19	1650
2. Relinquished by: TRC Sample Storage	2/1/19	0920	2. Received by: Matthew P	2/1/19	0920
3. Relinquished by: Matthew P	2/1/19	1495	3. Received by	Date	Time
4. Relinquished by	Date	Time	4. Laboratory received by	Date	Time

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on Ice (Circle) Yes No Ice Pack

Receipt Temp 1.8 °C

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Client Copy

Shealy Environmental Services, Inc.
Document Number: MB0018C-14

Page 1 of 1
Effective Date: 8/2/2018

Sample Receipt Checklist (SRC)

Client: TRC Cooler Inspected by/date: LKH / 2-1-19 Lot #: UB01028

Means of receipt: ☑ SESI ☐ Client ☐ UPS ☐ FedEx ☐ Other: _____

☐ Yes	☑ No		1. Were custody seals present on the cooler?
☐ Yes	☐ No	☑ NA	2. If custody seals were present, were they intact and unbroken?

pH Strip ID: _____ Chlorine Strip ID: _____ Tested by: _____

Original temperature upon receipt / Derived (Corrected) temperature upon receipt: %Solid Snap-Cup ID: _____

1.8 / 1.8 °C ___ / ___ °C ___ / ___ °C ___ / ___ °C

Method: ☑ Temperature Blank ☐ Against Bottles IR Gun ID: S IR Gun Correction Factor: 0 °C

Method of coolant: ☑ Wet Ice ☐ Ice Packs ☐ Dry Ice ☐ None

☐ Yes	☐ No	☑ NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).
☐ Yes	☐ No	☑ NA	4. Is the commercial courier's packing slip attached to this form?
☑ Yes	☐ No		5. Were proper custody procedures (relinquished/received) followed?
☑ Yes	☐ No		6. Were sample IDs listed on the COC?
☑ Yes	☐ No		7. Were sample IDs listed on all sample containers?
☑ Yes	☐ No		8. Was collection date & time listed on the COC?
☑ Yes	☐ No		9. Was collection date & time listed on all sample containers?
☑ Yes	☐ No		10. Did all container label information (ID, date, time) agree with the COC?
☑ Yes	☐ No		11. Were tests to be performed listed on the COC?
☑ Yes	☐ No		12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)? _____
☑ Yes	☐ No		13. Was adequate sample volume available?
☑ Yes	☐ No		14. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
☐ Yes	☑ No		15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
☐ Yes	☑ No	☐ NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (¼"or 6mm in diameter) in any of the VOA vials?
☐ Yes	☐ No	☑ NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?
☐ Yes	☐ No	☑ NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
☐ Yes	☐ No	☑ NA	19. Were all applicable NH_3/TKN/cyanide/phenol/625 (< 0.5mg/L) samples free of residual chlorine?
☐ Yes	☐ No	☑ NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc…) correctly transcribed from the COC into the comment section in LIMS?
☑ Yes	☐ No		21. Was the quote number listed on the container label? If yes, Quote # 21713

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) _____ were received incorrectly preserved and were adjusted accordingly in sample receiving with _____mL of circle one: H2SO4, HNO3, HCl, NaOH using SR # _____.
Time of preservation _____. If more than one preservative is needed, please note in the comments below.

Sample(s) _____ were received with bubbles >6 mm in diameter.

Samples(s) _____ were received with TRC > 0.5 mg/L (If #19 is *no*) and were adjusted accordingly in sample receiving with sodium thiosulfate ($Na_2S_2O_3$) with Shealy ID: _____.

SR barcode labels applied by: LKH Date: 2-1-19

Comments:

Pace Analytical Energy Services LLC
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

February 12, 2019

Lisa Clark
TRC Environmental Corp.
30 Patewood Drive
Greenville, SC 29615

RE: **WPH CLEMSON / 300688.0.0.2**

Pace Workorder: 29330

Dear Lisa Clark:

Enclosed are the analytical results for sample(s) received by the laboratory on Wednesday, January 30, 2019. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Ruth Welsh 02/12/2019
Ruth.Welsh@pacelabs.com

Customer Service Representative

Enclosures

As a valued client we would appreciate your comments on our service.
Please email PAESfeedback@pacelabs.com.

Total Number of Pages 20

CERTIFICATE OF ANALYSIS

Laboratory Data Quality Review Notes

Project Name: WPH-Clemson, SC

Project Number: 300688.0000.0000.000002

Lab Report: 29330 Pace Analytical Energy Services
Nine groundwater samples and one groundwater field duplicate analyzed for dissolved hydrocarbon gases.

Chain of Custody, Sample Temperature, Sample Preservation: Chain of custody (CoC) signed; sample temperature <6 ^{o}C upon arrival at the laboratory; samples were preserved properly.

Hold Time: Samples analyzed within hold time.

Surrogates: Surrogate recoveries are not applicable to dissolved hydrocarbon gas analyses.

Method Blank: Hydrocarbon gases were not detected in the method blanks.

Trip Blank: A trip blank was not collected with these samples.

Field Blank: A field blank was not collected with these samples.

Equipment Rinse Blank: A rinsate blank was not collected with these samples.

LCS/LCSD: LCS and LCSD recoveries as well as RPDs are within QC Limits.

MS/MSD: MS/MSD analyses were not performed using samples included in this report.

Duplicates: DU-19101 is a field duplicate of RMW-27. Methane, ethane, and ethane were detected in both the parent and field duplicate samples. RPDs for these three analytes were 15.4% or less. RPDs were within QC limits.

No data qualifiers were assigned.

Data review performed by: Terry Hertz; TRC Environmental Corp.; 2/14/2019

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LABORATORY ACCREDITATIONS & CERTIFICATIONS

Accreditor:	Pennsylvania Department of Environmental Protection, Bureau of Laboratories
Accreditation ID:	02-00538
Scope:	NELAP Non-Potable Water
Accreditor:	West Virginia Department of Environmental Protection, Division of Water and Waste Management
Accreditation ID:	395
Scope:	Non-Potable Water
Accreditor:	South Carolina Department of Health and Environmental Control, Office of Environmental Laboratory Certification
Accreditation ID:	89009003
Scope:	Clean Water Act (CWA); Resource Conservation and Recovery Act (RCRA)
Accreditor:	State of Virginia
Accreditation ID:	460201
Scope:	Non-Potable Water
Accreditor:	NELAP: New Jersey, Department of Environmental Protection
Accreditation ID:	PA026
Scope:	Non-Potable Water
Accreditor:	NELAP: New York, Department of Health Wadsworth Center
Accreditation ID:	11815
Scope:	Non-Potable Water
Accreditor:	State of Connecticut, Department of Public Health, Division of Environmental Health
Accreditation ID:	PH-0263
Scope:	Clean Water Act (CWA) Resource Conservation and Recovery Act (RCRA)
Accreditor:	NELAP: Texas, Commission on Environmental Quality
Accreditation ID:	T104704453-09-TX
Scope:	Non-Potable Water
Accreditor:	State of New Hampshire
Accreditation ID:	299409
Scope:	Non-potable water
Accreditor:	State of Georgia
Accreditation ID:	Chapter 391-3-26
Scope:	As per the Georgia EPD Rules and Regulations for Commercial Laboratories, PAES is accredited by the Pennsylvania Department of Environmental Protection Bureau of Laboratories under the National Environmental Laboratory Approval Program (NELAC).

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SAMPLE SUMMARY

Workorder: 29330 WPH CLEMSON / 300688.0.0.2

Lab ID	Sample ID	Matrix	Date Collected	Date Received
293300001	RMW-27B	Water	1/22/2019 11:50	1/30/2019 08:30
293300002	RMW-27	Water	1/22/2019 14:40	1/30/2019 08:30
293300003	RMW-27A	Water	1/22/2019 16:30	1/30/2019 08:30
293300004	RMW-18A	Water	1/24/2019 12:55	1/30/2019 08:30
293300005	RMW-18	Water	1/24/2019 13:05	1/30/2019 08:30
293300006	RMW-20	Water	1/24/2019 16:15	1/30/2019 08:30
293300007	RMW-20A	Water	1/24/2019 17:30	1/30/2019 08:30
293300008	RMW-20B	Water	1/24/2019 17:15	1/30/2019 08:30
293300009	DU-19101	Water		1/30/2019 08:30
293300010	DP-21B	Water	1/25/2019 12:45	1/30/2019 08:30

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ANALYTICAL RESULTS

Workorder: 29330 WPH CLEMSON / 300688.0.0.2

Lab ID: **293300001** Date Received: 1/30/2019 08:30 Matrix: Water

Sample ID: **RMW-27B** Date Collected: 1/22/2019 11:50

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**<0.50**	ug/l	0.50	0.014	1	2/1/2019 09:52	BW	n
Ethane	**<0.10**	ug/l	0.10	0.0070	1	2/1/2019 09:52	BW	n
Ethene	**0.27**	ug/l	0.10	0.0050	1	2/1/2019 09:52	BW	n

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ANALYTICAL RESULTS

Workorder: 29330 WPH CLEMSON / 300688.0.0.2

Lab ID: **293300002** Date Received: 1/30/2019 08:30 Matrix: Water

Sample ID: **RMW-27** Date Collected: 1/22/2019 14:40

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**5100**	ug/l	0.50	0.014	1	2/1/2019 11:01	BW	n
Ethane	**1.4**	ug/l	0.10	0.0070	1	2/1/2019 11:01	BW	n
Ethene	**1.2**	ug/l	0.10	0.0050	1	2/1/2019 11:01	BW	n

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ANALYTICAL RESULTS

Workorder: 29330 WPH CLEMSON / 300688.0.0.2

Lab ID: **293300003** Date Received: 1/30/2019 08:30 Matrix: Water

Sample ID: **RMW-27A** Date Collected: 1/22/2019 16:30

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**16000**	ug/l	0.50	0.014	1	2/1/2019 11:12	BW	n
Ethane	**0.36**	ug/l	0.10	0.0070	1	2/1/2019 11:12	BW	n
Ethene	**0.13**	ug/l	0.10	0.0050	1	2/1/2019 11:12	BW	n

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ANALYTICAL RESULTS

Workorder: 29330 WPH CLEMSON / 300688.0.0.2

Lab ID: **293300004** Date Received: 1/30/2019 08:30 Matrix: Water

Sample ID: **RMW-18A** Date Collected: 1/24/2019 12:55

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**0.72**	ug/l	0.50	0.014	1	2/1/2019 11:22	BW	n
Ethane	**<0.10**	ug/l	0.10	0.0070	1	2/1/2019 11:22	BW	n
Ethene	**0.14**	ug/l	0.10	0.0050	1	2/1/2019 11:22	BW	n

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ANALYTICAL RESULTS

Workorder: 29330 WPH CLEMSON / 300688.0.0.2

Lab ID: **293300005** Date Received: 1/30/2019 08:30 Matrix: Water

Sample ID: **RMW-18** Date Collected: 1/24/2019 13:05

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**360**	ug/l	0.50	0.014	1	2/1/2019 11:35	BW	n
Ethane	**<0.10**	ug/l	0.10	0.0070	1	2/1/2019 11:35	BW	n
Ethene	**<0.10**	ug/l	0.10	0.0050	1	2/1/2019 11:35	BW	n

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ANALYTICAL RESULTS

Workorder: 29330 WPH CLEMSON / 300688.0.0.2

Lab ID: **293300006** Date Received: 1/30/2019 08:30 Matrix: Water

Sample ID: **RMW-20** Date Collected: 1/24/2019 16:15

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**0.54**	ug/l	0.50	0.014	1	2/1/2019 11:49	BW	n
Ethane	**<0.10**	ug/l	0.10	0.0070	1	2/1/2019 11:49	BW	n
Ethene	**<0.10**	ug/l	0.10	0.0050	1	2/1/2019 11:49	BW	n

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220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

ANALYTICAL RESULTS

Workorder: 29330 WPH CLEMSON / 300688.0.0.2

Lab ID: **293300007** Date Received: 1/30/2019 08:30 Matrix: Water

Sample ID: **RMW-20A** Date Collected: 1/24/2019 17:30

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**<0.50**	ug/l	0.50	0.014	1	2/1/2019 12:00	BW	n
Ethane	**<0.10**	ug/l	0.10	0.0070	1	2/1/2019 12:00	BW	n
Ethene	**<0.10**	ug/l	0.10	0.0050	1	2/1/2019 12:00	BW	n

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ANALYTICAL RESULTS

Workorder: 29330 WPH CLEMSON / 300688.0.0.2

Lab ID: **293300008** Date Received: 1/30/2019 08:30 Matrix: Water

Sample ID: **RMW-20B** Date Collected: 1/24/2019 17:15

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**3.0**	ug/l	0.50	0.014	1	2/1/2019 12:10	BW	n
Ethane	**<0.10**	ug/l	0.10	0.0070	1	2/1/2019 12:10	BW	n
Ethene	**<0.10**	ug/l	0.10	0.0050	1	2/1/2019 12:10	BW	n

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ANALYTICAL RESULTS

Workorder: 29330 WPH CLEMSON / 300688.0.0.2

Lab ID: **293300009** Date Received: 1/30/2019 08:30 Matrix: Water

Sample ID: **DU-19101** Date Collected:

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**4500**	ug/l	0.50	0.014	1	2/1/2019 12:19	BW	n
Ethane	**1.2**	ug/l	0.10	0.0070	1	2/1/2019 12:19	BW	n
Ethene	**1.1**	ug/l	0.10	0.0050	1	2/1/2019 12:19	BW	n

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ANALYTICAL RESULTS

Workorder: 29330 WPH CLEMSON / 300688.0.0.2

Lab ID: **293300010** Date Received: 1/30/2019 08:30 Matrix: Water

Sample ID: **DP-21B** Date Collected: 1/25/2019 12:45

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**<0.50**	ug/l	0.50	0.099	1	2/2/2019 09:10	TD	n
Ethane	**<0.10**	ug/l	0.10	0.0090	1	2/2/2019 09:10	TD	n
Ethene	**<0.10**	ug/l	0.10	0.0050	1	2/2/2019 09:10	TD	n

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ANALYTICAL RESULTS QUALIFIERS

Workorder: 29330 WPH CLEMSON / 300688.0.0.2

DEFINITIONS/QUALIFIERS

MDL	Method Detection Limit. Can be used synonymously with LOD; Limit Of Detection.
PQL	Practical Quanitation Limit. Can be used synonymously with LOQ; Limit Of Quantitation.
ND	Not detected at or above reporting limit.
DF	Dilution Factor.
S	Surrogate.
RPD	Relative Percent Difference.
% Rec	Percent Recovery.
U	Indicates the compound was analyzed for, but not detected at or above the noted concentration.
J	Estimated concentration greater than the set method detection limit (MDL) and less than the set reporting limit (PQL).
n	The laboratory does not hold NELAP/TNI accreditation for this method or analyte.

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QUALITY CONTROL DATA

Workorder: 29330 WPH CLEMSON / 300688.0.0.2

QC Batch: DISG/7348 Analysis Method: AM20GAX

QC Batch Method: AM20GAX

Associated Lab Samples: 293300001, 293300002, 293300003, 293300004, 293300005, 293300006, 293300007, 293300008, 293300009

METHOD BLANK: 59580

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
RISK				
Methane	ug/l	<0.50	0.50	n
Ethane	ug/l	<0.10	0.10	n
Ethene	ug/l	<0.10	0.10	n

LABORATORY CONTROL SAMPLE & LCSD: 59581 59582

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
RISK										
Methane	ug/l	750	760	760	101	102	80-120	1.3	20	n
Ethane	ug/l	38	39	39	102	103	80-120	0.64	20	n
Ethene	ug/l	35	36	36	102	102	80-120	0.36	20	n

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QUALITY CONTROL DATA

Workorder: 29330 WPH CLEMSON / 300688.0.0.2

QC Batch: DISG/7350 Analysis Method: AM20GAX

QC Batch Method: AM20GAX

Associated Lab Samples: 293300010

METHOD BLANK: 59596

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
RISK				
Methane	ug/l	<0.50	0.50	n
Ethane	ug/l	<0.10	0.10	n
Ethene	ug/l	<0.10	0.10	n

LABORATORY CONTROL SAMPLE & LCSD: 59598 59600

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
RISK										
Methane	ug/l	770	800	790	104	102	80-120	1.2	20	n
Ethane	ug/l	76	78	76	103	101	80-120	2.5	20	n
Ethene	ug/l	71	75	72	106	102	80-120	3.4	20	n

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QUALITY CONTROL DATA QUALIFIERS

Workorder: 29330 WPH CLEMSON / 300688.0.0.2

QUALITY CONTROL PARAMETER QUALIFIERS

n	The laboratory does not hold NELAP/TNI accreditation for this method or analyte.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 29330 WPH CLEMSON / 300688.0.0.2

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
293300001	RMW-27B			AM20GAX	DISG/7348
293300002	RMW-27			AM20GAX	DISG/7348
293300003	RMW-27A			AM20GAX	DISG/7348
293300004	RMW-18A			AM20GAX	DISG/7348
293300005	RMW-18			AM20GAX	DISG/7348
293300006	RMW-20			AM20GAX	DISG/7348
293300007	RMW-20A			AM20GAX	DISG/7348
293300008	RMW-20B			AM20GAX	DISG/7348
293300009	DU-19101			AM20GAX	DISG/7348
293300010	DP-21B			AM20GAX	DISG/7350

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412-826-5245

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

39535

Page: 1 of 1

013684

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: TRC	Report To: Lisa Clark	Attention:
Address: 50 International Dr	Copy To:	Company Name:
Suite 150 Greenville, SC 29615		Address:
Email To:	Purchase Order No.:	Pace Quote Reference:
Phone: 864.281.0030 Fax:	Project Name: WPH Clemson	Pace Project Manager:
Requested Due Date/TAT:	Project Number: 300688.0.0.2	Pace Profile #:

REGULATORY AGENCY

NPDES GROUND WATER DRINKING WATER
UST RCRA OTHER _____

Site Location STATE: _____

Requested Analysis Filtered (Y/N)

Section D Required Client Information

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Matrix Codes (MATRIX / CODE): Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED: COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	TSP	BAK	Zinc Acetate & NaOH	Other	Analysis Test Y/N	Diss. Gases	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	RMW-27B	WT	G			1.22	1150		3					X					X		
2	RMW-27	WT	G			1.22	1440		3					X					X		
3	RMW-27A	WT	G			1.22	1630		3					X					X		
4	RMW-18A	WT	G			124	1255		3					X					X		
5	RMW-18	WT	G			1.24	1305		3					X					X		
6	RMW-20	WT	G			1.24	1615		3					X					X		
7	RMW-20A	WT	G			1.24	1730		3					X					X		
8	RMW-20B	WT	G			1.24	1715		3					X					X		
9	DU-19109	WT	G			/	/		3					X					X		
10	DP-21B	WT	G			1.25	1245		3					X					X		
11																					
12																					

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	[signature] TRC	1.22.19	1800	TRC Sample storage	1.22.19	1800	
	TRC Sample storage	1/28/19	1700	Fedex overnight shipping	1/27/19		
				[illegible]	[illegible]		2 Y N

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY):

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

Cooler Receipt Form

Client Name: _____ Project: _____ Lab Work Order: _____

A. **Shipping/Container Information** (circle appropriate response)

Courier: FedEx UPS USPS Client Other:_____ **Air bill Present:** Yes No

Tracking Number:_____

Custody Seal on Cooler/Box Present: Yes No **Seals Intact:** Yes No

Cooler/Box Packing Material: Bubble Wrap Absorbent Foam Other:_____

Type of Ice: Wet Blue None **Ice Intact:** Yes Melted

Cooler Temperature:_____ **Radiation Screened:** Yes No **Chain of Custody Present:** Yes No

Comments:_____

B. **Laboratory Assignment/Log-in** (check appropriate response)

	YES	NO	N/A	Comment Reference non-Conformance
Chain of Custody properly filled out				
Chain of Custody relinquished				
Sampler Name & Signature on COC				
Containers intact				
Were samples in separate bags				
Sample container labels match COC Sample name/date and time collected				
Sufficient volume provided				
PAES containers used				
Are containers properly preserved for the requested testing? (as labeled)				
If an unknown preservation state, were containers checked? Exception: VOA's coliform				If yes, see pH form.
Was volume for dissolved testing field filtered, as noted on the COC? Was volume received in a preserved container?				
Headspace present?				

Comments:_____

_____

Cooler contents examined/received by :_____ **Date:**_____

Project Manager Review : EPJ **Date:** 1-30-19

SHEALY ENVIRONMENTAL SERVICES, INC.

Report of Analysis

TRC Companies, Inc.
50 International Dr.
Suite 150
Greenville, SC 29615
Attention: Lisa Clark

Project Name: WPH Clemson

Project Number: 300688.0000.0000.0002

Lot Number:**UB06056**

Date Completed:02/15/2019

02/15/2019 4:11 PM
Approved and released by:
Lab Director - Greenville: Lucas Odom

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Laboratory Data Quality Review Notes

Project Name: WPH-Clemson, SC

Project Number: 300688.0000.0000.000002

Lab Report: UB06056 Shealy Environmental Services
Six groundwater samples and one equipment rinse blank were analyzed for volatile organic compounds (VOCs), chloride, bromide, sulfate, and nitrate. One trip blank was analyzed for VOCs.

Chain of Custody, Sample Temperature, Sample Preservation: Chain of custody (CoC) signed; sample temperature <6 ^{o}C upon arrival at the laboratory; samples were preserved properly.

Hold Time: Samples analyzed within hold time.

Surrogates: VOC surrogate recoveries are within QC limits.

Method Blank: Method blank were free of detections except as follows:

- 1,2,4-Trichlorobenzene was detected at 0.42 J mg/L in the VOC method blank associated with batch 97430. 1,2,4-Trichlorobenzene was not detected in samples included in this report. No qualifiers were assigned.
- Chloride was detected at 0.20 J mg/L in chloride method blank associated with batch 97298. Comparable concentrations (*i.e.*, within 5X the concentration in the method blanks) were not detected in the groundwater samples. No qualifiers were assigned.

Trip Blank: Trip blank TBLK-19107 had no reported detections of VOCs.

Field Blank: A field blank was not collected with these samples.

Equipment Rinse Blank: Equipment rinse blank RBLK-19101 had no reported detections of VOCs or targeted anions.

LCS/LCSD: LCS recoveries for anions and VOCs are within QC Limits except as noted below. LCSD analyses were not performed.

Bromomethane had a recovery above the upper QC limit in the VOC LCS for batch 97215. This LCS is associated with bromomethane analysed in sample TBLK-19107 where it was not detected. No qualifiers were assigned.

MS/MSD: RMW-21 was used for bromide, chloride, and sulfate MS/MSD analyses. RBLK-19101 was used for nitrate MS/MSD analyses. MS/MSD recoveries and RPDs were within QC limits except as follows:

- The RMW-21 sulfate MS and MSD had recoveries below the lower QC limit. **Sulfate in RMW-21 is assigned a "j" qualifier.**

Duplicates: A field duplicate was not collected with these samples.

Data review performed by: Terry Hertz; TRC Environmental Corp.; 2/18/2019

Case Narrative
TRC Companies, Inc.
Lot Number: UB06056

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

VOCs by GC/MS

The laboratory control sample (LCS) for analytical batch 97215 exceeded acceptance criteria for Bromomethane. This analyte is biased high but was not detected in the samples affected.

The method blank associated with batch 97298 yielded a "J" value detection for 1,2,4-Trichlorobenzene. No corrective is required as this is an estimated value recovered below the LOQ. All associated detections have been qualified with a "B".

Chloride

The method blank associated with batch 97298 yielded a "J" value detection for Chloride. No corrective is required as this is an estimated value recovered below the LOQ. All associated detections have been qualified with a "B".

Sulfate

The MS/MSD assocaited with batch 97313 yielded recoveries outside of method criteria at 77% and 88% respectively due to suspected matrix interferences.

Sample Summary
TRC Companies, Inc.
Lot Number: UB06056

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	TBLK-19107	Aqueous	02/05/2019	02/06/2019
002	RMW-08A	Aqueous	02/05/2019 1220	02/06/2019
003	RMW-08	Aqueous	02/05/2019 1210	02/06/2019
004	RMW-07	Aqueous	02/05/2019 1315	02/06/2019
005	RMW-21	Aqueous	02/05/2019 1525	02/06/2019
006	RMW-20C	Aqueous	02/05/2019 1620	02/06/2019
007	RMW-12	Aqueous	02/05/2019 1550	02/06/2019
008	RBLK-19101	Aqueous	02/05/2019 1030	02/06/2019

(8 samples)

Detection Summary

TRC Companies, Inc.

Lot Number: UB06056

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
002	RMW-08A	Aqueous	Bromide	300.0	1.1		mg/L	7
002	RMW-08A	Aqueous	Chloride	300.0	150	B	mg/L	7
002	RMW-08A	Aqueous	Nitrate - N	353.2	3.0		mg/L	7
002	RMW-08A	Aqueous	Sulfate	300.0	1.3		mg/L	7
002	RMW-08A	Aqueous	Tetrachloroethene	8260B	100		ug/L	8
002	RMW-08A	Aqueous	Trichloroethene	8260B	0.49	J	ug/L	8
003	RMW-08	Aqueous	Bromide	300.0	0.30		mg/L	9
003	RMW-08	Aqueous	Chloride	300.0	21	B	mg/L	9
003	RMW-08	Aqueous	Nitrate - N	353.2	5.2		mg/L	9
003	RMW-08	Aqueous	Sulfate	300.0	9.8		mg/L	9
003	RMW-08	Aqueous	Tetrachloroethene	8260B	340		ug/L	10
004	RMW-07	Aqueous	Bromide	300.0	0.34		mg/L	11
004	RMW-07	Aqueous	Chloride	300.0	19	B	mg/L	11
004	RMW-07	Aqueous	Nitrate - N	353.2	4.3		mg/L	11
004	RMW-07	Aqueous	Sulfate	300.0	2.7		mg/L	11
004	RMW-07	Aqueous	Tetrachloroethene	8260B	270		ug/L	12
005	RMW-21	Aqueous	Bromide	300.0	0.25		mg/L	13
005	RMW-21	Aqueous	Chloride	300.0	20		mg/L	13
005	RMW-21	Aqueous	Nitrate - N	353.2	6.4		mg/L	13
005	RMW-21	Aqueous	Sulfate	300.0	21		mg/L	13
005	RMW-21	Aqueous	cis-1,2-Dichloroethene	8260B	2.6	J	ug/L	13
005	RMW-21	Aqueous	Tetrachloroethene	8260B	360		ug/L	14
005	RMW-21	Aqueous	Trichloroethene	8260B	3.5	J	ug/L	14
006	RMW-20C	Aqueous	Bromide	300.0	0.097	J	mg/L	15
006	RMW-20C	Aqueous	Chloride	300.0	3.5		mg/L	15
006	RMW-20C	Aqueous	Nitrate - N	353.2	1.7		mg/L	15
006	RMW-20C	Aqueous	Sulfate	300.0	0.62	J	mg/L	15
006	RMW-20C	Aqueous	Acetone	8260B	3.2	J	ug/L	15
006	RMW-20C	Aqueous	Tetrachloroethene	8260B	6.2		ug/L	16
007	RMW-12	Aqueous	Bromide	300.0	0.18	J	mg/L	17
007	RMW-12	Aqueous	Chloride	300.0	5.5		mg/L	17
007	RMW-12	Aqueous	Nitrate - N	353.2	1.7		mg/L	17
007	RMW-12	Aqueous	Sulfate	300.0	2.4		mg/L	17
007	RMW-12	Aqueous	Chloroform	8260B	0.74	J	ug/L	17
007	RMW-12	Aqueous	1,2-Dichloroethane	8260B	1.1		ug/L	17
007	RMW-12	Aqueous	Tetrachloroethene	8260B	1.7		ug/L	18

(36 detections)

Client: TRC Companies, Inc.
Description: TBLK-19107
Date Sampled: 02/05/2019
Date Received: 02/06/2019

Laboratory ID: UB06056-001
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/12/2019 0139	KGT		97215

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	ND		20	2.0	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Client: TRC Companies, Inc.
Description: TBLK-19107
Date Sampled: 02/05/2019
Date Received: 02/06/2019

Laboratory ID: UB06056-001
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/12/2019 0139	KGT		97215

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260B	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		105	70-130
Bromofluorobenzene		100	70-130
Toluene-d8		106	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Client: TRC Companies, Inc.
Description: RMW-08A
Date Sampled: 02/05/2019 1220
Date Received: 02/06/2019

Laboratory ID: UB06056-002
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	02/13/2019 0153	SLU		97305
1		(Chloride) 300.0	1	02/13/2019 0153	SLU		97298
1		(Nitrate - N) 353.2	5	02/07/2019 0217	MDD		96835
1		(Sulfate) 300.0	1	02/13/2019 0153	SLU		97301

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	1.1		0.20	0.050	mg/L	1
Chloride		300.0	150	B	1.0	0.20	mg/L	1
Nitrate - N		353.2	3.0		0.10	0.0075	mg/L	1
Sulfate		300.0	1.3		1.0	0.20	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/12/2019 1204	BWS		97259

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	ND		20	2.0	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Client: TRC Companies, Inc.
Description: RMW-08A
Date Sampled: 02/05/2019 1220
Date Received: 02/06/2019

Laboratory ID: UB06056-002
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/12/2019 1204	BWS		97259

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	100		1.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260B	0.49	J	1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		104	70-130
Bromofluorobenzene		104	70-130
Toluene-d8		107	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
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Client: TRC Companies, Inc.
Description: RMW-08
Date Sampled: 02/05/2019 1210
Date Received: 02/06/2019

Laboratory ID: UB06056-003
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	02/13/2019 0211	SLU		97305
1		(Chloride) 300.0	1	02/13/2019 0211	SLU		97298
1		(Nitrate - N) 353.2	10	02/07/2019 0224	MDD		96835
1		(Sulfate) 300.0	1	02/13/2019 0211	SLU		97301

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.30		0.20	0.050	mg/L	1
Chloride		300.0	21	B	1.0	0.20	mg/L	1
Nitrate - N		353.2	5.2		0.20	0.015	mg/L	1
Sulfate		300.0	9.8		1.0	0.20	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	5	02/12/2019 1702	BWS		97259

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	ND		100	10	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	2.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	2.0	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	2.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		10	2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		50	10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	2.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	2.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	2.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		10	2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	2.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	2.5	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	2.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	2.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	2.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	2.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	2.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	2.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	2.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		10	3.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	2.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	2.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	2.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.0	2.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	2.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	2.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Client: TRC Companies, Inc.
Description: RMW-08
Date Sampled: 02/05/2019 1210
Date Received: 02/06/2019

Laboratory ID: UB06056-003
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	5	02/12/2019 1702	BWS		97259

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	2.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	2.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	2.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		50	10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	2.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	2.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	2.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		50	10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		25	2.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	2.0	ug/L	1
Styrene	100-42-5	8260B	ND		5.0	2.1	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	2.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	340		5.0	2.0	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	2.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	2.1	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	2.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	2.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	2.0	ug/L	1
Trichloroethene	79-01-6	8260B	ND		5.0	2.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	2.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		5.0	2.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	2.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		103	70-130
Bromofluorobenzene		102	70-130
Toluene-d8		104	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: RMW-07
Date Sampled: 02/05/2019 1315
Date Received: 02/06/2019

Laboratory ID: UB06056-004
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	02/13/2019 0230	SLU		97305
1		(Chloride) 300.0	1	02/13/2019 0230	SLU		97298
1		(Nitrate - N) 353.2	5	02/07/2019 0225	MDD		96835
1		(Sulfate) 300.0	1	02/13/2019 0230	SLU		97301

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.34		0.20	0.050	mg/L	1
Chloride		300.0	19	B	1.0	0.20	mg/L	1
Nitrate - N		353.2	4.3		0.10	0.0075	mg/L	1
Sulfate		300.0	2.7		1.0	0.20	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	5	02/13/2019 1753	BWS		97430

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	ND		100	10	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	2.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	2.0	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	2.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		10	2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		50	10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	2.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	2.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	2.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		10	2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	2.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	2.5	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	2.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	2.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	2.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	2.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	2.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	2.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	2.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		10	3.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	2.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	2.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	2.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.0	2.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	2.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	2.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Client: TRC Companies, Inc.
Description: RMW-07
Date Sampled: 02/05/2019 1315
Date Received: 02/06/2019

Laboratory ID: UB06056-004
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	5	02/13/2019 1753	BWS		97430

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	2.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	2.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	2.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		50	10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	2.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	2.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	2.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		50	10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		25	2.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	2.0	ug/L	1
Styrene	100-42-5	8260B	ND		5.0	2.1	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	2.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	270		5.0	2.0	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	2.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	2.1	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	2.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	2.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	2.0	ug/L	1
Trichloroethene	79-01-6	8260B	ND		5.0	2.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	2.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		5.0	2.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	2.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		114	70-130
Bromofluorobenzene		105	70-130
Toluene-d8		92	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Client: TRC Companies, Inc.
Description: RMW-21
Date Sampled: 02/05/2019 1525
Date Received: 02/06/2019

Laboratory ID: UB06056-005
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	02/13/2019 0437	SLU		97398
1		(Chloride) 300.0	1	02/13/2019 0437	SLU		97311
1		(Nitrate - N) 353.2	10	02/07/2019 0227	MDD		96835
1		(Sulfate) 300.0	1	02/13/2019 0437	SLU		97313

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.25		0.20	0.050	mg/L	1
Chloride		300.0	20		1.0	0.20	mg/L	1
Nitrate - N		353.2	6.4		0.20	0.015	mg/L	1
Sulfate		300.0	21		1.0	0.20	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	5	02/12/2019 1726	BWS		97259

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	ND		100	10	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	2.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	2.0	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	2.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		10	2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		50	10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	2.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	2.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	2.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		10	2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	2.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	2.5	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	2.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	2.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	2.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	2.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	2.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	2.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	2.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		10	3.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	2.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	2.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	2.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	2.6	J	5.0	2.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	2.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	2.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Client: TRC Companies, Inc.
Description: RMW-21
Date Sampled: 02/05/2019 1525
Date Received: 02/06/2019

Laboratory ID: UB06056-005
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	5	02/12/2019 1726	BWS		97259

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	2.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	2.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	2.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		50	10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	2.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	2.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	2.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		50	10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		25	2.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	2.0	ug/L	1
Styrene	100-42-5	8260B	ND		5.0	2.1	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	2.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	360		5.0	2.0	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	2.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	2.1	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	2.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	2.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	2.0	ug/L	1
Trichloroethene	79-01-6	8260B	3.5	J	5.0	2.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	2.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		5.0	2.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	2.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		103	70-130
Bromofluorobenzene		100	70-130
Toluene-d8		103	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
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Client: TRC Companies, Inc.
Description: RMW-20C
Date Sampled: 02/05/2019 1620
Date Received: 02/06/2019

Laboratory ID: UB06056-006
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	02/14/2019 1329	SLU		97602
1		(Chloride) 300.0	1	02/13/2019 1843	SLU		97471
1		(Nitrate - N) 353.2	1	02/07/2019 0228	MDD		96835
1		(Sulfate) 300.0	1	02/13/2019 1843	SLU		97467

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.097	J	0.20	0.050	mg/L	1
Chloride		300.0	3.5		1.0	0.20	mg/L	1
Nitrate - N		353.2	1.7		0.020	0.0015	mg/L	1
Sulfate		300.0	0.62	J	1.0	0.20	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/12/2019 1227	BWS		97259

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	3.2	J	20	2.0	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Client: TRC Companies, Inc.
Description: RMW-20C
Date Sampled: 02/05/2019 1620
Date Received: 02/06/2019

Laboratory ID: UB06056-006
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/12/2019 1227	BWS		97259

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	6.2		1.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260B	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		105	70-130
Bromofluorobenzene		103	70-130
Toluene-d8		106	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Client: TRC Companies, Inc.
Description: RMW-12
Date Sampled: 02/05/2019 1550
Date Received: 02/06/2019

Laboratory ID: UB06056-007
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	02/14/2019 1348	SLU		97602
1		(Chloride) 300.0	1	02/13/2019 1910	SLU		97471
1		(Nitrate - N) 353.2	1	02/07/2019 0229	MDD		96835
1		(Sulfate) 300.0	1	02/13/2019 1910	SLU		97467

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.18	J	0.20	0.050	mg/L	1
Chloride		300.0	5.5		1.0	0.20	mg/L	1
Nitrate - N		353.2	1.7		0.020	0.0015	mg/L	1
Sulfate		300.0	2.4		1.0	0.20	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/12/2019 1250	BWS		97259

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	ND		20	2.0	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260B	0.74	J	1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	1.1		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Client: TRC Companies, Inc.
Description: RMW-12
Date Sampled: 02/05/2019 1550
Date Received: 02/06/2019

Laboratory ID: UB06056-007
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/12/2019 1250	BWS		97259

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	1.7		1.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260B	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		105	70-130
Bromofluorobenzene		101	70-130
Toluene-d8		105	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: RBLK-19101
Date Sampled: 02/05/2019 1030
Date Received: 02/06/2019

Laboratory ID: UB06056-008
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	02/14/2019 1406	SLU		97602
1		(Chloride) 300.0	1	02/13/2019 1936	SLU		97471
1		(Nitrate - N) 353.2	1	02/07/2019 0231	MDD		96835
1		(Sulfate) 300.0	1	02/13/2019 1936	SLU		97467

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	ND		0.20	0.050	mg/L	1
Chloride		300.0	ND		1.0	0.20	mg/L	1
Nitrate - N		353.2	ND		0.020	0.0015	mg/L	1
Sulfate		300.0	ND		1.0	0.20	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/12/2019 1117	BWS		97259

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	ND		20	2.0	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: RBLK-19101
Date Sampled: 02/05/2019 1030
Date Received: 02/06/2019

Laboratory ID: UB06056-008
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/12/2019 1117	BWS		97259

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260B	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		103	70-130
Bromofluorobenzene		97	70-130
Toluene-d8		104	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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QC Summary

Inorganic non-metals - MB

Sample ID: UQ96835-001
Batch: 96835
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Nitrate - N	ND		1	0.020	0.0015	mg/L	02/07/2019 0209

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - LCS

Sample ID: UQ96835-002
Batch: 96835
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	0.80	0.82		1	103	90-110	02/07/2019 0211

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MS

Sample ID: UB06056-008MS
Batch: 96835
Analytical Method: 353.2
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	ND	0.80	0.81		1	101	90-110	02/07/2019 0232

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: UB06056-008MD
Batch: 96835
Analytical Method: 353.2
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Nitrate - N	ND	0.80	0.81		1	101	0.27	90-110	20	02/07/2019 0233

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MB

Sample ID: UQ97298-001
Batch: 97298
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Chloride	0.20	J	1	1.0	0.20	mg/L	02/12/2019 1728

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: UQ97298-002
Batch: 97298
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Chloride	20	21		1	103	90-110	02/12/2019 1804

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MB

Sample ID: UQ97301-001
Batch: 97301
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Sulfate	ND		1	1.0	0.20	mg/L	02/12/2019 1728

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - LCS

Sample ID: UQ97301-002
Batch: 97301
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Sulfate	20	21		1	103	90-110	02/12/2019 1804

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MB

Sample ID: UQ97305-001
Batch: 97305
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Bromide	ND		1	0.20	0.050	mg/L	02/12/2019 1728

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - LCS

Sample ID: UQ97305-002
Batch: 97305
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Bromide	8.0	8.7		1	109	90-110	02/12/2019 1804

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MB

Sample ID: UQ97311-001
Batch: 97311
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Chloride	ND		1	1.0	0.20	mg/L	02/12/2019 2232

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - LCS

Sample ID: UQ97311-002
Batch: 97311
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Chloride	20	20		1	101	90-110	02/13/2019 0135

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MS

Sample ID: UB06056-005MS
Batch: 97311
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Chloride	20	20	39		1	97	90-110	02/13/2019 0503

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MSD

Sample ID: UB06056-005MD
Batch: 97311
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Chloride	20	20	39		1	97	0.51	90-110	20	02/13/2019 0529

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MB

Sample ID: UQ97313-001
Batch: 97313
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Sulfate	ND		1	1.0	0.20	mg/L	02/12/2019 2232

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - LCS

Sample ID: UQ97313-002
Batch: 97313
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Sulfate	20	19		1	97	90-110	02/13/2019 0135

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MS

Sample ID: UB06056-005MS
Batch: 97313
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Sulfate	21	20	36	N	1	77	90-110	02/13/2019 0503

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: UB06056-005MD
Batch: 97313
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Sulfate	21	20	39	N	1	88	5.9	90-110	20	02/13/2019 0529

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MB

Sample ID: UQ97398-001
Batch: 97398
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Bromide	ND		1	0.20	0.050	mg/L	02/12/2019 2232

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - LCS

Sample ID: UQ97398-002
Batch: 97398
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Bromide	8.0	8.6		1	108	90-110	02/13/2019 0135

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MS

Sample ID: UB06056-005MS
Batch: 97398
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Bromide	0.25	8.0	8.4		1	102	90-110	02/13/2019 0503

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MSD

Sample ID: UB06056-005MD
Matrix: Aqueous
Batch: 97398
Analytical Method: 300.0

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Bromide	0.25	8.0	8.5		1	103	1.2	90-110	20	02/13/2019 0529

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MB

Sample ID: UQ97467-001
Batch: 97467
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Sulfate	ND		1	1.0	0.20	mg/L	02/13/2019 1607

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - LCS

Sample ID: UQ97467-002
Batch: 97467
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Sulfate	20	19		1	96	90-110	02/13/2019 1659

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MB

Sample ID: UQ97471-001
Batch: 97471
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Chloride	ND		1	1.0	0.20	mg/L	02/13/2019 1607

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - LCS

Sample ID: UQ97471-002
Batch: 97471
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Chloride	20	20		1	99	90-110	02/13/2019 1659

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MB

Sample ID: UQ97602-001
Batch: 97602
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Bromide	ND		1	0.20	0.050	mg/L	02/14/2019 1235

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - LCS

Sample ID: UQ97602-002
Batch: 97602
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Bromide	8.0	8.5		1	106	90-110	02/14/2019 1311

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ97215-001
Batch: 97215
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Acetone	ND		1	20	2.0	ug/L	02/11/2019 2211
Benzene	ND		1	1.0	0.40	ug/L	02/11/2019 2211
Bromodichloromethane	ND		1	1.0	0.40	ug/L	02/11/2019 2211
Bromoform	ND		1	1.0	0.40	ug/L	02/11/2019 2211
Bromomethane (Methyl bromide)	ND		1	2.0	0.40	ug/L	02/11/2019 2211
2-Butanone (MEK)	ND		1	10	2.0	ug/L	02/11/2019 2211
Carbon disulfide	ND		1	1.0	0.40	ug/L	02/11/2019 2211
Carbon tetrachloride	ND		1	1.0	0.40	ug/L	02/11/2019 2211
Chlorobenzene	ND		1	1.0	0.40	ug/L	02/11/2019 2211
Chloroethane	ND		1	2.0	0.40	ug/L	02/11/2019 2211
Chloroform	ND		1	1.0	0.40	ug/L	02/11/2019 2211
Chloromethane (Methyl chloride)	ND		1	1.0	0.50	ug/L	02/11/2019 2211
Cyclohexane	ND		1	1.0	0.40	ug/L	02/11/2019 2211
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	0.40	ug/L	02/11/2019 2211
Dibromochloromethane	ND		1	1.0	0.40	ug/L	02/11/2019 2211
1,2-Dibromoethane (EDB)	ND		1	1.0	0.40	ug/L	02/11/2019 2211
1,2-Dichlorobenzene	ND		1	1.0	0.40	ug/L	02/11/2019 2211
1,3-Dichlorobenzene	ND		1	1.0	0.40	ug/L	02/11/2019 2211
1,4-Dichlorobenzene	ND		1	1.0	0.40	ug/L	02/11/2019 2211
Dichlorodifluoromethane	ND		1	2.0	0.60	ug/L	02/11/2019 2211
1,1-Dichloroethane	ND		1	1.0	0.40	ug/L	02/11/2019 2211
1,2-Dichloroethane	ND		1	1.0	0.40	ug/L	02/11/2019 2211
1,1-Dichloroethene	ND		1	1.0	0.40	ug/L	02/11/2019 2211
cis-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	02/11/2019 2211
trans-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	02/11/2019 2211
1,2-Dichloropropane	ND		1	1.0	0.40	ug/L	02/11/2019 2211
cis-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	02/11/2019 2211
trans-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	02/11/2019 2211
Ethylbenzene	ND		1	1.0	0.40	ug/L	02/11/2019 2211
2-Hexanone	ND		1	10	2.0	ug/L	02/11/2019 2211
Isopropylbenzene	ND		1	1.0	0.40	ug/L	02/11/2019 2211
Methyl acetate	ND		1	1.0	0.40	ug/L	02/11/2019 2211
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	0.40	ug/L	02/11/2019 2211
4-Methyl-2-pentanone	ND		1	10	2.0	ug/L	02/11/2019 2211
Methylcyclohexane	ND		1	5.0	0.40	ug/L	02/11/2019 2211
Methylene chloride	ND		1	1.0	0.40	ug/L	02/11/2019 2211
Styrene	ND		1	1.0	0.41	ug/L	02/11/2019 2211
1,1,2,2-Tetrachloroethane	ND		1	1.0	0.40	ug/L	02/11/2019 2211
Tetrachloroethene	ND		1	1.0	0.40	ug/L	02/11/2019 2211
Toluene	ND		1	1.0	0.40	ug/L	02/11/2019 2211
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	0.42	ug/L	02/11/2019 2211
1,2,4-Trichlorobenzene	ND		1	1.0	0.40	ug/L	02/11/2019 2211
1,1,1-Trichloroethane	ND		1	1.0	0.40	ug/L	02/11/2019 2211
1,1,2-Trichloroethane	ND		1	1.0	0.40	ug/L	02/11/2019 2211

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ97215-001
Batch: 97215
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Trichloroethene	ND		1	1.0	0.40	ug/L	02/11/2019 2211
Trichlorofluoromethane	ND		1	1.0	0.40	ug/L	02/11/2019 2211
Vinyl chloride	ND		1	1.0	0.40	ug/L	02/11/2019 2211
Xylenes (total)	ND		1	1.0	0.40	ug/L	02/11/2019 2211

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		103	70-130
Bromofluorobenzene		97	70-130
Toluene-d8		103	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ97215-002
Batch: 97215
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	130		1	126	60-140	02/11/2019 2109
Benzene	50	54		1	107	70-130	02/11/2019 2109
Bromodichloromethane	50	50		1	100	70-130	02/11/2019 2109
Bromoform	50	53		1	106	70-130	02/11/2019 2109
Bromomethane (Methyl bromide)	50	71	N	1	142	70-130	02/11/2019 2109
2-Butanone (MEK)	100	110		1	114	70-130	02/11/2019 2109
Carbon disulfide	50	50		1	100	70-130	02/11/2019 2109
Carbon tetrachloride	50	56		1	111	70-130	02/11/2019 2109
Chlorobenzene	50	54		1	108	70-130	02/11/2019 2109
Chloroethane	50	63		1	126	70-130	02/11/2019 2109
Chloroform	50	49		1	99	70-130	02/11/2019 2109
Chloromethane (Methyl chloride)	50	57		1	115	60-140	02/11/2019 2109
Cyclohexane	50	59		1	119	70-130	02/11/2019 2109
1,2-Dibromo-3-chloropropane (DBCP)	50	55		1	110	70-130	02/11/2019 2109
Dibromochloromethane	50	52		1	104	70-130	02/11/2019 2109
1,2-Dibromoethane (EDB)	50	55		1	110	70-130	02/11/2019 2109
1,2-Dichlorobenzene	50	53		1	106	70-130	02/11/2019 2109
1,3-Dichlorobenzene	50	53		1	106	70-130	02/11/2019 2109
1,4-Dichlorobenzene	50	53		1	106	70-130	02/11/2019 2109
Dichlorodifluoromethane	50	68		1	137	60-140	02/11/2019 2109
1,1-Dichloroethane	50	50		1	101	70-130	02/11/2019 2109
1,2-Dichloroethane	50	51		1	102	70-130	02/11/2019 2109
1,1-Dichloroethene	50	51		1	102	70-130	02/11/2019 2109
cis-1,2-Dichloroethene	50	49		1	98	70-130	02/11/2019 2109
trans-1,2-Dichloroethene	50	50		1	101	70-130	02/11/2019 2109
1,2-Dichloropropane	50	46		1	92	70-130	02/11/2019 2109
cis-1,3-Dichloropropene	50	48		1	95	70-130	02/11/2019 2109
trans-1,3-Dichloropropene	50	47		1	94	70-130	02/11/2019 2109
Ethylbenzene	50	56		1	112	70-130	02/11/2019 2109
2-Hexanone	100	120		1	120	70-130	02/11/2019 2109
Isopropylbenzene	50	54		1	107	70-130	02/11/2019 2109
Methyl acetate	50	49		1	99	70-130	02/11/2019 2109
Methyl tertiary butyl ether (MTBE)	50	47		1	95	70-130	02/11/2019 2109
4-Methyl-2-pentanone	100	120		1	117	70-130	02/11/2019 2109
Methylcyclohexane	50	55		1	109	70-130	02/11/2019 2109
Methylene chloride	50	52		1	103	70-130	02/11/2019 2109
Styrene	50	54		1	108	70-130	02/11/2019 2109
1,1,2,2-Tetrachloroethane	50	53		1	106	70-130	02/11/2019 2109
Tetrachloroethene	50	55		1	111	70-130	02/11/2019 2109
Toluene	50	53		1	106	70-130	02/11/2019 2109
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	53		1	105	70-130	02/11/2019 2109
1,2,4-Trichlorobenzene	50	53		1	105	70-130	02/11/2019 2109
1,1,1-Trichloroethane	50	52		1	104	70-130	02/11/2019 2109
1,1,2-Trichloroethane	50	51		1	102	70-130	02/11/2019 2109

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ97215-002
Batch: 97215
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	53		1	107	70-130	02/11/2019 2109
Trichlorofluoromethane	50	60		1	120	70-130	02/11/2019 2109
Vinyl chloride	50	62		1	124	70-130	02/11/2019 2109
Xylenes (total)	100	110		1	110	70-130	02/11/2019 2109

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		102	70-130
Bromofluorobenzene		102	70-130
Toluene-d8		105	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ97259-001
Batch: 97259
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Acetone	ND		1	20	2.0	ug/L	02/12/2019 1039
Benzene	ND		1	1.0	0.40	ug/L	02/12/2019 1039
Bromodichloromethane	ND		1	1.0	0.40	ug/L	02/12/2019 1039
Bromoform	ND		1	1.0	0.40	ug/L	02/12/2019 1039
Bromomethane (Methyl bromide)	ND		1	2.0	0.40	ug/L	02/12/2019 1039
2-Butanone (MEK)	ND		1	10	2.0	ug/L	02/12/2019 1039
Carbon disulfide	ND		1	1.0	0.40	ug/L	02/12/2019 1039
Carbon tetrachloride	ND		1	1.0	0.40	ug/L	02/12/2019 1039
Chlorobenzene	ND		1	1.0	0.40	ug/L	02/12/2019 1039
Chloroethane	ND		1	2.0	0.40	ug/L	02/12/2019 1039
Chloroform	ND		1	1.0	0.40	ug/L	02/12/2019 1039
Chloromethane (Methyl chloride)	ND		1	1.0	0.50	ug/L	02/12/2019 1039
Cyclohexane	ND		1	1.0	0.40	ug/L	02/12/2019 1039
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	0.40	ug/L	02/12/2019 1039
Dibromochloromethane	ND		1	1.0	0.40	ug/L	02/12/2019 1039
1,2-Dibromoethane (EDB)	ND		1	1.0	0.40	ug/L	02/12/2019 1039
1,2-Dichlorobenzene	ND		1	1.0	0.40	ug/L	02/12/2019 1039
1,3-Dichlorobenzene	ND		1	1.0	0.40	ug/L	02/12/2019 1039
1,4-Dichlorobenzene	ND		1	1.0	0.40	ug/L	02/12/2019 1039
Dichlorodifluoromethane	ND		1	2.0	0.60	ug/L	02/12/2019 1039
1,1-Dichloroethane	ND		1	1.0	0.40	ug/L	02/12/2019 1039
1,2-Dichloroethane	ND		1	1.0	0.40	ug/L	02/12/2019 1039
1,1-Dichloroethene	ND		1	1.0	0.40	ug/L	02/12/2019 1039
cis-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	02/12/2019 1039
trans-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	02/12/2019 1039
1,2-Dichloropropane	ND		1	1.0	0.40	ug/L	02/12/2019 1039
cis-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	02/12/2019 1039
trans-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	02/12/2019 1039
Ethylbenzene	ND		1	1.0	0.40	ug/L	02/12/2019 1039
2-Hexanone	ND		1	10	2.0	ug/L	02/12/2019 1039
Isopropylbenzene	ND		1	1.0	0.40	ug/L	02/12/2019 1039
Methyl acetate	ND		1	1.0	0.40	ug/L	02/12/2019 1039
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	0.40	ug/L	02/12/2019 1039
4-Methyl-2-pentanone	ND		1	10	2.0	ug/L	02/12/2019 1039
Methylcyclohexane	ND		1	5.0	0.40	ug/L	02/12/2019 1039
Methylene chloride	ND		1	1.0	0.40	ug/L	02/12/2019 1039
Styrene	ND		1	1.0	0.41	ug/L	02/12/2019 1039
1,1,2,2-Tetrachloroethane	ND		1	1.0	0.40	ug/L	02/12/2019 1039
Tetrachloroethene	ND		1	1.0	0.40	ug/L	02/12/2019 1039
Toluene	ND		1	1.0	0.40	ug/L	02/12/2019 1039
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	0.42	ug/L	02/12/2019 1039
1,2,4-Trichlorobenzene	ND		1	1.0	0.40	ug/L	02/12/2019 1039
1,1,1-Trichloroethane	ND		1	1.0	0.40	ug/L	02/12/2019 1039
1,1,2-Trichloroethane	ND		1	1.0	0.40	ug/L	02/12/2019 1039

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ97259-001
Batch: 97259
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Trichloroethene	ND		1	1.0	0.40	ug/L	02/12/2019 1039
Trichlorofluoromethane	ND		1	1.0	0.40	ug/L	02/12/2019 1039
Vinyl chloride	ND		1	1.0	0.40	ug/L	02/12/2019 1039
Xylenes (total)	ND		1	1.0	0.40	ug/L	02/12/2019 1039

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		103	70-130
Bromofluorobenzene		102	70-130
Toluene-d8		106	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Shealy Environmental Services, Inc.
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Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ97259-002
Batch: 97259
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	120		1	124	60-140	02/12/2019 0940
Benzene	50	50		1	100	70-130	02/12/2019 0940
Bromodichloromethane	50	47		1	95	70-130	02/12/2019 0940
Bromoform	50	50		1	100	70-130	02/12/2019 0940
Bromomethane (Methyl bromide)	50	65		1	129	70-130	02/12/2019 0940
2-Butanone (MEK)	100	110		1	108	70-130	02/12/2019 0940
Carbon disulfide	50	46		1	91	70-130	02/12/2019 0940
Carbon tetrachloride	50	49		1	99	70-130	02/12/2019 0940
Chlorobenzene	50	50		1	100	70-130	02/12/2019 0940
Chloroethane	50	60		1	119	70-130	02/12/2019 0940
Chloroform	50	46		1	91	70-130	02/12/2019 0940
Chloromethane (Methyl chloride)	50	52		1	105	60-140	02/12/2019 0940
Cyclohexane	50	54		1	108	70-130	02/12/2019 0940
1,2-Dibromo-3-chloropropane (DBCP)	50	53		1	105	70-130	02/12/2019 0940
Dibromochloromethane	50	49		1	98	70-130	02/12/2019 0940
1,2-Dibromoethane (EDB)	50	52		1	104	70-130	02/12/2019 0940
1,2-Dichlorobenzene	50	50		1	99	70-130	02/12/2019 0940
1,3-Dichlorobenzene	50	50		1	99	70-130	02/12/2019 0940
1,4-Dichlorobenzene	50	49		1	98	70-130	02/12/2019 0940
Dichlorodifluoromethane	50	61		1	122	60-140	02/12/2019 0940
1,1-Dichloroethane	50	45		1	91	70-130	02/12/2019 0940
1,2-Dichloroethane	50	49		1	99	70-130	02/12/2019 0940
1,1-Dichloroethene	50	45		1	90	70-130	02/12/2019 0940
cis-1,2-Dichloroethene	50	45		1	89	70-130	02/12/2019 0940
trans-1,2-Dichloroethene	50	45		1	90	70-130	02/12/2019 0940
1,2-Dichloropropane	50	44		1	87	70-130	02/12/2019 0940
cis-1,3-Dichloropropene	50	45		1	90	70-130	02/12/2019 0940
trans-1,3-Dichloropropene	50	43		1	87	70-130	02/12/2019 0940
Ethylbenzene	50	50		1	100	70-130	02/12/2019 0940
2-Hexanone	100	110		1	111	70-130	02/12/2019 0940
Isopropylbenzene	50	49		1	98	70-130	02/12/2019 0940
Methyl acetate	50	47		1	94	70-130	02/12/2019 0940
Methyl tertiary butyl ether (MTBE)	50	45		1	91	70-130	02/12/2019 0940
4-Methyl-2-pentanone	100	110		1	113	70-130	02/12/2019 0940
Methylcyclohexane	50	51		1	102	70-130	02/12/2019 0940
Methylene chloride	50	47		1	95	70-130	02/12/2019 0940
Styrene	50	50		1	100	70-130	02/12/2019 0940
1,1,2,2-Tetrachloroethane	50	51		1	102	70-130	02/12/2019 0940
Tetrachloroethene	50	51		1	101	70-130	02/12/2019 0940
Toluene	50	49		1	98	70-130	02/12/2019 0940
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	48		1	96	70-130	02/12/2019 0940
1,2,4-Trichlorobenzene	50	49		1	99	70-130	02/12/2019 0940
1,1,1-Trichloroethane	50	47		1	93	70-130	02/12/2019 0940
1,1,2-Trichloroethane	50	48		1	96	70-130	02/12/2019 0940

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ97259-002
Batch: 97259
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	49		1	99	70-130	02/12/2019 0940
Trichlorofluoromethane	50	55		1	109	70-130	02/12/2019 0940
Vinyl chloride	50	55		1	109	70-130	02/12/2019 0940
Xylenes (total)	100	100		1	100	70-130	02/12/2019 0940

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		101	70-130
Bromofluorobenzene		99	70-130
Toluene-d8		105	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ97430-001
Batch: 97430
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Acetone	ND		1	20	2.0	ug/L	02/13/2019 1210
Benzene	ND		1	1.0	0.40	ug/L	02/13/2019 1210
Bromodichloromethane	ND		1	1.0	0.40	ug/L	02/13/2019 1210
Bromoform	ND		1	1.0	0.40	ug/L	02/13/2019 1210
Bromomethane (Methyl bromide)	ND		1	2.0	0.40	ug/L	02/13/2019 1210
2-Butanone (MEK)	ND		1	10	2.0	ug/L	02/13/2019 1210
Carbon disulfide	ND		1	1.0	0.40	ug/L	02/13/2019 1210
Carbon tetrachloride	ND		1	1.0	0.40	ug/L	02/13/2019 1210
Chlorobenzene	ND		1	1.0	0.40	ug/L	02/13/2019 1210
Chloroethane	ND		1	2.0	0.40	ug/L	02/13/2019 1210
Chloroform	ND		1	1.0	0.40	ug/L	02/13/2019 1210
Chloromethane (Methyl chloride)	ND		1	1.0	0.50	ug/L	02/13/2019 1210
Cyclohexane	ND		1	1.0	0.40	ug/L	02/13/2019 1210
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	0.40	ug/L	02/13/2019 1210
Dibromochloromethane	ND		1	1.0	0.40	ug/L	02/13/2019 1210
1,2-Dibromoethane (EDB)	ND		1	1.0	0.40	ug/L	02/13/2019 1210
1,2-Dichlorobenzene	ND		1	1.0	0.40	ug/L	02/13/2019 1210
1,3-Dichlorobenzene	ND		1	1.0	0.40	ug/L	02/13/2019 1210
1,4-Dichlorobenzene	ND		1	1.0	0.40	ug/L	02/13/2019 1210
Dichlorodifluoromethane	ND		1	2.0	0.60	ug/L	02/13/2019 1210
1,1-Dichloroethane	ND		1	1.0	0.40	ug/L	02/13/2019 1210
1,2-Dichloroethane	ND		1	1.0	0.40	ug/L	02/13/2019 1210
1,1-Dichloroethene	ND		1	1.0	0.40	ug/L	02/13/2019 1210
cis-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	02/13/2019 1210
trans-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	02/13/2019 1210
1,2-Dichloropropane	ND		1	1.0	0.40	ug/L	02/13/2019 1210
cis-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	02/13/2019 1210
trans-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	02/13/2019 1210
Ethylbenzene	ND		1	1.0	0.40	ug/L	02/13/2019 1210
2-Hexanone	ND		1	10	2.0	ug/L	02/13/2019 1210
Isopropylbenzene	ND		1	1.0	0.40	ug/L	02/13/2019 1210
Methyl acetate	ND		1	1.0	0.40	ug/L	02/13/2019 1210
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	0.40	ug/L	02/13/2019 1210
4-Methyl-2-pentanone	ND		1	10	2.0	ug/L	02/13/2019 1210
Methylcyclohexane	ND		1	5.0	0.40	ug/L	02/13/2019 1210
Methylene chloride	ND		1	1.0	0.40	ug/L	02/13/2019 1210
Styrene	ND		1	1.0	0.41	ug/L	02/13/2019 1210
1,1,2,2-Tetrachloroethane	ND		1	1.0	0.40	ug/L	02/13/2019 1210
Tetrachloroethene	ND		1	1.0	0.40	ug/L	02/13/2019 1210
Toluene	ND		1	1.0	0.40	ug/L	02/13/2019 1210
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	0.42	ug/L	02/13/2019 1210
1,2,4-Trichlorobenzene	0.42	J	1	1.0	0.40	ug/L	02/13/2019 1210
1,1,1-Trichloroethane	ND		1	1.0	0.40	ug/L	02/13/2019 1210
1,1,2-Trichloroethane	ND		1	1.0	0.40	ug/L	02/13/2019 1210

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ97430-001
Batch: 97430
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Trichloroethene	ND		1	1.0	0.40	ug/L	02/13/2019 1210
Trichlorofluoromethane	ND		1	1.0	0.40	ug/L	02/13/2019 1210
Vinyl chloride	ND		1	1.0	0.40	ug/L	02/13/2019 1210
Xylenes (total)	ND		1	1.0	0.40	ug/L	02/13/2019 1210

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		106	70-130
Bromofluorobenzene		104	70-130
Toluene-d8		92	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
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N = Recovery is out of criteria
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Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ97430-002
Batch: 97430
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	130		1	131	60-140	02/13/2019 1103
Benzene	50	48		1	95	70-130	02/13/2019 1103
Bromodichloromethane	50	52		1	104	70-130	02/13/2019 1103
Bromoform	50	60		1	119	70-130	02/13/2019 1103
Bromomethane (Methyl bromide)	50	48		1	96	70-130	02/13/2019 1103
2-Butanone (MEK)	100	120		1	116	70-130	02/13/2019 1103
Carbon disulfide	50	48		1	97	70-130	02/13/2019 1103
Carbon tetrachloride	50	61		1	122	70-130	02/13/2019 1103
Chlorobenzene	50	49		1	99	70-130	02/13/2019 1103
Chloroethane	50	45		1	91	70-130	02/13/2019 1103
Chloroform	50	53		1	106	70-130	02/13/2019 1103
Chloromethane (Methyl chloride)	50	38		1	77	60-140	02/13/2019 1103
Cyclohexane	50	46		1	93	70-130	02/13/2019 1103
1,2-Dibromo-3-chloropropane (DBCP)	50	55		1	109	70-130	02/13/2019 1103
Dibromochloromethane	50	55		1	111	70-130	02/13/2019 1103
1,2-Dibromoethane (EDB)	50	52		1	103	70-130	02/13/2019 1103
1,2-Dichlorobenzene	50	49		1	98	70-130	02/13/2019 1103
1,3-Dichlorobenzene	50	49		1	98	70-130	02/13/2019 1103
1,4-Dichlorobenzene	50	48		1	96	70-130	02/13/2019 1103
Dichlorodifluoromethane	50	59		1	118	60-140	02/13/2019 1103
1,1-Dichloroethane	50	46		1	92	70-130	02/13/2019 1103
1,2-Dichloroethane	50	55		1	110	70-130	02/13/2019 1103
1,1-Dichloroethene	50	46		1	92	70-130	02/13/2019 1103
cis-1,2-Dichloroethene	50	50		1	101	70-130	02/13/2019 1103
trans-1,2-Dichloroethene	50	49		1	97	70-130	02/13/2019 1103
1,2-Dichloropropane	50	39		1	78	70-130	02/13/2019 1103
cis-1,3-Dichloropropene	50	44		1	88	70-130	02/13/2019 1103
trans-1,3-Dichloropropene	50	45		1	90	70-130	02/13/2019 1103
Ethylbenzene	50	51		1	102	70-130	02/13/2019 1103
2-Hexanone	100	81		1	81	70-130	02/13/2019 1103
Isopropylbenzene	50	53		1	105	70-130	02/13/2019 1103
Methyl acetate	50	40		1	80	70-130	02/13/2019 1103
Methyl tertiary butyl ether (MTBE)	50	50		1	100	70-130	02/13/2019 1103
4-Methyl-2-pentanone	100	85		1	85	70-130	02/13/2019 1103
Methylcyclohexane	50	50		1	100	70-130	02/13/2019 1103
Methylene chloride	50	45		1	90	70-130	02/13/2019 1103
Styrene	50	51		1	102	70-130	02/13/2019 1103
1,1,2,2-Tetrachloroethane	50	43		1	86	70-130	02/13/2019 1103
Tetrachloroethene	50	52		1	105	70-130	02/13/2019 1103
Toluene	50	48		1	96	70-130	02/13/2019 1103
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	48		1	95	70-130	02/13/2019 1103
1,2,4-Trichlorobenzene	50	54		1	107	70-130	02/13/2019 1103
1,1,1-Trichloroethane	50	58		1	115	70-130	02/13/2019 1103
1,1,2-Trichloroethane	50	48		1	97	70-130	02/13/2019 1103

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

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J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ97430-002
Batch: 97430
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	52		1	104	70-130	02/13/2019 1103
Trichlorofluoromethane	50	54		1	109	70-130	02/13/2019 1103
Vinyl chloride	50	46		1	91	70-130	02/13/2019 1103
Xylenes (total)	100	100		1	101	70-130	02/13/2019 1103

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		100	70-130
Bromofluorobenzene		92	70-130
Toluene-d8		89	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
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Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Chain of Custody
and
Miscellaneous Documents

SHEALY ENVIRONMENTAL SERVICES, INC.
106 Vantage Point Drive • West Columbia, SC 29172
Telephone No. 803-791-9700 Fax No. 803-791-9111
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SHEALY Chain of Custody Record

Number 82692

Client: TRC	Report to Contact: Lisa Clark	Telephone No. / E-mail:	Quote No.
Address: 50 International Dr Suite 150	Sampler's Signature: X	Analysis (Attach list if more space is needed)	Page 1 of 1
City: Greenville	State: SC	Zip Code: 29615	
Project Name: WPH Clemson	Printed Name: Benjamin Medlin		
Project No.: 300688.0.0.2	P.O. No.		

Sample ID / Description (Containers for each sample may be combined on one line.)	Date 2019	Time	Grab (G) / Composite (C)	Matrix: Aqueous	Solid	Non-Aqueous	No of Containers by Preservative Type: Ethanol	HCl/DI	HNO3	Ice	H2SO4	NaOH	Ascorbic Acid	VOCs	Chloride, Sulfate	Bromide	Nitrate	Remarks / Cooler I.D.
TBLK-19107	1	1								2				X				UB06056
RMW-08A	2-5	1220	G	X			2			3				X	X	X		LJO
RMW-08	2.5	1210	G	X			2			3				X	X	X		
RMW-07	2.5	1315	G	X			2			3				X	X	X		
RMW-21	2.5	1525	G	X			2			3				X	X	X		
RMW-20C	2.5	1620	G	X			2			3				X	X	X		
RMW-12	2.5	1550	G	X			2			3				X	X	X		
RBLK-19101	2.5	1030	G	X			2			3				X	X	X		

Turn Around Time Required (Prior lab approval required for expedited TAT.): ☐ Standard ☐ Rush (Specify)

Sample Disposal: ☐ Return to Client ☐ Disposal by Lab

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

QC Requirements (Specify):

	Date	Time		Date	Time
1. Relinquished by	2.5.19	1800	1. Received by: TRC Sample storage	2.5.19	1800
2. Relinquished by: TRC Sample Storage	2/6/19	08:56	2. Received by: Ken L. Mauld	2/6/19	08:56
3. Relinquished by: Ken L. Mauld	2/6/19	12:55	3. Received by: Matthew	2/6/19	12:55
4. Relinquished by: Matthew	2/6/19	1422	4. Laboratory received by: L Hite	2-6-19	1422

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on ice (Circle) (Yes) No Ice Pack Receipt Temp. 2.2 °C

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Client Copy

Document Number: F-AD-133 Effective Date: 08-01-2014

SHEALY ENVIRONMENTAL SERVICES, INC.

Shealy Environmental Services, Inc
Document Number: MF0018C-14

Page 1 of 1
Effective Date: 8/2/2018

Sample Receipt Checklist (SRC)

Client: TRC Cooler Inspected by/date: LKH / 2-6-19 Lot #: UB060056

Means of receipt: ☑ SESI ☐ Client ☐ UPS ☐ FedEx ☐ Other: _____

☐ Yes	☑ No		1. Were custody seals present on the cooler?
☐ Yes	☐ No	☑ NA	2. If custody seals were present, were they intact and unbroken?

pH Strip ID: _____ Chlorine Strip ID: _____ Tested by: _____

Original temperature upon receipt / Derived (Corrected) temperature upon receipt: %Solid Snap-Cup ID: _____

2.2/2.2 °C ____/____ °C ____/____ °C ____/____ °C

Method: ☑ Temperature Blank ☐ Against Bottles IR Gun ID: 5 IR Gun Correction Factor: 0 °C

Method of coolant: ☑ Wet Ice ☐ Ice Packs ☐ Dry Ice ☐ None

☐ Yes	☐ No	☑ NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).
☐ Yes	☐ No	☑ NA	4. Is the commercial courier's packing slip attached to this form?
☑ Yes	☐ No		5. Were proper custody procedures (relinquished/received) followed?
☑ Yes	☐ No		6. Were sample IDs listed on the COC?
☑ Yes	☐ No		7. Were sample IDs listed on all sample containers?
☑ Yes	☐ No		8. Was collection date & time listed on the COC?
☑ Yes	☐ No		9. Was collection date & time listed on all sample containers?
☑ Yes	☐ No		10. Did all container label information (ID, date, time) agree with the COC?
☑ Yes	☐ No		11. Were tests to be performed listed on the COC?
☑ Yes	☐ No		12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)?
☑ Yes	☐ No		13. Was adequate sample volume available?
☑ Yes	☐ No		14. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
☐ Yes	☑ No		15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
☐ Yes	☐ No	☑ NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (¼"or 6mm in diameter) in any of the VOA vials?
☐ Yes	☑ No	☐ NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?
☐ Yes	☐ No	☑ NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
☐ Yes	☐ No	☑ NA	19. Were all applicable NH_3/TKN/cyanide/phenol/625 (< 0.5mg/L) samples free of residual chlorine?
☐ Yes	☐ No	☑ NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc…) correctly transcribed from the COC into the comment section in LIMS?
☐ Yes	☑ No		21. Was the quote number listed on the container label? If yes, Quote # _____

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) _____ were received incorrectly preserved and were adjusted accordingly in sample receiving with _____mL of circle one: H2SO4, HNO3, HCl, NaOH using SR # _____. Time of preservation _____. If more than one preservative is needed, please note in the comments below.

Sample(s) _____ were received with bubbles >6 mm in diameter.

Samples(s) _____ were received with TRC > 0.5 mg/L (If #19 is ***no***) and were adjusted accordingly in sample receiving with sodium thiosulfate ($Na_2S_2O_3$) with Shealy ID: _____.

SR barcode labels applied by: LKH Date: 2-6-19

Comments:

SHEALY ENVIRONMENTAL SERVICES, INC.

Report of Analysis

TRC Companies, Inc.
50 International Dr.
Suite 150
Greenville, SC 29615
Attention: Lisa Clark

Project Name: WPH Clemson

Project Number: 300688.0000.0000.0002

Lot Number:**UA31024**

Date Completed:02/14/2019

02/18/2019 1:51 PM
Approved and released by:
Lab Director - Greenville: Lucas Odom

The electronic signature above is the equivalent of a handwritten signature.

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Laboratory Data Quality Review Notes

Project Name: WPH-Clemson, SC

Project Number: 300688.0000.0000.000002

Lab Report: UA31024 Shealy Environmental Services
Five groundwater samples were analyzed for volatile organic compounds (VOCs), chloride, bromide, sulfate, and nitrate. One trip blank was analyzed for VOCs.

Chain of Custody, Sample Temperature, Sample Preservation: Chain of custody (CoC) signed; sample temperature <6 ^{o}C upon arrival at the laboratory; samples were preserved properly.

Hold Time: Samples analyzed within hold time.

Surrogates: VOC surrogate recoveries are within QC limits.

Method Blank: Method blanks were free of anion and VOC detections.

Trip Blank: Trip blank TBLK-19104 had a detection of carbon disulfide at 0.67 J ug/L. Carbon disulfide was not detected in the groundwater samples. No data qualifiers were assigned.

Field and Equipment Rinse Blanks: Neither a field blank nor an equipment rinse blank were collected with these samples.

LCS/LCSD: LCS recoveries for anions and VOCs are within QC Limits.

MS/MSD: RMW-10 and RMW-17A were used VOC MS/MSD analyses. MS/MSD recoveries and RPDs were within QC limits except as follows:

- The RMW-10 VOC MS had the following analytes recovered above the upper QC limit: Acetone, carbon disulfide (CS), 1,1-dichloroethane (1,1-DCA), 1,1-dichloroethene (1,1-DCE), trans-1,2-dichloroethane (t-1,2-DCE), methyl tertiary butyl ether (MTBE), methylene chloride (MC), 1,1,2-trichloro-1,2,2-trifluoroethane (TCTFA), trichlorofluoromethane (TCFM), and vinyl chloride (VC). The RPDs for acetone, chloromethane (CM), and vinyl chloride were above the QC limit. CS, 1,1-DCA, 1,1-DCE. t-1,2-DCE, MTBE, MC, TCTFA, TFCM, VC, and CM were not detected in the groundwater samples included in this report; therefor, no qualifiers were assigned to these compounds. **A "j" qualifier is assigned to acetone in RMW-10, RMW-14, and RMW-17.**

Duplicates: A field duplicate was not collected with these samples.

Corrective Action: Lab was asked to revise the report to include the missing cover page.

Data review performed by: Terry Hertz; TRC Environmental Corp.; 2/18/2019

Case Narrative
TRC Companies, Inc.
Lot Number: UA31024

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

Bromide

The continuing calibration verification (CCV) associated with sample -005 recovered Bromide above the upper control limit. The sample associated with this CCV yielded only a "J" value detection; therefore, the data has been reported.

In the opening continuing calibration verification (CCV) associated with samples -005 and -006 the target analytes elute outside of the acceptable retention time windows. The remaining CCV retention times are within acceptance range. Results will be reported.

Sulfate

In the opening continuing calibration verification (CCV) associated with samples -005 and -006 the target analytes elute outside of the acceptable retention time windows. The remaining CCV retention times are within acceptance range. Results will be reported.

Chloride

In the opening continuing calibration verification (CCV) associated with samples -005 and -006 the target analytes elute outside of the acceptable retention time windows. The remaining CCV retention times are within acceptance range. Results will be reported.

Sample Summary
TRC Companies, Inc.
Lot Number: UA31024

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	TBLK-19104	Aqueous	01/30/2019	01/31/2019
002	RMW-16	Aqueous	01/30/2019 1215	01/31/2019
003	RMW-17	Aqueous	01/30/2019 1240	01/31/2019
004	RMW-17A	Aqueous	01/30/2019 1430	01/31/2019
005	RMW-14	Aqueous	01/30/2019 1625	01/31/2019
006	RMW-10	Aqueous	01/30/2019 1635	01/31/2019

(6 samples)

Detection Summary

TRC Companies, Inc.

Lot Number: UA31024

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	TBLK-19104	Aqueous	Carbon disulfide	8260B	0.67	J	ug/L	5
002	RMW-16	Aqueous	cis-1,2-Dichloroethene	8260B	18		ug/L	7
002	RMW-16	Aqueous	Tetrachloroethene	8260B	270		ug/L	7
002	RMW-16	Aqueous	Trichloroethene	8260B	15		ug/L	8
003	RMW-17	Aqueous	Acetone	8260B	8.2	J	ug/L	9
003	RMW-17	Aqueous	cis-1,2-Dichloroethene	8260B	21		ug/L	9
003	RMW-17	Aqueous	Tetrachloroethene	8260B	180		ug/L	9
003	RMW-17	Aqueous	Trichloroethene	8260B	5.4		ug/L	10
004	RMW-17A	Aqueous	Tetrachloroethene	8260B	920		ug/L	11
005	RMW-14	Aqueous	Bromide	300.0	0.11	J	mg/L	13
005	RMW-14	Aqueous	Chloride	300.0	3.5		mg/L	13
005	RMW-14	Aqueous	Nitrate - N	353.2	1.6		mg/L	13
005	RMW-14	Aqueous	Sulfate	300.0	440		mg/L	13
005	RMW-14	Aqueous	Acetone	8260B	2.9	J	ug/L	13
005	RMW-14	Aqueous	Tetrachloroethene	8260B	53		ug/L	14
006	RMW-10	Aqueous	Bromide	300.0	0.30		mg/L	15
006	RMW-10	Aqueous	Chloride	300.0	12		mg/L	15
006	RMW-10	Aqueous	Nitrate - N	353.2	4.7		mg/L	15
006	RMW-10	Aqueous	Sulfate	300.0	3200		mg/L	15
006	RMW-10	Aqueous	Acetone	8260B	31	J	ug/L	15
006	RMW-10	Aqueous	Tetrachloroethene	8260B	480		ug/L	16

(21 detections)

Client: TRC Companies, Inc.
Description: TBLK-19104
Date Sampled: 01/30/2019
Date Received: 01/31/2019

Laboratory ID: UA31024-001
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/01/2019 1225	JJG		96369

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	ND		20	2.0	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260B	0.67	J	1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
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Client: TRC Companies, Inc.
Description: TBLK-19104
Date Sampled: 01/30/2019
Date Received: 01/31/2019

Laboratory ID: UA31024-001
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/01/2019 1225	JJG		96369

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260B	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		102	70-130
Bromofluorobenzene		102	70-130
Toluene-d8		104	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
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N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
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Client: TRC Companies, Inc.
Description: RMW-16
Date Sampled: 01/30/2019 1215
Date Received: 01/31/2019

Laboratory ID: UA31024-002
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	5	02/01/2019 1722	JJG		96369

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	ND		100	10	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	2.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	2.0	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	2.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		10	2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		50	10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	2.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	2.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	2.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		10	2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	2.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	2.5	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	2.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	2.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	2.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	2.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	2.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	2.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	2.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		10	3.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	2.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	2.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	2.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	18		5.0	2.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	2.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	2.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	2.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	2.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	2.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		50	10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	2.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	2.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	2.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		50	10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		25	2.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	2.0	ug/L	1
Styrene	100-42-5	8260B	ND		5.0	2.1	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	2.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	270		5.0	2.0	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	2.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: RMW-16
Date Sampled: 01/30/2019 1215
Date Received: 01/31/2019

Laboratory ID: UA31024-002
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	5	02/01/2019 1722	JJG		96369

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	2.1	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	2.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	2.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	2.0	ug/L	1
Trichloroethene	79-01-6	8260B	15		5.0	2.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	2.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		5.0	2.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	2.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		102	70-130
Bromofluorobenzene		100	70-130
Toluene-d8		103	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: RMW-17
Date Sampled: 01/30/2019 1240
Date Received: 01/31/2019

Laboratory ID: UA31024-003
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	5030B	8260B	1	02/05/2019 0304	KGT		96586

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	8.2	J	20	2.0	ug/L	2
Benzene	71-43-2	8260B	ND		1.0	0.40	ug/L	2
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.40	ug/L	2
Bromoform	75-25-2	8260B	ND		1.0	0.40	ug/L	2
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.40	ug/L	2
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	2
Carbon disulfide	75-15-0	8260B	ND		1.0	0.40	ug/L	2
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.40	ug/L	2
Chlorobenzene	108-90-7	8260B	ND		1.0	0.40	ug/L	2
Chloroethane	75-00-3	8260B	ND		2.0	0.40	ug/L	2
Chloroform	67-66-3	8260B	ND		1.0	0.40	ug/L	2
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.50	ug/L	2
Cyclohexane	110-82-7	8260B	ND		1.0	0.40	ug/L	2
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	0.40	ug/L	2
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.40	ug/L	2
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.40	ug/L	2
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.40	ug/L	2
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.40	ug/L	2
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.40	ug/L	2
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.60	ug/L	2
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.40	ug/L	2
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.40	ug/L	2
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.40	ug/L	2
cis-1,2-Dichloroethene	156-59-2	8260B	21		1.0	0.40	ug/L	2
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.40	ug/L	2
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.40	ug/L	2
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.40	ug/L	2
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.40	ug/L	2
Ethylbenzene	100-41-4	8260B	ND		1.0	0.40	ug/L	2
2-Hexanone	591-78-6	8260B	ND		10	2.0	ug/L	2
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.40	ug/L	2
Methyl acetate	79-20-9	8260B	ND		1.0	0.40	ug/L	2
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	2
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	2.0	ug/L	2
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.40	ug/L	2
Methylene chloride	75-09-2	8260B	ND		1.0	0.40	ug/L	2
Styrene	100-42-5	8260B	ND		1.0	0.41	ug/L	2
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.40	ug/L	2
Tetrachloroethene	127-18-4	8260B	180		1.0	0.40	ug/L	2
Toluene	108-88-3	8260B	ND		1.0	0.40	ug/L	2

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
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Client: TRC Companies, Inc.
Description: RMW-17
Date Sampled: 01/30/2019 1240
Date Received: 01/31/2019

Laboratory ID: UA31024-003
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	5030B	8260B	1	02/05/2019 0304	KGT		96586

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	0.42	ug/L	2
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.40	ug/L	2
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.40	ug/L	2
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.40	ug/L	2
Trichloroethene	79-01-6	8260B	5.4		1.0	0.40	ug/L	2
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	0.40	ug/L	2
Vinyl chloride	75-01-4	8260B	ND		1.0	0.40	ug/L	2
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.40	ug/L	2

Surrogate	Q	Run 2 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		99	70-130
Bromofluorobenzene		89	70-130
Toluene-d8		87	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
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Client: TRC Companies, Inc.
Description: RMW-17A
Date Sampled: 01/30/2019 1430
Date Received: 01/31/2019

Laboratory ID: UA31024-004
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	20	02/01/2019 1808	JJG		96369

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	ND		400	40	ug/L	1
Benzene	71-43-2	8260B	ND		20	8.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		20	8.0	ug/L	1
Bromoform	75-25-2	8260B	ND		20	8.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		40	8.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		200	40	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		20	8.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		20	8.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		20	8.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		40	8.0	ug/L	1
Chloroform	67-66-3	8260B	ND		20	8.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		20	10	ug/L	1
Cyclohexane	110-82-7	8260B	ND		20	8.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		20	8.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		20	8.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		20	8.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		20	8.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		20	8.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		20	8.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		40	12	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		20	8.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		20	8.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		20	8.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		20	8.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		20	8.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		20	8.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		20	8.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		20	8.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		20	8.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		200	40	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		20	8.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		20	8.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		20	8.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		200	40	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		100	8.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		20	8.0	ug/L	1
Styrene	100-42-5	8260B	ND		20	8.2	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		20	8.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	920		20	8.0	ug/L	1
Toluene	108-88-3	8260B	ND		20	8.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: RMW-17A
Date Sampled: 01/30/2019 1430
Date Received: 01/31/2019

Laboratory ID: UA31024-004
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	20	02/01/2019 1808	JJG		96369

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		20	8.4	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		20	8.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		20	8.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		20	8.0	ug/L	1
Trichloroethene	79-01-6	8260B	ND		20	8.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		20	8.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		20	8.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		20	8.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		103	70-130
Bromofluorobenzene		102	70-130
Toluene-d8		105	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
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E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: RMW-14
Date Sampled: 01/30/2019 1625
Date Received: 01/31/2019

Laboratory ID: UA31024-005
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	02/07/2019 2015	SLU		96995
2		(Chloride) 300.0	1	02/11/2019 2153	SLU		97265
1		(Nitrate - N) 353.2	1	01/31/2019 2231	MDD		96321
3		(Sulfate) 300.0	5	02/13/2019 0201	SLU		97313

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.11	J	0.20	0.050	mg/L	1
Chloride		300.0	3.5		1.0	0.20	mg/L	2
Nitrate - N		353.2	1.6		0.020	0.0015	mg/L	1
Sulfate		300.0	440		5.0	1.0	mg/L	3

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/01/2019 1247	JJG		96369

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	2.9	J	20	2.0	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
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E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: RMW-14
Date Sampled: 01/30/2019 1625
Date Received: 01/31/2019

Laboratory ID: UA31024-005
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/01/2019 1247	JJG		96369

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	53		1.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260B	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		102	70-130
Bromofluorobenzene		101	70-130
Toluene-d8		105	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: RMW-10
Date Sampled: 01/30/2019 1635
Date Received: 01/31/2019

Laboratory ID: UA31024-006
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2		(Bromide) 300.0	1	02/11/2019 2219	SLU		97264
2		(Chloride) 300.0	1	02/11/2019 2219	SLU		97265
1		(Nitrate - N) 353.2	5	01/31/2019 2232	MDD		96321
3		(Sulfate) 300.0	20	02/13/2019 0227	SLU		97313

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.30		0.20	0.050	mg/L	2
Chloride		300.0	12		1.0	0.20	mg/L	2
Nitrate - N		353.2	4.7		0.10	0.0075	mg/L	1
Sulfate		300.0	3200		20	4.0	mg/L	3

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	10	02/05/2019 0327	KGT		96586

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	31	J	200	20	ug/L	1
Benzene	71-43-2	8260B	ND		10	4.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		10	4.0	ug/L	1
Bromoform	75-25-2	8260B	ND		10	4.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		20	4.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		100	20	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		10	4.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		10	4.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		10	4.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		20	4.0	ug/L	1
Chloroform	67-66-3	8260B	ND		10	4.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		10	5.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		10	4.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		10	4.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		10	4.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		10	4.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		10	4.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		10	4.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		10	4.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		20	6.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		10	4.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		10	4.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		10	4.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		10	4.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		10	4.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		10	4.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: RMW-10
Date Sampled: 01/30/2019 1635
Date Received: 01/31/2019

Laboratory ID: UA31024-006
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	10	02/05/2019 0327	KGT		96586

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		10	4.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		10	4.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		10	4.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		100	20	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		10	4.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		10	4.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		10	4.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		100	20	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		50	4.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		10	4.0	ug/L	1
Styrene	100-42-5	8260B	ND		10	4.1	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		10	4.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	480		10	4.0	ug/L	1
Toluene	108-88-3	8260B	ND		10	4.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		10	4.2	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		10	4.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		10	4.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		10	4.0	ug/L	1
Trichloroethene	79-01-6	8260B	ND		10	4.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		10	4.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		10	4.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		10	4.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		101	70-130
Bromofluorobenzene		127	70-130
Toluene-d8		90	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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QC Summary

Inorganic non-metals - MB

Sample ID: UQ96321-001
Batch: 96321
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Nitrate - N	ND		1	0.020	0.0015	mg/L	01/31/2019 2228

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - LCS

Sample ID: UQ96321-002
Batch: 96321
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	0.80	0.81		1	101	90-110	01/31/2019 2230

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MB

Sample ID: UQ96995-001
Batch: 96995
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Bromide	ND		1	0.20	0.050	mg/L	02/07/2019 1018

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - LCS

Sample ID: UQ96995-002
Batch: 96995
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Bromide	8.0	8.6		1	108	90-110	02/07/2019 1055

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MB

Sample ID: UQ97264-001
Batch: 97264
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Bromide	ND		1	0.20	0.050	mg/L	02/11/2019 1916

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - LCS

Sample ID: UQ97264-002
Batch: 97264
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Bromide	8.0	8.5		1	106	90-110	02/11/2019 2008

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MB

Sample ID: UQ97265-001
Batch: 97265
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Chloride	ND		1	1.0	0.20	mg/L	02/11/2019 1916

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - LCS

Sample ID: UQ97265-002
Batch: 97265
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Chloride	20	20		1	100	90-110	02/11/2019 2008

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MB

Sample ID: UQ97313-001
Batch: 97313
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Sulfate	ND		1	1.0	0.20	mg/L	02/12/2019 2232

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - LCS

Sample ID: UQ97313-002
Batch: 97313
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Sulfate	20	19		1	97	90-110	02/13/2019 0135

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ96369-001
Batch: 96369
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Acetone	ND		1	20	2.0	ug/L	02/01/2019 1029
Benzene	ND		1	1.0	0.40	ug/L	02/01/2019 1029
Bromodichloromethane	ND		1	1.0	0.40	ug/L	02/01/2019 1029
Bromoform	ND		1	1.0	0.40	ug/L	02/01/2019 1029
Bromomethane (Methyl bromide)	ND		1	2.0	0.40	ug/L	02/01/2019 1029
2-Butanone (MEK)	ND		1	10	2.0	ug/L	02/01/2019 1029
Carbon disulfide	ND		1	1.0	0.40	ug/L	02/01/2019 1029
Carbon tetrachloride	ND		1	1.0	0.40	ug/L	02/01/2019 1029
Chlorobenzene	ND		1	1.0	0.40	ug/L	02/01/2019 1029
Chloroethane	ND		1	2.0	0.40	ug/L	02/01/2019 1029
Chloroform	ND		1	1.0	0.40	ug/L	02/01/2019 1029
Chloromethane (Methyl chloride)	ND		1	1.0	0.50	ug/L	02/01/2019 1029
Cyclohexane	ND		1	1.0	0.40	ug/L	02/01/2019 1029
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	0.40	ug/L	02/01/2019 1029
Dibromochloromethane	ND		1	1.0	0.40	ug/L	02/01/2019 1029
1,2-Dibromoethane (EDB)	ND		1	1.0	0.40	ug/L	02/01/2019 1029
1,2-Dichlorobenzene	ND		1	1.0	0.40	ug/L	02/01/2019 1029
1,3-Dichlorobenzene	ND		1	1.0	0.40	ug/L	02/01/2019 1029
1,4-Dichlorobenzene	ND		1	1.0	0.40	ug/L	02/01/2019 1029
Dichlorodifluoromethane	ND		1	2.0	0.60	ug/L	02/01/2019 1029
1,1-Dichloroethane	ND		1	1.0	0.40	ug/L	02/01/2019 1029
1,2-Dichloroethane	ND		1	1.0	0.40	ug/L	02/01/2019 1029
1,1-Dichloroethene	ND		1	1.0	0.40	ug/L	02/01/2019 1029
cis-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	02/01/2019 1029
trans-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	02/01/2019 1029
1,2-Dichloropropane	ND		1	1.0	0.40	ug/L	02/01/2019 1029
cis-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	02/01/2019 1029
trans-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	02/01/2019 1029
Ethylbenzene	ND		1	1.0	0.40	ug/L	02/01/2019 1029
2-Hexanone	ND		1	10	2.0	ug/L	02/01/2019 1029
Isopropylbenzene	ND		1	1.0	0.40	ug/L	02/01/2019 1029
Methyl acetate	ND		1	1.0	0.40	ug/L	02/01/2019 1029
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	0.40	ug/L	02/01/2019 1029
4-Methyl-2-pentanone	ND		1	10	2.0	ug/L	02/01/2019 1029
Methylcyclohexane	ND		1	5.0	0.40	ug/L	02/01/2019 1029
Methylene chloride	ND		1	1.0	0.40	ug/L	02/01/2019 1029
Styrene	ND		1	1.0	0.41	ug/L	02/01/2019 1029
1,1,2,2-Tetrachloroethane	ND		1	1.0	0.40	ug/L	02/01/2019 1029
Tetrachloroethene	ND		1	1.0	0.40	ug/L	02/01/2019 1029
Toluene	ND		1	1.0	0.40	ug/L	02/01/2019 1029
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	0.42	ug/L	02/01/2019 1029
1,2,4-Trichlorobenzene	ND		1	1.0	0.40	ug/L	02/01/2019 1029
1,1,1-Trichloroethane	ND		1	1.0	0.40	ug/L	02/01/2019 1029
1,1,2-Trichloroethane	ND		1	1.0	0.40	ug/L	02/01/2019 1029

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ96369-001
Batch: 96369
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Trichloroethene	ND		1	1.0	0.40	ug/L	02/01/2019 1029
Trichlorofluoromethane	ND		1	1.0	0.40	ug/L	02/01/2019 1029
Vinyl chloride	ND		1	1.0	0.40	ug/L	02/01/2019 1029
Xylenes (total)	ND		1	1.0	0.40	ug/L	02/01/2019 1029

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		100	70-130
Bromofluorobenzene		99	70-130
Toluene-d8		104	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ96369-002
Batch: 96369
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	99		1	99	60-140	02/01/2019 0944
Benzene	50	47		1	93	70-130	02/01/2019 0944
Bromodichloromethane	50	45		1	89	70-130	02/01/2019 0944
Bromoform	50	48		1	96	70-130	02/01/2019 0944
Bromomethane (Methyl bromide)	50	57		1	114	70-130	02/01/2019 0944
2-Butanone (MEK)	100	90		1	90	70-130	02/01/2019 0944
Carbon disulfide	50	44		1	87	70-130	02/01/2019 0944
Carbon tetrachloride	50	48		1	96	70-130	02/01/2019 0944
Chlorobenzene	50	48		1	96	70-130	02/01/2019 0944
Chloroethane	50	56		1	112	70-130	02/01/2019 0944
Chloroform	50	42		1	84	70-130	02/01/2019 0944
Chloromethane (Methyl chloride)	50	45		1	90	60-140	02/01/2019 0944
Cyclohexane	50	53		1	106	70-130	02/01/2019 0944
1,2-Dibromo-3-chloropropane (DBCP)	50	48		1	96	70-130	02/01/2019 0944
Dibromochloromethane	50	46		1	93	70-130	02/01/2019 0944
1,2-Dibromoethane (EDB)	50	49		1	98	70-130	02/01/2019 0944
1,2-Dichlorobenzene	50	46		1	92	70-130	02/01/2019 0944
1,3-Dichlorobenzene	50	46		1	93	70-130	02/01/2019 0944
1,4-Dichlorobenzene	50	47		1	93	70-130	02/01/2019 0944
Dichlorodifluoromethane	50	54		1	109	60-140	02/01/2019 0944
1,1-Dichloroethane	50	43		1	86	70-130	02/01/2019 0944
1,2-Dichloroethane	50	45		1	91	70-130	02/01/2019 0944
1,1-Dichloroethene	50	43		1	86	70-130	02/01/2019 0944
cis-1,2-Dichloroethene	50	42		1	83	70-130	02/01/2019 0944
trans-1,2-Dichloroethene	50	43		1	86	70-130	02/01/2019 0944
1,2-Dichloropropane	50	40		1	80	70-130	02/01/2019 0944
cis-1,3-Dichloropropene	50	42		1	84	70-130	02/01/2019 0944
trans-1,3-Dichloropropene	50	42		1	83	70-130	02/01/2019 0944
Ethylbenzene	50	49		1	99	70-130	02/01/2019 0944
2-Hexanone	100	99		1	99	70-130	02/01/2019 0944
Isopropylbenzene	50	48		1	96	70-130	02/01/2019 0944
Methyl acetate	50	43		1	86	70-130	02/01/2019 0944
Methyl tertiary butyl ether (MTBE)	50	42		1	84	70-130	02/01/2019 0944
4-Methyl-2-pentanone	100	99		1	99	70-130	02/01/2019 0944
Methylcyclohexane	50	50		1	99	70-130	02/01/2019 0944
Methylene chloride	50	43		1	86	70-130	02/01/2019 0944
Styrene	50	49		1	98	70-130	02/01/2019 0944
1,1,2,2-Tetrachloroethane	50	46		1	92	70-130	02/01/2019 0944
Tetrachloroethene	50	51		1	101	70-130	02/01/2019 0944
Toluene	50	47		1	95	70-130	02/01/2019 0944
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	47		1	93	70-130	02/01/2019 0944
1,2,4-Trichlorobenzene	50	46		1	92	70-130	02/01/2019 0944
1,1,1-Trichloroethane	50	44		1	88	70-130	02/01/2019 0944
1,1,2-Trichloroethane	50	45		1	91	70-130	02/01/2019 0944

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ96369-002
Batch: 96369
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	48		1	95	70-130	02/01/2019 0944
Trichlorofluoromethane	50	51		1	101	70-130	02/01/2019 0944
Vinyl chloride	50	49		1	97	70-130	02/01/2019 0944
Xylenes (total)	100	98		1	98	70-130	02/01/2019 0944

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		97	70-130
Bromofluorobenzene		99	70-130
Toluene-d8		103	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MS

Sample ID: UA31024-004MS
Batch: 96369
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	ND	2000	2000		20	98	60-140	02/01/2019 1917
Benzene	ND	1000	940		20	94	70-130	02/01/2019 1917
Bromodichloromethane	ND	1000	880		20	88	70-130	02/01/2019 1917
Bromoform	ND	1000	920		20	92	70-130	02/01/2019 1917
Bromomethane (Methyl bromide)	ND	1000	1100		20	110	70-130	02/01/2019 1917
2-Butanone (MEK)	ND	2000	1900		20	94	70-130	02/01/2019 1917
Carbon disulfide	ND	1000	810		20	81	70-130	02/01/2019 1917
Carbon tetrachloride	ND	1000	960		20	96	70-130	02/01/2019 1917
Chlorobenzene	ND	1000	980		20	98	70-130	02/01/2019 1917
Chloroethane	ND	1000	1100		20	108	70-130	02/01/2019 1917
Chloroform	ND	1000	870		20	87	70-130	02/01/2019 1917
Chloromethane (Methyl chloride)	ND	1000	890		20	89	60-140	02/01/2019 1917
Cyclohexane	ND	1000	970		20	97	70-130	02/01/2019 1917
1,2-Dibromo-3-chloropropane (DBCP)	ND	1000	1000		20	102	70-130	02/01/2019 1917
Dibromochloromethane	ND	1000	930		20	93	70-130	02/01/2019 1917
1,2-Dibromoethane (EDB)	ND	1000	1000		20	102	70-130	02/01/2019 1917
1,2-Dichlorobenzene	ND	1000	970		20	97	70-130	02/01/2019 1917
1,3-Dichlorobenzene	ND	1000	950		20	95	70-130	02/01/2019 1917
1,4-Dichlorobenzene	ND	1000	980		20	98	70-130	02/01/2019 1917
Dichlorodifluoromethane	ND	1000	900		20	90	60-140	02/01/2019 1917
1,1-Dichloroethane	ND	1000	880		20	88	70-130	02/01/2019 1917
1,2-Dichloroethane	ND	1000	930		20	93	70-130	02/01/2019 1917
1,1-Dichloroethene	ND	1000	890		20	89	70-130	02/01/2019 1917
cis-1,2-Dichloroethene	ND	1000	860		20	86	70-130	02/01/2019 1917
trans-1,2-Dichloroethene	ND	1000	870		20	87	70-130	02/01/2019 1917
1,2-Dichloropropane	ND	1000	810		20	81	70-130	02/01/2019 1917
cis-1,3-Dichloropropene	ND	1000	810		20	81	70-130	02/01/2019 1917
trans-1,3-Dichloropropene	ND	1000	800		20	80	70-130	02/01/2019 1917
Ethylbenzene	ND	1000	980		20	98	70-130	02/01/2019 1917
2-Hexanone	ND	2000	2000		20	102	70-130	02/01/2019 1917
Isopropylbenzene	ND	1000	950		20	95	70-130	02/01/2019 1917
Methyl acetate	ND	1000	880		20	88	70-130	02/01/2019 1917
Methyl tertiary butyl ether (MTBE)	ND	1000	880		20	88	70-130	02/01/2019 1917
4-Methyl-2-pentanone	ND	2000	2000		20	101	70-130	02/01/2019 1917
Methylcyclohexane	ND	1000	980		20	98	70-130	02/01/2019 1917
Methylene chloride	ND	1000	880		20	88	70-130	02/01/2019 1917
Styrene	ND	1000	970		20	97	70-130	02/01/2019 1917
1,1,2,2-Tetrachloroethane	ND	1000	940		20	94	70-130	02/01/2019 1917
Tetrachloroethene	920	1000	1800		20	91	70-130	02/01/2019 1917
Toluene	ND	1000	940		20	94	70-130	02/01/2019 1917
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	1000	930		20	93	70-130	02/01/2019 1917
1,2,4-Trichlorobenzene	ND	1000	960		20	96	70-130	02/01/2019 1917
1,1,1-Trichloroethane	ND	1000	910		20	91	70-130	02/01/2019 1917
1,1,2-Trichloroethane	ND	1000	920		20	92	70-130	02/01/2019 1917

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MS

Sample ID: UA31024-004MS
Batch: 96369
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	ND	1000	950		20	95	70-130	02/01/2019 1917
Trichlorofluoromethane	ND	1000	970		20	97	70-130	02/01/2019 1917
Vinyl chloride	ND	1000	960		20	96	70-130	02/01/2019 1917
Xylenes (total)	ND	2000	2000		20	99	70-130	02/01/2019 1917

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		99	70-130
Bromofluorobenzene		102	70-130
Toluene-d8		103	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MSD

Sample ID: UA31024-004MD
Batch: 96369
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	ND	2000	1800		20	90	9.0	60-140	20	02/01/2019 1940
Benzene	ND	1000	930		20	93	1.6	70-130	20	02/01/2019 1940
Bromodichloromethane	ND	1000	800		20	80	10	70-130	20	02/01/2019 1940
Bromoform	ND	1000	840		20	84	9.7	70-130	20	02/01/2019 1940
Bromomethane (Methyl bromide)	ND	1000	1000		20	104	5.9	70-130	20	02/01/2019 1940
2-Butanone (MEK)	ND	2000	1900		20	96	2.0	70-130	20	02/01/2019 1940
Carbon disulfide	ND	1000	750		20	75	6.7	70-130	20	02/01/2019 1940
Carbon tetrachloride	ND	1000	960		20	96	0.23	70-130	20	02/01/2019 1940
Chlorobenzene	ND	1000	950		20	95	2.7	70-130	20	02/01/2019 1940
Chloroethane	ND	1000	1000		20	101	6.6	70-130	20	02/01/2019 1940
Chloroform	ND	1000	900		20	90	3.3	70-130	20	02/01/2019 1940
Chloromethane (Methyl chloride)	ND	1000	890		20	89	0.41	60-140	20	02/01/2019 1940
Cyclohexane	ND	1000	1000		20	104	6.1	70-130	20	02/01/2019 1940
1,2-Dibromo-3-chloropropane (DBCP)	ND	1000	950		20	95	7.4	70-130	20	02/01/2019 1940
Dibromochloromethane	ND	1000	870		20	87	6.3	70-130	20	02/01/2019 1940
1,2-Dibromoethane (EDB)	ND	1000	990		20	99	2.8	70-130	20	02/01/2019 1940
1,2-Dichlorobenzene	ND	1000	950		20	95	1.5	70-130	20	02/01/2019 1940
1,3-Dichlorobenzene	ND	1000	930		20	93	2.2	70-130	20	02/01/2019 1940
1,4-Dichlorobenzene	ND	1000	930		20	93	4.5	70-130	20	02/01/2019 1940
Dichlorodifluoromethane	ND	1000	860		20	86	4.9	60-140	20	02/01/2019 1940
1,1-Dichloroethane	ND	1000	930		20	93	5.9	70-130	20	02/01/2019 1940
1,2-Dichloroethane	ND	1000	920		20	92	0.64	70-130	20	02/01/2019 1940
1,1-Dichloroethene	ND	1000	850		20	85	4.5	70-130	20	02/01/2019 1940
cis-1,2-Dichloroethene	ND	1000	890		20	89	3.9	70-130	20	02/01/2019 1940
trans-1,2-Dichloroethene	ND	1000	950		20	95	8.7	70-130	20	02/01/2019 1940
1,2-Dichloropropane	ND	1000	800		20	80	0.58	70-130	20	02/01/2019 1940
cis-1,3-Dichloropropene	ND	1000	720		20	72	11	70-130	20	02/01/2019 1940
trans-1,3-Dichloropropene	ND	1000	760		20	76	4.0	70-130	20	02/01/2019 1940
Ethylbenzene	ND	1000	940		20	94	4.8	70-130	20	02/01/2019 1940
2-Hexanone	ND	2000	1900		20	97	5.7	70-130	20	02/01/2019 1940
Isopropylbenzene	ND	1000	930		20	93	1.9	70-130	20	02/01/2019 1940
Methyl acetate	ND	1000	810		20	81	8.8	70-130	20	02/01/2019 1940
Methyl tertiary butyl ether (MTBE)	ND	1000	960		20	96	8.2	70-130	20	02/01/2019 1940
4-Methyl-2-pentanone	ND	2000	1800		20	90	12	70-130	20	02/01/2019 1940
Methylcyclohexane	ND	1000	970		20	97	0.95	70-130	20	02/01/2019 1940
Methylene chloride	ND	1000	850		20	85	3.4	70-130	20	02/01/2019 1940
Styrene	ND	1000	930		20	93	4.1	70-130	20	02/01/2019 1940
1,1,2,2-Tetrachloroethane	ND	1000	910		20	91	3.0	70-130	20	02/01/2019 1940
Tetrachloroethene	920	1000	1800		20	88	1.9	70-130	20	02/01/2019 1940
Toluene	ND	1000	930		20	93	1.2	70-130	20	02/01/2019 1940
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	1000	910		20	91	3.0	70-130	20	02/01/2019 1940
1,2,4-Trichlorobenzene	ND	1000	920		20	92	4.7	70-130	20	02/01/2019 1940
1,1,1-Trichloroethane	ND	1000	940		20	94	2.7	70-130	20	02/01/2019 1940
1,1,2-Trichloroethane	ND	1000	890		20	89	3.2	70-130	20	02/01/2019 1940

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MSD

Sample ID: UA31024-004MD
Batch: 96369
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Trichloroethene	ND	1000	940		20	94	1.9	70-130	20	02/01/2019 1940
Trichlorofluoromethane	ND	1000	950		20	95	2.5	70-130	20	02/01/2019 1940
Vinyl chloride	ND	1000	970		20	97	1.3	70-130	20	02/01/2019 1940
Xylenes (total)	ND	2000	1900		20	95	4.6	70-130	20	02/01/2019 1940

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		99	70-130
Bromofluorobenzene		99	70-130
Toluene-d8		103	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ96586-001
Batch: 96586
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Acetone	ND		1	20	2.0	ug/L	02/04/2019 2045
Benzene	ND		1	1.0	0.40	ug/L	02/04/2019 2045
Bromodichloromethane	ND		1	1.0	0.40	ug/L	02/04/2019 2045
Bromoform	ND		1	1.0	0.40	ug/L	02/04/2019 2045
Bromomethane (Methyl bromide)	ND		1	2.0	0.40	ug/L	02/04/2019 2045
2-Butanone (MEK)	ND		1	10	2.0	ug/L	02/04/2019 2045
Carbon disulfide	ND		1	1.0	0.40	ug/L	02/04/2019 2045
Carbon tetrachloride	ND		1	1.0	0.40	ug/L	02/04/2019 2045
Chlorobenzene	ND		1	1.0	0.40	ug/L	02/04/2019 2045
Chloroethane	ND		1	2.0	0.40	ug/L	02/04/2019 2045
Chloroform	ND		1	1.0	0.40	ug/L	02/04/2019 2045
Chloromethane (Methyl chloride)	ND		1	1.0	0.50	ug/L	02/04/2019 2045
Cyclohexane	ND		1	1.0	0.40	ug/L	02/04/2019 2045
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	0.40	ug/L	02/04/2019 2045
Dibromochloromethane	ND		1	1.0	0.40	ug/L	02/04/2019 2045
1,2-Dibromoethane (EDB)	ND		1	1.0	0.40	ug/L	02/04/2019 2045
1,2-Dichlorobenzene	ND		1	1.0	0.40	ug/L	02/04/2019 2045
1,3-Dichlorobenzene	ND		1	1.0	0.40	ug/L	02/04/2019 2045
1,4-Dichlorobenzene	ND		1	1.0	0.40	ug/L	02/04/2019 2045
Dichlorodifluoromethane	ND		1	2.0	0.60	ug/L	02/04/2019 2045
1,1-Dichloroethane	ND		1	1.0	0.40	ug/L	02/04/2019 2045
1,2-Dichloroethane	ND		1	1.0	0.40	ug/L	02/04/2019 2045
1,1-Dichloroethene	ND		1	1.0	0.40	ug/L	02/04/2019 2045
cis-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	02/04/2019 2045
trans-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	02/04/2019 2045
1,2-Dichloropropane	ND		1	1.0	0.40	ug/L	02/04/2019 2045
cis-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	02/04/2019 2045
trans-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	02/04/2019 2045
Ethylbenzene	ND		1	1.0	0.40	ug/L	02/04/2019 2045
2-Hexanone	ND		1	10	2.0	ug/L	02/04/2019 2045
Isopropylbenzene	ND		1	1.0	0.40	ug/L	02/04/2019 2045
Methyl acetate	ND		1	1.0	0.40	ug/L	02/04/2019 2045
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	0.40	ug/L	02/04/2019 2045
4-Methyl-2-pentanone	ND		1	10	2.0	ug/L	02/04/2019 2045
Methylcyclohexane	ND		1	5.0	0.40	ug/L	02/04/2019 2045
Methylene chloride	ND		1	1.0	0.40	ug/L	02/04/2019 2045
Styrene	ND		1	1.0	0.41	ug/L	02/04/2019 2045
1,1,2,2-Tetrachloroethane	ND		1	1.0	0.40	ug/L	02/04/2019 2045
Tetrachloroethene	ND		1	1.0	0.40	ug/L	02/04/2019 2045
Toluene	ND		1	1.0	0.40	ug/L	02/04/2019 2045
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	0.42	ug/L	02/04/2019 2045
1,2,4-Trichlorobenzene	ND		1	1.0	0.40	ug/L	02/04/2019 2045
1,1,1-Trichloroethane	ND		1	1.0	0.40	ug/L	02/04/2019 2045
1,1,2-Trichloroethane	ND		1	1.0	0.40	ug/L	02/04/2019 2045

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ96586-001
Batch: 96586
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Trichloroethene	ND		1	1.0	0.40	ug/L	02/04/2019 2045
Trichlorofluoromethane	ND		1	1.0	0.40	ug/L	02/04/2019 2045
Vinyl chloride	ND		1	1.0	0.40	ug/L	02/04/2019 2045
Xylenes (total)	ND		1	1.0	0.40	ug/L	02/04/2019 2045

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		97	70-130
Bromofluorobenzene		84	70-130
Toluene-d8		89	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ96586-002
Batch: 96586
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	40	43		1	109	60-140	02/04/2019 1947
Benzene	20	22		1	109	70-130	02/04/2019 1947
Bromodichloromethane	20	17		1	85	70-130	02/04/2019 1947
Bromoform	20	21		1	104	70-130	02/04/2019 1947
Bromomethane (Methyl bromide)	20	16		1	79	70-130	02/04/2019 1947
2-Butanone (MEK)	40	48		1	121	70-130	02/04/2019 1947
Carbon disulfide	20	21		1	106	70-130	02/04/2019 1947
Carbon tetrachloride	20	23		1	116	70-130	02/04/2019 1947
Chlorobenzene	20	21		1	103	70-130	02/04/2019 1947
Chloroethane	20	17		1	83	70-130	02/04/2019 1947
Chloroform	20	23		1	114	70-130	02/04/2019 1947
Chloromethane (Methyl chloride)	20	15		1	74	60-140	02/04/2019 1947
Cyclohexane	20	25		1	125	70-130	02/04/2019 1947
1,2-Dibromo-3-chloropropane (DBCP)	20	22		1	111	70-130	02/04/2019 1947
Dibromochloromethane	20	18		1	92	70-130	02/04/2019 1947
1,2-Dibromoethane (EDB)	20	19		1	94	70-130	02/04/2019 1947
1,2-Dichlorobenzene	20	21		1	104	70-130	02/04/2019 1947
1,3-Dichlorobenzene	20	20		1	102	70-130	02/04/2019 1947
1,4-Dichlorobenzene	20	20		1	100	70-130	02/04/2019 1947
Dichlorodifluoromethane	20	19		1	93	60-140	02/04/2019 1947
1,1-Dichloroethane	20	22		1	111	70-130	02/04/2019 1947
1,2-Dichloroethane	20	22		1	109	70-130	02/04/2019 1947
1,1-Dichloroethene	20	21		1	104	70-130	02/04/2019 1947
cis-1,2-Dichloroethene	20	23		1	114	70-130	02/04/2019 1947
trans-1,2-Dichloroethene	20	22		1	111	70-130	02/04/2019 1947
1,2-Dichloropropane	20	17		1	83	70-130	02/04/2019 1947
cis-1,3-Dichloropropene	20	17		1	86	70-130	02/04/2019 1947
trans-1,3-Dichloropropene	20	17		1	83	70-130	02/04/2019 1947
Ethylbenzene	20	21		1	107	70-130	02/04/2019 1947
2-Hexanone	40	36		1	90	70-130	02/04/2019 1947
Isopropylbenzene	20	21		1	105	70-130	02/04/2019 1947
Methyl acetate	20	20		1	102	70-130	02/04/2019 1947
Methyl tertiary butyl ether (MTBE)	20	23		1	114	70-130	02/04/2019 1947
4-Methyl-2-pentanone	40	33		1	84	70-130	02/04/2019 1947
Methylcyclohexane	20	20		1	102	70-130	02/04/2019 1947
Methylene chloride	20	21		1	103	70-130	02/04/2019 1947
Styrene	20	21		1	106	70-130	02/04/2019 1947
1,1,2,2-Tetrachloroethane	20	20		1	101	70-130	02/04/2019 1947
Tetrachloroethene	20	19		1	94	70-130	02/04/2019 1947
Toluene	20	19		1	97	70-130	02/04/2019 1947
1,1,2-Trichloro-1,2,2-Trifluoroethane	20	20		1	102	70-130	02/04/2019 1947
1,2,4-Trichlorobenzene	20	20		1	102	70-130	02/04/2019 1947
1,1,1-Trichloroethane	20	23		1	115	70-130	02/04/2019 1947
1,1,2-Trichloroethane	20	19		1	93	70-130	02/04/2019 1947

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ96586-002
Batch: 96586
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	20	20		1	99	70-130	02/04/2019 1947
Trichlorofluoromethane	20	17		1	86	70-130	02/04/2019 1947
Vinyl chloride	20	17		1	83	70-130	02/04/2019 1947
Xylenes (total)	40	42		1	106	70-130	02/04/2019 1947

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		94	70-130
Bromofluorobenzene		83	70-130
Toluene-d8		80	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Shealy Environmental Services, Inc.
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Volatile Organic Compounds by GC/MS - MS

Sample ID: UA31024-006MS
Batch: 96586
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	31	1000	1600	N	10	156	60-140	02/05/2019 0350
Benzene	ND	500	540		10	107	70-130	02/05/2019 0350
Bromodichloromethane	ND	500	530		10	106	70-130	02/05/2019 0350
Bromoform	ND	500	580		10	117	70-130	02/05/2019 0350
Bromomethane (Methyl bromide)	ND	500	530		10	107	70-130	02/05/2019 0350
2-Butanone (MEK)	ND	1000	1100		10	111	70-130	02/05/2019 0350
Carbon disulfide	ND	500	760	N	10	153	70-130	02/05/2019 0350
Carbon tetrachloride	ND	500	630		10	126	70-130	02/05/2019 0350
Chlorobenzene	ND	500	520		10	104	70-130	02/05/2019 0350
Chloroethane	ND	500	570		10	114	70-130	02/05/2019 0350
Chloroform	ND	500	570		10	114	70-130	02/05/2019 0350
Chloromethane (Methyl chloride)	ND	500	570		10	115	60-140	02/05/2019 0350
Cyclohexane	ND	500	570		10	115	70-130	02/05/2019 0350
1,2-Dibromo-3-chloropropane (DBCP)	ND	500	650		10	129	70-130	02/05/2019 0350
Dibromochloromethane	ND	500	540		10	109	70-130	02/05/2019 0350
1,2-Dibromoethane (EDB)	ND	500	530		10	106	70-130	02/05/2019 0350
1,2-Dichlorobenzene	ND	500	540		10	108	70-130	02/05/2019 0350
1,3-Dichlorobenzene	ND	500	500		10	100	70-130	02/05/2019 0350
1,4-Dichlorobenzene	ND	500	500		10	100	70-130	02/05/2019 0350
Dichlorodifluoromethane	ND	500	620		10	125	60-140	02/05/2019 0350
1,1-Dichloroethane	ND	500	730	N	10	146	70-130	02/05/2019 0350
1,2-Dichloroethane	ND	500	560		10	112	70-130	02/05/2019 0350
1,1-Dichloroethene	ND	500	760	N	10	153	70-130	02/05/2019 0350
cis-1,2-Dichloroethene	ND	500	570		10	114	70-130	02/05/2019 0350
trans-1,2-Dichloroethene	ND	500	740	N	10	148	70-130	02/05/2019 0350
1,2-Dichloropropane	ND	500	450		10	90	70-130	02/05/2019 0350
cis-1,3-Dichloropropene	ND	500	460		10	91	70-130	02/05/2019 0350
trans-1,3-Dichloropropene	ND	500	440		10	89	70-130	02/05/2019 0350
Ethylbenzene	ND	500	550		10	110	70-130	02/05/2019 0350
2-Hexanone	ND	1000	1000		10	100	70-130	02/05/2019 0350
Isopropylbenzene	ND	500	570		10	113	70-130	02/05/2019 0350
Methyl acetate	ND	500	610		10	121	70-130	02/05/2019 0350
Methyl tertiary butyl ether (MTBE)	ND	500	720	N	10	144	70-130	02/05/2019 0350
4-Methyl-2-pentanone	ND	1000	1000		10	100	70-130	02/05/2019 0350
Methylcyclohexane	ND	500	570		10	113	70-130	02/05/2019 0350
Methylene chloride	ND	500	690	N	10	138	70-130	02/05/2019 0350
Styrene	ND	500	560		10	111	70-130	02/05/2019 0350
1,1,2,2-Tetrachloroethane	ND	500	460		10	92	70-130	02/05/2019 0350
Tetrachloroethene	480	500	1100		10	115	70-130	02/05/2019 0350
Toluene	ND	500	520		10	105	70-130	02/05/2019 0350
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	500	750	N	10	150	70-130	02/05/2019 0350
1,2,4-Trichlorobenzene	ND	500	630		10	127	70-130	02/05/2019 0350
1,1,1-Trichloroethane	ND	500	610		10	121	70-130	02/05/2019 0350
1,1,2-Trichloroethane	ND	500	510		10	102	70-130	02/05/2019 0350

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MS

Sample ID: UA31024-006MS
Batch: 96586
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	ND	500	550		10	109	70-130	02/05/2019 0350
Trichlorofluoromethane	ND	500	660	N	10	132	70-130	02/05/2019 0350
Vinyl chloride	ND	500	660	N	10	131	70-130	02/05/2019 0350
Xylenes (total)	ND	1000	1100		10	109	70-130	02/05/2019 0350

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		97	70-130
Bromofluorobenzene		90	70-130
Toluene-d8		88	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Shealy Environmental Services, Inc.
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Volatile Organic Compounds by GC/MS - MSD

Sample ID: UA31024-006MD
Batch: 96586
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	31	1000	1300	+	10	126	21	60-140	20	02/05/2019 0413
Benzene	ND	500	510		10	101	5.5	70-130	20	02/05/2019 0413
Bromodichloromethane	ND	500	530		10	106	0.60	70-130	20	02/05/2019 0413
Bromoform	ND	500	530		10	106	9.5	70-130	20	02/05/2019 0413
Bromomethane (Methyl bromide)	ND	500	500		10	101	5.5	70-130	20	02/05/2019 0413
2-Butanone (MEK)	ND	1000	1300		10	130	15	70-130	20	02/05/2019 0413
Carbon disulfide	ND	500	640		10	129	17	70-130	20	02/05/2019 0413
Carbon tetrachloride	ND	500	620		10	124	2.1	70-130	20	02/05/2019 0413
Chlorobenzene	ND	500	520		10	104	0.15	70-130	20	02/05/2019 0413
Chloroethane	ND	500	550		10	109	4.2	70-130	20	02/05/2019 0413
Chloroform	ND	500	570		10	113	1.2	70-130	20	02/05/2019 0413
Chloromethane (Methyl chloride)	ND	500	470	+	10	93	21	60-140	20	02/05/2019 0413
Cyclohexane	ND	500	620		10	123	7.0	70-130	20	02/05/2019 0413
1,2-Dibromo-3-chloropropane (DBCP)	ND	500	540		10	108	18	70-130	20	02/05/2019 0413
Dibromochloromethane	ND	500	520		10	104	4.4	70-130	20	02/05/2019 0413
1,2-Dibromoethane (EDB)	ND	500	530		10	106	0.16	70-130	20	02/05/2019 0413
1,2-Dichlorobenzene	ND	500	520		10	105	2.7	70-130	20	02/05/2019 0413
1,3-Dichlorobenzene	ND	500	520		10	103	2.6	70-130	20	02/05/2019 0413
1,4-Dichlorobenzene	ND	500	510		10	102	1.9	70-130	20	02/05/2019 0413
Dichlorodifluoromethane	ND	500	520		10	105	17	60-140	20	02/05/2019 0413
1,1-Dichloroethane	ND	500	610		10	122	18	70-130	20	02/05/2019 0413
1,2-Dichloroethane	ND	500	510		10	103	8.6	70-130	20	02/05/2019 0413
1,1-Dichloroethene	ND	500	640		10	127	18	70-130	20	02/05/2019 0413
cis-1,2-Dichloroethene	ND	500	630		10	127	11	70-130	20	02/05/2019 0413
trans-1,2-Dichloroethene	ND	500	620		10	124	18	70-130	20	02/05/2019 0413
1,2-Dichloropropane	ND	500	470		10	95	5.1	70-130	20	02/05/2019 0413
cis-1,3-Dichloropropene	ND	500	470		10	94	2.6	70-130	20	02/05/2019 0413
trans-1,3-Dichloropropene	ND	500	440		10	88	0.64	70-130	20	02/05/2019 0413
Ethylbenzene	ND	500	550		10	109	0.36	70-130	20	02/05/2019 0413
2-Hexanone	ND	1000	1000		10	105	4.6	70-130	20	02/05/2019 0413
Isopropylbenzene	ND	500	550		10	110	2.4	70-130	20	02/05/2019 0413
Methyl acetate	ND	500	550		10	110	9.8	70-130	20	02/05/2019 0413
Methyl tertiary butyl ether (MTBE)	ND	500	610		10	122	16	70-130	20	02/05/2019 0413
4-Methyl-2-pentanone	ND	1000	1100		10	108	7.3	70-130	20	02/05/2019 0413
Methylcyclohexane	ND	500	610		10	123	8.0	70-130	20	02/05/2019 0413
Methylene chloride	ND	500	580		10	117	17	70-130	20	02/05/2019 0413
Styrene	ND	500	540		10	108	3.0	70-130	20	02/05/2019 0413
1,1,2,2-Tetrachloroethane	ND	500	500		10	100	8.4	70-130	20	02/05/2019 0413
Tetrachloroethene	480	500	1000		10	109	2.8	70-130	20	02/05/2019 0413
Toluene	ND	500	530		10	107	1.5	70-130	20	02/05/2019 0413
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	500	640		10	128	16	70-130	20	02/05/2019 0413
1,2,4-Trichlorobenzene	ND	500	530		10	107	17	70-130	20	02/05/2019 0413
1,1,1-Trichloroethane	ND	500	590		10	118	2.7	70-130	20	02/05/2019 0413
1,1,2-Trichloroethane	ND	500	510		10	102	0.72	70-130	20	02/05/2019 0413

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MSD

Sample ID: UA31024-006MD
Batch: 96586
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Trichloroethene	ND	500	560		10	111	1.9	70-130	20	02/05/2019 0413
Trichlorofluoromethane	ND	500	550		10	109	19	70-130	20	02/05/2019 0413
Vinyl chloride	ND	500	530	+	10	106	22	70-130	20	02/05/2019 0413
Xylenes (total)	ND	1000	1100		10	108	0.83	70-130	20	02/05/2019 0413

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		85	70-130
Bromofluorobenzene		94	70-130
Toluene-d8		91	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Chain of Custody

and

Miscellaneous Documents

SHEALY ENVIRONMENTAL SERVICES, INC.
106 Vantage Point Drive • West Columbia, SC 29172
Telephone No. 803-791-9700 Fax No. 803-791-9111
www.shealylab.com

SHEALY Chain of Custody Record

Number 91067

Client: TRC	Report to Contact: Lisa Clark	Telephone No. / E-mail:	Quote No.
Address: 50 International Dr Suite 150	Sampler's Signature: X	Analysis (Attach list if more space is needed)	Page 1 of 1
City: Greenville State: SC Zip Code: 29615	Printed Name: Benjamin Medlin		
Project Name: WPH Clemson			UA31024
Project No.: 300688.0.0.2	P.O. No.		

Sample ID / Description (Containers for each sample may be combined on one line.)	Date 2019	Time	Grab(G) or Composite(C)	Matrix: Aqueous	Matrix: Solid	Matrix: Non Aqueous	No. of Containers by Preservative Type: Unpres.	HNO3	H2SO4	HCl	NaOH	ZnAc NaOH	VOCs	Chloride, Sulfate Bromide	Nitrate	Remarks / Cooler I.D.
TBLK-19104	1	1	G	X						2			X			
RMW-16	1-30	1215	G	X						3			X			
RMW-17	1-30	1240	G	X						3			X			
RMW-17A	1-30	1430	G	X						3			X			
RMW-14	1-30	1625	G	X			2			3			X	X	X	
RMW-10	1-30	1635	G	X			2			3			X	X	X	

Turn Around Time Required (Prior lab approval required for expedited TAT.): ☐ Standard ☐ Rush (Specify)

Sample Disposal: ☐ Return to Client ☐ Disposal by Lab

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished by	1-30-19	1850	1. Received by: TRC Sample Storage	1-30-19	1850
2. Relinquished by: TRC Sample Storage	1/31/19	0854	2. Received by: [signature]	1/31/19	0854
3. Relinquished by: [signature]	1/31/19	1125	3. Received by: [signature]	1/31/19	11:25
4. Relinquished by: [signature]	1/31/19	1242	4. Laboratory received by: L Hite	1-31-19	1242

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on Ice (Circle) (Yes) No Ice Pack Receipt Temp 2.3 °C

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Client Copy

Document Number: F-AD-133 Effective Date: 09-01-2014

SHEALY ENVIRONMENTAL SERVICES, INC.

Shealy Environmental Services, Inc
Document Number: MB0018C-14

Page 1 of 1
Effective Date: 8/2/2018

Sample Receipt Checklist (SRC)

Client: TBC Cooler Inspected by/date: LKH / 1-31-19 Lot #: UA31024

Means of receipt: ☑ SESI ☐ Client ☐ UPS ☐ FedEx ☐ Other: _____

☐ Yes	☑ No		1. Were custody seals present on the cooler?
☐ Yes	☐ No	☑ NA	2. If custody seals were present, were they intact and unbroken?

pH Strip ID: _____ Chlorine Strip ID: _____ Tested by: _____

Original temperature upon receipt / Derived (Corrected) temperature upon receipt: %Solid Snap-Cup ID: _____

2.3 / 2.3 °C ___ / ___ °C ___ / ___ °C ___ / ___ °C

Method: ☑ Temperature Blank ☐ Against Bottles IR Gun ID: 5 IR Gun Correction Factor: 0 °C

Method of coolant: ☑ Wet Ice ☐ Ice Packs ☐ Dry Ice ☐ None

☐ Yes	☐ No	☑ NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).
☐ Yes	☐ No	☑ NA	4. Is the commercial courier's packing slip attached to this form?
☑ Yes	☐ No		5. Were proper custody procedures (relinquished/received) followed?
☑ Yes	☐ No		6. Were sample IDs listed on the COC?
☑ Yes	☐ No		7. Were sample IDs listed on all sample containers?
☑ Yes	☐ No		8. Was collection date & time listed on the COC?
☑ Yes	☐ No		9. Was collection date & time listed on all sample containers?
☑ Yes	☐ No		10. Did all container label information (ID, date, time) agree with the COC?
☑ Yes	☐ No		11. Were tests to be performed listed on the COC?
☑ Yes	☐ No		12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)? _____
☑ Yes	☐ No		13. Was adequate sample volume available?
☑ Yes	☐ No		14. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
☐ Yes	☑ No		15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
☐ Yes	☑ No	☐ NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (¼"or 6mm in diameter) in any of the VOA vials?
☐ Yes	☐ No	☑ NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?
☐ Yes	☐ No	☑ NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
☐ Yes	☐ No	☑ NA	19. Were all applicable NH_3/TKN/cyanide/phenol/625 (< 0.5mg/L) samples free of residual chlorine?
☐ Yes	☐ No	☑ NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc…) correctly transcribed from the COC into the comment section in LIMS?
☐ Yes	☑ No		21. Was the quote number listed on the container label? If yes, Quote # _____

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) _____ were received incorrectly preserved and were adjusted accordingly in sample receiving with _____ mL of circle one: H_2SO_4, HNO_3, HCl, NaOH using SR # _____.
Time of preservation _____. If more than one preservative is needed, please note in the comments below.

Sample(s) _____ were received with bubbles >6 mm in diameter.

Samples(s) _____ were received with TRC > 0.5 mg/L (If #19 is ***no***) and were adjusted accordingly in sample receiving with sodium thiosulfate ($Na_2S_2O_3$) with Shealy ID: _____.

SR barcode labels applied by: LKH Date: 1-31-19

Comments:

SHEALY ENVIRONMENTAL SERVICES, INC.

Report of Analysis

TRC Companies, Inc.
50 International Dr.
Suite 150
Greenville, SC 29615
Attention: Lisa Clark

Project Name: WPH Clemson

Project Number: 300688.0000.0000.0002

Lot Number:**UB08023**

Date Completed:02/18/2019

02/19/2019 11:37 AM
Approved and released by:
Lab Director - Greenville: Lucas Odom

The electronic signature above is the equivalent of a handwritten signature.

Shealy Environmental Services, Inc.
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Laboratory Data Quality Review Notes

Project Name: WPH-Clemson, SC

Project Number: 300688.0000.0000.000002

Lab Report: UB08023 Shealy Environmental Services
Three groundwater samples were analyzed for volatile organic compounds (VOCs), chloride, bromide, sulfate, and nitrate. One trip blank was analyzed for VOCs.

Chain of Custody, Sample Temperature, Sample Preservation: Chain of custody (CoC) signed; sample temperature <6 ^{o}C upon arrival at the laboratory; samples were preserved properly.

Hold Time: Samples analyzed within hold time.

Surrogates: VOC surrogate recoveries are within QC limits.

Method Blank: Method blanks were free of detections except as follows:

- Sulfate was detected at 0.29 J mg/L sulfate method blank associated with batch 97605. A comparable concentration (*i.e.*, within 5X the concentration in the method blanks) was detected in groundwater sample RMW-05A. **A "u" qualifier was assigned to sulfate in RMW-05A.**
- Chloride was detected at 0.20 J mg/L in chloride method blank associated with batch 97603. Comparable concentrations (*i.e.*, within 5X the concentration in the method blanks) were not detected in the groundwater samples. No qualifiers were assigned.
- 1,2,4-Trichlorobenzene was detected at 0.42 J ug/L in the method blank associated with batch 97430. Comparable concentrations (*i.e.*, within 5X the concentration in the method blanks) were not detected in the groundwater samples. No qualifiers were assigned.

Trip Blank: Trip blank TBLK-19102 had a detection of acetone at 2.6 J ug/L. There are detections of acetone in RMW-05A and RMW-24 within 10X the acetone concentration in TBLK-19102 which could be assigned a "u" qualifier. The data reviewer chose to not add a "u" qualifier to these acetone detections.

Field Blank: A field blank was not collected with these samples.

Equipment Rinse Blank: A rinsate blank was not collected with these samples.

LCS/LCSD: LCS recoveries for anions and VOCs are within QC Limits. LCSD analyses were not performed.

MS/MSD: RMW-05A were used for nitrate MS/MSD analyses. RMW-24 was used for bromide and VOC MS/MSD analyses. MS/MSD recoveries and RPDs were within QC limits except as follows:

- The RMW-24 MSD had a recovery of carbon tetrachloride that was 2% above the upper QC limit. Carbon tetrachloride was not detected in the unspiked RMW-24 parent sample. No qualifier was assigned.

Duplicates: A field duplicate was not collected with these samples.

Data review performed by: Terry Hertz; TRC Environmental Corp.; 2/19/2019

Case Narrative
TRC Companies, Inc.
Lot Number: UB08023

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

Chloride

The method blank associated with batch 97603 yielded a "J" value detection for Chloride. No corrective action is required as this is an estimated value recovered below the LOQ. Associated detections have been qualified with a "B".

Sulfate

The method blank associated with batch 97605 yielded a "J" value detection for Sulfate. No corrective action is required as this is an estimated value recovered below the LOQ. Associated detections have been qualified with a "B".

VOCs by GC/MS

The method blank associated with batch 97430 yielded a "J" value detection for 1,2,4-Trichlorobenzene. No corrective action is required as this is an estimated value recovered below the LOQ. Associated detections have been qualified with a "B".

The MSD associated with batch 97430 recovered Carbon Tetrachloride marginally above method criteria likely due to matrix interferences. The MS recovered within method criteria at 115%.

Sample Summary
TRC Companies, Inc.
Lot Number: UB08023

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	RMW-05A	Aqueous	02/07/2019 1530	02/08/2019
002	RMW-24	Aqueous	02/07/2019 1240	02/08/2019
003	RMW-22A	Aqueous	02/07/2019 1505	02/08/2019
004	TBLK-19109	Aqueous	02/07/2019	02/08/2019

(4 samples)

Detection Summary

TRC Companies, Inc.

Lot Number: UB08023

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	RMW-05A	Aqueous	Bromide	300.0	0.10	J	mg/L	5
001	RMW-05A	Aqueous	Chloride	300.0	2.0	B	mg/L	5
001	RMW-05A	Aqueous	Nitrate - N	353.2	0.50		mg/L	5
001	RMW-05A	Aqueous	Sulfate	300.0	1.2	B	mg/L	5
001	RMW-05A	Aqueous	Acetone	8260B	12	J	ug/L	5
001	RMW-05A	Aqueous	Chloroform	8260B	12		ug/L	5
002	RMW-24	Aqueous	Bromide	300.0	0.66		mg/L	7
002	RMW-24	Aqueous	Chloride	300.0	120	B	mg/L	7
002	RMW-24	Aqueous	Nitrate - N	353.2	0.70		mg/L	7
002	RMW-24	Aqueous	Sulfate	300.0	72	B	mg/L	7
002	RMW-24	Aqueous	Acetone	8260B	24		ug/L	7
002	RMW-24	Aqueous	Benzene	8260B	36		ug/L	7
002	RMW-24	Aqueous	Chlorobenzene	8260B	1.9		ug/L	7
002	RMW-24	Aqueous	Chloroform	8260B	1.3		ug/L	7
002	RMW-24	Aqueous	Cyclohexane	8260B	70		ug/L	7
002	RMW-24	Aqueous	1,2-Dichlorobenzene	8260B	6.3		ug/L	7
002	RMW-24	Aqueous	1,4-Dichlorobenzene	8260B	0.89	J	ug/L	7
002	RMW-24	Aqueous	1,2-Dichloroethane	8260B	2.3		ug/L	7
002	RMW-24	Aqueous	Ethylbenzene	8260B	28		ug/L	8
002	RMW-24	Aqueous	Isopropylbenzene	8260B	51		ug/L	8
002	RMW-24	Aqueous	Methylcyclohexane	8260B	22		ug/L	8
002	RMW-24	Aqueous	Styrene	8260B	3.9		ug/L	8
002	RMW-24	Aqueous	Tetrachloroethene	8260B	0.67	J	ug/L	8
002	RMW-24	Aqueous	Toluene	8260B	33		ug/L	8
002	RMW-24	Aqueous	Trichloroethene	8260B	0.64	J	ug/L	8
002	RMW-24	Aqueous	Xylenes (total)	8260B	63		ug/L	8
003	RMW-22A	Aqueous	Tetrachloroethene	8260B	410		ug/L	9
004	TBLK-19109	Aqueous	Acetone	8260B	2.6	J	ug/L	11

(28 detections)

Client: TRC Companies, Inc.
Description: RMW-05A
Date Sampled: 02/07/2019 1530
Date Received: 02/08/2019

Laboratory ID: UB08023-001
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2		(Bromide) 300.0	1	02/15/2019 2202	SLU		97862
1		(Chloride) 300.0	1	02/14/2019 2127	SLU		97603
1		(Nitrate - N) 353.2	1	02/08/2019 2207	MDD		97042
1		(Sulfate) 300.0	1	02/14/2019 2127	SLU		97605

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.10	J	0.20	0.050	mg/L	2
Chloride		300.0	2.0	B	1.0	0.20	mg/L	1
Nitrate - N		353.2	0.50		0.020	0.0015	mg/L	1
Sulfate		300.0	1.2	B	1.0	0.20	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/13/2019 1558	BWS		97430

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	12	J	20	2.0	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260B	12		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
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Client: TRC Companies, Inc.
Description: RMW-05A
Date Sampled: 02/07/2019 1530
Date Received: 02/08/2019

Laboratory ID: UB08023-001
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/13/2019 1558	BWS		97430

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260B	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		110	70-130
Bromofluorobenzene		107	70-130
Toluene-d8		93	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
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E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: RMW-24
Date Sampled: 02/07/2019 1240
Date Received: 02/08/2019

Laboratory ID: UB08023-002
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2		(Bromide) 300.0	1	02/15/2019 2228	SLU		97862
1		(Chloride) 300.0	1	02/14/2019 2145	SLU		97603
1		(Nitrate - N) 353.2	1	02/08/2019 2211	MDD		97042
1		(Sulfate) 300.0	1	02/14/2019 2145	SLU		97605

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.66		0.20	0.050	mg/L	2
Chloride		300.0	120	B	1.0	0.20	mg/L	1
Nitrate - N		353.2	0.70		0.020	0.0015	mg/L	1
Sulfate		300.0	72	B	1.0	0.20	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	5030B	8260B	1	02/15/2019 0054	KGT		97613
3	5030B	8260B	1	02/15/2019 2330	MNS		97749

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	24		20	2.0	ug/L	2
Benzene	71-43-2	8260B	36		1.0	0.40	ug/L	2
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.40	ug/L	2
Bromoform	75-25-2	8260B	ND		1.0	0.40	ug/L	2
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.40	ug/L	2
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	2
Carbon disulfide	75-15-0	8260B	ND		1.0	0.40	ug/L	3
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.40	ug/L	2
Chlorobenzene	108-90-7	8260B	1.9		1.0	0.40	ug/L	2
Chloroethane	75-00-3	8260B	ND		2.0	0.40	ug/L	2
Chloroform	67-66-3	8260B	1.3		1.0	0.40	ug/L	2
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.50	ug/L	2
Cyclohexane	110-82-7	8260B	70		1.0	0.40	ug/L	2
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	0.40	ug/L	2
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.40	ug/L	2
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.40	ug/L	2
1,2-Dichlorobenzene	95-50-1	8260B	6.3		1.0	0.40	ug/L	2
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.40	ug/L	2
1,4-Dichlorobenzene	106-46-7	8260B	0.89	J	1.0	0.40	ug/L	2
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.60	ug/L	2
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.40	ug/L	2
1,2-Dichloroethane	107-06-2	8260B	2.3		1.0	0.40	ug/L	2
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.40	ug/L	2
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	0.40	ug/L	2
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.40	ug/L	2

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
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E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: RMW-24
Date Sampled: 02/07/2019 1240
Date Received: 02/08/2019

Laboratory ID: UB08023-002
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	5030B	8260B	1	02/15/2019 0054	KGT		97613
3	5030B	8260B	1	02/15/2019 2330	MNS		97749

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.40	ug/L	2
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.40	ug/L	2
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.40	ug/L	2
Ethylbenzene	100-41-4	8260B	28		1.0	0.40	ug/L	2
2-Hexanone	591-78-6	8260B	ND		10	2.0	ug/L	2
Isopropylbenzene	98-82-8	8260B	51		1.0	0.40	ug/L	2
Methyl acetate	79-20-9	8260B	ND		1.0	0.40	ug/L	2
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	2
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	2.0	ug/L	2
Methylcyclohexane	108-87-2	8260B	22		5.0	0.40	ug/L	2
Methylene chloride	75-09-2	8260B	ND		1.0	0.40	ug/L	2
Styrene	100-42-5	8260B	3.9		1.0	0.41	ug/L	2
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.40	ug/L	2
Tetrachloroethene	127-18-4	8260B	0.67	J	1.0	0.40	ug/L	2
Toluene	108-88-3	8260B	33		1.0	0.40	ug/L	2
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	0.42	ug/L	2
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.40	ug/L	2
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.40	ug/L	2
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.40	ug/L	2
Trichloroethene	79-01-6	8260B	0.64	J	1.0	0.40	ug/L	2
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	0.40	ug/L	2
Vinyl chloride	75-01-4	8260B	ND		1.0	0.40	ug/L	2
Xylenes (total)	1330-20-7	8260B	63		1.0	0.40	ug/L	2

Surrogate	Q	Run 2 % Recovery	Acceptance Limits	Q	Run 3 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		96	70-130		100	70-130
Bromofluorobenzene		106	70-130		94	70-130
Toluene-d8		107	70-130		100	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
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E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: RMW-22A
Date Sampled: 02/07/2019 1505
Date Received: 02/08/2019

Laboratory ID: UB08023-003
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	5	02/13/2019 1902	BWS		97430

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	ND		100	10	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	2.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	2.0	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	2.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		10	2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		50	10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	2.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	2.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	2.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		10	2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	2.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	2.5	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	2.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	2.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	2.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	2.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	2.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	2.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	2.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		10	3.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	2.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	2.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	2.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.0	2.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	2.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	2.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	2.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	2.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	2.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		50	10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	2.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	2.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	2.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		50	10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		25	2.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	2.0	ug/L	1
Styrene	100-42-5	8260B	ND		5.0	2.1	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	2.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	410		5.0	2.0	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	2.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: RMW-22A
Date Sampled: 02/07/2019 1505
Date Received: 02/08/2019

Laboratory ID: UB08023-003
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	5	02/13/2019 1902	BWS		97430

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	2.1	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	2.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	2.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	2.0	ug/L	1
Trichloroethene	79-01-6	8260B	ND		5.0	2.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	2.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		5.0	2.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	2.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		114	70-130
Bromofluorobenzene		107	70-130
Toluene-d8		92	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: TBLK-19109
Date Sampled: 02/07/2019
Date Received: 02/08/2019

Laboratory ID: UB08023-004
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/13/2019 1253	BWS		97430
2	5030B	8260B	1	02/14/2019 1231	BWS		97539

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	2.6	J	20	2.0	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: TBLK-19109
Date Sampled: 02/07/2019
Date Received: 02/08/2019

Laboratory ID: UB08023-004
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/13/2019 1253	BWS		97430
2	5030B	8260B	1	02/14/2019 1231	BWS		97539

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Toluene	108-88-3	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.40	ug/L	2
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260B	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Run 1 Acceptance Limits	Q	Run 2 % Recovery	Run 2 Acceptance Limits
1,2-Dichloroethane-d4		104	70-130		101	70-130
Bromofluorobenzene		99	70-130		97	70-130
Toluene-d8		88	70-130		104	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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QC Summary

Inorganic non-metals - MB

Sample ID: UQ97042-001
Batch: 97042
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Nitrate - N	ND		1	0.020	0.0015	mg/L	02/08/2019 2204

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: UQ97042-002
Batch: 97042
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	0.80	0.82		1	102	90-110	02/08/2019 2206

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MS

Sample ID: UB08023-001MS
Batch: 97042
Analytical Method: 353.2
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	0.50	0.80	1.3		1	95	90-110	02/08/2019 2208

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: UB08023-001MD
Batch: 97042
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Nitrate - N	0.50	0.80	1.3		1	99	2.2	90-110	20	02/08/2019 2210

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MB

Sample ID: UQ97603-001
Batch: 97603
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Chloride	0.20	J	1	1.0	0.20	mg/L	02/14/2019 1235

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - LCS

Sample ID: UQ97603-002
Batch: 97603
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Chloride	20	20		1	100	90-110	02/14/2019 1311

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MB

Sample ID: UQ97605-001
Batch: 97605
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Sulfate	0.29	J	1	1.0	0.20	mg/L	02/14/2019 1235

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: UQ97605-002
Batch: 97605
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Sulfate	20	20		1	100	90-110	02/14/2019 1311

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MB

Sample ID: UQ97862-001
Batch: 97862
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Bromide	ND		1	0.20	0.050	mg/L	02/15/2019 1447

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - LCS

Sample ID: UQ97862-002
Batch: 97862
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Bromide	8.0	8.5		1	106	90-110	02/15/2019 1539

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MS

Sample ID: UB08023-002MS
Batch: 97862
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Bromide	0.66	8.0	8.8		1	102	90-110	02/15/2019 2254

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: UB08023-002MD
Batch: 97862
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Bromide	0.66	8.0	8.8		1	102	0.00	90-110	20	02/15/2019 2320

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ97430-001
Batch: 97430
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Acetone	ND		1	20	2.0	ug/L	02/13/2019 1210
Benzene	ND		1	1.0	0.40	ug/L	02/13/2019 1210
Bromodichloromethane	ND		1	1.0	0.40	ug/L	02/13/2019 1210
Bromoform	ND		1	1.0	0.40	ug/L	02/13/2019 1210
Bromomethane (Methyl bromide)	ND		1	2.0	0.40	ug/L	02/13/2019 1210
2-Butanone (MEK)	ND		1	10	2.0	ug/L	02/13/2019 1210
Carbon disulfide	ND		1	1.0	0.40	ug/L	02/13/2019 1210
Carbon tetrachloride	ND		1	1.0	0.40	ug/L	02/13/2019 1210
Chlorobenzene	ND		1	1.0	0.40	ug/L	02/13/2019 1210
Chloroethane	ND		1	2.0	0.40	ug/L	02/13/2019 1210
Chloroform	ND		1	1.0	0.40	ug/L	02/13/2019 1210
Chloromethane (Methyl chloride)	ND		1	1.0	0.50	ug/L	02/13/2019 1210
Cyclohexane	ND		1	1.0	0.40	ug/L	02/13/2019 1210
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	0.40	ug/L	02/13/2019 1210
Dibromochloromethane	ND		1	1.0	0.40	ug/L	02/13/2019 1210
1,2-Dibromoethane (EDB)	ND		1	1.0	0.40	ug/L	02/13/2019 1210
1,2-Dichlorobenzene	ND		1	1.0	0.40	ug/L	02/13/2019 1210
1,3-Dichlorobenzene	ND		1	1.0	0.40	ug/L	02/13/2019 1210
1,4-Dichlorobenzene	ND		1	1.0	0.40	ug/L	02/13/2019 1210
Dichlorodifluoromethane	ND		1	2.0	0.60	ug/L	02/13/2019 1210
1,1-Dichloroethane	ND		1	1.0	0.40	ug/L	02/13/2019 1210
1,2-Dichloroethane	ND		1	1.0	0.40	ug/L	02/13/2019 1210
1,1-Dichloroethene	ND		1	1.0	0.40	ug/L	02/13/2019 1210
cis-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	02/13/2019 1210
trans-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	02/13/2019 1210
1,2-Dichloropropane	ND		1	1.0	0.40	ug/L	02/13/2019 1210
cis-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	02/13/2019 1210
trans-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	02/13/2019 1210
Ethylbenzene	ND		1	1.0	0.40	ug/L	02/13/2019 1210
2-Hexanone	ND		1	10	2.0	ug/L	02/13/2019 1210
Isopropylbenzene	ND		1	1.0	0.40	ug/L	02/13/2019 1210
Methyl acetate	ND		1	1.0	0.40	ug/L	02/13/2019 1210
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	0.40	ug/L	02/13/2019 1210
4-Methyl-2-pentanone	ND		1	10	2.0	ug/L	02/13/2019 1210
Methylcyclohexane	ND		1	5.0	0.40	ug/L	02/13/2019 1210
Methylene chloride	ND		1	1.0	0.40	ug/L	02/13/2019 1210
Styrene	ND		1	1.0	0.41	ug/L	02/13/2019 1210
1,1,2,2-Tetrachloroethane	ND		1	1.0	0.40	ug/L	02/13/2019 1210
Tetrachloroethene	ND		1	1.0	0.40	ug/L	02/13/2019 1210
Toluene	ND		1	1.0	0.40	ug/L	02/13/2019 1210
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	0.42	ug/L	02/13/2019 1210
1,2,4-Trichlorobenzene	0.42	J	1	1.0	0.40	ug/L	02/13/2019 1210
1,1,1-Trichloroethane	ND		1	1.0	0.40	ug/L	02/13/2019 1210
1,1,2-Trichloroethane	ND		1	1.0	0.40	ug/L	02/13/2019 1210

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ97430-001
Batch: 97430
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Trichloroethene	ND		1	1.0	0.40	ug/L	02/13/2019 1210
Trichlorofluoromethane	ND		1	1.0	0.40	ug/L	02/13/2019 1210
Vinyl chloride	ND		1	1.0	0.40	ug/L	02/13/2019 1210
Xylenes (total)	ND		1	1.0	0.40	ug/L	02/13/2019 1210

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		106	70-130
Bromofluorobenzene		104	70-130
Toluene-d8		92	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ97430-002
Batch: 97430
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	130		1	131	60-140	02/13/2019 1103
Benzene	50	48		1	95	70-130	02/13/2019 1103
Bromodichloromethane	50	52		1	104	70-130	02/13/2019 1103
Bromoform	50	60		1	119	70-130	02/13/2019 1103
Bromomethane (Methyl bromide)	50	48		1	96	70-130	02/13/2019 1103
2-Butanone (MEK)	100	120		1	116	70-130	02/13/2019 1103
Carbon disulfide	50	48		1	97	70-130	02/13/2019 1103
Carbon tetrachloride	50	61		1	122	70-130	02/13/2019 1103
Chlorobenzene	50	49		1	99	70-130	02/13/2019 1103
Chloroethane	50	45		1	91	70-130	02/13/2019 1103
Chloroform	50	53		1	106	70-130	02/13/2019 1103
Chloromethane (Methyl chloride)	50	38		1	77	60-140	02/13/2019 1103
Cyclohexane	50	46		1	93	70-130	02/13/2019 1103
1,2-Dibromo-3-chloropropane (DBCP)	50	55		1	109	70-130	02/13/2019 1103
Dibromochloromethane	50	55		1	111	70-130	02/13/2019 1103
1,2-Dibromoethane (EDB)	50	52		1	103	70-130	02/13/2019 1103
1,2-Dichlorobenzene	50	49		1	98	70-130	02/13/2019 1103
1,3-Dichlorobenzene	50	49		1	98	70-130	02/13/2019 1103
1,4-Dichlorobenzene	50	48		1	96	70-130	02/13/2019 1103
Dichlorodifluoromethane	50	59		1	118	60-140	02/13/2019 1103
1,1-Dichloroethane	50	46		1	92	70-130	02/13/2019 1103
1,2-Dichloroethane	50	55		1	110	70-130	02/13/2019 1103
1,1-Dichloroethene	50	46		1	92	70-130	02/13/2019 1103
cis-1,2-Dichloroethene	50	50		1	101	70-130	02/13/2019 1103
trans-1,2-Dichloroethene	50	49		1	97	70-130	02/13/2019 1103
1,2-Dichloropropane	50	39		1	78	70-130	02/13/2019 1103
cis-1,3-Dichloropropene	50	44		1	88	70-130	02/13/2019 1103
trans-1,3-Dichloropropene	50	45		1	90	70-130	02/13/2019 1103
Ethylbenzene	50	51		1	102	70-130	02/13/2019 1103
2-Hexanone	100	81		1	81	70-130	02/13/2019 1103
Isopropylbenzene	50	53		1	105	70-130	02/13/2019 1103
Methyl acetate	50	40		1	80	70-130	02/13/2019 1103
Methyl tertiary butyl ether (MTBE)	50	50		1	100	70-130	02/13/2019 1103
4-Methyl-2-pentanone	100	85		1	85	70-130	02/13/2019 1103
Methylcyclohexane	50	50		1	100	70-130	02/13/2019 1103
Methylene chloride	50	45		1	90	70-130	02/13/2019 1103
Styrene	50	51		1	102	70-130	02/13/2019 1103
1,1,2,2-Tetrachloroethane	50	43		1	86	70-130	02/13/2019 1103
Tetrachloroethene	50	52		1	105	70-130	02/13/2019 1103
Toluene	50	48		1	96	70-130	02/13/2019 1103
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	48		1	95	70-130	02/13/2019 1103
1,2,4-Trichlorobenzene	50	54		1	107	70-130	02/13/2019 1103
1,1,1-Trichloroethane	50	58		1	115	70-130	02/13/2019 1103
1,1,2-Trichloroethane	50	48		1	97	70-130	02/13/2019 1103

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ97430-002
Batch: 97430
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	52		1	104	70-130	02/13/2019 1103
Trichlorofluoromethane	50	54		1	109	70-130	02/13/2019 1103
Vinyl chloride	50	46		1	91	70-130	02/13/2019 1103
Xylenes (total)	100	100		1	101	70-130	02/13/2019 1103

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		100	70-130
Bromofluorobenzene		92	70-130
Toluene-d8		89	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MS

Sample ID: UB08023-002MS
Batch: 97430
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	ND	1000	770		10	77	60-140	02/13/2019 1925
Benzene	30	500	460		10	85	70-130	02/13/2019 1925
Bromodichloromethane	ND	500	480		10	96	70-130	02/13/2019 1925
Bromoform	ND	500	540		10	109	70-130	02/13/2019 1925
Bromomethane (Methyl bromide)	ND	500	460		10	92	70-130	02/13/2019 1925
2-Butanone (MEK)	ND	1000	850		10	85	70-130	02/13/2019 1925
Carbon disulfide	ND	500	400		10	79	70-130	02/13/2019 1925
Carbon tetrachloride	ND	500	570		10	115	70-130	02/13/2019 1925
Chlorobenzene	ND	500	450		10	89	70-130	02/13/2019 1925
Chloroethane	ND	500	440		10	89	70-130	02/13/2019 1925
Chloroform	ND	500	480		10	96	70-130	02/13/2019 1925
Chloromethane (Methyl chloride)	ND	500	390		10	77	60-140	02/13/2019 1925
Cyclohexane	50	500	460		10	93	70-130	02/13/2019 1925
1,2-Dibromo-3-chloropropane (DBCP)	ND	500	520		10	104	70-130	02/13/2019 1925
Dibromochloromethane	ND	500	510		10	102	70-130	02/13/2019 1925
1,2-Dibromoethane (EDB)	ND	500	450		10	90	70-130	02/13/2019 1925
1,2-Dichlorobenzene	6.9	500	470		10	92	70-130	02/13/2019 1925
1,3-Dichlorobenzene	ND	500	460		10	91	70-130	02/13/2019 1925
1,4-Dichlorobenzene	ND	500	440		10	88	70-130	02/13/2019 1925
Dichlorodifluoromethane	ND	500	610		10	122	60-140	02/13/2019 1925
1,1-Dichloroethane	ND	500	410		10	82	70-130	02/13/2019 1925
1,2-Dichloroethane	ND	500	530		10	107	70-130	02/13/2019 1925
1,1-Dichloroethene	ND	500	420		10	85	70-130	02/13/2019 1925
cis-1,2-Dichloroethene	ND	500	430		10	87	70-130	02/13/2019 1925
trans-1,2-Dichloroethene	ND	500	420		10	85	70-130	02/13/2019 1925
1,2-Dichloropropane	ND	500	350		10	71	70-130	02/13/2019 1925
cis-1,3-Dichloropropene	ND	500	380		10	76	70-130	02/13/2019 1925
trans-1,3-Dichloropropene	ND	500	400		10	79	70-130	02/13/2019 1925
Ethylbenzene	25	500	490		10	94	70-130	02/13/2019 1925
2-Hexanone	ND	1000	770		10	77	70-130	02/13/2019 1925
Isopropylbenzene	47	500	540		10	99	70-130	02/13/2019 1925
Methyl acetate	ND	500	370		10	73	70-130	02/13/2019 1925
Methyl tertiary butyl ether (MTBE)	ND	500	430		10	85	70-130	02/13/2019 1925
4-Methyl-2-pentanone	ND	1000	740		10	74	70-130	02/13/2019 1925
Methylcyclohexane	18	500	480		10	92	70-130	02/13/2019 1925
Methylene chloride	ND	500	380		10	77	70-130	02/13/2019 1925
Styrene	ND	500	460		10	93	70-130	02/13/2019 1925
1,1,2,2-Tetrachloroethane	ND	500	390		10	77	70-130	02/13/2019 1925
Tetrachloroethene	ND	500	490		10	98	70-130	02/13/2019 1925
Toluene	28	500	470		10	88	70-130	02/13/2019 1925
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	500	440		10	89	70-130	02/13/2019 1925
1,2,4-Trichlorobenzene	ND	500	500		10	99	70-130	02/13/2019 1925
1,1,1-Trichloroethane	ND	500	540		10	109	70-130	02/13/2019 1925
1,1,2-Trichloroethane	ND	500	430		10	86	70-130	02/13/2019 1925

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MS

Sample ID: UB08023-002MS
Batch: 97430
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	ND	500	470		10	95	70-130	02/13/2019 1925
Trichlorofluoromethane	ND	500	590		10	118	70-130	02/13/2019 1925
Vinyl chloride	ND	500	480		10	95	70-130	02/13/2019 1925
Xylenes (total)	55	1000	990		10	93	70-130	02/13/2019 1925

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		112	70-130
Bromofluorobenzene		109	70-130
Toluene-d8		94	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MSD

Sample ID: UB08023-002MD
Batch: 97430
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	ND	1000	830		10	83	6.9	60-140	20	02/13/2019 1948
Benzene	30	500	520		10	98	13	70-130	20	02/13/2019 1948
Bromodichloromethane	ND	500	550		10	111	14	70-130	20	02/13/2019 1948
Bromoform	ND	500	600		10	120	10	70-130	20	02/13/2019 1948
Bromomethane (Methyl bromide)	ND	500	500		10	99	7.5	70-130	20	02/13/2019 1948
2-Butanone (MEK)	ND	1000	990		10	99	14	70-130	20	02/13/2019 1948
Carbon disulfide	ND	500	460		10	92	15	70-130	20	02/13/2019 1948
Carbon tetrachloride	ND	500	660	N	10	132	14	70-130	20	02/13/2019 1948
Chlorobenzene	ND	500	490		10	99	9.9	70-130	20	02/13/2019 1948
Chloroethane	ND	500	470		10	94	6.0	70-130	20	02/13/2019 1948
Chloroform	ND	500	550		10	110	14	70-130	20	02/13/2019 1948
Chloromethane (Methyl chloride)	ND	500	400		10	80	3.8	60-140	20	02/13/2019 1948
Cyclohexane	50	500	520		10	104	11	70-130	20	02/13/2019 1948
1,2-Dibromo-3-chloropropane (DBCP)	ND	500	540		10	108	3.8	70-130	20	02/13/2019 1948
Dibromochloromethane	ND	500	560		10	112	9.4	70-130	20	02/13/2019 1948
1,2-Dibromoethane (EDB)	ND	500	500		10	101	11	70-130	20	02/13/2019 1948
1,2-Dichlorobenzene	6.9	500	480		10	94	2.7	70-130	20	02/13/2019 1948
1,3-Dichlorobenzene	ND	500	470		10	94	3.1	70-130	20	02/13/2019 1948
1,4-Dichlorobenzene	ND	500	460		10	92	4.1	70-130	20	02/13/2019 1948
Dichlorodifluoromethane	ND	500	640		10	127	4.2	60-140	20	02/13/2019 1948
1,1-Dichloroethane	ND	500	470		10	94	14	70-130	20	02/13/2019 1948
1,2-Dichloroethane	ND	500	590		10	119	11	70-130	20	02/13/2019 1948
1,1-Dichloroethene	ND	500	480		10	96	13	70-130	20	02/13/2019 1948
cis-1,2-Dichloroethene	ND	500	500		10	101	15	70-130	20	02/13/2019 1948
trans-1,2-Dichloroethene	ND	500	480		10	97	13	70-130	20	02/13/2019 1948
1,2-Dichloropropane	ND	500	390		10	78	10	70-130	20	02/13/2019 1948
cis-1,3-Dichloropropene	ND	500	440		10	87	14	70-130	20	02/13/2019 1948
trans-1,3-Dichloropropene	ND	500	450		10	89	12	70-130	20	02/13/2019 1948
Ethylbenzene	25	500	540		10	104	10	70-130	20	02/13/2019 1948
2-Hexanone	ND	1000	850		10	85	11	70-130	20	02/13/2019 1948
Isopropylbenzene	47	500	590		10	108	8.1	70-130	20	02/13/2019 1948
Methyl acetate	ND	500	420		10	84	13	70-130	20	02/13/2019 1948
Methyl tertiary butyl ether (MTBE)	ND	500	500		10	100	16	70-130	20	02/13/2019 1948
4-Methyl-2-pentanone	ND	1000	860		10	86	14	70-130	20	02/13/2019 1948
Methylcyclohexane	18	500	540		10	104	12	70-130	20	02/13/2019 1948
Methylene chloride	ND	500	440		10	87	13	70-130	20	02/13/2019 1948
Styrene	ND	500	520		10	103	10	70-130	20	02/13/2019 1948
1,1,2,2-Tetrachloroethane	ND	500	410		10	81	4.8	70-130	20	02/13/2019 1948
Tetrachloroethene	ND	500	550		10	111	12	70-130	20	02/13/2019 1948
Toluene	28	500	510		10	96	8.5	70-130	20	02/13/2019 1948
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	500	490		10	99	10	70-130	20	02/13/2019 1948
1,2,4-Trichlorobenzene	ND	500	510		10	102	2.6	70-130	20	02/13/2019 1948
1,1,1-Trichloroethane	ND	500	630		10	126	15	70-130	20	02/13/2019 1948
1,1,2-Trichloroethane	ND	500	470		10	95	9.7	70-130	20	02/13/2019 1948

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MSD

Sample ID: UB08023-002MD
Batch: 97430
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Trichloroethene	ND	500	540		10	108	13	70-130	20	02/13/2019 1948
Trichlorofluoromethane	ND	500	610		10	122	2.7	70-130	20	02/13/2019 1948
Vinyl chloride	ND	500	490		10	99	3.7	70-130	20	02/13/2019 1948
Xylenes (total)	55	1000	1100		10	102	8.0	70-130	20	02/13/2019 1948

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		107	70-130
Bromofluorobenzene		92	70-130
Toluene-d8		87	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ97539-001
Batch: 97539
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
1,2,4-Trichlorobenzene	ND		1	1.0	0.40	ug/L	02/14/2019 1129

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		100	70-130
Bromofluorobenzene		98	70-130
Toluene-d8		101	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ97539-002
Batch: 97539
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
1,2,4-Trichlorobenzene	50	50		1	99	70-130	02/14/2019 0934

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		96	70-130
Bromofluorobenzene		101	70-130
Toluene-d8		99	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ97613-001
Batch: 97613
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Acetone	ND		1	20	2.0	ug/L	02/14/2019 2033
Benzene	ND		1	1.0	0.40	ug/L	02/14/2019 2033
Bromodichloromethane	ND		1	1.0	0.40	ug/L	02/14/2019 2033
Bromoform	ND		1	1.0	0.40	ug/L	02/14/2019 2033
Bromomethane (Methyl bromide)	ND		1	2.0	0.40	ug/L	02/14/2019 2033
2-Butanone (MEK)	ND		1	10	2.0	ug/L	02/14/2019 2033
Carbon tetrachloride	ND		1	1.0	0.40	ug/L	02/14/2019 2033
Chlorobenzene	ND		1	1.0	0.40	ug/L	02/14/2019 2033
Chloroethane	ND		1	2.0	0.40	ug/L	02/14/2019 2033
Chloroform	ND		1	1.0	0.40	ug/L	02/14/2019 2033
Chloromethane (Methyl chloride)	ND		1	1.0	0.50	ug/L	02/14/2019 2033
Cyclohexane	ND		1	1.0	0.40	ug/L	02/14/2019 2033
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	0.40	ug/L	02/14/2019 2033
Dibromochloromethane	ND		1	1.0	0.40	ug/L	02/14/2019 2033
1,2-Dibromoethane (EDB)	ND		1	1.0	0.40	ug/L	02/14/2019 2033
1,2-Dichlorobenzene	ND		1	1.0	0.40	ug/L	02/14/2019 2033
1,3-Dichlorobenzene	ND		1	1.0	0.40	ug/L	02/14/2019 2033
1,4-Dichlorobenzene	ND		1	1.0	0.40	ug/L	02/14/2019 2033
Dichlorodifluoromethane	ND		1	2.0	0.60	ug/L	02/14/2019 2033
1,1-Dichloroethane	ND		1	1.0	0.40	ug/L	02/14/2019 2033
1,2-Dichloroethane	ND		1	1.0	0.40	ug/L	02/14/2019 2033
1,1-Dichloroethene	ND		1	1.0	0.40	ug/L	02/14/2019 2033
cis-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	02/14/2019 2033
trans-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	02/14/2019 2033
1,2-Dichloropropane	ND		1	1.0	0.40	ug/L	02/14/2019 2033
cis-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	02/14/2019 2033
trans-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	02/14/2019 2033
Ethylbenzene	ND		1	1.0	0.40	ug/L	02/14/2019 2033
2-Hexanone	ND		1	10	2.0	ug/L	02/14/2019 2033
Isopropylbenzene	ND		1	1.0	0.40	ug/L	02/14/2019 2033
Methyl acetate	ND		1	1.0	0.40	ug/L	02/14/2019 2033
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	0.40	ug/L	02/14/2019 2033
4-Methyl-2-pentanone	ND		1	10	2.0	ug/L	02/14/2019 2033
Methylcyclohexane	ND		1	5.0	0.40	ug/L	02/14/2019 2033
Methylene chloride	ND		1	1.0	0.40	ug/L	02/14/2019 2033
Styrene	ND		1	1.0	0.41	ug/L	02/14/2019 2033
1,1,2,2-Tetrachloroethane	ND		1	1.0	0.40	ug/L	02/14/2019 2033
Tetrachloroethene	ND		1	1.0	0.40	ug/L	02/14/2019 2033
Toluene	ND		1	1.0	0.40	ug/L	02/14/2019 2033
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	0.42	ug/L	02/14/2019 2033
1,2,4-Trichlorobenzene	ND		1	1.0	0.40	ug/L	02/14/2019 2033
1,1,1-Trichloroethane	ND		1	1.0	0.40	ug/L	02/14/2019 2033
1,1,2-Trichloroethane	ND		1	1.0	0.40	ug/L	02/14/2019 2033
Trichloroethene	ND		1	1.0	0.40	ug/L	02/14/2019 2033

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ97613-001
Batch: 97613
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Trichlorofluoromethane	ND		1	1.0	0.40	ug/L	02/14/2019 2033
Vinyl chloride	ND		1	1.0	0.40	ug/L	02/14/2019 2033
Xylenes (total)	ND		1	1.0	0.40	ug/L	02/14/2019 2033

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		101	70-130
Bromofluorobenzene		107	70-130
Toluene-d8		112	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Shealy Environmental Services, Inc.
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Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ97613-002
Batch: 97613
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	110		1	108	60-140	02/14/2019 1935
Benzene	50	54		1	108	70-130	02/14/2019 1935
Bromodichloromethane	50	51		1	101	70-130	02/14/2019 1935
Bromoform	50	52		1	105	70-130	02/14/2019 1935
Bromomethane (Methyl bromide)	50	52		1	105	70-130	02/14/2019 1935
2-Butanone (MEK)	100	94		1	94	70-130	02/14/2019 1935
Carbon tetrachloride	50	54		1	107	70-130	02/14/2019 1935
Chlorobenzene	50	52		1	103	70-130	02/14/2019 1935
Chloroethane	50	55		1	109	70-130	02/14/2019 1935
Chloroform	50	50		1	101	70-130	02/14/2019 1935
Chloromethane (Methyl chloride)	50	50		1	101	60-140	02/14/2019 1935
Cyclohexane	50	58		1	115	70-130	02/14/2019 1935
1,2-Dibromo-3-chloropropane (DBCP)	50	49		1	98	70-130	02/14/2019 1935
Dibromochloromethane	50	51		1	102	70-130	02/14/2019 1935
1,2-Dibromoethane (EDB)	50	52		1	103	70-130	02/14/2019 1935
1,2-Dichlorobenzene	50	53		1	106	70-130	02/14/2019 1935
1,3-Dichlorobenzene	50	53		1	106	70-130	02/14/2019 1935
1,4-Dichlorobenzene	50	52		1	105	70-130	02/14/2019 1935
Dichlorodifluoromethane	50	59		1	117	60-140	02/14/2019 1935
1,1-Dichloroethane	50	51		1	102	70-130	02/14/2019 1935
1,2-Dichloroethane	50	52		1	104	70-130	02/14/2019 1935
1,1-Dichloroethene	50	52		1	105	70-130	02/14/2019 1935
cis-1,2-Dichloroethene	50	51		1	103	70-130	02/14/2019 1935
trans-1,2-Dichloroethene	50	52		1	104	70-130	02/14/2019 1935
1,2-Dichloropropane	50	44		1	89	70-130	02/14/2019 1935
cis-1,3-Dichloropropene	50	46		1	93	70-130	02/14/2019 1935
trans-1,3-Dichloropropene	50	45		1	90	70-130	02/14/2019 1935
Ethylbenzene	50	56		1	111	70-130	02/14/2019 1935
2-Hexanone	100	100		1	100	70-130	02/14/2019 1935
Isopropylbenzene	50	54		1	108	70-130	02/14/2019 1935
Methyl acetate	50	47		1	95	70-130	02/14/2019 1935
Methyl tertiary butyl ether (MTBE)	50	51		1	102	70-130	02/14/2019 1935
4-Methyl-2-pentanone	100	99		1	99	70-130	02/14/2019 1935
Methylcyclohexane	50	55		1	111	70-130	02/14/2019 1935
Methylene chloride	50	48		1	96	70-130	02/14/2019 1935
Styrene	50	55		1	109	70-130	02/14/2019 1935
1,1,2,2-Tetrachloroethane	50	52		1	103	70-130	02/14/2019 1935
Tetrachloroethene	50	54		1	108	70-130	02/14/2019 1935
Toluene	50	54		1	108	70-130	02/14/2019 1935
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	55		1	111	70-130	02/14/2019 1935
1,2,4-Trichlorobenzene	50	51		1	102	70-130	02/14/2019 1935
1,1,1-Trichloroethane	50	51		1	102	70-130	02/14/2019 1935
1,1,2-Trichloroethane	50	51		1	102	70-130	02/14/2019 1935
Trichloroethene	50	52		1	105	70-130	02/14/2019 1935

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ97613-002
Batch: 97613
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichlorofluoromethane	50	56		1	112	70-130	02/14/2019 1935
Vinyl chloride	50	56		1	113	70-130	02/14/2019 1935
Xylenes (total)	100	110		1	108	70-130	02/14/2019 1935

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		93	70-130
Bromofluorobenzene		104	70-130
Toluene-d8		109	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ97749-001
Batch: 97749
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Carbon disulfide	ND		1	1.0	0.40	ug/L	02/15/2019 2249

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		100	70-130
Bromofluorobenzene		94	70-130
Toluene-d8		102	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ97749-002
Batch: 97749
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Carbon disulfide	50	42		1	83	70-130	02/15/2019 2202

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		100	70-130
Bromofluorobenzene		95	70-130
Toluene-d8		97	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Chain of Custody

and

Miscellaneous Documents

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Chain of Custody Record

SHEALY ENVIRONMENTAL SERVICES, INC.
106 Vantage Point Drive • West Columbia, SC 29172
Telephone No. 803-791-9700 Fax No. 803-791-9111
www.shealylab.com

Number 85430

Client: TRC
Report to Contact: Lisa Clark
Telephone No. / E-mail:
Quote No.
Address: 50 International Dr Suite 150
Sampler's Signature: x
Analysis (Attach list if more space is needed)
Page 1 of 1
City: Greenville | State: SC | Zip Code: 29615
Printed Name: Benjamin Medlin
Project Name: WPH clemson
Project No.: 300688.0.0.2
P.O. No.

UB08023

Sample ID / Description (Containers for each sample may be combined on one line)	Date 2019	Time	Collection Composite	Grab	Matrix: Aqueous	Solid	Non-Aqueous	No of Containers by Preservative Type: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	VOCs	Chloride, Sulfate, Bromide	Nitrate
RMW-05A	2-7	1530	G		X			2			3			X	X	X
RMW-24	2-7	1240	G		X			2			3			X	X	X
RMW-22A	2-7	1505	G		X						3			X		
TBLK-19109	1	1	G		X						2			X		

Turn Around Time Required (Prior lab approval required for expedited TAT.)
☐ Standard ☐ Rush (Specify)

Sample Disposal
☐ Return to Client ☐ Disposal by Lab

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished by	2-7-19	1705	1. Received by: TRC Sample Storage	2-7-19	1705
2. Relinquished by: TRC Sample Storage	2/8/19	0850	2. Received by	2/8/19	0850
3. Relinquished by	Date	Time	3. Received by	Date	Time
4. Relinquished by	2/8/19	1441	4. Laboratory received by	2-8-19	1441

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on Ice (Circle) Yes No Ice Pack
Receipt Temp. 1.8 °C

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Client Copy

Document Number: F-AD-133 Effective Date: 02-01-2014

Shealy Environmental Services, Inc.
Document Number: MB00180-14

Page 1 of 1
Effective Date: 8/2/2018

Sample Receipt Checklist (SRC)

Client: TRC Cooler Inspected by/date: LKH, 2-8-19 Lot #: 418027 YR0802 MES 2-8-19

Means of receipt: ☑ SESI ☐ Client ☐ UPS ☐ FedEx ☐ Other: _____

☐ Yes	☑ No		1. Were custody seals present on the cooler?
☐ Yes	☐ No	☑ NA	2. If custody seals were present, were they intact and unbroken?

pH Strip ID: _____ Chlorine Strip ID: _____ Tested by: _____

Original temperature upon receipt / Derived (Corrected) temperature upon receipt: %Solid Snap-Cup ID: _____

1.8 / 1.8 °C ____ / ____ °C ____ / ____ °C ____ / ____ °C

Method: ☑ Temperature Blank ☐ Against Bottles IR Gun ID: 5 IR Gun Correction Factor: 0 °C

Method of coolant: ☑ Wet Ice ☐ Ice Packs ☐ Dry Ice ☐ None

☐ Yes	☐ No	☑ NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).
☐ Yes	☐ No	☑ NA	4. Is the commercial courier's packing slip attached to this form?
☑ Yes	☐ No		5. Were proper custody procedures (relinquished/received) followed?
☑ Yes	☐ No		6. Were sample IDs listed on the COC?
☑ Yes	☐ No		7. Were sample IDs listed on all sample containers?
☑ Yes	☐ No		8. Was collection date & time listed on the COC?
☑ Yes	☐ No		9. Was collection date & time listed on all sample containers?
☑ Yes	☐ No		10. Did all container label information (ID, date, time) agree with the COC?
☑ Yes	☐ No		11. Were tests to be performed listed on the COC?
☑ Yes	☐ No		12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)? _____
☑ Yes	☐ No		13. Was adequate sample volume available?
☐ Yes	☑ No		14. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
☐ Yes	☑ No		15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
☐ Yes	☑ No	☐ NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (¼"or 6mm in diameter) in any of the VOA vials?
☐ Yes	☐ No	☑ NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?
☐ Yes	☐ No	☑ NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
☐ Yes	☐ No	☑ NA	19. Were all applicable NH_3/TKN/cyanide/phenol/625 (< 0.5mg/L) samples free of residual chlorine?
☐ Yes	☐ No	☑ NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc…) correctly transcribed from the COC into the comment section in LIMS?
☐ Yes	☑ No		21. Was the quote number listed on the container label? If yes, Quote # _____

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) _____ were received incorrectly preserved and were adjusted accordingly in sample receiving with _____mL of circle one: H2SO4, HNO3, HCl, NaOH using SR # _____.
Time of preservation _____. If more than one preservative is needed, please note in the comments below.

Sample(s) _____ were received with bubbles >6 mm in diameter.

Samples(s) _____ were received with TRC > 0.5 mg/L (If #19 is ***no***) and were adjusted accordingly in sample receiving with sodium thiosulfate ($Na_2S_2O_3$) with Shealy ID: _____.

SR barcode labels applied by: LKH Date: 2-8-19

Comments:

Pace Analytical Energy Services LLC
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

February 14, 2019

Lisa Clark
TRC Environmental Corp.
30 Patewood Drive
Greenville, SC 29615

RE: **WPH CLEMSON / 300688.0.0.2**

Pace Workorder: 29364

Dear Lisa Clark:

Enclosed are the analytical results for sample(s) received by the laboratory on Friday, February 01, 2019. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Ruth Welsh 02/14/2019
Ruth.Welsh@pacelabs.com

Customer Service Representative

Enclosures

As a valued client we would appreciate your comments on our service.
Please email PAESfeedback@pacelabs.com.

Total Number of Pages 22

CERTIFICATE OF ANALYSIS

Laboratory Data Quality Review Notes

Project Name: WPH-Clemson, SC

Project Number: 300688.0000.0000.000002

Lab Report: 29364 Pace Analytical Energy Services
Twelve groundwater samples and one groundwater field duplicate analyzed for dissolved hydrocarbon gases.

Chain of Custody, Sample Temperature, Sample Preservation: Chain of custody (CoC) signed; sample temperature <6 ^{o}C upon arrival at the laboratory; samples were preserved properly.

Hold Time: Samples analyzed within hold time.

Surrogates: Surrogate recoveries are not applicable to dissolved hydrocarbon gas analyses.

Method Blank: Hydrocarbon gases were not detected in the method blank.

Trip Blank: A trip blank was not collected with these samples.

Field Blank: A field blank was not collected with these samples.

Equipment Rinse Blank: A rinsate blank was not collected with these samples.

LCS/LCSD: LCS and LCSD recoveries as well as RPDs are within QC Limits.

MS/MSD: MS/MSD analyses were not performed using samples included in this report.

Duplicates: DU-19103 is a field duplicate of RMW-23. Methane, ethane, and ethene were detected in both the parent and field duplicate samples. RPDs for methane and ethane were 14.3% or less. The RPD for ethene was 53.6%; however, the ethene concentrations are near the PQL of 0.10 ug/L. The difference between ethene in the parent and field duplicate samples is 0.1 ug/L. Ethene concentrations in the parent and field duplicate samples are comparable. No qualifiers were assigned.

No data qualifiers were assigned.

Data review performed by: Terry Hertz; TRC Environmental Corp.; 2/18/2019

Pace Analytical Energy Services LLC
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

LABORATORY ACCREDITATIONS & CERTIFICATIONS

Accreditor:	Pennsylvania Department of Environmental Protection, Bureau of Laboratories
Accreditation ID:	02-00538
Scope:	NELAP Non-Potable Water
Accreditor:	West Virginia Department of Environmental Protection, Division of Water and Waste Management
Accreditation ID:	395
Scope:	Non-Potable Water
Accreditor:	South Carolina Department of Health and Environmental Control, Office of Environmental Laboratory Certification
Accreditation ID:	89009003
Scope:	Clean Water Act (CWA); Resource Conservation and Recovery Act (RCRA)
Accreditor:	State of Virginia
Accreditation ID:	460201
Scope:	Non-Potable Water
Accreditor:	NELAP: New Jersey, Department of Environmental Protection
Accreditation ID:	PA026
Scope:	Non-Potable Water
Accreditor:	NELAP: New York, Department of Health Wadsworth Center
Accreditation ID:	11815
Scope:	Non-Potable Water
Accreditor:	State of Connecticut, Department of Public Health, Division of Environmental Health
Accreditation ID:	PH-0263
Scope:	Clean Water Act (CWA) Resource Conservation and Recovery Act (RCRA)
Accreditor:	NELAP: Texas, Commission on Environmental Quality
Accreditation ID:	T104704453-09-TX
Scope:	Non-Potable Water
Accreditor:	State of New Hampshire
Accreditation ID:	299409
Scope:	Non-potable water
Accreditor:	State of Georgia
Accreditation ID:	Chapter 391-3-26
Scope:	As per the Georgia EPD Rules and Regulations for Commercial Laboratories, PAES is accredited by the Pennsylvania Department of Environmental Protection Bureau of Laboratories under the National Environmental Laboratory Approval Program (NELAC).

Pace Analytical Energy Services LLC
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Pittsburgh, PA 15238
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Fax: (412) 826-3433

SAMPLE SUMMARY

Workorder: 29364 WPH CLEMSON / 300688.0.0.2

Lab ID	Sample ID	Matrix	Date Collected	Date Received
293640001	RMW-23	Water	1/28/2019 12:00	2/1/2019 13:15
293640002	RMW-23A	Water	1/28/2019 13:45	2/1/2019 13:15
293640003	RMW-23B	Water	1/28/2019 16:00	2/1/2019 13:15
293640004	RMW-14A	Water	1/29/2019 14:35	2/1/2019 13:15
293640005	RMW-14B	Water	1/29/2019 16:55	2/1/2019 13:15
293640006	RMW-14C	Water	1/29/2019 17:10	2/1/2019 13:15
293640007	RMW-14	Water	1/30/2019 16:25	2/1/2019 13:15
293640008	RMW-10	Water	1/30/2019 16:35	2/1/2019 13:15
293640009	RMW-06	Water	1/31/2019 11:30	2/1/2019 13:15
293640010	RMW-06A	Water	1/31/2019 11:45	2/1/2019 13:15
293640011	RMW-19A	Water	1/31/2019 14:10	2/1/2019 13:15
293640012	RMW-21A	Water	1/31/2019 14:25	2/1/2019 13:15
293640013	DU-19103	Water		2/1/2019 13:15

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ANALYTICAL RESULTS

Workorder: 29364 WPH CLEMSON / 300688.0.0.2

Lab ID: **293640001** Date Received: 2/1/2019 13:15 Matrix: Water

Sample ID: **RMW-23** Date Collected: 1/28/2019 12:00

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**26000**	ug/l	0.50	0.014	1	2/8/2019 09:00	BW	n
Ethane	**0.30**	ug/l	0.10	0.0070	1	2/8/2019 09:00	BW	n
Ethene	**0.24**	ug/l	0.10	0.0050	1	2/8/2019 09:00	BW	n

CERTIFICATE OF ANALYSIS

Pace Analytical Energy Services LLC
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

ANALYTICAL RESULTS

Workorder: 29364 WPH CLEMSON / 300688.0.0.2

Lab ID: **293640002** Date Received: 2/1/2019 13:15 Matrix: Water

Sample ID: **RMW-23A** Date Collected: 1/28/2019 13:45

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**12000**	ug/l	0.50	0.014	1	2/8/2019 09:11	BW	n
Ethane	**550**	ug/l	0.10	0.0070	1	2/8/2019 09:11	BW	n
Ethene	**100**	ug/l	0.10	0.0050	1	2/8/2019 09:11	BW	n

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ANALYTICAL RESULTS

Workorder: 29364 WPH CLEMSON / 300688.0.0.2

Lab ID: **293640003** Date Received: 2/1/2019 13:15 Matrix: Water

Sample ID: **RMW-23B** Date Collected: 1/28/2019 16:00

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**16000**	ug/l	0.50	0.014	1	2/8/2019 09:23	BW	n
Ethane	**0.27**	ug/l	0.10	0.0070	1	2/8/2019 09:23	BW	n
Ethene	**3.2**	ug/l	0.10	0.0050	1	2/8/2019 09:23	BW	n

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ANALYTICAL RESULTS

Workorder: 29364 WPH CLEMSON / 300688.0.0.2

Lab ID: **293640004** Date Received: 2/1/2019 13:15 Matrix: Water

Sample ID: **RMW-14A** Date Collected: 1/29/2019 14:35

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**<0.50**	ug/l	0.50	0.014	1	2/8/2019 09:33	BW	n
Ethane	**<0.10**	ug/l	0.10	0.0070	1	2/8/2019 09:33	BW	n
Ethene	**<0.10**	ug/l	0.10	0.0050	1	2/8/2019 09:33	BW	n

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ANALYTICAL RESULTS

Workorder: 29364 WPH CLEMSON / 300688.0.0.2

Lab ID: **293640005** Date Received: 2/1/2019 13:15 Matrix: Water

Sample ID: **RMW-14B** Date Collected: 1/29/2019 16:55

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**12**	ug/l	0.50	0.014	1	2/8/2019 09:44	BW	n
Ethane	**<0.10**	ug/l	0.10	0.0070	1	2/8/2019 09:44	BW	n
Ethene	**<0.10**	ug/l	0.10	0.0050	1	2/8/2019 09:44	BW	n

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ANALYTICAL RESULTS

Workorder: 29364 WPH CLEMSON / 300688.0.0.2

Lab ID: **293640006** Date Received: 2/1/2019 13:15 Matrix: Water

Sample ID: **RMW-14C** Date Collected: 1/29/2019 17:10

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**<0.50**	ug/l	0.50	0.014	1	2/8/2019 11:08	BW	n
Ethane	**<0.10**	ug/l	0.10	0.0070	1	2/8/2019 11:08	BW	n
Ethene	**<0.10**	ug/l	0.10	0.0050	1	2/8/2019 11:08	BW	n

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ANALYTICAL RESULTS

Workorder: 29364 WPH CLEMSON / 300688.0.0.2

Lab ID: **293640007** Date Received: 2/1/2019 13:15 Matrix: Water

Sample ID: **RMW-14** Date Collected: 1/30/2019 16:25

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**<0.50**	ug/l	0.50	0.014	1	2/8/2019 11:20	BW	n
Ethane	**<0.10**	ug/l	0.10	0.0070	1	2/8/2019 11:20	BW	n
Ethene	**<0.10**	ug/l	0.10	0.0050	1	2/8/2019 11:20	BW	n

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ANALYTICAL RESULTS

Workorder: 29364 WPH CLEMSON / 300688.0.0.2

Lab ID: **293640008** Date Received: 2/1/2019 13:15 Matrix: Water

Sample ID: **RMW-10** Date Collected: 1/30/2019 16:35

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**<0.50**	ug/l	0.50	0.014	1	2/8/2019 11:30	BW	n
Ethane	**<0.10**	ug/l	0.10	0.0070	1	2/8/2019 11:30	BW	n
Ethene	**<0.10**	ug/l	0.10	0.0050	1	2/8/2019 11:30	BW	n

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ANALYTICAL RESULTS

Workorder: 29364 WPH CLEMSON / 300688.0.0.2

Lab ID: **293640009** Date Received: 2/1/2019 13:15 Matrix: Water

Sample ID: **RMW-06** Date Collected: 1/31/2019 11:30

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**<0.50**	ug/l	0.50	0.014	1	2/8/2019 11:41	BW	n
Ethane	**<0.10**	ug/l	0.10	0.0070	1	2/8/2019 11:41	BW	n
Ethene	**<0.10**	ug/l	0.10	0.0050	1	2/8/2019 11:41	BW	n

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ANALYTICAL RESULTS

Workorder: 29364 WPH CLEMSON / 300688.0.0.2

Lab ID: **293640010** Date Received: 2/1/2019 13:15 Matrix: Water

Sample ID: **RMW-06A** Date Collected: 1/31/2019 11:45

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**8.0**	ug/l	0.50	0.014	1	2/8/2019 11:51	BW	n
Ethane	**3.2**	ug/l	0.10	0.0070	1	2/8/2019 11:51	BW	n
Ethene	**37**	ug/l	0.10	0.0050	1	2/8/2019 11:51	BW	n

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ANALYTICAL RESULTS

Workorder: 29364 WPH CLEMSON / 300688.0.0.2

Lab ID: **293640011** Date Received: 2/1/2019 13:15 Matrix: Water

Sample ID: **RMW-19A** Date Collected: 1/31/2019 14:10

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**11**	ug/l	0.50	0.014	1	2/8/2019 12:05	BW	n
Ethane	**2.9**	ug/l	0.10	0.0070	1	2/8/2019 12:05	BW	n
Ethene	**25**	ug/l	0.10	0.0050	1	2/8/2019 12:05	BW	n

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ANALYTICAL RESULTS

Workorder: 29364 WPH CLEMSON / 300688.0.0.2

Lab ID: **293640012** Date Received: 2/1/2019 13:15 Matrix: Water

Sample ID: **RMW-21A** Date Collected: 1/31/2019 14:25

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**1.5**	ug/l	0.50	0.014	1	2/8/2019 12:16	BW	n
Ethane	**<0.10**	ug/l	0.10	0.0070	1	2/8/2019 12:16	BW	n
Ethene	**0.23**	ug/l	0.10	0.0050	1	2/8/2019 12:16	BW	n

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ANALYTICAL RESULTS

Workorder: 29364 WPH CLEMSON / 300688.0.0.2

Lab ID: **293640013** Date Received: 2/1/2019 13:15 Matrix: Water

Sample ID: **DU-19103** Date Collected:

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**24000**	ug/l	0.50	0.014	1	2/8/2019 12:26	BW	n
Ethane	**0.26**	ug/l	0.10	0.0070	1	2/8/2019 12:26	BW	n
Ethene	**0.14**	ug/l	0.10	0.0050	1	2/8/2019 12:26	BW	n

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ANALYTICAL RESULTS QUALIFIERS

Workorder: 29364 WPH CLEMSON / 300688.0.0.2

DEFINITIONS/QUALIFIERS

MDL	Method Detection Limit. Can be used synonymously with LOD; Limit Of Detection.
PQL	Practical Quanitation Limit. Can be used synonymously with LOQ; Limit Of Quantitation.
ND	Not detected at or above reporting limit.
DF	Dilution Factor.
S	Surrogate.
RPD	Relative Percent Difference.
% Rec	Percent Recovery.
U	Indicates the compound was analyzed for, but not detected at or above the noted concentration.
J	Estimated concentration greater than the set method detection limit (MDL) and less than the set reporting limit (PQL).
n	The laboratory does not hold NELAP/TNI accreditation for this method or analyte.

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QUALITY CONTROL DATA

Workorder: 29364 WPH CLEMSON / 300688.0.0.2

QC Batch: DISG/7357 Analysis Method: AM20GAX

QC Batch Method: AM20GAX

Associated Lab Samples: 293640001, 293640002, 293640003, 293640004, 293640005, 293640006, 293640007, 293640008, 293640009, 293640010, 293640011, 293640012, 293640013

METHOD BLANK: 59683

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
RISK				
Methane	ug/l	<0.50	0.50	n
Ethane	ug/l	<0.10	0.10	n
Ethene	ug/l	<0.10	0.10	n

LABORATORY CONTROL SAMPLE & LCSD: 59685 59687

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
RISK										
Methane	ug/l	750	750	760	100	102	80-120	1.5	20	n
Ethane	ug/l	38	40	40	105	106	80-120	0.25	20	n
Ethene	ug/l	35	37	38	106	106	80-120	0.51	20	n

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QUALITY CONTROL DATA QUALIFIERS

Workorder: 29364 WPH CLEMSON / 300688.0.0.2

QUALITY CONTROL PARAMETER QUALIFIERS

n	The laboratory does not hold NELAP/TNI accreditation for this method or analyte.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 29364 WPH CLEMSON / 300688.0.0.2

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
293640001	RMW-23			AM20GAX	DISG/7357
293640002	RMW-23A			AM20GAX	DISG/7357
293640003	RMW-23B			AM20GAX	DISG/7357
293640004	RMW-14A			AM20GAX	DISG/7357
293640005	RMW-14B			AM20GAX	DISG/7357
293640006	RMW-14C			AM20GAX	DISG/7357
293640007	RMW-14			AM20GAX	DISG/7357
293640008	RMW-10			AM20GAX	DISG/7357
293640009	RMW-06			AM20GAX	DISG/7357
293640010	RMW-06A			AM20GAX	DISG/7357
293640011	RMW-19A			AM20GAX	DISG/7357
293640012	RMW-21A			AM20GAX	DISG/7357
293640013	DU-19103			AM20GAX	DISG/7357

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412-826-5245

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

29364

Page: 1 of 1

013687

Section A Required Client Information:

Company: TRC
Address: 50 International Dr Su.150
Greenville SC 29615
Email To: LclarK@trcsolutions.com
Phone: 864-281-0030 Fax:
Requested Due Date/TAT:

Section B Required Project Information:

Report To: Lisa Clark
Copy To:
Purchase Order No.:
Project Name: WPH Clemson
Project Number: 300688.0.0.2

Section C Invoice Information:

Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager:
Pace Profile #:

REGULATORY AGENCY

NPDES GROUND WATER DRINKING WATER
UST RCRA OTHER _____

Site Location
STATE: _____

Section D Required Client Information

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Matrix Codes MATRIX / CODE

Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Tissue	TS
Other	OT

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	TSP	BAK	Zinc Acetate & NaOH	Other	Analysis Test Y/N	Diss. Gasses	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	RMW-23	WT	G			1-28	1200		3					X					X		
2	RMW-23A	WT	G			1-28	1345		3					X					X		
3	RMW-23B	WT	G			1-28	1600		3					X					X		
4	RMW-14A	WT	G			1-29	1435		3					X					X		
5	RMW-14B	WT	G			1-29	1655		3					X					X		
6	RMW-14C	WT	G			1-29	1710		3					X					X		
7	RMW-14	WT	G			1-30	1625		3					X					X		
8	RMW-10	WT	G			1-30	1635		3					X					X		
9	RMW-06	WT	G			1-31	1130		3					X					X		
10	RMW-06A	WT	G			1-31	1145		3					X					X		
11	RMW-19A	WT	G			1-31	1410		3					X					X		
12	RMW-21A	WT	G			1-31	1425		3					X					X		

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
* DU-19103	TRC	1-31-19	1655	FedEx	1-31-19	1655	

ORIGINAL

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER:
SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY):

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

Cooler Receipt Form

Client Name: _____ **Project:** _____ **Lab Work Order:** _____

A. **Shipping/Container Information** (circle appropriate response)

Courier: FedEx UPS USPS Client Other:_____ **Air bill Present:** Yes No

Tracking Number:_____

Custody Seal on Cooler/Box Present: Yes No **Seals Intact:** Yes No

Cooler/Box Packing Material: Bubble Wrap Absorbent Foam Other:_____

Type of Ice: Wet Blue None **Ice Intact:** Yes Melted

Cooler Temperature:_____ **Radiation Screened:** Yes No **Chain of Custody Present:** Yes No

Comments:_____

B. **Laboratory Assignment/Log-in** (check appropriate response)

	YES	NO	N/A	Comment Reference non-Conformance
Chain of Custody properly filled out				
Chain of Custody relinquished				
Sampler Name & Signature on COC				
Containers intact				
Were samples in separate bags				
Sample container labels match COC Sample name/date and time collected				
Sufficient volume provided				
PAES containers used				
Are containers properly preserved for the requested testing? (as labeled)				
If an unknown preservation state, were containers checked? Exception: VOA's coliform				If yes, see pH form.
Was volume for dissolved testing field filtered, as noted on the COC? Was volume received in a preserved container?				
Headspace present?				

Comments:_____

_____

Cooler contents examined/received by :_____ **Date:**_____

Project Manager Review :_____ **Date:**_____

Pace Analytical Energy Services LLC
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Fax: (412) 826-3433

February 21, 2019

Lisa Clark
TRC Environmental Corp.
30 Patewood Drive
Greenville, SC 29615

RE: **WPH CLEMSON**

Pace Workorder: 29439

Dear Lisa Clark:

Enclosed are the analytical results for sample(s) received by the laboratory on Friday, February 08, 2019. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Ruth Welsh 02/21/2019
Ruth.Welsh@pacelabs.com

Customer Service Representative

Enclosures

As a valued client we would appreciate your comments on our service.
Please email PAESfeedback@pacelabs.com.

Total Number of Pages 34

CERTIFICATE OF ANALYSIS

Laboratory Data Quality Review Notes

Project Name: WPH-Clemson, SC

Project Number: 300688.0000.0000.000002

Lab Report: 29439 Pace Analytical Energy Services
Seventeen groundwater samples and two groundwater field duplicates analyzed for dissolved hydrocarbon gases.

Chain of Custody, Sample Temperature, Sample Preservation: Chain of custody (CoC) signed; sample temperature <6 ^{o}C upon arrival at the laboratory; samples were preserved properly.

Hold Time: Samples analyzed within hold time.

Surrogates: Surrogate recoveries are not applicable to dissolved hydrocarbon gas analyses.

Method Blank: Hydrocarbon gases were not detected in the method blanks.

Trip Blank: A trip blank was not collected with these samples.

Field Blank: A field blank was not collected with these samples.

Equipment Rinse Blank: A rinsate blank was not collected with these samples.

LCS/LCSD: LCS and LCSD recoveries as well as RPDs are within QC Limits.

MS/MSD: MS/MSD analyses were not performed using samples included in this report.

Duplicates: DU-19102 is a field duplicate of RMW-13, and DU-19104 is a field duplicate of RMW-09. Ethene was detected in both DU-19102 and RMW-13 with an RPD of 77.9% which is above the QC limit. **Ethene concentrations in DU-102 and RMW-13 were assigned a "j" qualifier.** Methane and ethane were not detected in DU-19102 and RMW-13. Neither methane, ethane, nor ethene were detected in DU-19104 or RMW-09.

Data review performed by: Terry Hertz; TRC Environmental Corp.; 2/25/2019

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LABORATORY ACCREDITATIONS & CERTIFICATIONS

Accreditor:	Pennsylvania Department of Environmental Protection, Bureau of Laboratories
Accreditation ID:	02-00538
Scope:	NELAP Non-Potable Water
Accreditor:	West Virginia Department of Environmental Protection, Division of Water and Waste Management
Accreditation ID:	395
Scope:	Non-Potable Water
Accreditor:	South Carolina Department of Health and Environmental Control, Office of Environmental Laboratory Certification
Accreditation ID:	89009003
Scope:	Clean Water Act (CWA); Resource Conservation and Recovery Act (RCRA)
Accreditor:	State of Virginia
Accreditation ID:	460201
Scope:	Non-Potable Water
Accreditor:	NELAP: New Jersey, Department of Environmental Protection
Accreditation ID:	PA026
Scope:	Non-Potable Water
Accreditor:	NELAP: New York, Department of Health Wadsworth Center
Accreditation ID:	11815
Scope:	Non-Potable Water
Accreditor:	State of Connecticut, Department of Public Health, Division of Environmental Health
Accreditation ID:	PH-0263
Scope:	Clean Water Act (CWA) Resource Conservation and Recovery Act (RCRA)
Accreditor:	NELAP: Texas, Commission on Environmental Quality
Accreditation ID:	T104704453-09-TX
Scope:	Non-Potable Water
Accreditor:	State of New Hampshire
Accreditation ID:	299409
Scope:	Non-potable water
Accreditor:	State of Georgia
Accreditation ID:	Chapter 391-3-26
Scope:	As per the Georgia EPD Rules and Regulations for Commercial Laboratories, PAES is accredited by the Pennsylvania Department of Environmental Protection Bureau of Laboratories under the National Environmental Laboratory Approval Program (NELAC).

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SAMPLE SUMMARY

Workorder: 29439 WPH CLEMSON

Lab ID	Sample ID	Matrix	Date Collected	Date Received
294390001	DU-19102	Water		2/8/2019 11:30
294390002	RMW-13	Water	2/4/2019 17:40	2/8/2019 11:30
294390003	RMW-11	Water	2/4/2019 17:20	2/8/2019 11:30
294390004	RMW-08A	Water	2/5/2019 12:20	2/8/2019 11:30
294390005	RMW-08	Water	2/5/2019 12:10	2/8/2019 11:30
294390006	RMW-07	Water	2/5/2019 13:15	2/8/2019 11:30
294390007	RMW-21	Water	2/5/2019 15:25	2/8/2019 11:30
294390008	RMW-20C	Water	2/5/2019 16:20	2/8/2019 11:30
294390009	RMW-12	Water	2/5/2019 15:50	2/8/2019 11:30
294390010	RMW-19	Water	2/6/2019 09:45	2/8/2019 11:30
294390011	RMW-10A	Water	2/6/2019 11:25	2/8/2019 11:30
294390012	RMW-10B	Water	2/6/2019 11:20	2/8/2019 11:30
294390013	RMW-10C	Water	2/6/2019 12:00	2/8/2019 11:30
294390014	RMW-09	Water	2/6/2019 13:25	2/8/2019 11:30
294390015	RMW-26	Water	2/6/2019 15:20	2/8/2019 11:30
294390016	RMW-01	Water	2/6/2019 15:15	2/8/2019 11:30
294390017	RMW-05A	Water	2/7/2019 15:30	2/8/2019 11:30
294390018	RMW-24	Water	2/7/2019 12:40	2/8/2019 11:30
294390019	DU-19104	Water		2/8/2019 11:30

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ANALYTICAL RESULTS

Workorder: 29439 WPH CLEMSON

Lab ID: **294390001** Date Received: 2/8/2019 11:30 Matrix: Water

Sample ID: **DU-19102** Date Collected:

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**<0.50**	ug/l	0.50	0.014	1	2/12/2019 08:43	BW	n
Ethane	**<0.10**	ug/l	0.10	0.0070	1	2/12/2019 08:43	BW	n
Ethene	**0.29**	ug/l	0.10	0.0050	1	2/12/2019 08:43	BW	n

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ANALYTICAL RESULTS

Workorder: 29439 WPH CLEMSON

Lab ID: **294390002** Date Received: 2/8/2019 11:30 Matrix: Water

Sample ID: **RMW-13** Date Collected: 2/4/2019 17:40

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**<0.50**	ug/l	0.50	0.014	1	2/12/2019 08:56	BW	n
Ethane	**<0.10**	ug/l	0.10	0.0070	1	2/12/2019 08:56	BW	n
Ethene	**0.66**	ug/l	0.10	0.0050	1	2/12/2019 08:56	BW	n

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ANALYTICAL RESULTS

Workorder: 29439 WPH CLEMSON

Lab ID: **294390003** Date Received: 2/8/2019 11:30 Matrix: Water

Sample ID: **RMW-11** Date Collected: 2/4/2019 17:20

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**<0.50**	ug/l	0.50	0.014	1	2/12/2019 09:06	BW	n
Ethane	**<0.10**	ug/l	0.10	0.0070	1	2/12/2019 09:06	BW	n
Ethene	**<0.10**	ug/l	0.10	0.0050	1	2/12/2019 09:06	BW	n

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ANALYTICAL RESULTS

Workorder: 29439 WPH CLEMSON

Lab ID: **294390004** Date Received: 2/8/2019 11:30 Matrix: Water

Sample ID: **RMW-08A** Date Collected: 2/5/2019 12:20

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**3.0**	ug/l	0.50	0.014	1	2/12/2019 09:16	BW	n
Ethane	**0.37**	ug/l	0.10	0.0070	1	2/12/2019 09:16	BW	n
Ethene	**3.6**	ug/l	0.10	0.0050	1	2/12/2019 09:16	BW	n

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ANALYTICAL RESULTS

Workorder: 29439 WPH CLEMSON

Lab ID: **294390005** Date Received: 2/8/2019 11:30 Matrix: Water

Sample ID: **RMW-08** Date Collected: 2/5/2019 12:10

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**<0.50**	ug/l	0.50	0.014	1	2/12/2019 09:25	BW	n
Ethane	**<0.10**	ug/l	0.10	0.0070	1	2/12/2019 09:25	BW	n
Ethene	**0.72**	ug/l	0.10	0.0050	1	2/12/2019 09:25	BW	n

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ANALYTICAL RESULTS

Workorder: 29439 WPH CLEMSON

Lab ID: **294390006** Date Received: 2/8/2019 11:30 Matrix: Water

Sample ID: **RMW-07** Date Collected: 2/5/2019 13:15

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**<0.50**	ug/l	0.50	0.014	1	2/12/2019 10:35	BW	n
Ethane	**<0.10**	ug/l	0.10	0.0070	1	2/12/2019 10:35	BW	n
Ethene	**0.26**	ug/l	0.10	0.0050	1	2/12/2019 10:35	BW	n

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ANALYTICAL RESULTS

Workorder: 29439 WPH CLEMSON

Lab ID: **294390007** Date Received: 2/8/2019 11:30 Matrix: Water

Sample ID: **RMW-21** Date Collected: 2/5/2019 15:25

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**2.7**	ug/l	0.50	0.014	1	2/12/2019 10:45	BW	n
Ethane	**<0.10**	ug/l	0.10	0.0070	1	2/12/2019 10:45	BW	n
Ethene	**0.34**	ug/l	0.10	0.0050	1	2/12/2019 10:45	BW	n

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ANALYTICAL RESULTS

Workorder: 29439 WPH CLEMSON

Lab ID: **294390008** Date Received: 2/8/2019 11:30 Matrix: Water

Sample ID: **RMW-20C** Date Collected: 2/5/2019 16:20

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**1.1**	ug/l	0.50	0.014	1	2/12/2019 10:57	BW	n
Ethane	**<0.10**	ug/l	0.10	0.0070	1	2/12/2019 10:57	BW	n
Ethene	**3.8**	ug/l	0.10	0.0050	1	2/12/2019 10:57	BW	n

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ANALYTICAL RESULTS

Workorder: 29439 WPH CLEMSON

Lab ID: **294390009** Date Received: 2/8/2019 11:30 Matrix: Water

Sample ID: **RMW-12** Date Collected: 2/5/2019 15:50

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**<0.50**	ug/l	0.50	0.014	1	2/12/2019 11:11	BW	n
Ethane	**<0.10**	ug/l	0.10	0.0070	1	2/12/2019 11:11	BW	n
Ethene	**<0.10**	ug/l	0.10	0.0050	1	2/12/2019 11:11	BW	n

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ANALYTICAL RESULTS

Workorder: 29439 WPH CLEMSON

Lab ID: **294390010** Date Received: 2/8/2019 11:30 Matrix: Water

Sample ID: **RMW-19** Date Collected: 2/6/2019 09:45

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**<0.50**	ug/l	0.50	0.014	1	2/12/2019 11:22	BW	n
Ethane	**<0.10**	ug/l	0.10	0.0070	1	2/12/2019 11:22	BW	n
Ethene	**<0.10**	ug/l	0.10	0.0050	1	2/12/2019 11:22	BW	n

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ANALYTICAL RESULTS

Workorder: 29439 WPH CLEMSON

Lab ID: **294390011** Date Received: 2/8/2019 11:30 Matrix: Water

Sample ID: **RMW-10A** Date Collected: 2/6/2019 11:25

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**<0.50**	ug/l	0.50	0.014	1	2/12/2019 11:33	BW	n
Ethane	**<0.10**	ug/l	0.10	0.0070	1	2/12/2019 11:33	BW	n
Ethene	**<0.10**	ug/l	0.10	0.0050	1	2/12/2019 11:33	BW	n

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ANALYTICAL RESULTS

Workorder: 29439 WPH CLEMSON

Lab ID: **294390012** Date Received: 2/8/2019 11:30 Matrix: Water

Sample ID: **RMW-10B** Date Collected: 2/6/2019 11:20

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**6.4**	ug/l	0.50	0.014	1	2/12/2019 11:43	BW	n
Ethane	**<0.10**	ug/l	0.10	0.0070	1	2/12/2019 11:43	BW	n
Ethene	**0.17**	ug/l	0.10	0.0050	1	2/12/2019 11:43	BW	n

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ANALYTICAL RESULTS

Workorder: 29439 WPH CLEMSON

Lab ID: **294390013** Date Received: 2/8/2019 11:30 Matrix: Water

Sample ID: **RMW-10C** Date Collected: 2/6/2019 12:00

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**<0.50**	ug/l	0.50	0.014	1	2/12/2019 11:53	BW	n
Ethane	**<0.10**	ug/l	0.10	0.0070	1	2/12/2019 11:53	BW	n
Ethene	**0.23**	ug/l	0.10	0.0050	1	2/12/2019 11:53	BW	n

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ANALYTICAL RESULTS

Workorder: 29439 WPH CLEMSON

Lab ID: **294390014** Date Received: 2/8/2019 11:30 Matrix: Water

Sample ID: **RMW-09** Date Collected: 2/6/2019 13:25

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**<0.50**	ug/l	0.50	0.014	1	2/13/2019 09:30	BW	n
Ethane	**<0.10**	ug/l	0.10	0.0070	1	2/13/2019 09:30	BW	n
Ethene	**<0.10**	ug/l	0.10	0.0050	1	2/13/2019 09:30	BW	n

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ANALYTICAL RESULTS

Workorder: 29439 WPH CLEMSON

Lab ID: **294390015** Date Received: 2/8/2019 11:30 Matrix: Water

Sample ID: **RMW-26** Date Collected: 2/6/2019 15:20

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**190**	ug/l	0.50	0.014	1	2/13/2019 09:42	BW	n
Ethane	**<0.10**	ug/l	0.10	0.0070	1	2/13/2019 09:42	BW	n
Ethene	**0.59**	ug/l	0.10	0.0050	1	2/13/2019 09:42	BW	n

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ANALYTICAL RESULTS

Workorder: 29439 WPH CLEMSON

Lab ID: **294390016** Date Received: 2/8/2019 11:30 Matrix: Water

Sample ID: **RMW-01** Date Collected: 2/6/2019 15:15

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**<0.50**	ug/l	0.50	0.014	1	2/13/2019 09:56	BW	n
Ethane	**<0.10**	ug/l	0.10	0.0070	1	2/13/2019 09:56	BW	n
Ethene	**<0.10**	ug/l	0.10	0.0050	1	2/13/2019 09:56	BW	n

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ANALYTICAL RESULTS

Workorder: 29439 WPH CLEMSON

Lab ID: **294390017** Date Received: 2/8/2019 11:30 Matrix: Water

Sample ID: **RMW-05A** Date Collected: 2/7/2019 15:30

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**<0.50**	ug/l	0.50	0.014	1	2/13/2019 10:09	BW	n
Ethane	**<0.10**	ug/l	0.10	0.0070	1	2/13/2019 10:09	BW	n
Ethene	**<0.10**	ug/l	0.10	0.0050	1	2/13/2019 10:09	BW	n

CERTIFICATE OF ANALYSIS

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ANALYTICAL RESULTS

Workorder: 29439 WPH CLEMSON

Lab ID: **294390018** Date Received: 2/8/2019 11:30 Matrix: Water

Sample ID: **RMW-24** Date Collected: 2/7/2019 12:40

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**24**	ug/l	0.50	0.014	1	2/13/2019 10:21	BW	n
Ethane	**0.27**	ug/l	0.10	0.0070	1	2/13/2019 10:21	BW	n
Ethene	**0.33**	ug/l	0.10	0.0050	1	2/13/2019 10:21	BW	n

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ANALYTICAL RESULTS

Workorder: 29439 WPH CLEMSON

Lab ID: **294390019** Date Received: 2/8/2019 11:30 Matrix: Water

Sample ID: **DU-19104** Date Collected:

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**<0.50**	ug/l	0.50	0.014	1	2/13/2019 10:33	BW	n
Ethane	**<0.10**	ug/l	0.10	0.0070	1	2/13/2019 10:33	BW	n
Ethene	**<0.10**	ug/l	0.10	0.0050	1	2/13/2019 10:33	BW	n

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ANALYTICAL RESULTS QUALIFIERS

Workorder: 29439 WPH CLEMSON

DEFINITIONS/QUALIFIERS

MDL	Method Detection Limit. Can be used synonymously with LOD; Limit Of Detection.
PQL	Practical Quanitation Limit. Can be used synonymously with LOQ; Limit Of Quantitation.
ND	Not detected at or above reporting limit.
DF	Dilution Factor.
S	Surrogate.
RPD	Relative Percent Difference.
% Rec	Percent Recovery.
U	Indicates the compound was analyzed for, but not detected at or above the noted concentration.
J	Estimated concentration greater than the set method detection limit (MDL) and less than the set reporting limit (PQL).
n	The laboratory does not hold NELAP/TNI accreditation for this method or analyte.

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QUALITY CONTROL DATA

Workorder: 29439 WPH CLEMSON

QC Batch: DISG/7361 Analysis Method: AM20GAX

QC Batch Method: AM20GAX

Associated Lab Samples: 294390001, 294390002, 294390003, 294390004, 294390005, 294390006, 294390007, 294390008, 294390009, 294390010, 294390011, 294390012, 294390013

METHOD BLANK: 59720

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
RISK				
Methane	ug/l	<0.50	0.50	n
Ethane	ug/l	<0.10	0.10	n
Ethene	ug/l	<0.10	0.10	n

LABORATORY CONTROL SAMPLE & LCSD: 59721 59722

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
RISK										
Methane	ug/l	750	780	780	105	104	80-120	0.47	20	n
Ethane	ug/l	38	41	41	109	109	80-120	0.0029	20	n
Ethene	ug/l	35	38	38	109	108	80-120	0.38	20	n

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QUALITY CONTROL DATA

Workorder: 29439 WPH CLEMSON

QC Batch: DISG/7366 Analysis Method: AM20GAX

QC Batch Method: AM20GAX

Associated Lab Samples: 294390014, 294390015, 294390016, 294390017, 294390018, 294390019

METHOD BLANK: 59750

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
RISK				
Methane	ug/l	<0.50	0.50	n
Ethane	ug/l	<0.10	0.10	n
Ethene	ug/l	<0.10	0.10	n

LABORATORY CONTROL SAMPLE & LCSD: 59752 59754

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
RISK										
Methane	ug/l	750	740	730	99	97	80-120	1.4	20	n
Ethane	ug/l	38	40	40	105	106	80-120	1.1	20	n
Ethene	ug/l	35	38	38	106	107	80-120	0.43	20	n

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QUALITY CONTROL DATA QUALIFIERS

Workorder: 29439 WPH CLEMSON

QUALITY CONTROL PARAMETER QUALIFIERS

n	The laboratory does not hold NELAP/TNI accreditation for this method or analyte.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 29439 WPH CLEMSON

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
294390001	DU-19102			AM20GAX	DISG/7361
294390002	RMW-13			AM20GAX	DISG/7361
294390003	RMW-11			AM20GAX	DISG/7361
294390004	RMW-08A			AM20GAX	DISG/7361
294390005	RMW-08			AM20GAX	DISG/7361
294390006	RMW-07			AM20GAX	DISG/7361
294390007	RMW-21			AM20GAX	DISG/7361
294390008	RMW-20C			AM20GAX	DISG/7361
294390009	RMW-12			AM20GAX	DISG/7361
294390010	RMW-19			AM20GAX	DISG/7361
294390011	RMW-10A			AM20GAX	DISG/7361
294390012	RMW-10B			AM20GAX	DISG/7361
294390013	RMW-10C			AM20GAX	DISG/7361
294390014	RMW-09			AM20GAX	DISG/7366
294390015	RMW-26			AM20GAX	DISG/7366
294390016	RMW-01			AM20GAX	DISG/7366
294390017	RMW-05A			AM20GAX	DISG/7366
294390018	RMW-24			AM20GAX	DISG/7366
294390019	DU-19104			AM20GAX	DISG/7366

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29437

CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 2

013683

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: TRC	Report To: Lisa Clark	Attention:
Address: 50 International Dr 150 Greenville, SC 29615	Copy To:	Company Name:
Email To:	Purchase Order No.:	Address:
Phone: Fax:	Project Name: WPK Clemson	Pace Quote Reference:
Requested Due Date/TAT:	Project Number: 300688.0.0.2	Pace Project Manager:
		Pace Profile #:

REGULATORY AGENCY

NPDES GROUND WATER DRINKING WATER
UST RCRA OTHER _____

Site Location STATE: _____

Requested Analysis Filtered (Y/N)

Section D Required Client Information

SAMPLE ID
(A-Z, 0-9 / ,-)
Sample IDs MUST BE UNIQUE

Matrix Codes (MATRIX / CODE)
Drinking Water DW
Water WT
Waste Water WW
Product P
Soil/Solid SL
Oil OL
Wipe WP
Air AR
Tissue TS
Other OT

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED: COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	TSP	BAK	Zinc Acetate & NaOH	Other	Analysis Test Y/N	Diss. Gasses	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	DU-19102	WT				2019 /	/		3					X					X		
2	RMW-13	WT				2.4	1740		3					X					X		
3	RMW-11	WT				2.4	1720		3					X					X		
4	RMW-08A	WT				2.5	1220		3					X					X		
5	RMW-08	WT				2.5	1210		3					X					X		
6	RMW-07	WT				2.5	1315		3					X					X		
7	RMW-21	WT				2.5	1525		3					X					X		
8	RMW-20	WT				2.5	1620		3					X					X		
9	RMW-12	WT				2.5	1580		3					X					X		
10	RMW-19	WT				2.6	0945		3					X					X		
11	RMW-10A	WT				2.6	1125		3					X					X		
12	RMW-10B	WT				2.6	1120		3					X					X		

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	[signature] / TRC	2.7.19	1730	Fedex	2-7-19	1730	
				[signature]		1730	

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY):

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

TRC

CHAIN OF CUSTODY RECORD

2 of 2

78235

50 International Dr Suite150
~~30 Patewood Drive, Suite 100, Patewood Plaza One~~, Greenville, SC 29615-3535
Phone 864/281-0030 • Fax 864/281-0288

Project No.: 300638.0.02

Project/Client: WPH Clemson

Project Manager/Contact Person: Lisa Clark

Lab No.	Yr. ___ Date	Time	Sample Station ID	Total Number of Containers	MATRIX	Analyses Requested: Diss. Gases	Filtered (Yes/No)	Preserved (Code)	Comments:
			RMW-10C	3	WT	X			
			RMW-09	3	WT	X			
			RMW-26	3	WT	X			
			RMW-01	3	WT	X			
			RMW-05A	3	WT	X			
			RMW-24	3	WT	X			
			DU-19104	3	WT	X			

PRESERVED CODES
A — NONE
B — HNO_3
C — H_2SO_4
D — NaOH
E — HCl
F — METHANOL
G — _____

SPECIAL INSTRUCTIONS

SAMPLER Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
[signature]	2-7-19 1730	~~FRG~~ Fedex	2-7-19 1730
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time
Relinquished by (Signature)	Date/Time	Received by (Signature)	Date/Time

Custody Seal: Present/Absent Intact/Not Intact Seal #s

HAZARDS ASSOCIATED WITH SAMPLES
- ☐ Flammable
- ☐ Corrosive
- ☐ Highly Toxic
- ☐ Other (list) _____

Turn Around (circle one) Normal Rush

Report Due _____

(For Lab Use Only)

Receipt Temp: _____ Temp Blank Y N

Receipt pH (Wet/Metals) _____

F-268 (10/08)

WHITE—LABORATORY COPY YELLOW—REPORT APPENDIX PINK—SAMPLER/SUBMITTER

Cooler Receipt Form

Client Name: _____ Project: _____ Lab Work Order: _____

A. **Shipping/Container Information** (circle appropriate response)

Courier: FedEx UPS USPS Client Other:_____ **Air bill Present:** Yes No

Tracking Number:_____

Custody Seal on Cooler/Box Present: Yes No **Seals Intact:** Yes No

Cooler/Box Packing Material: Bubble Wrap Absorbent Foam Other:_____

Type of Ice: Wet Blue None **Ice Intact:** Yes Melted

Cooler Temperature:_____ **Radiation Screened:** Yes No **Chain of Custody Present:** Yes No

Comments:_____

B. **Laboratory Assignment/Log-in** (check appropriate response)

	YES	NO	N/A	Comment Reference non-Conformance
Chain of Custody properly filled out				
Chain of Custody relinquished				
Sampler Name & Signature on COC				
Containers intact				
Were samples in separate bags				
Sample container labels match COC Sample name/date and time collected				
Sufficient volume provided				
PAES containers used				
Are containers properly preserved for the requested testing? (as labeled)				
If an unknown preservation state, were containers checked? Exception: VOA's coliform				If yes, see pH form.
Was volume for dissolved testing field filtered, as noted on the COC? Was volume received in a preserved container?				
Headspace present?				

Comments:_____

_____

Cooler contents examined/received by :_____ **Date:**_____

Project Manager Review : ERJ **Date:** 2-8-19

NON-CONFORMANCE FORM

PAES Work Order #: _____

Date: _____ Time of Receipt: _____ Receiver: _____

Client: _____

REASON FOR NON-CONFORMANCE:

ACTION TAKEN:

Client name: TRC Date: 2-8-19 Time: 15:33

Emailed client to notify.

Customer Service Initials: ERJ Date: 2-8-19

Emma Louis - WPH Clemson

From: Emma Louis
To: Clark Lisa
Subject: WPH Clemson

Hi Lisa

We received the samples for the project above. During login the following was noted:

1. RMW-20: vials ID was RMW-20C. Please confirm the correct sample ID.

2. Samples 13-19: no date and time on the COC, they were taken from the vials. Please confirm this information.

13: 2/6/19 @ 12:00
14: " " @ 13:25
15: " " @ 15:20
16: " " @ 15:15
17: 2/7/19 @ 15:30
18: " " @ 12:40
19: - -

Thank you

Emma Louis
Project Coordinator
Pace Analytical Energy Services, LLC
220 William Pitt Way
Pittsburgh, PA 15238
412-826-2378 (O) | 412-826-5245 (Main)
www.pacelabs.com

Emma Louis - Re: WPH Clemson

From: "Medlin, Benjamin J." <BJMedlin@trcsolutions.com>
To: "Emma.Louis@pacelabs.com" <Emma.Louis@pacelabs.com>
Date: 2/9/2019 10:54 AM
Subject: Re: WPH Clemson
Cc: "Clark, Lisa" <LClark@trcsolutions.com>

Emma

RMW-20C is the correct sample ID

All the info you listed for dates and time for 13 through 19 is correct.

Thank you

Benjamin J Medlin
864.293.8022

From: Clark, Lisa <lclark@trcsolutions.com>
Sent: Saturday, February 9, 2019 10:18 AM
To: Medlin, Benjamin J.
Subject: Fwd: WPH Clemson

Ben, can u respond to these questions?

Sent from my iPhone

Begin forwarded message:

> **From:** Emma Louis <Emma.Louis@pacelabs.com>
> **Date:** February 8, 2019 at 3:38:35 PM EST
> **To:** <LClark@trcsolutions.com>
> **Subject: WPH Clemson**

Hi Lisa

We received the samples for the project above. During login the following was noted:

1. RMW-20: vials ID was RMW-20C. Please confirm the correct sample ID.

2. Samples 13-19: no date and time on the COC, they were taken from the vials. Please confirm this information.

13: 2/6/19 @ 12:00
14: " " @ 13:25
15: " " @ 15:20
16: " " @ 15:15
17: 2/7/19 @ 15:30
18: " " @ 12:40
19: - -

Thank you

Emma Louis
Project Coordinator
Pace Analytical Energy Services, LLC
220 William Pitt Way
Pittsburgh, PA 15238
412-826-2378 (O) | 412-826-5245 (Main)
www.pacelabs.com

SHEALY ENVIRONMENTAL SERVICES, INC.

Report of Analysis

TRC Companies, Inc.
50 International Dr.
Suite 150
Greenville, SC 29615
Attention: Lisa Clark

Project Name: WPH Clemson

Project Number: 300688.0000.0000.0002

Lot Number:**UB05042**

Date Completed:02/21/2019

02/21/2019 1:18 PM
Approved and released by:
Lab Director - Greenville: Lucas Odom

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Laboratory Data Quality Review Notes

Project Name: WPH-Clemson, SC

Project Number: 300688.0000.0000.000002

Lab Report: UB05042 Shealy Environmental Services
Eleven groundwater samples and one groundwater field duplicate were analyzed for one or more of volatile organic compounds (VOCs), chloride, bromide, sulfate, and nitrate. One trip blank was analyzed for VOCs.

Chain of Custody, Sample Temperature, Sample Preservation: Chains of custody (CoCs) signed; sample temperature <6 ^{o}C upon arrival at the laboratory; samples were preserved properly.

Hold Time: Samples analyzed within hold time.

Surrogates: VOC surrogate recoveries are within QC limits.

Method Blank: Method blanks were free of detections.

Trip Blank: Trip blank TBLK-19106 had a detection of acetone at 2.3 J ug/L. **A "u" qualifier is assigned to acetone in DG-01, DG-03D, DG-05, and MG-05 because these samples had detected acetone concentrations comparable to that in the trip blank.**

Field Blank: A field blank was not collected with these samples.

Equipment Rinse Blank: A rinsate blank was not collected with these samples.

LCS/LCSD: LCS recoveries for anions and VOCs are within QC Limits except as noted below. LCSD analyses were not performed.

- Bromomethane was recovered above the upper QC limit in batches 97102 and 97215. Bromomethane was not detected in the samples reported. No qualifiers were assigned.

MS/MSD: RMW-13 were used for bromide and chloride MS/MSD analyses. MS/MSD recoveries and RPDs were within QC limits.

Duplicates: DU-19102 is a field duplicate of RMW-13. Calculated RPDs for bromide, chloride, nitrate, sulfate, and tetrachloroethene were 8.7% or less which is within the QC limit.

Data review performed by: Terry Hertz; TRC Environmental Corp.; 2/25/2019

Case Narrative
TRC Companies, Inc.
Lot Number: UB05042

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

VOCs by GC/MS

The continuing calibration verification (CCV) and LCS associated with batch 97102 recovered Bromomethane above the upper control limit. The samples associated with this CCV/LCS were non-detect for the affected analytes; therefore, the data has been reported.

The laboratory control sample (LCS) associated with batch 97215 exceeded acceptance criteria for Bromomethane. This analyte is biased high but is not detected in the samples affected.

Nitrate

Sample -010 is a blind duplicate and therefore does not have a collection date or collection time on the COC. The date has been set to 02/04/19 as this is the date of the earliest Nitrate sample. A time has not been reported. This sample was performed within hold time if it was collected after 02/04/19 at 0247.

Sample Summary

TRC Companies, Inc.

Lot Number: UB05042

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	TBLK-19106	Aqueous	02/01/2019	02/05/2019
002	DG-03S	Aqueous	02/01/2019 1250	02/05/2019
003	DG-03D	Aqueous	02/01/2019 1300	02/05/2019
004	DG-01	Aqueous	02/01/2019 1430	02/05/2019
005	DG-05	Aqueous	02/01/2019 1515	02/05/2019
006	MG-05	Aqueous	02/04/2019 1235	02/05/2019
007	MG-05A	Aqueous	02/04/2019 1215	02/05/2019
008	RMW-15	Aqueous	02/04/2019 1600	02/05/2019
009	RMW-15A	Aqueous	02/04/2019 1540	02/05/2019
010	DU-19102	Aqueous	02/04/2019	02/05/2019
011	RMW-15B	Aqueous	02/04/2019 1610	02/05/2019
012	RMW-13	Aqueous	02/04/2019 1740	02/05/2019
013	RMW-11	Aqueous	02/04/2019 1720	02/05/2019

(13 samples)

Detection Summary

TRC Companies, Inc.

Lot Number: UB05042

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	TBLK-19106	Aqueous	Acetone	8260B	2.3	J	ug/L	7
002	DG-03S	Aqueous	Chloroform	8260B	0.90	J	ug/L	9
002	DG-03S	Aqueous	Tetrachloroethene	8260B	11		ug/L	9
002	DG-03S	Aqueous	Trichlorofluoromethane	8260B	1.6		ug/L	10
003	DG-03D	Aqueous	Acetone	8260B	2.3	J	ug/L	11
003	DG-03D	Aqueous	Chloroform	8260B	0.88	J	ug/L	11
003	DG-03D	Aqueous	1,1-Dichloroethene	8260B	5.0		ug/L	11
003	DG-03D	Aqueous	cis-1,2-Dichloroethene	8260B	0.53	J	ug/L	11
003	DG-03D	Aqueous	Tetrachloroethene	8260B	140		ug/L	11
003	DG-03D	Aqueous	Trichlorofluoromethane	8260B	37		ug/L	12
004	DG-01	Aqueous	Acetone	8260B	2.4	J	ug/L	13
005	DG-05	Aqueous	Acetone	8260B	2.8	J	ug/L	15
005	DG-05	Aqueous	Tetrachloroethene	8260B	1.5		ug/L	15
005	DG-05	Aqueous	Trichlorofluoromethane	8260B	1.4		ug/L	16
006	MG-05	Aqueous	Acetone	8260B	3.0	J	ug/L	17
006	MG-05	Aqueous	Benzene	8260B	1.0		ug/L	17
006	MG-05	Aqueous	1,1-Dichloroethane	8260B	0.77	J	ug/L	17
006	MG-05	Aqueous	cis-1,2-Dichloroethene	8260B	2.6		ug/L	17
006	MG-05	Aqueous	Tetrachloroethene	8260B	20		ug/L	17
006	MG-05	Aqueous	Trichloroethene	8260B	1.9		ug/L	18
007	MG-05A	Aqueous	Tetrachloroethene	8260B	200		ug/L	19
008	RMW-15	Aqueous	Tetrachloroethene	8260B	35		ug/L	21
008	RMW-15	Aqueous	Trichloroethene	8260B	1.8		ug/L	22
009	RMW-15A	Aqueous	Tetrachloroethene	8260B	230		ug/L	23
010	DU-19102	Aqueous	Bromide	300.0	0.13	J	mg/L	25
010	DU-19102	Aqueous	Chloride	300.0	4.9		mg/L	25
010	DU-19102	Aqueous	Nitrate - N	353.2	1.3		mg/L	25
010	DU-19102	Aqueous	Sulfate	300.0	60		mg/L	25
010	DU-19102	Aqueous	Tetrachloroethene	8260B	110		ug/L	26
011	RMW-15B	Aqueous	Acetone	8260B	19	J	ug/L	27
011	RMW-15B	Aqueous	cis-1,2-Dichloroethene	8260B	0.53	J	ug/L	27
011	RMW-15B	Aqueous	Tetrachloroethene	8260B	4.6		ug/L	27
011	RMW-15B	Aqueous	Trichloroethene	8260B	1.4		ug/L	28
012	RMW-13	Aqueous	Bromide	300.0	0.12	J	mg/L	29
012	RMW-13	Aqueous	Chloride	300.0	4.8		mg/L	29
012	RMW-13	Aqueous	Nitrate - N	353.2	1.2		mg/L	29
012	RMW-13	Aqueous	Sulfate	300.0	64		mg/L	29
012	RMW-13	Aqueous	Tetrachloroethene	8260B	120		ug/L	30
013	RMW-11	Aqueous	Bromide	300.0	0.18	J	mg/L	31
013	RMW-11	Aqueous	Chloride	300.0	9.0		mg/L	31
013	RMW-11	Aqueous	Nitrate - N	353.2	6.6		mg/L	31
013	RMW-11	Aqueous	Sulfate	300.0	98		mg/L	31
013	RMW-11	Aqueous	Chloroform	8260B	2.1		ug/L	31
013	RMW-11	Aqueous	1,2-Dichloroethane	8260B	0.93	J	ug/L	31
013	RMW-11	Aqueous	Tetrachloroethene	8260B	100		ug/L	32

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page

(45 detections)

Client: TRC Companies, Inc.
Description: TBLK-19106
Date Sampled: 02/01/2019
Date Received: 02/05/2019

Laboratory ID: UB05042-001
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/10/2019 1750	KGT		97102

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	2.3	J	20	2.0	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Client: TRC Companies, Inc.
Description: TBLK-19106
Date Sampled: 02/01/2019
Date Received: 02/05/2019

Laboratory ID: UB05042-001
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/10/2019 1750	KGT		97102

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260B	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		106	70-130
Bromofluorobenzene		98	70-130
Toluene-d8		105	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Client: TRC Companies, Inc.
Description: DG-03S
Date Sampled: 02/01/2019 1250
Date Received: 02/05/2019

Laboratory ID: UB05042-002
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/10/2019 1845	KGT		97102

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	ND		20	2.0	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260B	0.90	J	1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	11		1.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Client: TRC Companies, Inc.
Description: DG-03S
Date Sampled: 02/01/2019 1250
Date Received: 02/05/2019

Laboratory ID: UB05042-002
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/10/2019 1845	KGT		97102

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260B	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	1.6		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		105	70-130
Bromofluorobenzene		102	70-130
Toluene-d8		106	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Client: TRC Companies, Inc.
Description: DG-03D
Date Sampled: 02/01/2019 1300
Date Received: 02/05/2019

Laboratory ID: UB05042-003
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/10/2019 1909	KGT		97102

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	2.3	J	20	2.0	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260B	0.88	J	1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	5.0		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	0.53	J	1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	140		1.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
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Client: TRC Companies, Inc.
Description: DG-03D
Date Sampled: 02/01/2019 1300
Date Received: 02/05/2019

Laboratory ID: UB05042-003
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/10/2019 1909	KGT		97102

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260B	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	37		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		106	70-130
Bromofluorobenzene		98	70-130
Toluene-d8		103	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
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Shealy Environmental Services, Inc.
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Client: TRC Companies, Inc.
Description: DG-01
Date Sampled: 02/01/2019 1430
Date Received: 02/05/2019

Laboratory ID: UB05042-004
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/10/2019 1932	KGT		97102

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	2.4	J	20	2.0	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
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Client: TRC Companies, Inc.
Description: DG-01
Date Sampled: 02/01/2019 1430
Date Received: 02/05/2019

Laboratory ID: UB05042-004
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/10/2019 1932	KGT		97102

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260B	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		107	70-130
Bromofluorobenzene		102	70-130
Toluene-d8		106	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
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Client: TRC Companies, Inc.
Description: DG-05
Date Sampled: 02/01/2019 1515
Date Received: 02/05/2019

Laboratory ID: UB05042-005
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/10/2019 1955	KGT		97102

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	2.8	J	20	2.0	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	1.5		1.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Client: TRC Companies, Inc.
Description: DG-05
Date Sampled: 02/01/2019 1515
Date Received: 02/05/2019

Laboratory ID: UB05042-005
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/10/2019 1955	KGT		97102

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260B	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	1.4		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		107	70-130
Bromofluorobenzene		100	70-130
Toluene-d8		105	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
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Client: TRC Companies, Inc.
Description: MG-05
Date Sampled: 02/04/2019 1235
Date Received: 02/05/2019

Laboratory ID: UB05042-006
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/10/2019 2018	KGT		97102

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	3.0	J	20	2.0	ug/L	1
Benzene	71-43-2	8260B	1.0		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	0.77	J	1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	2.6		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	20		1.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: MG-05
Date Sampled: 02/04/2019 1235
Date Received: 02/05/2019

Laboratory ID: UB05042-006
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/10/2019 2018	KGT		97102

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260B	1.9		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		108	70-130
Bromofluorobenzene		102	70-130
Toluene-d8		107	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
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Client: TRC Companies, Inc.
Description: MG-05A
Date Sampled: 02/04/2019 1215
Date Received: 02/05/2019

Laboratory ID: UB05042-007
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/10/2019 2043	KGT		97102
2	5030B	8260B	5	02/12/2019 1640	BWS		97259

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	ND		20	2.0	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	200		5.0	2.0	ug/L	2

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
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Client: TRC Companies, Inc.
Description: MG-05A
Date Sampled: 02/04/2019 1215
Date Received: 02/05/2019

Laboratory ID: UB05042-007
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/10/2019 2043	KGT		97102
2	5030B	8260B	5	02/12/2019 1640	BWS		97259

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Toluene	108-88-3	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260B	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Run 1 Acceptance Limits	Q	Run 2 % Recovery	Run 2 Acceptance Limits
1,2-Dichloroethane-d4		105	70-130		106	70-130
Bromofluorobenzene		97	70-130		101	70-130
Toluene-d8		105	70-130		101	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
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Client: TRC Companies, Inc.
Description: RMW-15
Date Sampled: 02/04/2019 1600
Date Received: 02/05/2019

Laboratory ID: UB05042-008
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/11/2019 2339	KGT		97215

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	ND		20	2.0	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	35		1.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Client: TRC Companies, Inc.
Description: RMW-15
Date Sampled: 02/04/2019 1600
Date Received: 02/05/2019

Laboratory ID: UB05042-008
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/11/2019 2339	KGT		97215

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260B	1.8		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		103	70-130
Bromofluorobenzene		101	70-130
Toluene-d8		105	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
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Client: TRC Companies, Inc.
Description: RMW-15A
Date Sampled: 02/04/2019 1540
Date Received: 02/05/2019

Laboratory ID: UB05042-009
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	5	02/12/2019 0203	KGT		97215

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	ND		100	10	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	2.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	2.0	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	2.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		10	2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		50	10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	2.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	2.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	2.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		10	2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	2.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	2.5	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	2.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	2.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	2.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	2.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	2.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	2.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	2.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		10	3.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	2.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	2.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	2.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.0	2.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	2.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	2.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	2.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	2.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	2.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		50	10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	2.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	2.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	2.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		50	10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		25	2.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	2.0	ug/L	1
Styrene	100-42-5	8260B	ND		5.0	2.1	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	2.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	230		5.0	2.0	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	2.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Client: TRC Companies, Inc.
Description: RMW-15A
Date Sampled: 02/04/2019 1540
Date Received: 02/05/2019

Laboratory ID: UB05042-009
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	5	02/12/2019 0203	KGT		97215

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	2.1	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	2.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	2.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	2.0	ug/L	1
Trichloroethene	79-01-6	8260B	ND		5.0	2.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	2.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		5.0	2.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	2.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		103	70-130
Bromofluorobenzene		99	70-130
Toluene-d8		104	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: DU-19102
Date Sampled: 02/04/2019
Date Received: 02/05/2019

Laboratory ID: UB05042-010
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2		(Bromide) 300.0	1	02/19/2019 2159	SLU		98106
2		(Chloride) 300.0	1	02/19/2019 2159	SLU		98104
1		(Nitrate - N) 353.2	1	02/06/2019 0247	MDD		96713
1		(Sulfate) 300.0	1	02/12/2019 2311	SLU		97301

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.13	J	0.20	0.050	mg/L	2
Chloride		300.0	4.9		1.0	0.20	mg/L	2
Nitrate - N		353.2	1.3		0.020	0.0015	mg/L	1
Sulfate		300.0	60		1.0	0.20	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/12/2019 0002	KGT		97215

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	ND		20	2.0	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: DU-19102
Date Sampled: 02/04/2019
Date Received: 02/05/2019

Laboratory ID: UB05042-010
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/12/2019 0002	KGT		97215

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	110		1.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260B	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		103	70-130
Bromofluorobenzene		102	70-130
Toluene-d8		105	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
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Client: TRC Companies, Inc.
Description: RMW-15B
Date Sampled: 02/04/2019 1610
Date Received: 02/05/2019

Laboratory ID: UB05042-011
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/12/2019 0027	KGT		97215

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	19	J	20	2.0	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	0.53	J	1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	4.6		1.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: RMW-15B
Date Sampled: 02/04/2019 1610
Date Received: 02/05/2019

Laboratory ID: UB05042-011
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/12/2019 0027	KGT		97215

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260B	1.4		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		105	70-130
Bromofluorobenzene		104	70-130
Toluene-d8		107	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
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Client: TRC Companies, Inc.
Description: RMW-13
Date Sampled: 02/04/2019 1740
Date Received: 02/05/2019

Laboratory ID: UB05042-012
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2		(Bromide) 300.0	1	02/19/2019 2225	SLU		98106
2		(Chloride) 300.0	1	02/19/2019 2225	SLU		98104
1		(Nitrate - N) 353.2	1	02/06/2019 0301	MDD		96713
1		(Sulfate) 300.0	1	02/12/2019 2329	SLU		97301

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.12	J	0.20	0.050	mg/L	2
Chloride		300.0	4.8		1.0	0.20	mg/L	2
Nitrate - N		353.2	1.2		0.020	0.0015	mg/L	1
Sulfate		300.0	64		1.0	0.20	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/12/2019 0050	KGT		97215

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	ND		20	2.0	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: RMW-13
Date Sampled: 02/04/2019 1740
Date Received: 02/05/2019

Laboratory ID: UB05042-012
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/12/2019 0050	KGT		97215

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	120		1.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260B	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		105	70-130
Bromofluorobenzene		105	70-130
Toluene-d8		107	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: RMW-11
Date Sampled: 02/04/2019 1720
Date Received: 02/05/2019

Laboratory ID: UB05042-013
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2		(Bromide) 300.0	1	02/19/2019 2343	SLU		98106
2		(Chloride) 300.0	1	02/19/2019 2343	SLU		98104
1		(Nitrate - N) 353.2	10	02/06/2019 0249	MDD		96713
1		(Sulfate) 300.0	1	02/12/2019 2347	SLU		97301

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.18	J	0.20	0.050	mg/L	2
Chloride		300.0	9.0		1.0	0.20	mg/L	2
Nitrate - N		353.2	6.6		0.20	0.015	mg/L	1
Sulfate		300.0	98		1.0	0.20	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/12/2019 0114	KGT		97215

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	ND		20	2.0	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260B	2.1		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	0.93	J	1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: RMW-11
Date Sampled: 02/04/2019 1720
Date Received: 02/05/2019

Laboratory ID: UB05042-013
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/12/2019 0114	KGT		97215

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	100		1.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260B	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		102	70-130
Bromofluorobenzene		98	70-130
Toluene-d8		104	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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QC Summary

Inorganic non-metals - MB

Sample ID: UQ96713-001
Batch: 96713
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Nitrate - N	ND		1	0.020	0.0015	mg/L	02/06/2019 0233

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - LCS

Sample ID: UQ96713-002
Batch: 96713
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	0.80	0.82		1	103	90-110	02/06/2019 0235

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MB

Sample ID: UQ97301-001
Batch: 97301
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Sulfate	ND		1	1.0	0.20	mg/L	02/12/2019 1728

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - LCS

Sample ID: UQ97301-002
Batch: 97301
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Sulfate	20	21		1	103	90-110	02/12/2019 1804

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MB

Sample ID: UQ98104-001
Batch: 98104
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Chloride	ND		1	1.0	0.20	mg/L	02/19/2019 1528

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - LCS

Sample ID: UQ98104-002
Batch: 98104
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Chloride	20	20		1	100	90-110	02/19/2019 1621

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MS

Sample ID: UB05042-012MS
Batch: 98104
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Chloride	4.8	20	25		1	103	90-110	02/19/2019 2251

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: UB05042-012MD
Batch: 98104
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Chloride	4.8	20	25		1	102	0.79	90-110	20	02/19/2019 2317

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MB

Sample ID: UQ98106-001
Batch: 98106
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Bromide	ND		1	0.20	0.050	mg/L	02/19/2019 1528

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - LCS

Sample ID: UQ98106-002
Batch: 98106
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Bromide	8.0	8.4		1	105	90-110	02/19/2019 1621

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MS

Sample ID: UB05042-012MS
Batch: 98106
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Bromide	0.12	8.0	8.4		1	104	90-110	02/19/2019 2251

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: UB05042-012MD
Batch: 98106
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Bromide	0.12	8.0	8.4		1	104	0.00	90-110	20	02/19/2019 2317

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ97102-001
Batch: 97102
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Acetone	ND		1	20	2.0	ug/L	02/10/2019 1709
Benzene	ND		1	1.0	0.40	ug/L	02/10/2019 1709
Bromodichloromethane	ND		1	1.0	0.40	ug/L	02/10/2019 1709
Bromoform	ND		1	1.0	0.40	ug/L	02/10/2019 1709
Bromomethane (Methyl bromide)	ND		1	2.0	0.40	ug/L	02/10/2019 1709
2-Butanone (MEK)	ND		1	10	2.0	ug/L	02/10/2019 1709
Carbon disulfide	ND		1	1.0	0.40	ug/L	02/10/2019 1709
Carbon tetrachloride	ND		1	1.0	0.40	ug/L	02/10/2019 1709
Chlorobenzene	ND		1	1.0	0.40	ug/L	02/10/2019 1709
Chloroethane	ND		1	2.0	0.40	ug/L	02/10/2019 1709
Chloroform	ND		1	1.0	0.40	ug/L	02/10/2019 1709
Chloromethane (Methyl chloride)	ND		1	1.0	0.50	ug/L	02/10/2019 1709
Cyclohexane	ND		1	1.0	0.40	ug/L	02/10/2019 1709
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	0.40	ug/L	02/10/2019 1709
Dibromochloromethane	ND		1	1.0	0.40	ug/L	02/10/2019 1709
1,2-Dibromoethane (EDB)	ND		1	1.0	0.40	ug/L	02/10/2019 1709
1,2-Dichlorobenzene	ND		1	1.0	0.40	ug/L	02/10/2019 1709
1,3-Dichlorobenzene	ND		1	1.0	0.40	ug/L	02/10/2019 1709
1,4-Dichlorobenzene	ND		1	1.0	0.40	ug/L	02/10/2019 1709
Dichlorodifluoromethane	ND		1	2.0	0.60	ug/L	02/10/2019 1709
1,1-Dichloroethane	ND		1	1.0	0.40	ug/L	02/10/2019 1709
1,2-Dichloroethane	ND		1	1.0	0.40	ug/L	02/10/2019 1709
1,1-Dichloroethene	ND		1	1.0	0.40	ug/L	02/10/2019 1709
cis-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	02/10/2019 1709
trans-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	02/10/2019 1709
1,2-Dichloropropane	ND		1	1.0	0.40	ug/L	02/10/2019 1709
cis-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	02/10/2019 1709
trans-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	02/10/2019 1709
Ethylbenzene	ND		1	1.0	0.40	ug/L	02/10/2019 1709
2-Hexanone	ND		1	10	2.0	ug/L	02/10/2019 1709
Isopropylbenzene	ND		1	1.0	0.40	ug/L	02/10/2019 1709
Methyl acetate	ND		1	1.0	0.40	ug/L	02/10/2019 1709
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	0.40	ug/L	02/10/2019 1709
4-Methyl-2-pentanone	ND		1	10	2.0	ug/L	02/10/2019 1709
Methylcyclohexane	ND		1	5.0	0.40	ug/L	02/10/2019 1709
Methylene chloride	ND		1	1.0	0.40	ug/L	02/10/2019 1709
Styrene	ND		1	1.0	0.41	ug/L	02/10/2019 1709
1,1,2,2-Tetrachloroethane	ND		1	1.0	0.40	ug/L	02/10/2019 1709
Tetrachloroethene	ND		1	1.0	0.40	ug/L	02/10/2019 1709
Toluene	ND		1	1.0	0.40	ug/L	02/10/2019 1709
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	0.42	ug/L	02/10/2019 1709
1,2,4-Trichlorobenzene	ND		1	1.0	0.40	ug/L	02/10/2019 1709
1,1,1-Trichloroethane	ND		1	1.0	0.40	ug/L	02/10/2019 1709
1,1,2-Trichloroethane	ND		1	1.0	0.40	ug/L	02/10/2019 1709

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ97102-001
Batch: 97102
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Trichloroethene	ND		1	1.0	0.40	ug/L	02/10/2019 1709
Trichlorofluoromethane	ND		1	1.0	0.40	ug/L	02/10/2019 1709
Vinyl chloride	ND		1	1.0	0.40	ug/L	02/10/2019 1709
Xylenes (total)	ND		1	1.0	0.40	ug/L	02/10/2019 1709

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		106	70-130
Bromofluorobenzene		98	70-130
Toluene-d8		107	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Shealy Environmental Services, Inc.
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Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ97102-002
Batch: 97102
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	120		1	120	60-140	02/10/2019 1609
Benzene	50	49		1	98	70-130	02/10/2019 1609
Bromodichloromethane	50	46		1	92	70-130	02/10/2019 1609
Bromoform	50	48		1	96	70-130	02/10/2019 1609
Bromomethane (Methyl bromide)	50	69	N	1	138	70-130	02/10/2019 1609
2-Butanone (MEK)	100	110		1	108	70-130	02/10/2019 1609
Carbon disulfide	50	48		1	96	70-130	02/10/2019 1609
Carbon tetrachloride	50	53		1	106	70-130	02/10/2019 1609
Chlorobenzene	50	48		1	96	70-130	02/10/2019 1609
Chloroethane	50	61		1	123	70-130	02/10/2019 1609
Chloroform	50	46		1	93	70-130	02/10/2019 1609
Chloromethane (Methyl chloride)	50	53		1	106	60-140	02/10/2019 1609
Cyclohexane	50	54		1	108	70-130	02/10/2019 1609
1,2-Dibromo-3-chloropropane (DBCP)	50	49		1	98	70-130	02/10/2019 1609
Dibromochloromethane	50	47		1	94	70-130	02/10/2019 1609
1,2-Dibromoethane (EDB)	50	49		1	98	70-130	02/10/2019 1609
1,2-Dichlorobenzene	50	46		1	92	70-130	02/10/2019 1609
1,3-Dichlorobenzene	50	47		1	93	70-130	02/10/2019 1609
1,4-Dichlorobenzene	50	47		1	93	70-130	02/10/2019 1609
Dichlorodifluoromethane	50	66		1	131	60-140	02/10/2019 1609
1,1-Dichloroethane	50	46		1	93	70-130	02/10/2019 1609
1,2-Dichloroethane	50	47		1	94	70-130	02/10/2019 1609
1,1-Dichloroethene	50	48		1	96	70-130	02/10/2019 1609
cis-1,2-Dichloroethene	50	46		1	92	70-130	02/10/2019 1609
trans-1,2-Dichloroethene	50	46		1	92	70-130	02/10/2019 1609
1,2-Dichloropropane	50	43		1	85	70-130	02/10/2019 1609
cis-1,3-Dichloropropene	50	43		1	86	70-130	02/10/2019 1609
trans-1,3-Dichloropropene	50	41		1	83	70-130	02/10/2019 1609
Ethylbenzene	50	49		1	98	70-130	02/10/2019 1609
2-Hexanone	100	110		1	108	70-130	02/10/2019 1609
Isopropylbenzene	50	47		1	93	70-130	02/10/2019 1609
Methyl acetate	50	47		1	94	70-130	02/10/2019 1609
Methyl tertiary butyl ether (MTBE)	50	45		1	91	70-130	02/10/2019 1609
4-Methyl-2-pentanone	100	110		1	108	70-130	02/10/2019 1609
Methylcyclohexane	50	51		1	102	70-130	02/10/2019 1609
Methylene chloride	50	49		1	98	70-130	02/10/2019 1609
Styrene	50	49		1	97	70-130	02/10/2019 1609
1,1,2,2-Tetrachloroethane	50	47		1	95	70-130	02/10/2019 1609
Tetrachloroethene	50	50		1	100	70-130	02/10/2019 1609
Toluene	50	48		1	95	70-130	02/10/2019 1609
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	52		1	103	70-130	02/10/2019 1609
1,2,4-Trichlorobenzene	50	44		1	88	70-130	02/10/2019 1609
1,1,1-Trichloroethane	50	49		1	97	70-130	02/10/2019 1609
1,1,2-Trichloroethane	50	45		1	90	70-130	02/10/2019 1609

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ97102-002
Batch: 97102
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	49		1	97	70-130	02/10/2019 1609
Trichlorofluoromethane	50	59		1	118	70-130	02/10/2019 1609
Vinyl chloride	50	56		1	113	70-130	02/10/2019 1609
Xylenes (total)	100	98		1	98	70-130	02/10/2019 1609

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		103	70-130
Bromofluorobenzene		101	70-130
Toluene-d8		106	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
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Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ97215-001
Batch: 97215
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Acetone	ND		1	20	2.0	ug/L	02/11/2019 2211
Benzene	ND		1	1.0	0.40	ug/L	02/11/2019 2211
Bromodichloromethane	ND		1	1.0	0.40	ug/L	02/11/2019 2211
Bromoform	ND		1	1.0	0.40	ug/L	02/11/2019 2211
Bromomethane (Methyl bromide)	ND		1	2.0	0.40	ug/L	02/11/2019 2211
2-Butanone (MEK)	ND		1	10	2.0	ug/L	02/11/2019 2211
Carbon disulfide	ND		1	1.0	0.40	ug/L	02/11/2019 2211
Carbon tetrachloride	ND		1	1.0	0.40	ug/L	02/11/2019 2211
Chlorobenzene	ND		1	1.0	0.40	ug/L	02/11/2019 2211
Chloroethane	ND		1	2.0	0.40	ug/L	02/11/2019 2211
Chloroform	ND		1	1.0	0.40	ug/L	02/11/2019 2211
Chloromethane (Methyl chloride)	ND		1	1.0	0.50	ug/L	02/11/2019 2211
Cyclohexane	ND		1	1.0	0.40	ug/L	02/11/2019 2211
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	0.40	ug/L	02/11/2019 2211
Dibromochloromethane	ND		1	1.0	0.40	ug/L	02/11/2019 2211
1,2-Dibromoethane (EDB)	ND		1	1.0	0.40	ug/L	02/11/2019 2211
1,2-Dichlorobenzene	ND		1	1.0	0.40	ug/L	02/11/2019 2211
1,3-Dichlorobenzene	ND		1	1.0	0.40	ug/L	02/11/2019 2211
1,4-Dichlorobenzene	ND		1	1.0	0.40	ug/L	02/11/2019 2211
Dichlorodifluoromethane	ND		1	2.0	0.60	ug/L	02/11/2019 2211
1,1-Dichloroethane	ND		1	1.0	0.40	ug/L	02/11/2019 2211
1,2-Dichloroethane	ND		1	1.0	0.40	ug/L	02/11/2019 2211
1,1-Dichloroethene	ND		1	1.0	0.40	ug/L	02/11/2019 2211
cis-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	02/11/2019 2211
trans-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	02/11/2019 2211
1,2-Dichloropropane	ND		1	1.0	0.40	ug/L	02/11/2019 2211
cis-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	02/11/2019 2211
trans-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	02/11/2019 2211
Ethylbenzene	ND		1	1.0	0.40	ug/L	02/11/2019 2211
2-Hexanone	ND		1	10	2.0	ug/L	02/11/2019 2211
Isopropylbenzene	ND		1	1.0	0.40	ug/L	02/11/2019 2211
Methyl acetate	ND		1	1.0	0.40	ug/L	02/11/2019 2211
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	0.40	ug/L	02/11/2019 2211
4-Methyl-2-pentanone	ND		1	10	2.0	ug/L	02/11/2019 2211
Methylcyclohexane	ND		1	5.0	0.40	ug/L	02/11/2019 2211
Methylene chloride	ND		1	1.0	0.40	ug/L	02/11/2019 2211
Styrene	ND		1	1.0	0.41	ug/L	02/11/2019 2211
1,1,2,2-Tetrachloroethane	ND		1	1.0	0.40	ug/L	02/11/2019 2211
Tetrachloroethene	ND		1	1.0	0.40	ug/L	02/11/2019 2211
Toluene	ND		1	1.0	0.40	ug/L	02/11/2019 2211
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	0.42	ug/L	02/11/2019 2211
1,2,4-Trichlorobenzene	ND		1	1.0	0.40	ug/L	02/11/2019 2211
1,1,1-Trichloroethane	ND		1	1.0	0.40	ug/L	02/11/2019 2211
1,1,2-Trichloroethane	ND		1	1.0	0.40	ug/L	02/11/2019 2211

LOQ = Limit of Quantitation
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LOD = Limit of Detection

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Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ97215-001
Batch: 97215
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Trichloroethene	ND		1	1.0	0.40	ug/L	02/11/2019 2211
Trichlorofluoromethane	ND		1	1.0	0.40	ug/L	02/11/2019 2211
Vinyl chloride	ND		1	1.0	0.40	ug/L	02/11/2019 2211
Xylenes (total)	ND		1	1.0	0.40	ug/L	02/11/2019 2211

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		103	70-130
Bromofluorobenzene		97	70-130
Toluene-d8		103	70-130

LOQ = Limit of Quantitation
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Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ97215-002
Batch: 97215
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	130		1	126	60-140	02/11/2019 2109
Benzene	50	54		1	107	70-130	02/11/2019 2109
Bromodichloromethane	50	50		1	100	70-130	02/11/2019 2109
Bromoform	50	53		1	106	70-130	02/11/2019 2109
Bromomethane (Methyl bromide)	50	71	N	1	142	70-130	02/11/2019 2109
2-Butanone (MEK)	100	110		1	114	70-130	02/11/2019 2109
Carbon disulfide	50	50		1	100	70-130	02/11/2019 2109
Carbon tetrachloride	50	56		1	111	70-130	02/11/2019 2109
Chlorobenzene	50	54		1	108	70-130	02/11/2019 2109
Chloroethane	50	63		1	126	70-130	02/11/2019 2109
Chloroform	50	49		1	99	70-130	02/11/2019 2109
Chloromethane (Methyl chloride)	50	57		1	115	60-140	02/11/2019 2109
Cyclohexane	50	59		1	119	70-130	02/11/2019 2109
1,2-Dibromo-3-chloropropane (DBCP)	50	55		1	110	70-130	02/11/2019 2109
Dibromochloromethane	50	52		1	104	70-130	02/11/2019 2109
1,2-Dibromoethane (EDB)	50	55		1	110	70-130	02/11/2019 2109
1,2-Dichlorobenzene	50	53		1	106	70-130	02/11/2019 2109
1,3-Dichlorobenzene	50	53		1	106	70-130	02/11/2019 2109
1,4-Dichlorobenzene	50	53		1	106	70-130	02/11/2019 2109
Dichlorodifluoromethane	50	68		1	137	60-140	02/11/2019 2109
1,1-Dichloroethane	50	50		1	101	70-130	02/11/2019 2109
1,2-Dichloroethane	50	51		1	102	70-130	02/11/2019 2109
1,1-Dichloroethene	50	51		1	102	70-130	02/11/2019 2109
cis-1,2-Dichloroethene	50	49		1	98	70-130	02/11/2019 2109
trans-1,2-Dichloroethene	50	50		1	101	70-130	02/11/2019 2109
1,2-Dichloropropane	50	46		1	92	70-130	02/11/2019 2109
cis-1,3-Dichloropropene	50	48		1	95	70-130	02/11/2019 2109
trans-1,3-Dichloropropene	50	47		1	94	70-130	02/11/2019 2109
Ethylbenzene	50	56		1	112	70-130	02/11/2019 2109
2-Hexanone	100	120		1	120	70-130	02/11/2019 2109
Isopropylbenzene	50	54		1	107	70-130	02/11/2019 2109
Methyl acetate	50	49		1	99	70-130	02/11/2019 2109
Methyl tertiary butyl ether (MTBE)	50	47		1	95	70-130	02/11/2019 2109
4-Methyl-2-pentanone	100	120		1	117	70-130	02/11/2019 2109
Methylcyclohexane	50	55		1	109	70-130	02/11/2019 2109
Methylene chloride	50	52		1	103	70-130	02/11/2019 2109
Styrene	50	54		1	108	70-130	02/11/2019 2109
1,1,2,2-Tetrachloroethane	50	53		1	106	70-130	02/11/2019 2109
Tetrachloroethene	50	55		1	111	70-130	02/11/2019 2109
Toluene	50	53		1	106	70-130	02/11/2019 2109
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	53		1	105	70-130	02/11/2019 2109
1,2,4-Trichlorobenzene	50	53		1	105	70-130	02/11/2019 2109
1,1,1-Trichloroethane	50	52		1	104	70-130	02/11/2019 2109
1,1,2-Trichloroethane	50	51		1	102	70-130	02/11/2019 2109

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N = Recovery is out of criteria
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Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ97215-002
Batch: 97215
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	53		1	107	70-130	02/11/2019 2109
Trichlorofluoromethane	50	60		1	120	70-130	02/11/2019 2109
Vinyl chloride	50	62		1	124	70-130	02/11/2019 2109
Xylenes (total)	100	110		1	110	70-130	02/11/2019 2109

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		102	70-130
Bromofluorobenzene		102	70-130
Toluene-d8		105	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
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P = The RPD between two GC columns exceeds 40%
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Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ97259-001
Batch: 97259
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Tetrachloroethene	ND		1	1.0	0.40	ug/L	02/12/2019 1039

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		103	70-130
Bromofluorobenzene		102	70-130
Toluene-d8		106	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ97259-002
Batch: 97259
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Tetrachloroethene	50	51		1	101	70-130	02/12/2019 0940

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		101	70-130
Bromofluorobenzene		99	70-130
Toluene-d8		105	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Shealy Environmental Services, Inc.
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Chain of Custody
and
Miscellaneous Documents

SHEALY ENVIRONMENTAL SERVICES, INC.
106 Vantage Point Drive • West Columbia, SC 29172
Telephone No. 803-791-9700 Fax No. 803-791-9111
www.shealylab.com

Chain of Custody Record

Number 82690

Client: TRC	Report to Contact: Lisa Clark	Telephone No. / E-mail:	Quote No.
Address: 50 International Dr Suite 150	Sampler's Signature: X	Analysis (Attach list if more space is needed)	Page 1 of 2
City: Greenville / State: SC / Zip Code: 29615	Printed Name: Benjamin Medlin		
Project Name: WPH Clemson			
Project No.: 300688.0.0.2	P.O. No.		

Sample ID / Description (Containers for each sample may be combined on one line.)	Date 2019	Time	Grab/Composite	Matrix: Aqueous	Soil	Other	No. of Containers by Preservative Type: Unpres.	H2SO4	HNO3	NaOH	ZnOAc/NaOH	No.	VOCs	Chloride, Sulfate, Bromide	Nitrate
TBLK-19106	1	1	G	X								2	X		
DG-03S	2-1	1250	G	X								3	X		
DG-03D	2-1	1300	G	X								3	X		
DG-01	2-1	1430	G	X								3	X		
DG-05	2-1	1515	G	X								3	X		
MG-05	2-4	1235	G	X								3	X		
MG-05A	2-4	1215	G	X								3	X		
RMW-15	2-4	1600	G	X								3	X		
RMW-15A	2-4	1540	G	X								3	X		
DU-19102	1	1	G	X			2					3	X	X	X

UB05042

Turn Around Time Required (Prior lab approval required for expedited TAT.): ☐ Standard ☐ Rush (Specify)

Sample Disposal: ☐ Return to Client ☐ Disposal by Lab

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished by	2-4-19	1930	1. Received by: TRC Sample Storage	2-4-19	1930
2. Relinquished by: TRC Sample STORAGE	2/5/19	09:23	2. Received by: Ken E. Mauck	2/5/19	09:23
3. Relinquished by: Ken E. Mauck	2/5/19	15:00	3. Received by	Date	Time
4. Relinquished by	Date	Time	4. Laboratory received by: L Hite	2-5-19	1500

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on Ice (Circle) (Yes) No Ice Pack — Receipt Temp. 1.6 °C

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Client Copy

Document Number: F-AD-133 Effective Date: 08-01-2014

SHEALY ENVIRONMENTAL SERVICES, INC.

Shealy Environmental Services, Inc.
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Chain of Custody Record

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106 Vantage Point Drive • West Columbia, SC 29172
Telephone No. 803-791-9700 Fax No. 803-791-9111
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Number 82691

Client: TRC	Report to Contact: Lisa Clark	Telephone No. / E-mail:	Quote No.
Address: 50 International Dr Suite 150	Sampler's Signature: X	Analysis (Attach list if more space is needed)	Page 2 of 2
City: Greenville / State: SC / Zip Code: 29615	Printed Name: Benjamin Medlin		UB05042
Project Name: WPH Clemson			
Project No.: 300688.0.0.2	P.O. No.		

Sample ID / Description (Containers for each sample may be combined on one line)	Date 2019	Time	Matrix: Solid	No. of Containers by Preservative Type: HCl	VOCs	Chloride, sulfate, Bromide	Nitrate	Remarks / Lab I.D.
RMW-15B	2.4	1610	G	3	X			
RMW-13	2.4	1740	G	3	X	X	X	
RMW-11	2.4	1720	G	3	X	X	X	

Turn Around Time Required (Prior lab approval required for expedited TAT.) ☐ Standard ☐ Rush (Specify)

Sample Disposal ☐ Return to Client ☐ Disposal by Lab

Possible Hazard Identification ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished by	2.4.19	1930	1. Received by: TRC Sample storage	2.4.19	1930
2. Relinquished by: TRC STORAGE	2/5/19	09:25	2. Received by: Keri E. Mauck	2/5/19	09:23
3. Relinquished by: Keri E. Mauck	2/5/19	1500	3. Received by	Date	Time
4. Relinquished by	Date	Time	4. Laboratory received by: L Hill	2.5.19	1500

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on Ice (Circle) (Yes) No Ice Pack: Receipt Temp. 1.6 °C

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Client Copy

Document Number: F-AD-133 Effective Date: 08-01-2014

SHEALY ENVIRONMENTAL SERVICES, INC.

Shealy Environmental Services, Inc.
Document Number: ME0018C-14

Page 1 of 1
Effective Date: 8/2/2018

Sample Receipt Checklist (SRC)

Client: TRC Cooler Inspected by/date: LKH/ 2-5-19 Lot #: UB05042

Means of receipt: ☑ SESI ☐ Client ☐ UPS ☐ FedEx ☐ Other: _____

☐ Yes	☑ No		1. Were custody seals present on the cooler?
☐ Yes	☐ No	☑ NA	2. If custody seals were present, were they intact and unbroken?

pH Strip ID: _____ _____ Chlorine Strip ID: _____ Tested by: _____

Original temperature upon receipt / Derived (Corrected) temperature upon receipt: %Solid Snap-Cup ID: ___ ___

1.6 / 1.6 °C ___ / ___ °C ___ / ___ °C ___ / ___ °C

Method: ☑ Temperature Blank ☐ Against Bottles IR Gun ID: 5 IR Gun Correction Factor: 0 °C

Method of coolant: ☑ Wet Ice ☐ Ice Packs ☐ Dry Ice ☐ None

☐ Yes	☐ No	☑ NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).
☐ Yes	☐ No	☑ NA	4. Is the commercial courier's packing slip attached to this form?
☑ Yes	☐ No		5. Were proper custody procedures (relinquished/received) followed?
☑ Yes	☐ No		6. Were sample IDs listed on the COC?
☑ Yes	☐ No		7. Were sample IDs listed on all sample containers?
☑ Yes	☐ No		8. Was collection date & time listed on the COC?
☑ Yes	☐ No		9. Was collection date & time listed on all sample containers?
☑ Yes	☐ No		10. Did all container label information (ID, date, time) agree with the COC?
☑ Yes	☐ No		11. Were tests to be performed listed on the COC?
☑ Yes	☐ No		12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)? _____
☑ Yes	☐ No		13. Was adequate sample volume available?
☑ Yes	☐ No		14. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
☐ Yes	☑ No		15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
☐ Yes	☑ No	☐ NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (¼"or 6mm in diameter) in any of the VOA vials?
☐ Yes	☐ No	☑ NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?
☐ Yes	☐ No	☑ NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
☐ Yes	☐ No	☑ NA	19. Were all applicable NH_3/TKN/cyanide/phenol/625 (< 0.5mg/L) samples free of residual chlorine?
☐ Yes	☐ No	☑ NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc…) correctly transcribed from the COC into the comment section in LIMS?
☐ Yes	☑ No		21. Was the quote number listed on the container label? If yes, Quote # _____

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) _____ _____ _____ were received incorrectly preserved and were adjusted accordingly in sample receiving with _____ mL of circle one: H2SO4, HNO3, HCl, NaOH using SR # _____ _____.
Time of preservation _____. If more than one preservative is needed, please note in the comments below.

Sample(s) _____ _____ _____ were received with bubbles >6 mm in diameter.

Samples(s) _____ _____ were received with TRC > 0.5 mg/L (If #19 is *no*) and were adjusted accordingly in sample receiving with sodium thiosulfate ($Na_2S_2O_3$) with Shealy ID: _____ _____.

SR barcode labels applied by: LKH Date: 2-5-19

Comments:

SHEALY ENVIRONMENTAL SERVICES, INC.

Report of Analysis

TRC Companies, Inc.
50 International Dr.
Suite 150
Greenville, SC 29615
Attention: Lisa Clark

Project Name: WPH Clemson

Project Number: 300688.0000.0000.0002

Lot Number:**UB07081**

Date Completed:02/21/2019

02/21/2019 1:45 PM
Approved and released by:
Lab Director - Greenville: Lucas Odom

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Laboratory Data Quality Review Notes

Project Name: WPH-Clemson, SC

Project Number: 300688.0000.0000.000002

Lab Report: UB07081 Shealy Environmental Services
Eight groundwater samples and one groundwater field duplicate were analyzed for volatile organic compounds (VOCs), chloride, bromide, sulfate, and nitrate. One trip blank was analyzed for VOCs.

Chain of Custody, Sample Temperature, Sample Preservation: Chain of custody (CoC) signed; sample temperature <6 ^{o}C upon arrival at the laboratory; samples were preserved properly.

Hold Time: Samples analyzed within hold time.

Surrogates: VOC surrogate recoveries are within QC limits.

Method Blank: Method blanks were free of detections except as follows:

- Nitrate was detected at 0.0017 J mg/L in the nitrate method blank. Comparable concentrations (*i.e.*, within 5X the concentration in the method blanks) were not detected in the groundwater samples. No qualifiers were assigned.
- Sulfate was detected at 0.29 J mg/L in the sulfate method blank. RMW-10A had sulfate detected at 1.3 mg/L. This result is within 5X the concentration in the method blank and may thereby be considered a comparable concentration; however, the data reviewer opted to not assign a qualifier to this result. No qualifiers were assigned.
- Chloride was detected at 0.20 J mg/L in the chloride method blank. Comparable concentrations (*i.e.*, within 5X the concentration in the method blanks) were not detected in the groundwater samples. No qualifiers were assigned.
- 1,2,4-Trichlorobenzene was detected at 0.42 J ug/L in the VOC method blank for batch 97430. 1,2,4-Trichlorobenzene was not detected in samples included in this report. No qualifiers were assigned.

Trip Blank: Trip blank TBLK-19108 had no detections of reported VOCs.

Field Blank: A field blank was not collected with these samples.

Equipment Rinse Blank: A rinsate blank was not collected with these samples.

LCS/LCSD: LCS recoveries for anions and VOCs are within QC Limits.

MS/MSD: RMW-10B was used for nitrate MS/MSD analyses. DU-19104 was used for bromide, chloride and sulfate MS/MSD analyses. MS/MSD recoveries and RPDs were within QC limits except as follows:

- RMW-10B nitrate MS and MSD recoveries were below the lower QC limit. **A "j" qualifier was assigned to nitrate in RMW-10B.**

Duplicates: DU-19104 us a field duplicate of RMW-09. Calculated RPDs for bromide, chloride, nitrate, cis-1,2-dichloroethene, trichloroethene, and tetrachloroethene were 23.5% or less which is within QC limits. The calculated RPD for sulfate was 32.6% which is above the QC limit. **A "j" qualifier is assigned to sulfate in RMW-09 and DU-19104.**

Other: The CoC is incorrect in requesting anions (bromide, chloride, nitrate, and sulfate) for sample RMW-22. The sampling program did not intend to sample anions in this sample.

Data review performed by: Terry Hertz; TRC Environmental Corp.; 2/25/2019

Case Narrative
TRC Companies, Inc.
Lot Number: UB07081

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

VOCs by GC/MS

Sample -006 was received preserved with HCl, however, a pH test yielded a value greater than 2. No corrective action is required as this sample has been analyzed on the 7th day after collection.

The method blank associated with batch 97430 yielded a "J" value detection for 1,2,4-Trichlorobenzene. No corrective action is required as this is an estimated value recovered below the LOQ.

Nitrate

The method blank associated with batch 96954 yielded a "J" value detection for Nitrate. No corrective action is required as this is an estimated value recovered below the LOQ.

Due to suspected matrix interferences, the MS/MSD recovered marginally below method criteria at 87% and 84% respectively.

Sample -010 is a blind duplicate and therefore does not contain the collection date or time on the COC. The collection date has been reported as 02/06/19 as all other samples on the COC werecollected on this date. No time has been reported for this sample. The analysis for nitrate has been done in hold if the sample was collected at or after 02/06/19 at 0940.

Chloride

The method blank associated with batch 97603 yielded a "J" value detection for Chloride. No corrective action is required as this is an estimated value recovered below the LOQ.

Sulfate

The method blank associated with batch 97605 yielded a "J" value detection for Sulfate. No corrective action is required as this is an estimated value recovered below the LOQ.

Sample Summary

TRC Companies, Inc.

Lot Number: UB07081

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	TBLK-19108	Aqueous	02/07/2019	02/07/2019
002	RMW-19	Aqueous	02/06/2019 0945	02/07/2019
003	RMW-10A	Aqueous	02/06/2019 1125	02/07/2019
004	RMW-10B	Aqueous	02/06/2019 1120	02/07/2019
005	RMW-10C	Aqueous	02/06/2019 1200	02/07/2019
006	RMW-22	Aqueous	02/06/2019 1210	02/07/2019
007	RMW-09	Aqueous	02/06/2019 1325	02/07/2019
008	RMW-26	Aqueous	02/06/2019 1520	02/07/2019
009	RMW-01	Aqueous	02/06/2019 1515	02/07/2019
010	DU-19104	Aqueous	02/06/2019	02/07/2019

(10 samples)

Detection Summary

TRC Companies, Inc.

Lot Number: UB07081

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
002	RMW-19	Aqueous	Bromide	300.0	0.18	J	mg/L	8
002	RMW-19	Aqueous	Chloride	300.0	7.4	B	mg/L	8
002	RMW-19	Aqueous	Nitrate - N	353.2	7.8	B	mg/L	8
002	RMW-19	Aqueous	Sulfate	300.0	13	B	mg/L	8
002	RMW-19	Aqueous	Acetone	8260B	2.1	J	ug/L	8
002	RMW-19	Aqueous	Tetrachloroethene	8260B	29		ug/L	9
002	RMW-19	Aqueous	Trichlorofluoromethane	8260B	3.6		ug/L	9
003	RMW-10A	Aqueous	Chloride	300.0	1.0	B	mg/L	10
003	RMW-10A	Aqueous	Nitrate - N	353.2	0.78	B	mg/L	10
003	RMW-10A	Aqueous	Sulfate	300.0	1.3	B	mg/L	10
003	RMW-10A	Aqueous	Tetrachloroethene	8260B	1700		ug/L	11
004	RMW-10B	Aqueous	Bromide	300.0	0.096	J	mg/L	12
004	RMW-10B	Aqueous	Chloride	300.0	1.1	B	mg/L	12
004	RMW-10B	Aqueous	Nitrate - N	353.2	0.79	B	mg/L	12
004	RMW-10B	Aqueous	Sulfate	300.0	8.6	B	mg/L	12
004	RMW-10B	Aqueous	cis-1,2-Dichloroethene	8260B	20		ug/L	12
004	RMW-10B	Aqueous	Tetrachloroethene	8260B	76		ug/L	13
004	RMW-10B	Aqueous	Trichloroethene	8260B	1.5		ug/L	13
005	RMW-10C	Aqueous	Bromide	300.0	0.095	J	mg/L	14
005	RMW-10C	Aqueous	Chloride	300.0	1.3	B	mg/L	14
005	RMW-10C	Aqueous	Nitrate - N	353.2	0.95	B	mg/L	14
005	RMW-10C	Aqueous	Sulfate	300.0	2.9	B	mg/L	14
005	RMW-10C	Aqueous	Chloroform	8260B	0.64	J	ug/L	14
005	RMW-10C	Aqueous	Tetrachloroethene	8260B	18		ug/L	15
005	RMW-10C	Aqueous	Trichloroethene	8260B	0.47	J	ug/L	15
006	RMW-22	Aqueous	cis-1,2-Dichloroethene	8260B	3.7		ug/L	16
006	RMW-22	Aqueous	Tetrachloroethene	8260B	77		ug/L	16
006	RMW-22	Aqueous	Trichloroethene	8260B	0.79	J	ug/L	17
006	RMW-22	Aqueous	Xylenes (total)	8260B	1.2		ug/L	17
007	RMW-09	Aqueous	Bromide	300.0	0.43		mg/L	18
007	RMW-09	Aqueous	Chloride	300.0	40	B	mg/L	18
007	RMW-09	Aqueous	Nitrate - N	353.2	3.5	B	mg/L	18
007	RMW-09	Aqueous	Sulfate	300.0	1.8	B	mg/L	18
007	RMW-09	Aqueous	cis-1,2-Dichloroethene	8260B	4.7		ug/L	18
007	RMW-09	Aqueous	Tetrachloroethene	8260B	150		ug/L	19
007	RMW-09	Aqueous	Trichloroethene	8260B	1.1		ug/L	19
008	RMW-26	Aqueous	Bromide	300.0	0.92		mg/L	20
008	RMW-26	Aqueous	Chloride	300.0	37	B	mg/L	20
008	RMW-26	Aqueous	Nitrate - N	353.2	2.2	B	mg/L	20
008	RMW-26	Aqueous	Sulfate	300.0	19	B	mg/L	20
008	RMW-26	Aqueous	Benzene	8260B	6.0		ug/L	20
008	RMW-26	Aqueous	1,1-Dichloroethane	8260B	2.6		ug/L	20
008	RMW-26	Aqueous	1,1-Dichloroethene	8260B	0.90	J	ug/L	20
008	RMW-26	Aqueous	cis-1,2-Dichloroethene	8260B	0.72	J	ug/L	20
008	RMW-26	Aqueous	Isopropylbenzene	8260B	2.8		ug/L	21

Detection Summary (Continued)

Lot Number: UB07081

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
008	RMW-26	Aqueous	Tetrachloroethene	8260B	0.74	J	ug/L	21
008	RMW-26	Aqueous	Trichloroethene	8260B	0.85	J	ug/L	21
008	RMW-26	Aqueous	Vinyl chloride	8260B	1.4		ug/L	21
008	RMW-26	Aqueous	Xylenes (total)	8260B	0.43	J	ug/L	21
009	RMW-01	Aqueous	Bromide	300.0	0.25		mg/L	22
009	RMW-01	Aqueous	Chloride	300.0	15	B	mg/L	22
009	RMW-01	Aqueous	Nitrate - N	353.2	6.1	B	mg/L	22
009	RMW-01	Aqueous	Sulfate	300.0	110	B	mg/L	22
009	RMW-01	Aqueous	Tetrachloroethene	8260B	2.2		ug/L	23
009	RMW-01	Aqueous	Trichlorofluoromethane	8260B	0.51	J	ug/L	23
010	DU-19104	Aqueous	Bromide	300.0	0.45		mg/L	24
010	DU-19104	Aqueous	Chloride	300.0	38	B	mg/L	24
010	DU-19104	Aqueous	Nitrate - N	353.2	3.2	B	mg/L	24
010	DU-19104	Aqueous	Sulfate	300.0	2.5	B	mg/L	24
010	DU-19104	Aqueous	cis-1,2-Dichloroethene	8260B	5.3		ug/L	24
010	DU-19104	Aqueous	Tetrachloroethene	8260B	190		ug/L	25
010	DU-19104	Aqueous	Trichloroethene	8260B	1.4		ug/L	25

(62 detections)

Client: TRC Companies, Inc.
Description: TBLK-19108
Date Sampled: 02/07/2019
Date Received: 02/07/2019

Laboratory ID: UB07081-001
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/12/2019 1141	BWS		97259

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	ND		20	2.0	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Client: TRC Companies, Inc.
Description: TBLK-19108
Date Sampled: 02/07/2019
Date Received: 02/07/2019

Laboratory ID: UB07081-001
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/12/2019 1141	BWS		97259

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260B	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		101	70-130
Bromofluorobenzene		97	70-130
Toluene-d8		103	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Client: TRC Companies, Inc.
Description: RMW-19
Date Sampled: 02/06/2019 0945
Date Received: 02/07/2019

Laboratory ID: UB07081-002
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	02/14/2019 1750	SLU		97602
1		(Chloride) 300.0	1	02/14/2019 1750	SLU		97603
1		(Nitrate - N) 353.2	10	02/08/2019 0910	MSG		96954
1		(Sulfate) 300.0	1	02/14/2019 1750	SLU		97605

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.18	J	0.20	0.050	mg/L	1
Chloride		300.0	7.4	B	1.0	0.20	mg/L	1
Nitrate - N		353.2	7.8	B	0.20	0.015	mg/L	1
Sulfate		300.0	13	B	1.0	0.20	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/12/2019 1313	BWS		97259

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	2.1	J	20	2.0	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Client: TRC Companies, Inc.
Description: RMW-19
Date Sampled: 02/06/2019 0945
Date Received: 02/07/2019

Laboratory ID: UB07081-002
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/12/2019 1313	BWS		97259

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	29		1.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260B	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	3.6		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		105	70-130
Bromofluorobenzene		101	70-130
Toluene-d8		104	70-130

LOQ = Limit of Quantitation
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E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
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Client: TRC Companies, Inc.
Description: RMW-10A
Date Sampled: 02/06/2019 1125
Date Received: 02/07/2019

Laboratory ID: UB07081-003
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	02/14/2019 1808	SLU		97602
1		(Chloride) 300.0	1	02/14/2019 1808	SLU		97603
1		(Nitrate - N) 353.2	1	02/08/2019 0907	MSG		96954
1		(Sulfate) 300.0	1	02/14/2019 1808	SLU		97605

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	ND		0.20	0.050	mg/L	1
Chloride		300.0	1.0	B	1.0	0.20	mg/L	1
Nitrate - N		353.2	0.78	B	0.020	0.0015	mg/L	1
Sulfate		300.0	1.3	B	1.0	0.20	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	20	02/13/2019 1816	BWS		97430

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	ND		400	40	ug/L	1
Benzene	71-43-2	8260B	ND		20	8.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		20	8.0	ug/L	1
Bromoform	75-25-2	8260B	ND		20	8.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		40	8.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		200	40	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		20	8.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		20	8.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		20	8.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		40	8.0	ug/L	1
Chloroform	67-66-3	8260B	ND		20	8.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		20	10	ug/L	1
Cyclohexane	110-82-7	8260B	ND		20	8.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		20	8.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		20	8.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		20	8.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		20	8.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		20	8.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		20	8.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		40	12	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		20	8.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		20	8.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		20	8.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		20	8.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		20	8.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		20	8.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Client: TRC Companies, Inc.
Description: RMW-10A
Date Sampled: 02/06/2019 1125
Date Received: 02/07/2019

Laboratory ID: UB07081-003
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	20	02/13/2019 1816	BWS		97430

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		20	8.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		20	8.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		20	8.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		200	40	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		20	8.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		20	8.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		20	8.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		200	40	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		100	8.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		20	8.0	ug/L	1
Styrene	100-42-5	8260B	ND		20	8.2	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		20	8.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	1700		20	8.0	ug/L	1
Toluene	108-88-3	8260B	ND		20	8.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		20	8.4	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		20	8.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		20	8.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		20	8.0	ug/L	1
Trichloroethene	79-01-6	8260B	ND		20	8.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		20	8.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		20	8.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		20	8.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		111	70-130
Bromofluorobenzene		90	70-130
Toluene-d8		85	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
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Client: TRC Companies, Inc.
Description: RMW-10B
Date Sampled: 02/06/2019 1120
Date Received: 02/07/2019

Laboratory ID: UB07081-004
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	02/14/2019 1826	SLU		97602
1		(Chloride) 300.0	1	02/14/2019 1826	SLU		97603
1		(Nitrate - N) 353.2	1	02/08/2019 0906	MSG		96954
1		(Sulfate) 300.0	1	02/14/2019 1826	SLU		97605

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.096	J	0.20	0.050	mg/L	1
Chloride		300.0	1.1	B	1.0	0.20	mg/L	1
Nitrate - N		353.2	0.79	B	0.020	0.0015	mg/L	1
Sulfate		300.0	8.6	B	1.0	0.20	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/13/2019 1316	BWS		97430

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	ND		20	2.0	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	20		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
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Client: TRC Companies, Inc.
Description: RMW-10B
Date Sampled: 02/06/2019 1120
Date Received: 02/07/2019

Laboratory ID: UB07081-004
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/13/2019 1316	BWS		97430

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	76		1.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260B	1.5		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		103	70-130
Bromofluorobenzene		87	70-130
Toluene-d8		85	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: RMW-10C
Date Sampled: 02/06/2019 1200
Date Received: 02/07/2019

Laboratory ID: UB07081-005
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	02/14/2019 1844	SLU		97602
1		(Chloride) 300.0	1	02/14/2019 1844	SLU		97603
1		(Nitrate - N) 353.2	1	02/08/2019 0908	MSG		96954
1		(Sulfate) 300.0	1	02/14/2019 1844	SLU		97605

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.095	J	0.20	0.050	mg/L	1
Chloride		300.0	1.3	B	1.0	0.20	mg/L	1
Nitrate - N		353.2	0.95	B	0.020	0.0015	mg/L	1
Sulfate		300.0	2.9	B	1.0	0.20	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/13/2019 1339	BWS		97430

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	ND		20	2.0	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260B	0.64	J	1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
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Client: TRC Companies, Inc.
Description: RMW-10C
Date Sampled: 02/06/2019 1200
Date Received: 02/07/2019

Laboratory ID: UB07081-005
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/13/2019 1339	BWS		97430

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	18		1.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260B	0.47	J	1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		108	70-130
Bromofluorobenzene		106	70-130
Toluene-d8		93	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
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W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
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Client: TRC Companies, Inc.
Description: RMW-22
Date Sampled: 02/06/2019 1210
Date Received: 02/07/2019

Laboratory ID: UB07081-006
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/13/2019 1402	BWS		97430

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	ND		20	2.0	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	3.7		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	77		1.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: RMW-22
Date Sampled: 02/06/2019 1210
Date Received: 02/07/2019

Laboratory ID: UB07081-006
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/13/2019 1402	BWS		97430

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260B	0.79	J	1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260B	1.2		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		107	70-130
Bromofluorobenzene		99	70-130
Toluene-d8		89	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: RMW-09
Date Sampled: 02/06/2019 1325
Date Received: 02/07/2019

Laboratory ID: UB07081-007
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	02/14/2019 1902	SLU		97602
1		(Chloride) 300.0	1	02/14/2019 1902	SLU		97603
1		(Nitrate - N) 353.2	5	02/08/2019 0924	MSG		96954
1		(Sulfate) 300.0	1	02/14/2019 1902	SLU		97605

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.43		0.20	0.050	mg/L	1
Chloride		300.0	40	B	1.0	0.20	mg/L	1
Nitrate - N		353.2	3.5	B	0.10	0.0075	mg/L	1
Sulfate		300.0	1.8	B	1.0	0.20	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/13/2019 1425	BWS		97430

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	ND		20	2.0	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	4.7		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: RMW-09
Date Sampled: 02/06/2019 1325
Date Received: 02/07/2019

Laboratory ID: UB07081-007
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/13/2019 1425	BWS		97430

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	150		1.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260B	1.1		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		107	70-130
Bromofluorobenzene		92	70-130
Toluene-d8		89	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: RMW-26
Date Sampled: 02/06/2019 1520
Date Received: 02/07/2019

Laboratory ID: UB07081-008
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	02/14/2019 1920	SLU		97602
1		(Chloride) 300.0	1	02/14/2019 1920	SLU		97603
1		(Nitrate - N) 353.2	2	02/08/2019 0939	MSG		96954
1		(Sulfate) 300.0	1	02/14/2019 1920	SLU		97605

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.92		0.20	0.050	mg/L	1
Chloride		300.0	37	B	1.0	0.20	mg/L	1
Nitrate - N		353.2	2.2	B	0.040	0.0030	mg/L	1
Sulfate		300.0	19	B	1.0	0.20	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/13/2019 1448	BWS		97430

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	ND		20	2.0	ug/L	1
Benzene	71-43-2	8260B	6.0		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	2.6		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	0.90	J	1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	0.72	J	1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: RMW-26
Date Sampled: 02/06/2019 1520
Date Received: 02/07/2019

Laboratory ID: UB07081-008
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/13/2019 1448	BWS		97430

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	2.8		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	0.74	J	1.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260B	0.85	J	1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260B	1.4		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260B	0.43	J	1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		107	70-130
Bromofluorobenzene		98	70-130
Toluene-d8		88	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
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W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: RMW-01
Date Sampled: 02/06/2019 1515
Date Received: 02/07/2019

Laboratory ID: UB07081-009
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	02/14/2019 1938	SLU		97602
1		(Chloride) 300.0	1	02/14/2019 1938	SLU		97603
1		(Nitrate - N) 353.2	5	02/08/2019 0926	MSG		96954
1		(Sulfate) 300.0	1	02/14/2019 1938	SLU		97605

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.25		0.20	0.050	mg/L	1
Chloride		300.0	15	B	1.0	0.20	mg/L	1
Nitrate - N		353.2	6.1	B	0.10	0.0075	mg/L	1
Sulfate		300.0	110	B	1.0	0.20	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/13/2019 1511	BWS		97430

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	ND		20	2.0	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: RMW-01
Date Sampled: 02/06/2019 1515
Date Received: 02/07/2019

Laboratory ID: UB07081-009
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/13/2019 1511	BWS		97430

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	2.2		1.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260B	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	0.51	J	1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		107	70-130
Bromofluorobenzene		96	70-130
Toluene-d8		89	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: DU-19104
Date Sampled: 02/06/2019
Date Received: 02/07/2019

Laboratory ID: UB07081-010
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2		(Bromide) 300.0	1	02/20/2019 0102	SLU		98106
1		(Chloride) 300.0	1	02/14/2019 1957	SLU		97603
1		(Nitrate - N) 353.2	2	02/08/2019 0940	MSG		96954
1		(Sulfate) 300.0	1	02/14/2019 1957	SLU		97605

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.45		0.20	0.050	mg/L	2
Chloride		300.0	38	B	1.0	0.20	mg/L	1
Nitrate - N		353.2	3.2	B	0.040	0.0030	mg/L	1
Sulfate		300.0	2.5	B	1.0	0.20	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/13/2019 1534	BWS		97430

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	ND		20	2.0	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	5.3		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: DU-19104
Date Sampled: 02/06/2019
Date Received: 02/07/2019

Laboratory ID: UB07081-010
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/13/2019 1534	BWS		97430

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	190		1.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260B	1.4		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		111	70-130
Bromofluorobenzene		109	70-130
Toluene-d8		95	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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QC Summary

Inorganic non-metals - MB

Sample ID: UQ96954-001
Batch: 96954
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Nitrate - N	0.0017	J	1	0.020	0.0015	mg/L	02/08/2019 0902

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - LCS

Sample ID: UQ96954-002
Batch: 96954
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	0.80	0.82		1	102	90-110	02/08/2019 0903

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MS

Sample ID: UB07081-004MS
Batch: 96954
Analytical Method: 353.2
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	0.79	0.80	1.5	N	1	87	90-110	02/08/2019 0935

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: UB07081-004MD
Batch: 96954
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Nitrate - N	0.79	0.80	1.5	N	1	84	1.9	90-110	20	02/08/2019 0936

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MB

Sample ID: UQ97602-001
Batch: 97602
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Bromide	ND		1	0.20	0.050	mg/L	02/14/2019 1235

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - LCS

Sample ID: UQ97602-002
Batch: 97602
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Bromide	8.0	8.5		1	106	90-110	02/14/2019 1311

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MS

Sample ID: UB07081-010MS
Matrix: Aqueous
Batch: 97602
Analytical Method: 300.0

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Bromide	0.42	8.0	9.0		1	107	90-110	02/14/2019 2051

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: UB07081-010MD
Batch: 97602
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Bromide	0.42	8.0	8.9		1	106	1.1	90-110	20	02/14/2019 2109

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MB

Sample ID: UQ97603-001
Batch: 97603
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Chloride	0.20	J	1	1.0	0.20	mg/L	02/14/2019 1235

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: UQ97603-002
Batch: 97603
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Chloride	20	20		1	100	90-110	02/14/2019 1311

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MS

Sample ID: UB07081-010MS
Batch: 97603
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Chloride	38	20	57		1	93	90-110	02/14/2019 2051

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MSD

Sample ID: UB07081-010MD
Batch: 97603
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Chloride	38	20	57		1	92	0.53	90-110	20	02/14/2019 2109

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MB

Sample ID: UQ97605-001
Batch: 97605
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Sulfate	0.29	J	1	1.0	0.20	mg/L	02/14/2019 1235

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - LCS

Sample ID: UQ97605-002
Batch: 97605
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Sulfate	20	20		1	100	90-110	02/14/2019 1311

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MS

Sample ID: UB07081-010MS
Batch: 97605
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Sulfate	2.5	20	23		1	101	90-110	02/14/2019 2051

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: UB07081-010MD
Batch: 97605
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Sulfate	2.5	20	22		1	99	1.3	90-110	20	02/14/2019 2109

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MB

Sample ID: UQ98106-001
Batch: 98106
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Bromide	ND		1	0.20	0.050	mg/L	02/19/2019 1528

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - LCS

Sample ID: UQ98106-002
Batch: 98106
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Bromide	8.0	8.4		1	105	90-110	02/19/2019 1621

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ97259-001
Batch: 97259
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Acetone	ND		1	20	2.0	ug/L	02/12/2019 1039
Benzene	ND		1	1.0	0.40	ug/L	02/12/2019 1039
Bromodichloromethane	ND		1	1.0	0.40	ug/L	02/12/2019 1039
Bromoform	ND		1	1.0	0.40	ug/L	02/12/2019 1039
Bromomethane (Methyl bromide)	ND		1	2.0	0.40	ug/L	02/12/2019 1039
2-Butanone (MEK)	ND		1	10	2.0	ug/L	02/12/2019 1039
Carbon disulfide	ND		1	1.0	0.40	ug/L	02/12/2019 1039
Carbon tetrachloride	ND		1	1.0	0.40	ug/L	02/12/2019 1039
Chlorobenzene	ND		1	1.0	0.40	ug/L	02/12/2019 1039
Chloroethane	ND		1	2.0	0.40	ug/L	02/12/2019 1039
Chloroform	ND		1	1.0	0.40	ug/L	02/12/2019 1039
Chloromethane (Methyl chloride)	ND		1	1.0	0.50	ug/L	02/12/2019 1039
Cyclohexane	ND		1	1.0	0.40	ug/L	02/12/2019 1039
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	0.40	ug/L	02/12/2019 1039
Dibromochloromethane	ND		1	1.0	0.40	ug/L	02/12/2019 1039
1,2-Dibromoethane (EDB)	ND		1	1.0	0.40	ug/L	02/12/2019 1039
1,2-Dichlorobenzene	ND		1	1.0	0.40	ug/L	02/12/2019 1039
1,3-Dichlorobenzene	ND		1	1.0	0.40	ug/L	02/12/2019 1039
1,4-Dichlorobenzene	ND		1	1.0	0.40	ug/L	02/12/2019 1039
Dichlorodifluoromethane	ND		1	2.0	0.60	ug/L	02/12/2019 1039
1,1-Dichloroethane	ND		1	1.0	0.40	ug/L	02/12/2019 1039
1,2-Dichloroethane	ND		1	1.0	0.40	ug/L	02/12/2019 1039
1,1-Dichloroethene	ND		1	1.0	0.40	ug/L	02/12/2019 1039
cis-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	02/12/2019 1039
trans-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	02/12/2019 1039
1,2-Dichloropropane	ND		1	1.0	0.40	ug/L	02/12/2019 1039
cis-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	02/12/2019 1039
trans-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	02/12/2019 1039
Ethylbenzene	ND		1	1.0	0.40	ug/L	02/12/2019 1039
2-Hexanone	ND		1	10	2.0	ug/L	02/12/2019 1039
Isopropylbenzene	ND		1	1.0	0.40	ug/L	02/12/2019 1039
Methyl acetate	ND		1	1.0	0.40	ug/L	02/12/2019 1039
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	0.40	ug/L	02/12/2019 1039
4-Methyl-2-pentanone	ND		1	10	2.0	ug/L	02/12/2019 1039
Methylcyclohexane	ND		1	5.0	0.40	ug/L	02/12/2019 1039
Methylene chloride	ND		1	1.0	0.40	ug/L	02/12/2019 1039
Styrene	ND		1	1.0	0.41	ug/L	02/12/2019 1039
1,1,2,2-Tetrachloroethane	ND		1	1.0	0.40	ug/L	02/12/2019 1039
Tetrachloroethene	ND		1	1.0	0.40	ug/L	02/12/2019 1039
Toluene	ND		1	1.0	0.40	ug/L	02/12/2019 1039
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	0.42	ug/L	02/12/2019 1039
1,2,4-Trichlorobenzene	ND		1	1.0	0.40	ug/L	02/12/2019 1039
1,1,1-Trichloroethane	ND		1	1.0	0.40	ug/L	02/12/2019 1039
1,1,2-Trichloroethane	ND		1	1.0	0.40	ug/L	02/12/2019 1039

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ97259-001
Batch: 97259
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Trichloroethene	ND		1	1.0	0.40	ug/L	02/12/2019 1039
Trichlorofluoromethane	ND		1	1.0	0.40	ug/L	02/12/2019 1039
Vinyl chloride	ND		1	1.0	0.40	ug/L	02/12/2019 1039
Xylenes (total)	ND		1	1.0	0.40	ug/L	02/12/2019 1039

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		103	70-130
Bromofluorobenzene		102	70-130
Toluene-d8		106	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ97259-002
Batch: 97259
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	120		1	124	60-140	02/12/2019 0940
Benzene	50	50		1	100	70-130	02/12/2019 0940
Bromodichloromethane	50	47		1	95	70-130	02/12/2019 0940
Bromoform	50	50		1	100	70-130	02/12/2019 0940
Bromomethane (Methyl bromide)	50	65		1	129	70-130	02/12/2019 0940
2-Butanone (MEK)	100	110		1	108	70-130	02/12/2019 0940
Carbon disulfide	50	46		1	91	70-130	02/12/2019 0940
Carbon tetrachloride	50	49		1	99	70-130	02/12/2019 0940
Chlorobenzene	50	50		1	100	70-130	02/12/2019 0940
Chloroethane	50	60		1	119	70-130	02/12/2019 0940
Chloroform	50	46		1	91	70-130	02/12/2019 0940
Chloromethane (Methyl chloride)	50	52		1	105	60-140	02/12/2019 0940
Cyclohexane	50	54		1	108	70-130	02/12/2019 0940
1,2-Dibromo-3-chloropropane (DBCP)	50	53		1	105	70-130	02/12/2019 0940
Dibromochloromethane	50	49		1	98	70-130	02/12/2019 0940
1,2-Dibromoethane (EDB)	50	52		1	104	70-130	02/12/2019 0940
1,2-Dichlorobenzene	50	50		1	99	70-130	02/12/2019 0940
1,3-Dichlorobenzene	50	50		1	99	70-130	02/12/2019 0940
1,4-Dichlorobenzene	50	49		1	98	70-130	02/12/2019 0940
Dichlorodifluoromethane	50	61		1	122	60-140	02/12/2019 0940
1,1-Dichloroethane	50	45		1	91	70-130	02/12/2019 0940
1,2-Dichloroethane	50	49		1	99	70-130	02/12/2019 0940
1,1-Dichloroethene	50	45		1	90	70-130	02/12/2019 0940
cis-1,2-Dichloroethene	50	45		1	89	70-130	02/12/2019 0940
trans-1,2-Dichloroethene	50	45		1	90	70-130	02/12/2019 0940
1,2-Dichloropropane	50	44		1	87	70-130	02/12/2019 0940
cis-1,3-Dichloropropene	50	45		1	90	70-130	02/12/2019 0940
trans-1,3-Dichloropropene	50	43		1	87	70-130	02/12/2019 0940
Ethylbenzene	50	50		1	100	70-130	02/12/2019 0940
2-Hexanone	100	110		1	111	70-130	02/12/2019 0940
Isopropylbenzene	50	49		1	98	70-130	02/12/2019 0940
Methyl acetate	50	47		1	94	70-130	02/12/2019 0940
Methyl tertiary butyl ether (MTBE)	50	45		1	91	70-130	02/12/2019 0940
4-Methyl-2-pentanone	100	110		1	113	70-130	02/12/2019 0940
Methylcyclohexane	50	51		1	102	70-130	02/12/2019 0940
Methylene chloride	50	47		1	95	70-130	02/12/2019 0940
Styrene	50	50		1	100	70-130	02/12/2019 0940
1,1,2,2-Tetrachloroethane	50	51		1	102	70-130	02/12/2019 0940
Tetrachloroethene	50	51		1	101	70-130	02/12/2019 0940
Toluene	50	49		1	98	70-130	02/12/2019 0940
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	48		1	96	70-130	02/12/2019 0940
1,2,4-Trichlorobenzene	50	49		1	99	70-130	02/12/2019 0940
1,1,1-Trichloroethane	50	47		1	93	70-130	02/12/2019 0940
1,1,2-Trichloroethane	50	48		1	96	70-130	02/12/2019 0940

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ97259-002
Batch: 97259
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	49		1	99	70-130	02/12/2019 0940
Trichlorofluoromethane	50	55		1	109	70-130	02/12/2019 0940
Vinyl chloride	50	55		1	109	70-130	02/12/2019 0940
Xylenes (total)	100	100		1	100	70-130	02/12/2019 0940

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		101	70-130
Bromofluorobenzene		99	70-130
Toluene-d8		105	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ97430-001
Batch: 97430
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Acetone	ND		1	20	2.0	ug/L	02/13/2019 1210
Benzene	ND		1	1.0	0.40	ug/L	02/13/2019 1210
Bromodichloromethane	ND		1	1.0	0.40	ug/L	02/13/2019 1210
Bromoform	ND		1	1.0	0.40	ug/L	02/13/2019 1210
Bromomethane (Methyl bromide)	ND		1	2.0	0.40	ug/L	02/13/2019 1210
2-Butanone (MEK)	ND		1	10	2.0	ug/L	02/13/2019 1210
Carbon disulfide	ND		1	1.0	0.40	ug/L	02/13/2019 1210
Carbon tetrachloride	ND		1	1.0	0.40	ug/L	02/13/2019 1210
Chlorobenzene	ND		1	1.0	0.40	ug/L	02/13/2019 1210
Chloroethane	ND		1	2.0	0.40	ug/L	02/13/2019 1210
Chloroform	ND		1	1.0	0.40	ug/L	02/13/2019 1210
Chloromethane (Methyl chloride)	ND		1	1.0	0.50	ug/L	02/13/2019 1210
Cyclohexane	ND		1	1.0	0.40	ug/L	02/13/2019 1210
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	0.40	ug/L	02/13/2019 1210
Dibromochloromethane	ND		1	1.0	0.40	ug/L	02/13/2019 1210
1,2-Dibromoethane (EDB)	ND		1	1.0	0.40	ug/L	02/13/2019 1210
1,2-Dichlorobenzene	ND		1	1.0	0.40	ug/L	02/13/2019 1210
1,3-Dichlorobenzene	ND		1	1.0	0.40	ug/L	02/13/2019 1210
1,4-Dichlorobenzene	ND		1	1.0	0.40	ug/L	02/13/2019 1210
Dichlorodifluoromethane	ND		1	2.0	0.60	ug/L	02/13/2019 1210
1,1-Dichloroethane	ND		1	1.0	0.40	ug/L	02/13/2019 1210
1,2-Dichloroethane	ND		1	1.0	0.40	ug/L	02/13/2019 1210
1,1-Dichloroethene	ND		1	1.0	0.40	ug/L	02/13/2019 1210
cis-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	02/13/2019 1210
trans-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	02/13/2019 1210
1,2-Dichloropropane	ND		1	1.0	0.40	ug/L	02/13/2019 1210
cis-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	02/13/2019 1210
trans-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	02/13/2019 1210
Ethylbenzene	ND		1	1.0	0.40	ug/L	02/13/2019 1210
2-Hexanone	ND		1	10	2.0	ug/L	02/13/2019 1210
Isopropylbenzene	ND		1	1.0	0.40	ug/L	02/13/2019 1210
Methyl acetate	ND		1	1.0	0.40	ug/L	02/13/2019 1210
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	0.40	ug/L	02/13/2019 1210
4-Methyl-2-pentanone	ND		1	10	2.0	ug/L	02/13/2019 1210
Methylcyclohexane	ND		1	5.0	0.40	ug/L	02/13/2019 1210
Methylene chloride	ND		1	1.0	0.40	ug/L	02/13/2019 1210
Styrene	ND		1	1.0	0.41	ug/L	02/13/2019 1210
1,1,2,2-Tetrachloroethane	ND		1	1.0	0.40	ug/L	02/13/2019 1210
Tetrachloroethene	ND		1	1.0	0.40	ug/L	02/13/2019 1210
Toluene	ND		1	1.0	0.40	ug/L	02/13/2019 1210
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	0.42	ug/L	02/13/2019 1210
1,2,4-Trichlorobenzene	0.42	J	1	1.0	0.40	ug/L	02/13/2019 1210
1,1,1-Trichloroethane	ND		1	1.0	0.40	ug/L	02/13/2019 1210
1,1,2-Trichloroethane	ND		1	1.0	0.40	ug/L	02/13/2019 1210

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ97430-001
Batch: 97430
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Trichloroethene	ND		1	1.0	0.40	ug/L	02/13/2019 1210
Trichlorofluoromethane	ND		1	1.0	0.40	ug/L	02/13/2019 1210
Vinyl chloride	ND		1	1.0	0.40	ug/L	02/13/2019 1210
Xylenes (total)	ND		1	1.0	0.40	ug/L	02/13/2019 1210

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		106	70-130
Bromofluorobenzene		104	70-130
Toluene-d8		92	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
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Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ97430-002
Batch: 97430
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	130		1	131	60-140	02/13/2019 1103
Benzene	50	48		1	95	70-130	02/13/2019 1103
Bromodichloromethane	50	52		1	104	70-130	02/13/2019 1103
Bromoform	50	60		1	119	70-130	02/13/2019 1103
Bromomethane (Methyl bromide)	50	48		1	96	70-130	02/13/2019 1103
2-Butanone (MEK)	100	120		1	116	70-130	02/13/2019 1103
Carbon disulfide	50	48		1	97	70-130	02/13/2019 1103
Carbon tetrachloride	50	61		1	122	70-130	02/13/2019 1103
Chlorobenzene	50	49		1	99	70-130	02/13/2019 1103
Chloroethane	50	45		1	91	70-130	02/13/2019 1103
Chloroform	50	53		1	106	70-130	02/13/2019 1103
Chloromethane (Methyl chloride)	50	38		1	77	60-140	02/13/2019 1103
Cyclohexane	50	46		1	93	70-130	02/13/2019 1103
1,2-Dibromo-3-chloropropane (DBCP)	50	55		1	109	70-130	02/13/2019 1103
Dibromochloromethane	50	55		1	111	70-130	02/13/2019 1103
1,2-Dibromoethane (EDB)	50	52		1	103	70-130	02/13/2019 1103
1,2-Dichlorobenzene	50	49		1	98	70-130	02/13/2019 1103
1,3-Dichlorobenzene	50	49		1	98	70-130	02/13/2019 1103
1,4-Dichlorobenzene	50	48		1	96	70-130	02/13/2019 1103
Dichlorodifluoromethane	50	59		1	118	60-140	02/13/2019 1103
1,1-Dichloroethane	50	46		1	92	70-130	02/13/2019 1103
1,2-Dichloroethane	50	55		1	110	70-130	02/13/2019 1103
1,1-Dichloroethene	50	46		1	92	70-130	02/13/2019 1103
cis-1,2-Dichloroethene	50	50		1	101	70-130	02/13/2019 1103
trans-1,2-Dichloroethene	50	49		1	97	70-130	02/13/2019 1103
1,2-Dichloropropane	50	39		1	78	70-130	02/13/2019 1103
cis-1,3-Dichloropropene	50	44		1	88	70-130	02/13/2019 1103
trans-1,3-Dichloropropene	50	45		1	90	70-130	02/13/2019 1103
Ethylbenzene	50	51		1	102	70-130	02/13/2019 1103
2-Hexanone	100	81		1	81	70-130	02/13/2019 1103
Isopropylbenzene	50	53		1	105	70-130	02/13/2019 1103
Methyl acetate	50	40		1	80	70-130	02/13/2019 1103
Methyl tertiary butyl ether (MTBE)	50	50		1	100	70-130	02/13/2019 1103
4-Methyl-2-pentanone	100	85		1	85	70-130	02/13/2019 1103
Methylcyclohexane	50	50		1	100	70-130	02/13/2019 1103
Methylene chloride	50	45		1	90	70-130	02/13/2019 1103
Styrene	50	51		1	102	70-130	02/13/2019 1103
1,1,2,2-Tetrachloroethane	50	43		1	86	70-130	02/13/2019 1103
Tetrachloroethene	50	52		1	105	70-130	02/13/2019 1103
Toluene	50	48		1	96	70-130	02/13/2019 1103
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	48		1	95	70-130	02/13/2019 1103
1,2,4-Trichlorobenzene	50	54		1	107	70-130	02/13/2019 1103
1,1,1-Trichloroethane	50	58		1	115	70-130	02/13/2019 1103
1,1,2-Trichloroethane	50	48		1	97	70-130	02/13/2019 1103

LOQ = Limit of Quantitation
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J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ97430-002
Batch: 97430
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	52		1	104	70-130	02/13/2019 1103
Trichlorofluoromethane	50	54		1	109	70-130	02/13/2019 1103
Vinyl chloride	50	46		1	91	70-130	02/13/2019 1103
Xylenes (total)	100	100		1	101	70-130	02/13/2019 1103

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		100	70-130
Bromofluorobenzene		92	70-130
Toluene-d8		89	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
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N = Recovery is out of criteria
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Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Chain of Custody

and

Miscellaneous Documents

Shealy Environmental Services, Inc.
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106 Vantage Point Drive • West Columbia, SC 29172
Telephone No. 803-791-9700 Fax No. 803-791-9111
www.shealylab.com

SHEALY Chain of Custody Record

Number 85429

Client: TRC	Report to Contact: Lisa Clark	Telephone No. / E-mail:	Cooler No.
Address: 50 International Dr Suite 150	Sampler's Signature: X	Analysis (Attach list if more space is needed)	Page 1 of 1
City: Greenville	State: SC	Zip Code: 29615	Printed Name: Benjamin Medlin
Project Name: WFH Clemson			UB07081
Project No.: 30068800.2	P.O. No.		LIO

Sample ID / Description (Containers for each sample may be combined on one line.)	Date 2019	Time	G=Grab C=Composite	Matrix: Aqueous	Solid	Other	No of Containers by Preservative Type: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc+NaOH	VOCs	Chloride, Sulfate, Bromide	Nitrate	Remarks / Cooler I.D.
TBLK-19108	1	1								2			X			
RMW-19	2.6	0945	G	X			2			3			X	X	X	
RMW-10A	2.6	1125	G	X			2			3			X	X	X	
RMW-10B	2.6	1120	G	X			2			3			X	X	X	
~~RMW-10C~~	~~2.6~~	~~1200~~	G	X			2			3			X	X	X	
~~RMW-22~~ RMW-22	2.6	1210	G	X			~~2~~			3			X	X	X	
RMW-09	2.6	1325	G	X			2			3			X	X	X	
RMW-26	2.6	1520	G	X			2			3			X	X	X	
RMW-01	2.6	1515	G	X			2			3			X	X	X	
DU-19104	X	X	G	X			2			3			X	X	X	

Turn Around Time Required (Prior lab approval required for expedited TAT.) ☐ Standard ☐ Rush (Specify)

Sample Disposal ☐ Return to Client ☐ Disposal by Lab

Possible Hazard Identification ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished by	2-6-19	1700	1. Received by: TRC Sample Storage	2-6-19	1700
2. Relinquished by: TRC SAMPLE STORAGE	2/7/19	08137	2. Received by: Ken E. Mace'd	2/7/19	08137
3. Relinquished by: Ken E. Mace'd	2/7/19	14:44	3. Received by: T.	2-7-19	1444
4. Relinquished by: T.	2.7.19	1600	4. Laboratory received by: Kelly Stone	2-7-19	1600

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY Received on Ice (Circle) (Yes) No Ice Pack Receipt Temp. 2.8 °C

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Client Copy

Document Number: F-AD-133 Effective Date: 08-01-2014

SHEALY ENVIRONMENTAL SERVICES, INC.

Shealy Environmental Services, Inc.
Document Number: ME0018C-14

Page 1 of 1
Effective Date: 8/2/2018

Sample Receipt Checklist (SRC)

Client: TRC Cooler Inspected by/date: [illegible] / 2-7-19 Lot #: 180 7081

Means of receipt: ☑ SESI ☐ Client ☐ UPS ☐ FedEx ☐ Other: _____

☐ Yes	☑ No		1. Were custody seals present on the cooler?
☐ Yes	☐ No	☑ NA	2. If custody seals were present, were they intact and unbroken?

pH Strip ID: _____ Chlorine Strip ID: _____ Tested by: _____

Original temperature upon receipt / Derived (Corrected) temperature upon receipt: %Solid Snap-Cup ID: _____

2.8 / 2.8 °C ___ / ___ °C ___ / ___ °C ___ / ___ °C

Method: ☑ Temperature Blank ☐ Against Bottles IR Gun ID: 5 IR Gun Correction Factor: 0 °C

Method of coolant: ☑ Wet Ice ☐ Ice Packs ☐ Dry Ice ☐ None

☐ Yes	☐ No	☑ NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).
☐ Yes	☐ No	☑ NA	4. Is the commercial courier's packing slip attached to this form?
☑ Yes	☐ No		5. Were proper custody procedures (relinquished/received) followed?
☑ Yes	☐ No		6. Were sample IDs listed on the COC?
☑ Yes	☐ No		7. Were sample IDs listed on all sample containers?
☑ Yes	☐ No		8. Was collection date & time listed on the COC?
☑ Yes	☐ No		9. Was collection date & time listed on all sample containers?
☑ Yes	☐ No		10. Did all container label information (ID, date, time) agree with the COC?
☑ Yes	☐ No		11. Were tests to be performed listed on the COC?
☑ Yes	☐ No		12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)? _____
☑ Yes	☐ No		13. Was adequate sample volume available?
☐ Yes	☑ No		14. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
☑ Yes	☐ No		15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
☐ Yes	☑ No	☐ NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (¼"or 6mm in diameter) in any of the VOA vials?
☐ Yes	☐ No	☑ NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?
☐ Yes	☐ No	☑ NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
☐ Yes	☐ No	☑ NA	19. Were all applicable NH_3/TKN/cyanide/phenol/625 (< 0.5mg/L) samples free of residual chlorine?
☐ Yes	☐ No	☑ NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc…) correctly transcribed from the COC into the comment section in LIMS?
☑ Yes	☐ No		21. Was the quote number listed on the container label? If yes, Quote # 21715

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) _____ were received incorrectly preserved and were adjusted accordingly in sample receiving with _____ mL of circle one: H_2SO_4, HNO_3, HCl, NaOH using SR # _____.
Time of preservation _____. If more than one preservative is needed, please note in the comments below.

Sample(s) _____ were received with bubbles >6 mm in diameter.

Samples(s) _____ were received with TRC > 0.5 mg/L (If #19 is ***no***) and were adjusted accordingly in sample receiving with sodium thiosulfate ($Na_2S_2O_3$) with Shealy ID: _____.

SR barcode labels applied by: [signature] Date: 2-7-19

Comments:
15) "RMW22" Cl, SO4/Br + Nitrate bottles not received

SHEALY ENVIRONMENTAL SERVICES, INC.

Report of Analysis

TRC Companies, Inc.
50 International Dr.
Suite 150
Greenville, SC 29615
Attention: Lisa Clark

Project Name: WPH Clemson

Project Number: 300688.0000.0000.0002

Lot Number:**UB13091**

Date Completed:02/21/2019

02/22/2019 2:19 PM
Approved and released by:
Lab Director - Greenville: Lucas Odom

The electronic signature above is the equivalent of a handwritten signature.

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Laboratory Data Quality Review Notes

Project Name: WPH-Clemson, SC

Project Number: 300688.0000.0000.000002

Lab Report: UB13091 Shealy Environmental Services
Eight groundwater samples were analyzed for one or more of volatile organic compounds (VOCs), chloride, bromide, sulfate, and nitrate. One trip blank was analyzed for VOCs.

Chain of Custody, Sample Temperature, Sample Preservation: Chain of custody (CoC) signed; sample temperature <6 ^{o}C upon arrival at the laboratory; samples were preserved properly.

Hold Time: Samples analyzed within hold time.

Surrogates: VOC surrogate recoveries are within QC limits.

Method Blank: Method blank were free of detections except as follows:

- Nitrate was detected at 0.0022 J mg/L in the nitrate method blank. Comparable concentrations (*i.e.*, within 5X the concentration in the method blanks) were not detected in the groundwater samples. No qualifiers were assigned.
- Chloride was detected at 0.20 J mg/L in the chloride method blank. Comparable concentrations (*i.e.*, within 5X the concentration in the method blanks) were not detected in the groundwater samples. No qualifiers were assigned.

Trip Blank: Trip blank TBLK-19111 had no detections of reported VOCs.

Field Blank: A field blank was not collected with these samples.

Equipment Rinse Blank: A rinsate blank was not collected with these samples.

LCS/LCSD: LCS recoveries for anions and VOCs are within QC Limits. LCSD analyses were not performed.

MS/MSD: MS/MSD analyses were not performed using samples included in his report.

Duplicates: A field duplicate was not collected with these samples.

No qualifiers were assigned.

Data review performed by: Terry Hertz; TRC Environmental Corp.; 2/25/2019

Case Narrative
TRC Companies, Inc.
Lot Number: UB13091

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

Nitrate

The method blank associated with batch 97500 yielded a "J" value detection for Nitrate. No corrective action is required as this is an estimated value recovered below the LOQ. Associated detections have been qualified with a "B".

Chloride

The method blank associated with batch 97871 yielded a "J" value detection for Chloride. No corrective action is required as this is an estimated value recovered below the LOQ. Associated detections have been qualified with a "B".

Sample Summary
TRC Companies, Inc.
Lot Number: UB13091

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	TBLK-19111	Aqueous	02/12/2019	02/13/2019
002	RMW-04	Aqueous	02/12/2019 1402	02/13/2019
003	DG-07	Aqueous	02/12/2019 1215	02/13/2019
004	DG-06B	Aqueous	02/12/2019 1230	02/13/2019
005	DG-06C	Aqueous	02/12/2019 1150	02/13/2019
006	RMW-03	Aqueous	02/12/2019 1132	02/13/2019
007	MG-06	Aqueous	02/12/2019 1535	02/13/2019
008	MG-06A	Aqueous	02/12/2019 1500	02/13/2019
009	MG-06B	Aqueous	02/12/2019 1520	02/13/2019

(9 samples)

Detection Summary

TRC Companies, Inc.

Lot Number: UB13091

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
002	RMW-04	Aqueous	Bromide	300.0	0.35		mg/L	7
002	RMW-04	Aqueous	Chloride	300.0	14	B	mg/L	7
002	RMW-04	Aqueous	Nitrate - N	353.2	4.9	B	mg/L	7
002	RMW-04	Aqueous	Sulfate	300.0	18		mg/L	7
002	RMW-04	Aqueous	Acetone	8260B	2.0	J	ug/L	7
002	RMW-04	Aqueous	Chloroform	8260B	0.55	J	ug/L	7
002	RMW-04	Aqueous	Trichlorofluoromethane	8260B	2.0		ug/L	8
003	DG-07	Aqueous	Acetone	8260B	2.4	J	ug/L	9
003	DG-07	Aqueous	Chloroform	8260B	0.45	J	ug/L	9
003	DG-07	Aqueous	1,2-Dichloroethane	8260B	2.0		ug/L	9
003	DG-07	Aqueous	1,1-Dichloroethene	8260B	3.6		ug/L	9
003	DG-07	Aqueous	Tetrachloroethene	8260B	58		ug/L	9
003	DG-07	Aqueous	Trichloroethene	8260B	0.60	J	ug/L	10
003	DG-07	Aqueous	Trichlorofluoromethane	8260B	32		ug/L	10
004	DG-06B	Aqueous	Acetone	8260B	2.0	J	ug/L	11
004	DG-06B	Aqueous	Chloroform	8260B	0.82	J	ug/L	11
004	DG-06B	Aqueous	Tetrachloroethene	8260B	4.8		ug/L	11
005	DG-06C	Aqueous	Acetone	8260B	2.5	J	ug/L	13
005	DG-06C	Aqueous	Chloroform	8260B	0.57	J	ug/L	13
005	DG-06C	Aqueous	Tetrachloroethene	8260B	4.5		ug/L	13
006	RMW-03	Aqueous	Bromide	300.0	0.32		mg/L	15
006	RMW-03	Aqueous	Chloride	300.0	9.0	B	mg/L	15
006	RMW-03	Aqueous	Nitrate - N	353.2	5.2	B	mg/L	15
006	RMW-03	Aqueous	Sulfate	300.0	1.2		mg/L	15
006	RMW-03	Aqueous	Acetone	8260B	2.0	J	ug/L	15
006	RMW-03	Aqueous	Chloroform	8260B	0.56	J	ug/L	15
006	RMW-03	Aqueous	Tetrachloroethene	8260B	1.6		ug/L	16
007	MG-06	Aqueous	Acetone	8260B	2.0	J	ug/L	17
008	MG-06A	Aqueous	Acetone	8260B	3.0	J	ug/L	19
008	MG-06A	Aqueous	Tetrachloroethene	8260B	13		ug/L	19
009	MG-06B	Aqueous	Acetone	8260B	3.3	J	ug/L	21
009	MG-06B	Aqueous	Tetrachloroethene	8260B	110		ug/L	21

(32 detections)

Client: TRC Companies, Inc.
Description: TBLK-19111
Date Sampled: 02/12/2019
Date Received: 02/13/2019

Laboratory ID: UB13091-001
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	5030B	8260B	1	02/19/2019 1106	BWS		98012

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	ND		20	2.0	ug/L	2
Benzene	71-43-2	8260B	ND		1.0	0.40	ug/L	2
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.40	ug/L	2
Bromoform	75-25-2	8260B	ND		1.0	0.40	ug/L	2
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.40	ug/L	2
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	2
Carbon disulfide	75-15-0	8260B	ND		1.0	0.40	ug/L	2
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.40	ug/L	2
Chlorobenzene	108-90-7	8260B	ND		1.0	0.40	ug/L	2
Chloroethane	75-00-3	8260B	ND		2.0	0.40	ug/L	2
Chloroform	67-66-3	8260B	ND		1.0	0.40	ug/L	2
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.50	ug/L	2
Cyclohexane	110-82-7	8260B	ND		1.0	0.40	ug/L	2
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	0.40	ug/L	2
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.40	ug/L	2
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.40	ug/L	2
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.40	ug/L	2
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.40	ug/L	2
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.40	ug/L	2
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.60	ug/L	2
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.40	ug/L	2
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.40	ug/L	2
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.40	ug/L	2
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	0.40	ug/L	2
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.40	ug/L	2
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.40	ug/L	2
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.40	ug/L	2
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.40	ug/L	2
Ethylbenzene	100-41-4	8260B	ND		1.0	0.40	ug/L	2
2-Hexanone	591-78-6	8260B	ND		10	2.0	ug/L	2
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.40	ug/L	2
Methyl acetate	79-20-9	8260B	ND		1.0	0.40	ug/L	2
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	2
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	2.0	ug/L	2
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.40	ug/L	2
Methylene chloride	75-09-2	8260B	ND		1.0	0.40	ug/L	2
Styrene	100-42-5	8260B	ND		1.0	0.41	ug/L	2
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.40	ug/L	2
Tetrachloroethene	127-18-4	8260B	ND		1.0	0.40	ug/L	2
Toluene	108-88-3	8260B	ND		1.0	0.40	ug/L	2

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
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Client: TRC Companies, Inc.
Description: TBLK-19111
Date Sampled: 02/12/2019
Date Received: 02/13/2019

Laboratory ID: UB13091-001
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	5030B	8260B	1	02/19/2019 1106	BWS		98012

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	0.42	ug/L	2
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.40	ug/L	2
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.40	ug/L	2
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.40	ug/L	2
Trichloroethene	79-01-6	8260B	ND		1.0	0.40	ug/L	2
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	0.40	ug/L	2
Vinyl chloride	75-01-4	8260B	ND		1.0	0.40	ug/L	2
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.40	ug/L	2

Surrogate	Q	Run 2 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		82	70-130
Bromofluorobenzene		99	70-130
Toluene-d8		96	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
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N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
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Client: TRC Companies, Inc.
Description: RMW-04
Date Sampled: 02/12/2019 1402
Date Received: 02/13/2019

Laboratory ID: UB13091-002
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	02/15/2019 2052	SLU		97874
1		(Chloride) 300.0	1	02/15/2019 2052	SLU		97871
1		(Nitrate - N) 353.2	5	02/13/2019 2358	MDD		97500
1		(Sulfate) 300.0	1	02/15/2019 2052	SLU		97872

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.35		0.20	0.050	mg/L	1
Chloride		300.0	14	B	1.0	0.20	mg/L	1
Nitrate - N		353.2	4.9	B	0.10	0.0075	mg/L	1
Sulfate		300.0	18		1.0	0.20	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/17/2019 1910	KGT		97813

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	2.0	J	20	2.0	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260B	0.55	J	1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Client: TRC Companies, Inc.
Description: RMW-04
Date Sampled: 02/12/2019 1402
Date Received: 02/13/2019

Laboratory ID: UB13091-002
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/17/2019 1910	KGT		97813

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260B	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	2.0		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		86	70-130
Bromofluorobenzene		99	70-130
Toluene-d8		92	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
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Client: TRC Companies, Inc.
Description: DG-07
Date Sampled: 02/12/2019 1215
Date Received: 02/13/2019

Laboratory ID: UB13091-003
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/17/2019 1933	KGT		97813

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	2.4	J	20	2.0	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260B	0.45	J	1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	2.0		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	3.6		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	58		1.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
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Client: TRC Companies, Inc.
Description: DG-07
Date Sampled: 02/12/2019 1215
Date Received: 02/13/2019

Laboratory ID: UB13091-003
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/17/2019 1933	KGT		97813

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260B	0.60	J	1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	32		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		85	70-130
Bromofluorobenzene		100	70-130
Toluene-d8		94	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
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E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
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Client: TRC Companies, Inc.
Description: DG-06B
Date Sampled: 02/12/2019 1230
Date Received: 02/13/2019

Laboratory ID: UB13091-004
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/17/2019 1956	KGT		97813

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	2.0	J	20	2.0	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260B	0.82	J	1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	4.8		1.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: DG-06B
Date Sampled: 02/12/2019 1230
Date Received: 02/13/2019

Laboratory ID: UB13091-004
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/17/2019 1956	KGT		97813

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260B	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		83	70-130
Bromofluorobenzene		89	70-130
Toluene-d8		91	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
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E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Client: TRC Companies, Inc.
Description: DG-06C
Date Sampled: 02/12/2019 1150
Date Received: 02/13/2019

Laboratory ID: UB13091-005
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/17/2019 2019	KGT		97813

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	2.5	J	20	2.0	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260B	0.57	J	1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	4.5		1.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
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E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
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Client: TRC Companies, Inc.
Description: DG-06C
Date Sampled: 02/12/2019 1150
Date Received: 02/13/2019

Laboratory ID: UB13091-005
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/17/2019 2019	KGT		97813

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260B	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		89	70-130
Bromofluorobenzene		105	70-130
Toluene-d8		96	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
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W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
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Client: TRC Companies, Inc.
Description: RMW-03
Date Sampled: 02/12/2019 1132
Date Received: 02/13/2019

Laboratory ID: UB13091-006
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	02/15/2019 2111	SLU		97874
1		(Chloride) 300.0	1	02/15/2019 2111	SLU		97871
1		(Nitrate - N) 353.2	5	02/13/2019 2359	MDD		97500
1		(Sulfate) 300.0	1	02/15/2019 2111	SLU		97872

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.32		0.20	0.050	mg/L	1
Chloride		300.0	9.0	B	1.0	0.20	mg/L	1
Nitrate - N		353.2	5.2	B	0.10	0.0075	mg/L	1
Sulfate		300.0	1.2		1.0	0.20	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/17/2019 2042	KGT		97813

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	2.0	J	20	2.0	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260B	0.56	J	1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
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Client: TRC Companies, Inc.
Description: RMW-03
Date Sampled: 02/12/2019 1132
Date Received: 02/13/2019

Laboratory ID: UB13091-006
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/17/2019 2042	KGT		97813

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	1.6		1.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260B	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		88	70-130
Bromofluorobenzene		102	70-130
Toluene-d8		96	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
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Client: TRC Companies, Inc.
Description: MG-06
Date Sampled: 02/12/2019 1535
Date Received: 02/13/2019

Laboratory ID: UB13091-007
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/17/2019 2105	KGT		97813

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	2.0	J	20	2.0	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: MG-06
Date Sampled: 02/12/2019 1535
Date Received: 02/13/2019

Laboratory ID: UB13091-007
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/17/2019 2105	KGT		97813

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260B	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		87	70-130
Bromofluorobenzene		101	70-130
Toluene-d8		96	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
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Client: TRC Companies, Inc.
Description: MG-06A
Date Sampled: 02/12/2019 1500
Date Received: 02/13/2019

Laboratory ID: UB13091-008
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/17/2019 2128	KGT		97813

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	3.0	J	20	2.0	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	13		1.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
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Client: TRC Companies, Inc.
Description: MG-06A
Date Sampled: 02/12/2019 1500
Date Received: 02/13/2019

Laboratory ID: UB13091-008
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/17/2019 2128	KGT		97813

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260B	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		89	70-130
Bromofluorobenzene		102	70-130
Toluene-d8		96	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Client: TRC Companies, Inc.
Description: MG-06B
Date Sampled: 02/12/2019 1520
Date Received: 02/13/2019

Laboratory ID: UB13091-009
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/17/2019 2151	KGT		97813

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	3.3	J	20	2.0	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	110		1.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
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E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Client: TRC Companies, Inc.
Description: MG-06B
Date Sampled: 02/12/2019 1520
Date Received: 02/13/2019

Laboratory ID: UB13091-009
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/17/2019 2151	KGT		97813

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260B	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		89	70-130
Bromofluorobenzene		102	70-130
Toluene-d8		93	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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QC Summary

Inorganic non-metals - MB

Sample ID: UQ97500-001
Batch: 97500
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Nitrate - N	0.0022	J	1	0.020	0.0015	mg/L	02/13/2019 2354

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - LCS

Sample ID: UQ97500-002
Batch: 97500
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	0.80	0.81		1	101	90-110	02/13/2019 2355

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MB

Sample ID: UQ97871-001
Batch: 97871
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Chloride	0.20	J	1	1.0	0.20	mg/L	02/15/2019 1846

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: UQ97871-002
Batch: 97871
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Chloride	20	20		1	100	90-110	02/15/2019 1922

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MB

Sample ID: UQ97872-001
Batch: 97872
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Sulfate	ND		1	1.0	0.20	mg/L	02/15/2019 1846

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - LCS

Sample ID: UQ97872-002
Batch: 97872
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Sulfate	20	20		1	100	90-110	02/15/2019 1922

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MB

Sample ID: UQ97874-001
Batch: 97874
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Bromide	ND		1	0.20	0.050	mg/L	02/15/2019 1846

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - LCS

Sample ID: UQ97874-002
Batch: 97874
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Bromide	8.0	8.5		1	106	90-110	02/15/2019 1922

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ97813-001
Batch: 97813
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Acetone	ND		1	20	2.0	ug/L	02/17/2019 1813
Benzene	ND		1	1.0	0.40	ug/L	02/17/2019 1813
Bromodichloromethane	ND		1	1.0	0.40	ug/L	02/17/2019 1813
Bromoform	ND		1	1.0	0.40	ug/L	02/17/2019 1813
Bromomethane (Methyl bromide)	ND		1	2.0	0.40	ug/L	02/17/2019 1813
2-Butanone (MEK)	ND		1	10	2.0	ug/L	02/17/2019 1813
Carbon disulfide	ND		1	1.0	0.40	ug/L	02/17/2019 1813
Carbon tetrachloride	ND		1	1.0	0.40	ug/L	02/17/2019 1813
Chlorobenzene	ND		1	1.0	0.40	ug/L	02/17/2019 1813
Chloroethane	ND		1	2.0	0.40	ug/L	02/17/2019 1813
Chloroform	ND		1	1.0	0.40	ug/L	02/17/2019 1813
Chloromethane (Methyl chloride)	ND		1	1.0	0.50	ug/L	02/17/2019 1813
Cyclohexane	ND		1	1.0	0.40	ug/L	02/17/2019 1813
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	0.40	ug/L	02/17/2019 1813
Dibromochloromethane	ND		1	1.0	0.40	ug/L	02/17/2019 1813
1,2-Dibromoethane (EDB)	ND		1	1.0	0.40	ug/L	02/17/2019 1813
1,2-Dichlorobenzene	ND		1	1.0	0.40	ug/L	02/17/2019 1813
1,3-Dichlorobenzene	ND		1	1.0	0.40	ug/L	02/17/2019 1813
1,4-Dichlorobenzene	ND		1	1.0	0.40	ug/L	02/17/2019 1813
Dichlorodifluoromethane	ND		1	2.0	0.60	ug/L	02/17/2019 1813
1,1-Dichloroethane	ND		1	1.0	0.40	ug/L	02/17/2019 1813
1,2-Dichloroethane	ND		1	1.0	0.40	ug/L	02/17/2019 1813
1,1-Dichloroethene	ND		1	1.0	0.40	ug/L	02/17/2019 1813
cis-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	02/17/2019 1813
trans-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	02/17/2019 1813
1,2-Dichloropropane	ND		1	1.0	0.40	ug/L	02/17/2019 1813
cis-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	02/17/2019 1813
trans-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	02/17/2019 1813
Ethylbenzene	ND		1	1.0	0.40	ug/L	02/17/2019 1813
2-Hexanone	ND		1	10	2.0	ug/L	02/17/2019 1813
Isopropylbenzene	ND		1	1.0	0.40	ug/L	02/17/2019 1813
Methyl acetate	ND		1	1.0	0.40	ug/L	02/17/2019 1813
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	0.40	ug/L	02/17/2019 1813
4-Methyl-2-pentanone	ND		1	10	2.0	ug/L	02/17/2019 1813
Methylcyclohexane	ND		1	5.0	0.40	ug/L	02/17/2019 1813
Methylene chloride	ND		1	1.0	0.40	ug/L	02/17/2019 1813
Styrene	ND		1	1.0	0.41	ug/L	02/17/2019 1813
1,1,2,2-Tetrachloroethane	ND		1	1.0	0.40	ug/L	02/17/2019 1813
Tetrachloroethene	ND		1	1.0	0.40	ug/L	02/17/2019 1813
Toluene	ND		1	1.0	0.40	ug/L	02/17/2019 1813
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	0.42	ug/L	02/17/2019 1813
1,2,4-Trichlorobenzene	ND		1	1.0	0.40	ug/L	02/17/2019 1813
1,1,1-Trichloroethane	ND		1	1.0	0.40	ug/L	02/17/2019 1813
1,1,2-Trichloroethane	ND		1	1.0	0.40	ug/L	02/17/2019 1813

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ97813-001
Batch: 97813
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Trichloroethene	ND		1	1.0	0.40	ug/L	02/17/2019 1813
Trichlorofluoromethane	ND		1	1.0	0.40	ug/L	02/17/2019 1813
Vinyl chloride	ND		1	1.0	0.40	ug/L	02/17/2019 1813
Xylenes (total)	ND		1	1.0	0.40	ug/L	02/17/2019 1813

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		85	70-130
Bromofluorobenzene		101	70-130
Toluene-d8		95	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ97813-002
Batch: 97813
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	110		1	106	60-140	02/17/2019 1727
Benzene	50	47		1	93	70-130	02/17/2019 1727
Bromodichloromethane	50	46		1	92	70-130	02/17/2019 1727
Bromoform	50	51		1	103	70-130	02/17/2019 1727
Bromomethane (Methyl bromide)	50	48		1	95	70-130	02/17/2019 1727
2-Butanone (MEK)	100	91		1	91	70-130	02/17/2019 1727
Carbon disulfide	50	49		1	98	70-130	02/17/2019 1727
Carbon tetrachloride	50	48		1	96	70-130	02/17/2019 1727
Chlorobenzene	50	50		1	100	70-130	02/17/2019 1727
Chloroethane	50	48		1	96	70-130	02/17/2019 1727
Chloroform	50	46		1	92	70-130	02/17/2019 1727
Chloromethane (Methyl chloride)	50	42		1	85	60-140	02/17/2019 1727
Cyclohexane	50	48		1	97	70-130	02/17/2019 1727
1,2-Dibromo-3-chloropropane (DBCP)	50	52		1	103	70-130	02/17/2019 1727
Dibromochloromethane	50	51		1	102	70-130	02/17/2019 1727
1,2-Dibromoethane (EDB)	50	51		1	102	70-130	02/17/2019 1727
1,2-Dichlorobenzene	50	49		1	99	70-130	02/17/2019 1727
1,3-Dichlorobenzene	50	50		1	101	70-130	02/17/2019 1727
1,4-Dichlorobenzene	50	50		1	101	70-130	02/17/2019 1727
Dichlorodifluoromethane	50	55		1	110	60-140	02/17/2019 1727
1,1-Dichloroethane	50	45		1	91	70-130	02/17/2019 1727
1,2-Dichloroethane	50	46		1	92	70-130	02/17/2019 1727
1,1-Dichloroethene	50	46		1	92	70-130	02/17/2019 1727
cis-1,2-Dichloroethene	50	47		1	94	70-130	02/17/2019 1727
trans-1,2-Dichloroethene	50	47		1	94	70-130	02/17/2019 1727
1,2-Dichloropropane	50	41		1	82	70-130	02/17/2019 1727
cis-1,3-Dichloropropene	50	44		1	88	70-130	02/17/2019 1727
trans-1,3-Dichloropropene	50	47		1	94	70-130	02/17/2019 1727
Ethylbenzene	50	52		1	103	70-130	02/17/2019 1727
2-Hexanone	100	93		1	93	70-130	02/17/2019 1727
Isopropylbenzene	50	50		1	101	70-130	02/17/2019 1727
Methyl acetate	50	43		1	85	70-130	02/17/2019 1727
Methyl tertiary butyl ether (MTBE)	50	47		1	94	70-130	02/17/2019 1727
4-Methyl-2-pentanone	100	87		1	87	70-130	02/17/2019 1727
Methylcyclohexane	50	48		1	97	70-130	02/17/2019 1727
Methylene chloride	50	43		1	87	70-130	02/17/2019 1727
Styrene	50	52		1	105	70-130	02/17/2019 1727
1,1,2,2-Tetrachloroethane	50	50		1	100	70-130	02/17/2019 1727
Tetrachloroethene	50	50		1	101	70-130	02/17/2019 1727
Toluene	50	52		1	104	70-130	02/17/2019 1727
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	46		1	92	70-130	02/17/2019 1727
1,2,4-Trichlorobenzene	50	50		1	100	70-130	02/17/2019 1727
1,1,1-Trichloroethane	50	46		1	93	70-130	02/17/2019 1727
1,1,2-Trichloroethane	50	50		1	101	70-130	02/17/2019 1727

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ97813-002
Batch: 97813
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	48		1	97	70-130	02/17/2019 1727
Trichlorofluoromethane	50	50		1	99	70-130	02/17/2019 1727
Vinyl chloride	50	47		1	95	70-130	02/17/2019 1727
Xylenes (total)	100	100		1	103	70-130	02/17/2019 1727

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		81	70-130
Bromofluorobenzene		97	70-130
Toluene-d8		95	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ98012-001
Batch: 98012
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Acetone	ND		1	20	2.0	ug/L	02/19/2019 1030
Benzene	ND		1	1.0	0.40	ug/L	02/19/2019 1030
Bromodichloromethane	ND		1	1.0	0.40	ug/L	02/19/2019 1030
Bromoform	ND		1	1.0	0.40	ug/L	02/19/2019 1030
Bromomethane (Methyl bromide)	ND		1	2.0	0.40	ug/L	02/19/2019 1030
2-Butanone (MEK)	ND		1	10	2.0	ug/L	02/19/2019 1030
Carbon disulfide	ND		1	1.0	0.40	ug/L	02/19/2019 1030
Carbon tetrachloride	ND		1	1.0	0.40	ug/L	02/19/2019 1030
Chlorobenzene	ND		1	1.0	0.40	ug/L	02/19/2019 1030
Chloroethane	ND		1	2.0	0.40	ug/L	02/19/2019 1030
Chloroform	ND		1	1.0	0.40	ug/L	02/19/2019 1030
Chloromethane (Methyl chloride)	ND		1	1.0	0.50	ug/L	02/19/2019 1030
Cyclohexane	ND		1	1.0	0.40	ug/L	02/19/2019 1030
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	0.40	ug/L	02/19/2019 1030
Dibromochloromethane	ND		1	1.0	0.40	ug/L	02/19/2019 1030
1,2-Dibromoethane (EDB)	ND		1	1.0	0.40	ug/L	02/19/2019 1030
1,2-Dichlorobenzene	ND		1	1.0	0.40	ug/L	02/19/2019 1030
1,3-Dichlorobenzene	ND		1	1.0	0.40	ug/L	02/19/2019 1030
1,4-Dichlorobenzene	ND		1	1.0	0.40	ug/L	02/19/2019 1030
Dichlorodifluoromethane	ND		1	2.0	0.60	ug/L	02/19/2019 1030
1,1-Dichloroethane	ND		1	1.0	0.40	ug/L	02/19/2019 1030
1,2-Dichloroethane	ND		1	1.0	0.40	ug/L	02/19/2019 1030
1,1-Dichloroethene	ND		1	1.0	0.40	ug/L	02/19/2019 1030
cis-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	02/19/2019 1030
trans-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	02/19/2019 1030
1,2-Dichloropropane	ND		1	1.0	0.40	ug/L	02/19/2019 1030
cis-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	02/19/2019 1030
trans-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	02/19/2019 1030
Ethylbenzene	ND		1	1.0	0.40	ug/L	02/19/2019 1030
2-Hexanone	ND		1	10	2.0	ug/L	02/19/2019 1030
Isopropylbenzene	ND		1	1.0	0.40	ug/L	02/19/2019 1030
Methyl acetate	ND		1	1.0	0.40	ug/L	02/19/2019 1030
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	0.40	ug/L	02/19/2019 1030
4-Methyl-2-pentanone	ND		1	10	2.0	ug/L	02/19/2019 1030
Methylcyclohexane	ND		1	5.0	0.40	ug/L	02/19/2019 1030
Methylene chloride	ND		1	1.0	0.40	ug/L	02/19/2019 1030
Styrene	ND		1	1.0	0.41	ug/L	02/19/2019 1030
1,1,2,2-Tetrachloroethane	ND		1	1.0	0.40	ug/L	02/19/2019 1030
Tetrachloroethene	ND		1	1.0	0.40	ug/L	02/19/2019 1030
Toluene	ND		1	1.0	0.40	ug/L	02/19/2019 1030
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	0.42	ug/L	02/19/2019 1030
1,2,4-Trichlorobenzene	ND		1	1.0	0.40	ug/L	02/19/2019 1030
1,1,1-Trichloroethane	ND		1	1.0	0.40	ug/L	02/19/2019 1030
1,1,2-Trichloroethane	ND		1	1.0	0.40	ug/L	02/19/2019 1030

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ98012-001
Batch: 98012
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Trichloroethene	ND		1	1.0	0.40	ug/L	02/19/2019 1030
Trichlorofluoromethane	ND		1	1.0	0.40	ug/L	02/19/2019 1030
Vinyl chloride	ND		1	1.0	0.40	ug/L	02/19/2019 1030
Xylenes (total)	ND		1	1.0	0.40	ug/L	02/19/2019 1030

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		82	70-130
Bromofluorobenzene		96	70-130
Toluene-d8		95	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ98012-002
Batch: 98012
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	73		1	73	60-140	02/19/2019 0937
Benzene	50	42		1	84	70-130	02/19/2019 0937
Bromodichloromethane	50	47		1	95	70-130	02/19/2019 0937
Bromoform	50	54		1	107	70-130	02/19/2019 0937
Bromomethane (Methyl bromide)	50	47		1	94	70-130	02/19/2019 0937
2-Butanone (MEK)	100	81		1	81	70-130	02/19/2019 0937
Carbon disulfide	50	40		1	80	70-130	02/19/2019 0937
Carbon tetrachloride	50	43		1	87	70-130	02/19/2019 0937
Chlorobenzene	50	50		1	101	70-130	02/19/2019 0937
Chloroethane	50	47		1	95	70-130	02/19/2019 0937
Chloroform	50	44		1	88	70-130	02/19/2019 0937
Chloromethane (Methyl chloride)	50	39		1	78	60-140	02/19/2019 0937
Cyclohexane	50	41		1	82	70-130	02/19/2019 0937
1,2-Dibromo-3-chloropropane (DBCP)	50	54		1	108	70-130	02/19/2019 0937
Dibromochloromethane	50	52		1	104	70-130	02/19/2019 0937
1,2-Dibromoethane (EDB)	50	52		1	105	70-130	02/19/2019 0937
1,2-Dichlorobenzene	50	51		1	102	70-130	02/19/2019 0937
1,3-Dichlorobenzene	50	52		1	105	70-130	02/19/2019 0937
1,4-Dichlorobenzene	50	52		1	105	70-130	02/19/2019 0937
Dichlorodifluoromethane	50	51		1	102	60-140	02/19/2019 0937
1,1-Dichloroethane	50	40		1	80	70-130	02/19/2019 0937
1,2-Dichloroethane	50	42		1	85	70-130	02/19/2019 0937
1,1-Dichloroethene	50	39		1	78	70-130	02/19/2019 0937
cis-1,2-Dichloroethene	50	42		1	85	70-130	02/19/2019 0937
trans-1,2-Dichloroethene	50	41		1	82	70-130	02/19/2019 0937
1,2-Dichloropropane	50	41		1	81	70-130	02/19/2019 0937
cis-1,3-Dichloropropene	50	44		1	88	70-130	02/19/2019 0937
trans-1,3-Dichloropropene	50	46		1	91	70-130	02/19/2019 0937
Ethylbenzene	50	52		1	104	70-130	02/19/2019 0937
2-Hexanone	100	95		1	95	70-130	02/19/2019 0937
Isopropylbenzene	50	52		1	103	70-130	02/19/2019 0937
Methyl acetate	50	36		1	72	70-130	02/19/2019 0937
Methyl tertiary butyl ether (MTBE)	50	42		1	85	70-130	02/19/2019 0937
4-Methyl-2-pentanone	100	89		1	89	70-130	02/19/2019 0937
Methylcyclohexane	50	44		1	87	70-130	02/19/2019 0937
Methylene chloride	50	38		1	76	70-130	02/19/2019 0937
Styrene	50	54		1	107	70-130	02/19/2019 0937
1,1,2,2-Tetrachloroethane	50	53		1	107	70-130	02/19/2019 0937
Tetrachloroethene	50	49		1	98	70-130	02/19/2019 0937
Toluene	50	49		1	99	70-130	02/19/2019 0937
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	40		1	79	70-130	02/19/2019 0937
1,2,4-Trichlorobenzene	50	54		1	107	70-130	02/19/2019 0937
1,1,1-Trichloroethane	50	42		1	85	70-130	02/19/2019 0937
1,1,2-Trichloroethane	50	52		1	105	70-130	02/19/2019 0937

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ98012-002
Batch: 98012
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	46		1	92	70-130	02/19/2019 0937
Trichlorofluoromethane	50	47		1	94	70-130	02/19/2019 0937
Vinyl chloride	50	45		1	90	70-130	02/19/2019 0937
Xylenes (total)	100	100		1	105	70-130	02/19/2019 0937

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		79	70-130
Bromofluorobenzene		97	70-130
Toluene-d8		92	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Shealy Environmental Services, Inc.
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Chain of Custody

and

Miscellaneous Documents

Shealy Environmental Services, Inc.
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SHEALY ENVIRONMENTAL SERVICES, INC.

SHEALY **Chain of Custody Record**

SHEALY ENVIRONMENTAL SERVICES, INC.
106 Vantage Point Drive • West Columbia, SC 29172
Telephone No. 803-791-9700 Fax No. 803-791-9111
www.shealylab.com

Number 93756

Client	Report to Contact	Telephone No. / E-mail	Quote No.
TRC	Lisa Clark		

Address: 50 International Dr Ste 150
City: Greenville | State: SC | Zip Code: 29615
Project Name: WPH Clemson
Project No.: 300688.0.0.2
P.O. No.:
Sampler's Signature: X
Printed Name: Benjamin McMinn
Analysis (Attach list if more space is needed)
Page 1 of 1

UB13091

Sample ID / Description (Containers for each sample may be combined on one line.)	Date 2019	Time	Grab (G) Composite (C)	Matrix: Aqueous	Soil	Other	No of Containers by Preservative Type: Unpres.	HNO3	HCl	NaOH	Other	VOCs	Chloride, Sulfate Bromide	Nitrate	Remarks / Cooler I.D.
TBLK-19111	1	1	G	X					2			X			
RMW-04	2-12	1402	G	X					3			X	X	X	
DG-07	2-12	1215	G	X					3			X			
DG-06B	2-12	1230	G	X					3			X			
DG-06C	2-12	1150	G	X					3			X			
RMW-03	2-12	1132	G	X					3			X	X	X	
MG-06	2-12	1535	G	X					3			X			
MG-06A	2-12	1550	G	X					3			X			
MG-06B	2-12	1520	G	X					3			X			

Turn Around Time Required (Prior lab approval required for expedited TAT.) ☐ Standard ☐ Rush (Specify)

Sample Disposal ☐ Return to Client ☐ Disposal by Lab

Possible Hazard Identification ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished by	2-12-19	1735	1. Received by: TRC Sample storage	2-12-19	1735
2. Relinquished by: TRC SAMPLE STORAGE	2-13-19	09:07	2. Received by: Ken E. Mallard	2-13-19	09:07
3. Relinquished by: Ken E. Mallard	2/13/19	10:00	3. Received by	Date	Time
4. Relinquished by	Date	Time	4. Laboratory received by: Erin Blanton	Date 2.13.19	Time 1600

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on Ice (Circle) (Yes) No Ice Pack
Receipt Temp. 1.4 °C

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Client Copy

Document Number: F-AD-133 Effective Date: 08-01-2014

Shealy Environmental Services, Inc.
Document Number: ME00118C-14

Page 1 of 1
Effective Date: 8/2/2018

Sample Receipt Checklist (SRC)

Client: TRC Cooler Inspected by/date: ETB / 2.13.19 Lot #: UB13091

Means of receipt: ☑ SESI ☐ Client ☐ UPS ☐ FedEx ☐ Other: _____

☐ Yes	☑ No		1. Were custody seals present on the cooler?
☐ Yes	☐ No	☑ NA	2. If custody seals were present, were they intact and unbroken?

pH Strip ID: _____ Chlorine Strip ID: _____ Tested by: _____

Original temperature upon receipt / Derived (Corrected) temperature upon receipt: %Solid Snap-Cup ID: _____

1.4 / 1.4 °C ___ / ___ °C ___ / ___ °C ___ / ___ °C

Method: ☑ Temperature Blank ☐ Against Bottles IR Gun ID: 5 IR Gun Correction Factor: 0 °C

Method of coolant: ☑ Wet Ice ☐ Ice Packs ☐ Dry Ice ☐ None

☐ Yes	☐ No	☑ NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).
☐ Yes	☐ No	☑ NA	4. Is the commercial courier's packing slip attached to this form?
☑ Yes	☐ No		5. Were proper custody procedures (relinquished/received) followed?
☑ Yes	☐ No		6. Were sample IDs listed on the COC?
☑ Yes	☐ No		7. Were sample IDs listed on all sample containers?
☑ Yes	☐ No		8. Was collection date & time listed on the COC?
☑ Yes	☐ No		9. Was collection date & time listed on all sample containers?
☑ Yes	☐ No		10. Did all container label information (ID, date, time) agree with the COC?
☑ Yes	☐ No		11. Were tests to be performed listed on the COC?
☑ Yes	☐ No		12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)? _____
☑ Yes	☐ No		13. Was adequate sample volume available?
☑ Yes	☐ No		14. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
☐ Yes	☑ No		15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
☐ Yes	☑ No	☐ NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (¼"or 6mm in diameter) in any of the VOA vials?
☐ Yes	☐ No	☑ NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?
☐ Yes	☐ No	☑ NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
☐ Yes	☐ No	☑ NA	19. Were all applicable NH_3/TKN/cyanide/phenol/625 (< 0.5mg/L) samples free of residual chlorine?
☐ Yes	☐ No	☑ NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc…) correctly transcribed from the COC into the comment section in LIMS?
☑ Yes	☐ No		21. Was the quote number listed on the container label? If yes, Quote # 2717

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) _____ were received incorrectly preserved and were adjusted accordingly in sample receiving with _____mL of circle one: H2SO4, HNO3, HCl, NaOH using SR # _____ _____.
Time of preservation _____. If more than one preservative is needed, please note in the comments below.

Sample(s) _____ were received with bubbles >6 mm in diameter.

Samples(s) _____ were received with TRC > 0.5 mg/L (If #19 is ***no***) and were adjusted accordingly in sample receiving with sodium thiosulfate ($Na_2S_2O_3$) with Shealy ID: _____.

SR barcode labels applied by: KMP Date: 2.13.19

Comments:

SHEALY ENVIRONMENTAL SERVICES, INC.

Report of Analysis

TRC Companies, Inc.
50 International Dr.
Suite 150
Greenville, SC 29615
Attention: Lisa Clark

Project Name: WPH Clemson

Project Number: 300688.0000.0000.0002

Lot Number:**UB14038**

Date Completed:02/21/2019

02/22/2019 2:22 PM
Approved and released by:
Lab Director - Greenville: Lucas Odom

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Laboratory Data Quality Review Notes

Project Name: WPH-Clemson, SC

Project Number: 300688.0000.0000.000002

Lab Report: UB14038 Shealy Environmental Services
Three groundwater samples were analyzed for one or more of volatile organic compounds (VOCs), chloride, bromide, sulfate, and nitrate. One trip blank and one equipment rinse blank were analyzed for VOCs.

Chain of Custody, Sample Temperature, Sample Preservation: Chain of custody (CoC) signed; sample temperature <6 ^{o}C upon arrival at the laboratory; samples were preserved properly.

Hold Time: Samples analyzed within hold time.

Surrogates: VOC surrogate recoveries are within QC limits.

Method Blank: Method blanks were free of detections except as follows:

- Nitrate was detected at 0.0018 J mg/L in the nitrate method blank. Comparable concentrations (*i.e.*, within 5X the concentration in the method blanks) were not detected in the groundwater samples. No qualifiers were assigned.
- Chloride was detected at 0.20 J mg/L in the chloride method blank. Comparable concentrations (*i.e.*, within 5X the concentration in the method blanks) were not detected in the groundwater samples. No qualifiers were assigned.

Trip Blank: Trip blank TBLK-19112 had no detects of reported VOCs.

Field Blank: A field blank was not collected with these samples.

Equipment Rinse Blank: Rinsate blank RBLK-19102 had no detects of reported VOCs.

LCS/LCSD: LCS recoveries for anions and VOCs are within QC Limits. LCSD analyses were not performed.

MS/MSD: RMW-29 was used for bromide, chloride and sulfate MS/MSD analyses. RMW-02 was used for VOC MS/MSD analyses. MS/MSD recoveries and RPDs were within QC limits.

Duplicates: A field duplicate was not collected with these samples.

No qualifiers were assigned.

Data review performed by: Terry Hertz; TRC Environmental Corp.; 2/25/2019

Case Narrative
TRC Companies, Inc.
Lot Number: UB14038

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

Nitrate

The method blank associated with batch 97619 yielded a "J" value detection for Nitrate. No corrective action is required as this is an estimated value recovered below the LOQ. Associated detections have been qualified with a "B".

Chloride

The method blank associated with batch 97871 yielded a "J" value detection for Chloride. No corrective action is required as this is an estimated value recovered below the LOQ. Associated detections have been qualified with a "B".

Sample Summary
TRC Companies, Inc.
Lot Number: UB14038

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	TBLK-19112	Aqueous	02/13/2019	02/14/2019
002	RBLK-19102	Aqueous	02/13/2019 1020	02/14/2019
003	RMW-29	Aqueous	02/13/2019 1135	02/14/2019
004	RMW-23C	Aqueous	02/13/2019 1230	02/14/2019
005	RMW-23D	Aqueous	02/13/2019 1315	02/14/2019
006	RMW-25	Aqueous	02/13/2019 1535	02/14/2019
007	RMW-02	Aqueous	02/13/2019 1600	02/14/2019
008	RMW-05B	Aqueous	02/13/2019 1640	02/14/2019

(8 samples)

Detection Summary

TRC Companies, Inc.

Lot Number: UB14038

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
003	RMW-29	Aqueous	Bromide	300.0	0.10	J	mg/L	9
003	RMW-29	Aqueous	Chloride	300.0	4.1	B	mg/L	9
003	RMW-29	Aqueous	Nitrate - N	353.2	2.3	B	mg/L	9
003	RMW-29	Aqueous	Sulfate	300.0	0.42	J	mg/L	9
003	RMW-29	Aqueous	Chloroform	8260B	0.43	J	ug/L	9
003	RMW-29	Aqueous	Tetrachloroethene	8260B	1.3		ug/L	10
004	RMW-23C	Aqueous	Bromide	300.0	0.13	J	mg/L	11
004	RMW-23C	Aqueous	Chloride	300.0	2.9	B	mg/L	11
004	RMW-23C	Aqueous	Nitrate - N	353.2	0.61	B	mg/L	11
004	RMW-23C	Aqueous	Sulfate	300.0	1.0		mg/L	11
004	RMW-23C	Aqueous	Acetone	8260B	31	J	ug/L	11
004	RMW-23C	Aqueous	2-Butanone (MEK)	8260B	120		ug/L	11
004	RMW-23C	Aqueous	cis-1,2-Dichloroethene	8260B	690		ug/L	11
004	RMW-23C	Aqueous	Tetrachloroethene	8260B	70		ug/L	12
004	RMW-23C	Aqueous	Vinyl chloride	8260B	8.8		ug/L	12
005	RMW-23D	Aqueous	Tetrachloroethene	8260B	790		ug/L	13
006	RMW-25	Aqueous	Chloride	300.0	14	B	mg/L	15
006	RMW-25	Aqueous	Nitrate - N	353.2	0.71	B	mg/L	15
006	RMW-25	Aqueous	Sulfate	300.0	15		mg/L	15
007	RMW-02	Aqueous	Bromide	300.0	0.37		mg/L	17
007	RMW-02	Aqueous	Chloride	300.0	16	B	mg/L	17
007	RMW-02	Aqueous	Nitrate - N	353.2	0.53	B	mg/L	17
007	RMW-02	Aqueous	Sulfate	300.0	7.2		mg/L	17
007	RMW-02	Aqueous	Acetone	8260B	110	J	ug/L	17
007	RMW-02	Aqueous	Ethylbenzene	8260B	1100		ug/L	18
007	RMW-02	Aqueous	Xylenes (total)	8260B	3700		ug/L	18
008	RMW-05B	Aqueous	Bromide	300.0	0.091	J	mg/L	19
008	RMW-05B	Aqueous	Chloride	300.0	1.2	B	mg/L	19
008	RMW-05B	Aqueous	Nitrate - N	353.2	1.0	B	mg/L	19
008	RMW-05B	Aqueous	Sulfate	300.0	0.57	J	mg/L	19
008	RMW-05B	Aqueous	Acetone	8260B	2.5	J	ug/L	19
008	RMW-05B	Aqueous	Chloroform	8260B	6.6		ug/L	19
008	RMW-05B	Aqueous	Tetrachloroethene	8260B	2.3		ug/L	20

(33 detections)

Client: TRC Companies, Inc.
Description: TBLK-19112
Date Sampled: 02/13/2019
Date Received: 02/14/2019

Laboratory ID: UB14038-001
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/19/2019 1129	BWS		98012

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	ND		20	2.0	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
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Client: TRC Companies, Inc.
Description: TBLK-19112
Date Sampled: 02/13/2019
Date Received: 02/14/2019

Laboratory ID: UB14038-001
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/19/2019 1129	BWS		98012

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260B	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		81	70-130
Bromofluorobenzene		92	70-130
Toluene-d8		92	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
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Client: TRC Companies, Inc.
Description: RBLK-19102
Date Sampled: 02/13/2019 1020
Date Received: 02/14/2019

Laboratory ID: UB14038-002
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/19/2019 1152	BWS		98012

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	ND		20	2.0	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
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Client: TRC Companies, Inc.
Description: RBLK-19102
Date Sampled: 02/13/2019 1020
Date Received: 02/14/2019

Laboratory ID: UB14038-002
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/19/2019 1152	BWS		98012

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260B	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		81	70-130
Bromofluorobenzene		99	70-130
Toluene-d8		94	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
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Client: TRC Companies, Inc.
Description: RMW-29
Date Sampled: 02/13/2019 1135
Date Received: 02/14/2019

Laboratory ID: UB14038-003
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	02/15/2019 2147	SLU		97874
1		(Chloride) 300.0	1	02/15/2019 2147	SLU		97871
1		(Nitrate - N) 353.2	2	02/14/2019 2122	MDD		97619
1		(Sulfate) 300.0	1	02/15/2019 2147	SLU		97872

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.10	J	0.20	0.050	mg/L	1
Chloride		300.0	4.1	B	1.0	0.20	mg/L	1
Nitrate - N		353.2	2.3	B	0.040	0.0030	mg/L	1
Sulfate		300.0	0.42	J	1.0	0.20	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/19/2019 1238	BWS		98012

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	ND		20	2.0	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260B	0.43	J	1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
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E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
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Client: TRC Companies, Inc.
Description: RMW-29
Date Sampled: 02/13/2019 1135
Date Received: 02/14/2019

Laboratory ID: UB14038-003
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/19/2019 1238	BWS		98012

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	1.3		1.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260B	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		85	70-130
Bromofluorobenzene		105	70-130
Toluene-d8		96	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
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B = Detected in the method blank
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W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: RMW-23C
Date Sampled: 02/13/2019 1230
Date Received: 02/14/2019

Laboratory ID: UB14038-004
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	02/15/2019 2317	SLU		97874
1		(Chloride) 300.0	1	02/15/2019 2317	SLU		97871
1		(Nitrate - N) 353.2	1	02/14/2019 2123	MDD		97619
1		(Sulfate) 300.0	1	02/15/2019 2317	SLU		97872

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.13	J	0.20	0.050	mg/L	1
Chloride		300.0	2.9	B	1.0	0.20	mg/L	1
Nitrate - N		353.2	0.61	B	0.020	0.0015	mg/L	1
Sulfate		300.0	1.0		1.0	0.20	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	5	02/19/2019 1628	BWS		98012

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	31	J	100	10	ug/L	1
Benzene	71-43-2	8260B	ND		5.0	2.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		5.0	2.0	ug/L	1
Bromoform	75-25-2	8260B	ND		5.0	2.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		10	2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	120		50	10	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		5.0	2.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		5.0	2.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		5.0	2.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		10	2.0	ug/L	1
Chloroform	67-66-3	8260B	ND		5.0	2.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	2.5	ug/L	1
Cyclohexane	110-82-7	8260B	ND		5.0	2.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	2.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		5.0	2.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	2.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	2.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	2.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	2.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		10	3.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	2.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	2.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	2.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	690		5.0	2.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	2.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	2.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
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E = Quantitation of compound exceeded the calibration range
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J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
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Client: TRC Companies, Inc.
Description: RMW-23C
Date Sampled: 02/13/2019 1230
Date Received: 02/14/2019

Laboratory ID: UB14038-004
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	5	02/19/2019 1628	BWS		98012

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	2.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	2.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		5.0	2.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		50	10	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		5.0	2.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		5.0	2.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	2.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		50	10	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		25	2.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		5.0	2.0	ug/L	1
Styrene	100-42-5	8260B	ND		5.0	2.1	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	2.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	70		5.0	2.0	ug/L	1
Toluene	108-88-3	8260B	ND		5.0	2.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	2.1	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	2.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	2.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	2.0	ug/L	1
Trichloroethene	79-01-6	8260B	ND		5.0	2.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	2.0	ug/L	1
Vinyl chloride	75-01-4	8260B	8.8		5.0	2.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		5.0	2.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		90	70-130
Bromofluorobenzene		105	70-130
Toluene-d8		95	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: RMW-23D
Date Sampled: 02/13/2019 1315
Date Received: 02/14/2019

Laboratory ID: UB14038-005
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	10	02/19/2019 1742	BWS		98012

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	ND		200	20	ug/L	1
Benzene	71-43-2	8260B	ND		10	4.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		10	4.0	ug/L	1
Bromoform	75-25-2	8260B	ND		10	4.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		20	4.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		100	20	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		10	4.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		10	4.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		10	4.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		20	4.0	ug/L	1
Chloroform	67-66-3	8260B	ND		10	4.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		10	5.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		10	4.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		10	4.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		10	4.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		10	4.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		10	4.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		10	4.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		10	4.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		20	6.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		10	4.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		10	4.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		10	4.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		10	4.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		10	4.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		10	4.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		10	4.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		10	4.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		10	4.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		100	20	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		10	4.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		10	4.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		10	4.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		100	20	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		50	4.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		10	4.0	ug/L	1
Styrene	100-42-5	8260B	ND		10	4.1	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		10	4.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	790		10	4.0	ug/L	1
Toluene	108-88-3	8260B	ND		10	4.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: RMW-23D
Date Sampled: 02/13/2019 1315
Date Received: 02/14/2019

Laboratory ID: UB14038-005
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	10	02/19/2019 1742	BWS		98012

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		10	4.2	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		10	4.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		10	4.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		10	4.0	ug/L	1
Trichloroethene	79-01-6	8260B	ND		10	4.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		10	4.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		10	4.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		10	4.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		90	70-130
Bromofluorobenzene		108	70-130
Toluene-d8		97	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: RMW-25
Date Sampled: 02/13/2019 1535
Date Received: 02/14/2019

Laboratory ID: UB14038-006
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	02/15/2019 2335	SLU		97874
1		(Chloride) 300.0	1	02/15/2019 2335	SLU		97871
1		(Nitrate - N) 353.2	1	02/14/2019 2124	MDD		97619
1		(Sulfate) 300.0	1	02/15/2019 2335	SLU		97872

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	ND		0.20	0.050	mg/L	1
Chloride		300.0	14	B	1.0	0.20	mg/L	1
Nitrate - N		353.2	0.71	B	0.020	0.0015	mg/L	1
Sulfate		300.0	15		1.0	0.20	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/19/2019 1301	BWS		98012

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	ND		20	2.0	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
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W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
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Client: TRC Companies, Inc.
Description: RMW-25
Date Sampled: 02/13/2019 1535
Date Received: 02/14/2019

Laboratory ID: UB14038-006
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/19/2019 1301	BWS		98012

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260B	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		84	70-130
Bromofluorobenzene		93	70-130
Toluene-d8		91	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
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N = Recovery is out of criteria
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J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: RMW-02
Date Sampled: 02/13/2019 1600
Date Received: 02/14/2019

Laboratory ID: UB14038-007
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2		(Bromide) 300.0	1	02/20/2019 0312	SLU		98106
1		(Chloride) 300.0	5	02/15/2019 2353	SLU		97871
1		(Nitrate - N) 353.2	10	02/14/2019 2126	MDD		97619
1		(Sulfate) 300.0	5	02/15/2019 2353	SLU		97872

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.37		0.20	0.050	mg/L	2
Chloride		300.0	16	B	5.0	1.0	mg/L	1
Nitrate - N		353.2	0.53	B	0.20	0.015	mg/L	1
Sulfate		300.0	7.2		5.0	1.0	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	50	02/19/2019 1805	BWS		98012

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	110	J	1000	100	ug/L	1
Benzene	71-43-2	8260B	ND		50	20	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		50	20	ug/L	1
Bromoform	75-25-2	8260B	ND		50	20	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		100	20	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		500	100	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		50	20	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		50	20	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		50	20	ug/L	1
Chloroethane	75-00-3	8260B	ND		100	20	ug/L	1
Chloroform	67-66-3	8260B	ND		50	20	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		50	25	ug/L	1
Cyclohexane	110-82-7	8260B	ND		50	20	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		50	20	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		50	20	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		50	20	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		50	20	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		50	20	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		50	20	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		100	30	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		50	20	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		50	20	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		50	20	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		50	20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		50	20	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		50	20	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
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Client: TRC Companies, Inc.
Description: RMW-02
Date Sampled: 02/13/2019 1600
Date Received: 02/14/2019

Laboratory ID: UB14038-007
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	50	02/19/2019 1805	BWS		98012

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		50	20	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		50	20	ug/L	1
Ethylbenzene	100-41-4	8260B	1100		50	20	ug/L	1
2-Hexanone	591-78-6	8260B	ND		500	100	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		50	20	ug/L	1
Methyl acetate	79-20-9	8260B	ND		50	20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		50	20	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		500	100	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		250	20	ug/L	1
Methylene chloride	75-09-2	8260B	ND		50	20	ug/L	1
Styrene	100-42-5	8260B	ND		50	21	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		50	20	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		50	20	ug/L	1
Toluene	108-88-3	8260B	ND		50	20	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		50	21	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		50	20	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		50	20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		50	20	ug/L	1
Trichloroethene	79-01-6	8260B	ND		50	20	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		50	20	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		50	20	ug/L	1
Xylenes (total)	1330-20-7	8260B	3700		50	20	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		88	70-130
Bromofluorobenzene		93	70-130
Toluene-d8		89	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: RMW-05B
Date Sampled: 02/13/2019 1640
Date Received: 02/14/2019

Laboratory ID: UB14038-008
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	02/16/2019 0011	SLU		97874
1		(Chloride) 300.0	1	02/16/2019 0011	SLU		97871
1		(Nitrate - N) 353.2	1	02/14/2019 2127	MDD		97619
1		(Sulfate) 300.0	1	02/16/2019 0011	SLU		97872

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.091	J	0.20	0.050	mg/L	1
Chloride		300.0	1.2	B	1.0	0.20	mg/L	1
Nitrate - N		353.2	1.0	B	0.020	0.0015	mg/L	1
Sulfate		300.0	0.57	J	1.0	0.20	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/19/2019 1324	BWS		98012

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	2.5	J	20	2.0	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260B	6.6		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: RMW-05B
Date Sampled: 02/13/2019 1640
Date Received: 02/14/2019

Laboratory ID: UB14038-008
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/19/2019 1324	BWS		98012

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	2.3		1.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260B	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		83	70-130
Bromofluorobenzene		92	70-130
Toluene-d8		89	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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QC Summary

Inorganic non-metals - MB

Sample ID: UQ97619-001
Batch: 97619
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Nitrate - N	0.0018	J	1	0.020	0.0015	mg/L	02/14/2019 2119

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - LCS

Sample ID: UQ97619-002
Batch: 97619
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	0.80	0.82		1	102	90-110	02/14/2019 2120

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MB

Sample ID: UQ97871-001
Batch: 97871
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Chloride	0.20	J	1	1.0	0.20	mg/L	02/15/2019 1846

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - LCS

Sample ID: UQ97871-002
Batch: 97871
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Chloride	20	20		1	100	90-110	02/15/2019 1922

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Sample ID: UB14038-003MS
Batch: 97871
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Chloride	4.1	20	23		1	94	90-110	02/15/2019 2241

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: UB14038-003MD
Batch: 97871
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Chloride	4.1	20	24		1	99	4.3	90-110	20	02/15/2019 2259

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MB

Sample ID: UQ97872-001
Batch: 97872
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Sulfate	ND		1	1.0	0.20	mg/L	02/15/2019 1846

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - LCS

Sample ID: UQ97872-002
Batch: 97872
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Sulfate	20	20		1	100	90-110	02/15/2019 1922

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MS

Sample ID: UB14038-003MS
Batch: 97872
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Sulfate	0.42	20	20		1	100	90-110	02/15/2019 2241

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MSD

Sample ID: UB14038-003MD
Batch: 97872
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Sulfate	0.42	20	21		1	104	4.3	90-110	20	02/15/2019 2259

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MB

Sample ID: UQ97874-001
Batch: 97874
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Bromide	ND		1	0.20	0.050	mg/L	02/15/2019 1846

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - LCS

Sample ID: UQ97874-002
Batch: 97874
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Bromide	8.0	8.5		1	106	90-110	02/15/2019 1922

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Sample ID: UB14038-003MS
Batch: 97874
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Bromide	0.10	8.0	8.0		1	99	90-110	02/15/2019 2241

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: UB14038-003MD
Batch: 97874
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Bromide	0.10	8.0	8.5		1	105	6.1	90-110	20	02/15/2019 2259

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MB

Sample ID: UQ98106-001
Batch: 98106
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Bromide	ND		1	0.20	0.050	mg/L	02/19/2019 1528

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - LCS

Sample ID: UQ98106-002
Batch: 98106
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Bromide	8.0	8.4		1	105	90-110	02/19/2019 1621

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ98012-001
Batch: 98012
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Acetone	ND		1	20	2.0	ug/L	02/19/2019 1030
Benzene	ND		1	1.0	0.40	ug/L	02/19/2019 1030
Bromodichloromethane	ND		1	1.0	0.40	ug/L	02/19/2019 1030
Bromoform	ND		1	1.0	0.40	ug/L	02/19/2019 1030
Bromomethane (Methyl bromide)	ND		1	2.0	0.40	ug/L	02/19/2019 1030
2-Butanone (MEK)	ND		1	10	2.0	ug/L	02/19/2019 1030
Carbon disulfide	ND		1	1.0	0.40	ug/L	02/19/2019 1030
Carbon tetrachloride	ND		1	1.0	0.40	ug/L	02/19/2019 1030
Chlorobenzene	ND		1	1.0	0.40	ug/L	02/19/2019 1030
Chloroethane	ND		1	2.0	0.40	ug/L	02/19/2019 1030
Chloroform	ND		1	1.0	0.40	ug/L	02/19/2019 1030
Chloromethane (Methyl chloride)	ND		1	1.0	0.50	ug/L	02/19/2019 1030
Cyclohexane	ND		1	1.0	0.40	ug/L	02/19/2019 1030
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	0.40	ug/L	02/19/2019 1030
Dibromochloromethane	ND		1	1.0	0.40	ug/L	02/19/2019 1030
1,2-Dibromoethane (EDB)	ND		1	1.0	0.40	ug/L	02/19/2019 1030
1,2-Dichlorobenzene	ND		1	1.0	0.40	ug/L	02/19/2019 1030
1,3-Dichlorobenzene	ND		1	1.0	0.40	ug/L	02/19/2019 1030
1,4-Dichlorobenzene	ND		1	1.0	0.40	ug/L	02/19/2019 1030
Dichlorodifluoromethane	ND		1	2.0	0.60	ug/L	02/19/2019 1030
1,1-Dichloroethane	ND		1	1.0	0.40	ug/L	02/19/2019 1030
1,2-Dichloroethane	ND		1	1.0	0.40	ug/L	02/19/2019 1030
1,1-Dichloroethene	ND		1	1.0	0.40	ug/L	02/19/2019 1030
cis-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	02/19/2019 1030
trans-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	02/19/2019 1030
1,2-Dichloropropane	ND		1	1.0	0.40	ug/L	02/19/2019 1030
cis-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	02/19/2019 1030
trans-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	02/19/2019 1030
Ethylbenzene	ND		1	1.0	0.40	ug/L	02/19/2019 1030
2-Hexanone	ND		1	10	2.0	ug/L	02/19/2019 1030
Isopropylbenzene	ND		1	1.0	0.40	ug/L	02/19/2019 1030
Methyl acetate	ND		1	1.0	0.40	ug/L	02/19/2019 1030
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	0.40	ug/L	02/19/2019 1030
4-Methyl-2-pentanone	ND		1	10	2.0	ug/L	02/19/2019 1030
Methylcyclohexane	ND		1	5.0	0.40	ug/L	02/19/2019 1030
Methylene chloride	ND		1	1.0	0.40	ug/L	02/19/2019 1030
Styrene	ND		1	1.0	0.41	ug/L	02/19/2019 1030
1,1,2,2-Tetrachloroethane	ND		1	1.0	0.40	ug/L	02/19/2019 1030
Tetrachloroethene	ND		1	1.0	0.40	ug/L	02/19/2019 1030
Toluene	ND		1	1.0	0.40	ug/L	02/19/2019 1030
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	0.42	ug/L	02/19/2019 1030
1,2,4-Trichlorobenzene	ND		1	1.0	0.40	ug/L	02/19/2019 1030
1,1,1-Trichloroethane	ND		1	1.0	0.40	ug/L	02/19/2019 1030
1,1,2-Trichloroethane	ND		1	1.0	0.40	ug/L	02/19/2019 1030

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ98012-001
Batch: 98012
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Trichloroethene	ND		1	1.0	0.40	ug/L	02/19/2019 1030
Trichlorofluoromethane	ND		1	1.0	0.40	ug/L	02/19/2019 1030
Vinyl chloride	ND		1	1.0	0.40	ug/L	02/19/2019 1030
Xylenes (total)	ND		1	1.0	0.40	ug/L	02/19/2019 1030

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		82	70-130
Bromofluorobenzene		96	70-130
Toluene-d8		95	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ98012-002
Batch: 98012
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	73		1	73	60-140	02/19/2019 0937
Benzene	50	42		1	84	70-130	02/19/2019 0937
Bromodichloromethane	50	47		1	95	70-130	02/19/2019 0937
Bromoform	50	54		1	107	70-130	02/19/2019 0937
Bromomethane (Methyl bromide)	50	47		1	94	70-130	02/19/2019 0937
2-Butanone (MEK)	100	81		1	81	70-130	02/19/2019 0937
Carbon disulfide	50	40		1	80	70-130	02/19/2019 0937
Carbon tetrachloride	50	43		1	87	70-130	02/19/2019 0937
Chlorobenzene	50	50		1	101	70-130	02/19/2019 0937
Chloroethane	50	47		1	95	70-130	02/19/2019 0937
Chloroform	50	44		1	88	70-130	02/19/2019 0937
Chloromethane (Methyl chloride)	50	39		1	78	60-140	02/19/2019 0937
Cyclohexane	50	41		1	82	70-130	02/19/2019 0937
1,2-Dibromo-3-chloropropane (DBCP)	50	54		1	108	70-130	02/19/2019 0937
Dibromochloromethane	50	52		1	104	70-130	02/19/2019 0937
1,2-Dibromoethane (EDB)	50	52		1	105	70-130	02/19/2019 0937
1,2-Dichlorobenzene	50	51		1	102	70-130	02/19/2019 0937
1,3-Dichlorobenzene	50	52		1	105	70-130	02/19/2019 0937
1,4-Dichlorobenzene	50	52		1	105	70-130	02/19/2019 0937
Dichlorodifluoromethane	50	51		1	102	60-140	02/19/2019 0937
1,1-Dichloroethane	50	40		1	80	70-130	02/19/2019 0937
1,2-Dichloroethane	50	42		1	85	70-130	02/19/2019 0937
1,1-Dichloroethene	50	39		1	78	70-130	02/19/2019 0937
cis-1,2-Dichloroethene	50	42		1	85	70-130	02/19/2019 0937
trans-1,2-Dichloroethene	50	41		1	82	70-130	02/19/2019 0937
1,2-Dichloropropane	50	41		1	81	70-130	02/19/2019 0937
cis-1,3-Dichloropropene	50	44		1	88	70-130	02/19/2019 0937
trans-1,3-Dichloropropene	50	46		1	91	70-130	02/19/2019 0937
Ethylbenzene	50	52		1	104	70-130	02/19/2019 0937
2-Hexanone	100	95		1	95	70-130	02/19/2019 0937
Isopropylbenzene	50	52		1	103	70-130	02/19/2019 0937
Methyl acetate	50	36		1	72	70-130	02/19/2019 0937
Methyl tertiary butyl ether (MTBE)	50	42		1	85	70-130	02/19/2019 0937
4-Methyl-2-pentanone	100	89		1	89	70-130	02/19/2019 0937
Methylcyclohexane	50	44		1	87	70-130	02/19/2019 0937
Methylene chloride	50	38		1	76	70-130	02/19/2019 0937
Styrene	50	54		1	107	70-130	02/19/2019 0937
1,1,2,2-Tetrachloroethane	50	53		1	107	70-130	02/19/2019 0937
Tetrachloroethene	50	49		1	98	70-130	02/19/2019 0937
Toluene	50	49		1	99	70-130	02/19/2019 0937
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	40		1	79	70-130	02/19/2019 0937
1,2,4-Trichlorobenzene	50	54		1	107	70-130	02/19/2019 0937
1,1,1-Trichloroethane	50	42		1	85	70-130	02/19/2019 0937
1,1,2-Trichloroethane	50	52		1	105	70-130	02/19/2019 0937

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ98012-002
Batch: 98012
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	46		1	92	70-130	02/19/2019 0937
Trichlorofluoromethane	50	47		1	94	70-130	02/19/2019 0937
Vinyl chloride	50	45		1	90	70-130	02/19/2019 0937
Xylenes (total)	100	100		1	105	70-130	02/19/2019 0937

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		79	70-130
Bromofluorobenzene		97	70-130
Toluene-d8		92	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
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ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MS

Sample ID: UB14038-007MS
Batch: 98012
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	110	5000	3600		50	70	60-140	02/19/2019 1850
Benzene	ND	2500	2200		50	87	70-130	02/19/2019 1850
Bromodichloromethane	ND	2500	2500		50	101	70-130	02/19/2019 1850
Bromoform	ND	2500	2900		50	117	70-130	02/19/2019 1850
Bromomethane (Methyl bromide)	ND	2500	2500		50	100	70-130	02/19/2019 1850
2-Butanone (MEK)	ND	5000	3900		50	79	70-130	02/19/2019 1850
Carbon disulfide	ND	2500	2000		50	80	70-130	02/19/2019 1850
Carbon tetrachloride	ND	2500	2500		50	101	70-130	02/19/2019 1850
Chlorobenzene	ND	2500	2600		50	106	70-130	02/19/2019 1850
Chloroethane	ND	2500	2400		50	97	70-130	02/19/2019 1850
Chloroform	ND	2500	2400		50	95	70-130	02/19/2019 1850
Chloromethane (Methyl chloride)	ND	2500	2100		50	85	60-140	02/19/2019 1850
Cyclohexane	ND	2500	2100		50	83	70-130	02/19/2019 1850
1,2-Dibromo-3-chloropropane (DBCP)	ND	2500	2800		50	114	70-130	02/19/2019 1850
Dibromochloromethane	ND	2500	2800		50	111	70-130	02/19/2019 1850
1,2-Dibromoethane (EDB)	ND	2500	2600		50	104	70-130	02/19/2019 1850
1,2-Dichlorobenzene	ND	2500	2600		50	106	70-130	02/19/2019 1850
1,3-Dichlorobenzene	ND	2500	2700		50	106	70-130	02/19/2019 1850
1,4-Dichlorobenzene	ND	2500	2700		50	107	70-130	02/19/2019 1850
Dichlorodifluoromethane	ND	2500	3000		50	118	60-140	02/19/2019 1850
1,1-Dichloroethane	ND	2500	2100		50	83	70-130	02/19/2019 1850
1,2-Dichloroethane	ND	2500	2500		50	98	70-130	02/19/2019 1850
1,1-Dichloroethene	ND	2500	2100		50	83	70-130	02/19/2019 1850
cis-1,2-Dichloroethene	ND	2500	2200		50	88	70-130	02/19/2019 1850
trans-1,2-Dichloroethene	ND	2500	2100		50	83	70-130	02/19/2019 1850
1,2-Dichloropropane	ND	2500	1900		50	77	70-130	02/19/2019 1850
cis-1,3-Dichloropropene	ND	2500	2200		50	87	70-130	02/19/2019 1850
trans-1,3-Dichloropropene	ND	2500	2400		50	95	70-130	02/19/2019 1850
Ethylbenzene	1100	2500	3900		50	111	70-130	02/19/2019 1850
2-Hexanone	ND	5000	4700		50	93	70-130	02/19/2019 1850
Isopropylbenzene	ND	2500	2800		50	113	70-130	02/19/2019 1850
Methyl acetate	ND	2500	1900		50	74	70-130	02/19/2019 1850
Methyl tertiary butyl ether (MTBE)	ND	2500	2200		50	89	70-130	02/19/2019 1850
4-Methyl-2-pentanone	ND	5000	4400		50	88	70-130	02/19/2019 1850
Methylcyclohexane	ND	2500	2300		50	90	70-130	02/19/2019 1850
Methylene chloride	ND	2500	1900		50	76	70-130	02/19/2019 1850
Styrene	ND	2500	2800		50	113	70-130	02/19/2019 1850
1,1,2,2-Tetrachloroethane	ND	2500	2500		50	100	70-130	02/19/2019 1850
Tetrachloroethene	ND	2500	2700		50	107	70-130	02/19/2019 1850
Toluene	ND	2500	2600		50	105	70-130	02/19/2019 1850
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	2500	2100		50	85	70-130	02/19/2019 1850
1,2,4-Trichlorobenzene	ND	2500	2700		50	109	70-130	02/19/2019 1850
1,1,1-Trichloroethane	ND	2500	2400		50	97	70-130	02/19/2019 1850
1,1,2-Trichloroethane	ND	2500	2600		50	106	70-130	02/19/2019 1850

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MS

Sample ID: UB14038-007MS
Batch: 98012
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	ND	2500	2400		50	97	70-130	02/19/2019 1850
Trichlorofluoromethane	ND	2500	2800		50	113	70-130	02/19/2019 1850
Vinyl chloride	ND	2500	2400		50	98	70-130	02/19/2019 1850
Xylenes (total)	3700	5000	9300		50	112	70-130	02/19/2019 1850

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		88	70-130
Bromofluorobenzene		94	70-130
Toluene-d8		91	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MSD

Sample ID: UB14038-007MD
Batch: 98012
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	110	5000	3500		50	68	3.4	60-140	20	02/19/2019 1913
Benzene	ND	2500	2200		50	88	0.99	70-130	20	02/19/2019 1913
Bromodichloromethane	ND	2500	2500		50	101	0.21	70-130	20	02/19/2019 1913
Bromoform	ND	2500	2900		50	118	0.38	70-130	20	02/19/2019 1913
Bromomethane (Methyl bromide)	ND	2500	2500		50	98	1.3	70-130	20	02/19/2019 1913
2-Butanone (MEK)	ND	5000	4100		50	82	4.1	70-130	20	02/19/2019 1913
Carbon disulfide	ND	2500	1900		50	75	7.3	70-130	20	02/19/2019 1913
Carbon tetrachloride	ND	2500	2500		50	99	2.3	70-130	20	02/19/2019 1913
Chlorobenzene	ND	2500	2700		50	107	1.4	70-130	20	02/19/2019 1913
Chloroethane	ND	2500	2500		50	99	2.0	70-130	20	02/19/2019 1913
Chloroform	ND	2500	2400		50	95	0.22	70-130	20	02/19/2019 1913
Chloromethane (Methyl chloride)	ND	2500	2100		50	83	1.8	60-140	20	02/19/2019 1913
Cyclohexane	ND	2500	2200		50	86	3.6	70-130	20	02/19/2019 1913
1,2-Dibromo-3-chloropropane (DBCP)	ND	2500	3000		50	119	4.5	70-130	20	02/19/2019 1913
Dibromochloromethane	ND	2500	2900		50	115	3.0	70-130	20	02/19/2019 1913
1,2-Dibromoethane (EDB)	ND	2500	2700		50	106	2.0	70-130	20	02/19/2019 1913
1,2-Dichlorobenzene	ND	2500	2800		50	112	5.8	70-130	20	02/19/2019 1913
1,3-Dichlorobenzene	ND	2500	2800		50	113	5.9	70-130	20	02/19/2019 1913
1,4-Dichlorobenzene	ND	2500	2800		50	110	3.1	70-130	20	02/19/2019 1913
Dichlorodifluoromethane	ND	2500	2900		50	115	3.3	60-140	20	02/19/2019 1913
1,1-Dichloroethane	ND	2500	2100		50	83	0.29	70-130	20	02/19/2019 1913
1,2-Dichloroethane	ND	2500	2400		50	95	3.8	70-130	20	02/19/2019 1913
1,1-Dichloroethene	ND	2500	2100		50	82	1.2	70-130	20	02/19/2019 1913
cis-1,2-Dichloroethene	ND	2500	2200		50	89	0.45	70-130	20	02/19/2019 1913
trans-1,2-Dichloroethene	ND	2500	2100		50	84	1.3	70-130	20	02/19/2019 1913
1,2-Dichloropropane	ND	2500	2000		50	78	1.2	70-130	20	02/19/2019 1913
cis-1,3-Dichloropropene	ND	2500	2200		50	87	0.36	70-130	20	02/19/2019 1913
trans-1,3-Dichloropropene	ND	2500	2400		50	95	0.77	70-130	20	02/19/2019 1913
Ethylbenzene	1100	2500	3900		50	113	1.5	70-130	20	02/19/2019 1913
2-Hexanone	ND	5000	4800		50	97	4.0	70-130	20	02/19/2019 1913
Isopropylbenzene	ND	2500	2800		50	114	0.33	70-130	20	02/19/2019 1913
Methyl acetate	ND	2500	1800		50	74	1.3	70-130	20	02/19/2019 1913
Methyl tertiary butyl ether (MTBE)	ND	2500	2200		50	87	1.6	70-130	20	02/19/2019 1913
4-Methyl-2-pentanone	ND	5000	4500		50	89	1.2	70-130	20	02/19/2019 1913
Methylcyclohexane	ND	2500	2200		50	90	0.49	70-130	20	02/19/2019 1913
Methylene chloride	ND	2500	1900		50	78	2.0	70-130	20	02/19/2019 1913
Styrene	ND	2500	2900		50	114	1.1	70-130	20	02/19/2019 1913
1,1,2,2-Tetrachloroethane	ND	2500	2700		50	110	8.9	70-130	20	02/19/2019 1913
Tetrachloroethene	ND	2500	2600		50	106	0.79	70-130	20	02/19/2019 1913
Toluene	ND	2500	2600		50	105	0.57	70-130	20	02/19/2019 1913
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	2500	2100		50	84	0.92	70-130	20	02/19/2019 1913
1,2,4-Trichlorobenzene	ND	2500	2900		50	114	4.9	70-130	20	02/19/2019 1913
1,1,1-Trichloroethane	ND	2500	2400		50	96	1.2	70-130	20	02/19/2019 1913
1,1,2-Trichloroethane	ND	2500	2700		50	107	0.70	70-130	20	02/19/2019 1913

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MSD

Sample ID: UB14038-007MD
Batch: 98012
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Trichloroethene	ND	2500	2300		50	94	3.5	70-130	20	02/19/2019 1913
Trichlorofluoromethane	ND	2500	2700		50	108	4.2	70-130	20	02/19/2019 1913
Vinyl chloride	ND	2500	2400		50	97	1.2	70-130	20	02/19/2019 1913
Xylenes (total)	3700	5000	9400		50	114	1.3	70-130	20	02/19/2019 1913

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		87	70-130
Bromofluorobenzene		106	70-130
Toluene-d8		97	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Chain of Custody
and
Miscellaneous Documents

SHEALY ENVIRONMENTAL SERVICES, INC.
106 Vantage Point Drive • West Columbia, SC 29172
Telephone No. 803-791-9700 Fax No. 803-791-9111
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Chain of Custody Record

Number 93757

Client: TRC	Report to Contact: Lisa Clark	Telephone No. / E-mail:	Quote No.
Address: 50 International Dr Ste 150	Sampler's Signature: X	Analysis (Attach list if more space is needed)	Page: 1 of 1
City: Greenville	State: SC	Zip Code: 29615	Printed Name: Benjamin McMin
Project Name: WPH Clemson			
Project No.: 300688.0.0.2	P.O. No.:		

Sample ID / Description (Containers for each sample may be combined on one line.)	Date 2019	Time	No. of Containers	Matrix: Aqueous	Matrix: Solid	Matrix: Other	No. of Containers by Preservative Type: Unpres.	H2SO4	HNO3	HCl	NaOH	NaOH/ZN	Analysis: VOCs	Chloride, Sulfate, Bromide	Nitrate
TBLK-19112	\	\	G	X						2			X		
RBLK-19102	2-13	1020	G	X						3			X		
RMW-29	2-13	1135	G	X			2			3			X	X	X
RMW-23C	2-13	1230	G	X			2			3			X	X	X
RMW-23D	2-13	1315	G	X						3			X		
RMW-25	2-13	1535	G	X			2			3			X	X	X
RMW-02	2-13	1600	G	X			2			3			X	X	X
RMW-05B	2-13	1640	G	X			2			3			X	X	X

UB14038

LID

Turn Around Time Required (Prior lab approval required for expedited TAT.): ☐ Standard ☐ Rush (Specify)

Sample Disposal: ☐ Return to Client ☐ Disposal by Lab

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished by	2-13-19	1840	1. Received by: TRC Sample Storage	2-13-19	1840
2. Relinquished by: TRC Sample Storage	2/14/19	0855	2. Received by	2/14/19	0855
3. Relinquished by	Date	Time	3. Received by	Date	Time
4. Relinquished by	2/14/19	1328	4. Laboratory received by: L Hite	2-14-19	1328

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on Ice (Circle) (Yes) No Ice Pack Receipt Temp: 1.8 °C

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Client Copy

Document Number: F-AD-133 Effective Date: 08-01-2014

SHEALY ENVIRONMENTAL SERVICES, INC.

Shealy Environmental Services, Inc.
Document Number: ME0018C-14

Page 1 of 1
Effective Date: 8/2/2018

Sample Receipt Checklist (SRC)

Client: TRC Cooler Inspected by/date: LKH / 2-14-19 Lot #: UB14038

Means of receipt: ☑ SESI ☐ Client ☐ UPS ☐ FedEx ☐ Other: _____

☐ Yes	☑ No		1. Were custody seals present on the cooler?
☐ Yes	☐ No	☑ NA	2. If custody seals were present, were they intact and unbroken?

pH Strip ID: NA Chlorine Strip ID: NA Tested by: NA

Original temperature upon receipt / Derived (Corrected) temperature upon receipt: %Solid Snap-Cup ID: NA

1.8 / 1.8 °C ___ / ___ °C ___ / ___ °C ___ / ___ °C LKH 2-14-19

Method: ☑ Temperature Blank ☐ Against Bottles IR Gun ID: 5 IR Gun Correction Factor: 0 °C

Method of coolant: ☑ Wet Ice ☐ Ice Packs ☐ Dry Ice ☐ None

☐ Yes	☐ No	☑ NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).
☐ Yes	☐ No	☑ NA	4. Is the commercial courier's packing slip attached to this form?
☑ Yes	☐ No		5. Were proper custody procedures (relinquished/received) followed?
☑ Yes	☐ No		6. Were sample IDs listed on the COC?
☑ Yes	☐ No		7. Were sample IDs listed on all sample containers?
☑ Yes	☐ No		8. Was collection date & time listed on the COC?
☑ Yes	☐ No		9. Was collection date & time listed on all sample containers?
☑ Yes	☐ No		10. Did all container label information (ID, date, time) agree with the COC?
☑ Yes	☐ No		11. Were tests to be performed listed on the COC?
☑ Yes	☐ No		12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)? _____
☑ Yes	☐ No		13. Was adequate sample volume available?
☑ Yes	☐ No		14. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
☐ Yes	☑ No		15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
☐ Yes	☑ No	☐ NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (¼"or 6mm in diameter) in any of the VOA vials?
☐ Yes	☐ No	☑ NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?
☐ Yes	☐ No	☑ NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
☐ Yes	☐ No	☑ NA	19. Were all applicable NH_3/TKN/cyanide/phenol/625 (< 0.5mg/L) samples free of residual chlorine?
☐ Yes	☐ No	☑ NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc…) correctly transcribed from the COC into the comment section in LIMS?
☐ Yes	☑ No		21. Was the quote number listed on the container label? If yes, Quote # _____

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) NA were received incorrectly preserved and were adjusted accordingly in sample receiving with NA mL of circle one: H_2SO_4, HNO_3, HCl, NaOH using SR # NA.
Time of preservation NA. If more than one preservative is needed, please note in the comments below.

Sample(s) NA were received with bubbles >6 mm in diameter.

Samples(s) NA were received with TRC > 0.5 mg/l. (If #19 is *no*) and were adjusted accordingly in sample receiving with sodium thiosulfate ($Na_2S_2O_3$) with Shealy ID: NA.

SR barcode labels applied by: LKH Date: 2-14-19

Comments:

SHEALY ENVIRONMENTAL SERVICES, INC.

Report of Analysis

TRC Companies, Inc.
50 International Dr.
Suite 150
Greenville, SC 29615
Attention: Lisa Clark

Project Name: WPH Clemson

Project Number: 300688.0000.0000.0002

Lot Number:**UB12030**

Date Completed:02/20/2019

02/21/2019 1:55 PM
Approved and released by:
Lab Director - Greenville: Lucas Odom

The electronic signature above is the equivalent of a handwritten signature.

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Laboratory Data Quality Review Notes

Project Name: WPH-Clemson, SC

Project Number: 300688.0000.0000.000002

Lab Report: UB12030 Shealy Environmental Services
Nine groundwater samples were analyzed for one or more of volatile organic compounds (VOCs), chloride, bromide, sulfate, and nitrate. One trip blank was analyzed for VOCs.

Chain of Custody, Sample Temperature, Sample Preservation: Chain of custody (CoC) signed; sample temperature <6 ^{o}C upon arrival at the laboratory; samples were preserved properly.

Hold Time: Samples analyzed within hold time.

Surrogates: VOC surrogate recoveries are within QC limits.

Method Blank: Method blanks were free of detections.

Trip Blank: Trip blank TBLK-19110 had no detected VOCs.

Field Blank: A field blank was not collected with these samples.

Equipment Rinse Blank: A rinsate blank was not collected with these samples.

LCS/LCSD: LCS recoveries for anions and VOCs are within QC Limits. LCSD analyses were not performed.

MS/MSD: RMW-13A was used for nitrate MS/MSD analyses. RMW-28B was used for bromide, chloride and sulfate MS/MSD analyses. RMW-16A and RMW-28B were used for VOC MS/MSD analyses. MS/MSD recoveries and RPDs were within QC limits except as follows:

- The RMW-16A MS and MSD bromomethane recoveries were above the upper QC limit. The RMW-16A MS trichlorofluoromethane recovery was above the upper QC limit. Bromomethand and trichlorofluoromethane were not detected in RMW-16A. No qualifiers were assigned.

Duplicates: A field duplicate was not collected with these samples.

No qualifiers were assigned.

Data review performed by: Terry Hertz; TRC Environmental Corp.; 2/26/2019

Case Narrative
TRC Companies, Inc.
Lot Number: UB12030

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

VOCs by GC/MS

The MS/MSD associated with batch 97749 recovered Bromomethane above method criteria at 159% and 141% respectively due to suspected matrix interferences. All associated samples are non-detect for this compound. In addition the MS associated with this batch recovered Trichlorofluoromethane above method criteria at 131%. The associated MSD recovered within method criteria at 115% for this compound. The spiked sample is non-detect for this compound and only one "J" detection was yielded from this batch for Trichlorofluoromethane.

Sample Summary
TRC Companies, Inc.
Lot Number: UB12030

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	TBLK-19110	Aqueous	02/12/2019	02/12/2019
002	DG-06	Aqueous	02/08/2019 1200	02/12/2019
003	DG-06A	Aqueous	02/08/2019 1135	02/12/2019
004	MG-02	Aqueous	02/08/2019 1405	02/12/2019
005	RMW-16A	Aqueous	02/11/2019 1245	02/12/2019
006	RMW-16B	Aqueous	02/11/2019 1315	02/12/2019
007	RMW-16C	Aqueous	02/11/2019 1350	02/12/2019
008	RMW-13A	Aqueous	02/11/2019 1545	02/12/2019
009	RMW-28A	Aqueous	02/11/2019 1610	02/12/2019
010	RMW-28B	Aqueous	02/11/2019 1625	02/12/2019

(10 samples)

Detection Summary

TRC Companies, Inc.

Lot Number: UB12030

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
002	DG-06	Aqueous	cis-1,2-Dichloroethene	8260B	4.5	J	ug/L	7
002	DG-06	Aqueous	Tetrachloroethene	8260B	460		ug/L	7
002	DG-06	Aqueous	Trichlorofluoromethane	8260B	9.4	J	ug/L	8
003	DG-06A	Aqueous	Tetrachloroethene	8260B	440		ug/L	9
003	DG-06A	Aqueous	Trichlorofluoromethane	8260B	20		ug/L	10
005	RMW-16A	Aqueous	Tetrachloroethene	8260B	9300		ug/L	13
006	RMW-16B	Aqueous	cis-1,2-Dichloroethene	8260B	12		ug/L	15
006	RMW-16B	Aqueous	Tetrachloroethene	8260B	350		ug/L	15
006	RMW-16B	Aqueous	Trichloroethene	8260B	15		ug/L	16
007	RMW-16C	Aqueous	Tetrachloroethene	8260B	450		ug/L	17
008	RMW-13A	Aqueous	Bromide	300.0	0.099	J	mg/L	19
008	RMW-13A	Aqueous	Chloride	300.0	0.96	J	mg/L	19
008	RMW-13A	Aqueous	Nitrate - N	353.2	0.16		mg/L	19
008	RMW-13A	Aqueous	Sulfate	300.0	1.1		mg/L	19
009	RMW-28A	Aqueous	Bromide	300.0	0.17	J	mg/L	21
009	RMW-28A	Aqueous	Chloride	300.0	3.2		mg/L	21
009	RMW-28A	Aqueous	Nitrate - N	353.2	3.5		mg/L	21
009	RMW-28A	Aqueous	Sulfate	300.0	3.7		mg/L	21
009	RMW-28A	Aqueous	Tetrachloroethene	8260B	170		ug/L	22
009	RMW-28A	Aqueous	1,1,2-Trichloro-1,2,2-	8260B	0.47	J	ug/L	22
009	RMW-28A	Aqueous	Trichloroethene	8260B	0.50	J	ug/L	22
010	RMW-28B	Aqueous	Bromide	300.0	0.11	J	mg/L	23
010	RMW-28B	Aqueous	Chloride	300.0	0.98	J	mg/L	23
010	RMW-28B	Aqueous	Nitrate - N	353.2	1.1		mg/L	23
010	RMW-28B	Aqueous	Tetrachloroethene	8260B	1400		ug/L	24

(25 detections)

Client: TRC Companies, Inc.
Description: TBLK-19110
Date Sampled: 02/12/2019
Date Received: 02/12/2019

Laboratory ID: UB12030-001
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/16/2019 0430	MNS		97749

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	ND		20	2.0	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Client: TRC Companies, Inc.
Description: TBLK-19110
Date Sampled: 02/12/2019
Date Received: 02/12/2019

Laboratory ID: UB12030-001
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/16/2019 0430	MNS		97749

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260B	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		99	70-130
Bromofluorobenzene		91	70-130
Toluene-d8		98	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
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P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Client: TRC Companies, Inc.
Description: DG-06
Date Sampled: 02/08/2019 1200
Date Received: 02/12/2019

Laboratory ID: UB12030-002
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	10	02/16/2019 0602	MNS		97749

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	ND		200	20	ug/L	1
Benzene	71-43-2	8260B	ND		10	4.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		10	4.0	ug/L	1
Bromoform	75-25-2	8260B	ND		10	4.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		20	4.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		100	20	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		10	4.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		10	4.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		10	4.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		20	4.0	ug/L	1
Chloroform	67-66-3	8260B	ND		10	4.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		10	5.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		10	4.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		10	4.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		10	4.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		10	4.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		10	4.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		10	4.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		10	4.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		20	6.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		10	4.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		10	4.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		10	4.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	4.5	J	10	4.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		10	4.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		10	4.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		10	4.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		10	4.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		10	4.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		100	20	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		10	4.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		10	4.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		10	4.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		100	20	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		50	4.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		10	4.0	ug/L	1
Styrene	100-42-5	8260B	ND		10	4.1	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		10	4.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	460		10	4.0	ug/L	1
Toluene	108-88-3	8260B	ND		10	4.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
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W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
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J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: DG-06
Date Sampled: 02/08/2019 1200
Date Received: 02/12/2019

Laboratory ID: UB12030-002
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	10	02/16/2019 0602	MNS		97749

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		10	4.2	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		10	4.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		10	4.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		10	4.0	ug/L	1
Trichloroethene	79-01-6	8260B	ND		10	4.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	9.4	J	10	4.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		10	4.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		10	4.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		103	70-130
Bromofluorobenzene		91	70-130
Toluene-d8		99	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Client: TRC Companies, Inc.
Description: DG-06A
Date Sampled: 02/08/2019 1135
Date Received: 02/12/2019

Laboratory ID: UB12030-003
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	10	02/18/2019 0007	KGT		97813

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	ND		200	20	ug/L	1
Benzene	71-43-2	8260B	ND		10	4.0	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		10	4.0	ug/L	1
Bromoform	75-25-2	8260B	ND		10	4.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		20	4.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		100	20	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		10	4.0	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		10	4.0	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		10	4.0	ug/L	1
Chloroethane	75-00-3	8260B	ND		20	4.0	ug/L	1
Chloroform	67-66-3	8260B	ND		10	4.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		10	5.0	ug/L	1
Cyclohexane	110-82-7	8260B	ND		10	4.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		10	4.0	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		10	4.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		10	4.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		10	4.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		10	4.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		10	4.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		20	6.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		10	4.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		10	4.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		10	4.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		10	4.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		10	4.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		10	4.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		10	4.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		10	4.0	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		10	4.0	ug/L	1
2-Hexanone	591-78-6	8260B	ND		100	20	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		10	4.0	ug/L	1
Methyl acetate	79-20-9	8260B	ND		10	4.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		10	4.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		100	20	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		50	4.0	ug/L	1
Methylene chloride	75-09-2	8260B	ND		10	4.0	ug/L	1
Styrene	100-42-5	8260B	ND		10	4.1	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		10	4.0	ug/L	1
Tetrachloroethene	127-18-4	8260B	440		10	4.0	ug/L	1
Toluene	108-88-3	8260B	ND		10	4.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
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Client: TRC Companies, Inc.
Description: DG-06A
Date Sampled: 02/08/2019 1135
Date Received: 02/12/2019

Laboratory ID: UB12030-003
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	10	02/18/2019 0007	KGT		97813

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		10	4.2	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		10	4.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		10	4.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		10	4.0	ug/L	1
Trichloroethene	79-01-6	8260B	ND		10	4.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	20		10	4.0	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		10	4.0	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		10	4.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		90	70-130
Bromofluorobenzene		104	70-130
Toluene-d8		97	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Client: TRC Companies, Inc.
Description: MG-02
Date Sampled: 02/08/2019 1405
Date Received: 02/12/2019

Laboratory ID: UB12030-004
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/16/2019 0453	MNS		97749

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	ND		20	2.0	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Client: TRC Companies, Inc.
Description: MG-02
Date Sampled: 02/08/2019 1405
Date Received: 02/12/2019

Laboratory ID: UB12030-004
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/16/2019 0453	MNS		97749

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260B	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		104	70-130
Bromofluorobenzene		98	70-130
Toluene-d8		101	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Client: TRC Companies, Inc.
Description: RMW-16A
Date Sampled: 02/11/2019 1245
Date Received: 02/12/2019

Laboratory ID: UB12030-005
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	100	02/16/2019 0648	MNS		97749

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	ND		2000	200	ug/L	1
Benzene	71-43-2	8260B	ND		100	40	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		100	40	ug/L	1
Bromoform	75-25-2	8260B	ND		100	40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		200	40	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		1000	200	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		100	40	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		100	40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		100	40	ug/L	1
Chloroethane	75-00-3	8260B	ND		200	40	ug/L	1
Chloroform	67-66-3	8260B	ND		100	40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		100	50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		100	40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		100	40	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		100	40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		100	40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		100	40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		100	40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		100	40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		200	60	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		100	40	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		100	40	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		100	40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		100	40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		100	40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		100	40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		100	40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		100	40	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		100	40	ug/L	1
2-Hexanone	591-78-6	8260B	ND		1000	200	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		100	40	ug/L	1
Methyl acetate	79-20-9	8260B	ND		100	40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		100	40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		1000	200	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		500	40	ug/L	1
Methylene chloride	75-09-2	8260B	ND		100	40	ug/L	1
Styrene	100-42-5	8260B	ND		100	41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		100	40	ug/L	1
Tetrachloroethene	127-18-4	8260B	9300		100	40	ug/L	1
Toluene	108-88-3	8260B	ND		100	40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Client: TRC Companies, Inc.
Description: RMW-16A
Date Sampled: 02/11/2019 1245
Date Received: 02/12/2019

Laboratory ID: UB12030-005
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	100	02/16/2019 0648	MNS		97749

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		100	42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		100	40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		100	40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		100	40	ug/L	1
Trichloroethene	79-01-6	8260B	ND		100	40	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		100	40	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		100	40	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		100	40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		103	70-130
Bromofluorobenzene		90	70-130
Toluene-d8		101	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Client: TRC Companies, Inc.
Description: RMW-16B
Date Sampled: 02/11/2019 1315
Date Received: 02/12/2019

Laboratory ID: UB12030-006
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	5030B	8260B	5	02/19/2019 1651	BWS		98012

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	ND		100	10	ug/L	2
Benzene	71-43-2	8260B	ND		5.0	2.0	ug/L	2
Bromodichloromethane	75-27-4	8260B	ND		5.0	2.0	ug/L	2
Bromoform	75-25-2	8260B	ND		5.0	2.0	ug/L	2
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		10	2.0	ug/L	2
2-Butanone (MEK)	78-93-3	8260B	ND		50	10	ug/L	2
Carbon disulfide	75-15-0	8260B	ND		5.0	2.0	ug/L	2
Carbon tetrachloride	56-23-5	8260B	ND		5.0	2.0	ug/L	2
Chlorobenzene	108-90-7	8260B	ND		5.0	2.0	ug/L	2
Chloroethane	75-00-3	8260B	ND		10	2.0	ug/L	2
Chloroform	67-66-3	8260B	ND		5.0	2.0	ug/L	2
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	2.5	ug/L	2
Cyclohexane	110-82-7	8260B	ND		5.0	2.0	ug/L	2
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	2.0	ug/L	2
Dibromochloromethane	124-48-1	8260B	ND		5.0	2.0	ug/L	2
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	2.0	ug/L	2
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	2.0	ug/L	2
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	2.0	ug/L	2
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	2.0	ug/L	2
Dichlorodifluoromethane	75-71-8	8260B	ND		10	3.0	ug/L	2
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	2.0	ug/L	2
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	2.0	ug/L	2
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	2.0	ug/L	2
cis-1,2-Dichloroethene	156-59-2	8260B	12		5.0	2.0	ug/L	2
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	2.0	ug/L	2
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	2.0	ug/L	2
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	2.0	ug/L	2
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	2.0	ug/L	2
Ethylbenzene	100-41-4	8260B	ND		5.0	2.0	ug/L	2
2-Hexanone	591-78-6	8260B	ND		50	10	ug/L	2
Isopropylbenzene	98-82-8	8260B	ND		5.0	2.0	ug/L	2
Methyl acetate	79-20-9	8260B	ND		5.0	2.0	ug/L	2
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	2.0	ug/L	2
4-Methyl-2-pentanone	108-10-1	8260B	ND		50	10	ug/L	2
Methylcyclohexane	108-87-2	8260B	ND		25	2.0	ug/L	2
Methylene chloride	75-09-2	8260B	ND		5.0	2.0	ug/L	2
Styrene	100-42-5	8260B	ND		5.0	2.1	ug/L	2
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	2.0	ug/L	2
Tetrachloroethene	127-18-4	8260B	350		5.0	2.0	ug/L	2
Toluene	108-88-3	8260B	ND		5.0	2.0	ug/L	2

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Client: TRC Companies, Inc.
Description: RMW-16B
Date Sampled: 02/11/2019 1315
Date Received: 02/12/2019

Laboratory ID: UB12030-006
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	5030B	8260B	5	02/19/2019 1651	BWS		98012

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	2.1	ug/L	2
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	2.0	ug/L	2
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	2.0	ug/L	2
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	2.0	ug/L	2
Trichloroethene	79-01-6	8260B	15		5.0	2.0	ug/L	2
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	2.0	ug/L	2
Vinyl chloride	75-01-4	8260B	ND		5.0	2.0	ug/L	2
Xylenes (total)	1330-20-7	8260B	ND		5.0	2.0	ug/L	2

Surrogate	Q	Run 2 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		91	70-130
Bromofluorobenzene		105	70-130
Toluene-d8		97	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
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Client: TRC Companies, Inc.
Description: RMW-16C
Date Sampled: 02/11/2019 1350
Date Received: 02/12/2019

Laboratory ID: UB12030-007
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	5030B	8260B	5	02/19/2019 1827	BWS		98012

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	ND		100	10	ug/L	2
Benzene	71-43-2	8260B	ND		5.0	2.0	ug/L	2
Bromodichloromethane	75-27-4	8260B	ND		5.0	2.0	ug/L	2
Bromoform	75-25-2	8260B	ND		5.0	2.0	ug/L	2
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		10	2.0	ug/L	2
2-Butanone (MEK)	78-93-3	8260B	ND		50	10	ug/L	2
Carbon disulfide	75-15-0	8260B	ND		5.0	2.0	ug/L	2
Carbon tetrachloride	56-23-5	8260B	ND		5.0	2.0	ug/L	2
Chlorobenzene	108-90-7	8260B	ND		5.0	2.0	ug/L	2
Chloroethane	75-00-3	8260B	ND		10	2.0	ug/L	2
Chloroform	67-66-3	8260B	ND		5.0	2.0	ug/L	2
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		5.0	2.5	ug/L	2
Cyclohexane	110-82-7	8260B	ND		5.0	2.0	ug/L	2
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		5.0	2.0	ug/L	2
Dibromochloromethane	124-48-1	8260B	ND		5.0	2.0	ug/L	2
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		5.0	2.0	ug/L	2
1,2-Dichlorobenzene	95-50-1	8260B	ND		5.0	2.0	ug/L	2
1,3-Dichlorobenzene	541-73-1	8260B	ND		5.0	2.0	ug/L	2
1,4-Dichlorobenzene	106-46-7	8260B	ND		5.0	2.0	ug/L	2
Dichlorodifluoromethane	75-71-8	8260B	ND		10	3.0	ug/L	2
1,1-Dichloroethane	75-34-3	8260B	ND		5.0	2.0	ug/L	2
1,2-Dichloroethane	107-06-2	8260B	ND		5.0	2.0	ug/L	2
1,1-Dichloroethene	75-35-4	8260B	ND		5.0	2.0	ug/L	2
cis-1,2-Dichloroethene	156-59-2	8260B	ND		5.0	2.0	ug/L	2
trans-1,2-Dichloroethene	156-60-5	8260B	ND		5.0	2.0	ug/L	2
1,2-Dichloropropane	78-87-5	8260B	ND		5.0	2.0	ug/L	2
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		5.0	2.0	ug/L	2
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		5.0	2.0	ug/L	2
Ethylbenzene	100-41-4	8260B	ND		5.0	2.0	ug/L	2
2-Hexanone	591-78-6	8260B	ND		50	10	ug/L	2
Isopropylbenzene	98-82-8	8260B	ND		5.0	2.0	ug/L	2
Methyl acetate	79-20-9	8260B	ND		5.0	2.0	ug/L	2
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		5.0	2.0	ug/L	2
4-Methyl-2-pentanone	108-10-1	8260B	ND		50	10	ug/L	2
Methylcyclohexane	108-87-2	8260B	ND		25	2.0	ug/L	2
Methylene chloride	75-09-2	8260B	ND		5.0	2.0	ug/L	2
Styrene	100-42-5	8260B	ND		5.0	2.1	ug/L	2
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		5.0	2.0	ug/L	2
Tetrachloroethene	127-18-4	8260B	450		5.0	2.0	ug/L	2
Toluene	108-88-3	8260B	ND		5.0	2.0	ug/L	2

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
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Client: TRC Companies, Inc.
Description: RMW-16C
Date Sampled: 02/11/2019 1350
Date Received: 02/12/2019

Laboratory ID: UB12030-007
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	5030B	8260B	5	02/19/2019 1827	BWS		98012

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		5.0	2.1	ug/L	2
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		5.0	2.0	ug/L	2
1,1,1-Trichloroethane	71-55-6	8260B	ND		5.0	2.0	ug/L	2
1,1,2-Trichloroethane	79-00-5	8260B	ND		5.0	2.0	ug/L	2
Trichloroethene	79-01-6	8260B	ND		5.0	2.0	ug/L	2
Trichlorofluoromethane	75-69-4	8260B	ND		5.0	2.0	ug/L	2
Vinyl chloride	75-01-4	8260B	ND		5.0	2.0	ug/L	2
Xylenes (total)	1330-20-7	8260B	ND		5.0	2.0	ug/L	2

Surrogate	Q	Run 2 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		91	70-130
Bromofluorobenzene		106	70-130
Toluene-d8		95	70-130

LOQ = Limit of Quantitation
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E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: RMW-13A
Date Sampled: 02/11/2019 1545
Date Received: 02/12/2019

Laboratory ID: UB12030-008
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	02/14/2019 2238	SLU		97598
1		(Chloride) 300.0	1	02/14/2019 2238	SLU		97595
1		(Nitrate - N) 353.2	1	02/12/2019 2323	MDD		97366
1		(Sulfate) 300.0	1	02/14/2019 2238	SLU		97596

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.099	J	0.20	0.050	mg/L	1
Chloride		300.0	0.96	J	1.0	0.20	mg/L	1
Nitrate - N		353.2	0.16		0.020	0.0015	mg/L	1
Sulfate		300.0	1.1		1.0	0.20	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/16/2019 0516	MNS		97749

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	ND		20	2.0	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
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Client: TRC Companies, Inc.
Description: RMW-13A
Date Sampled: 02/11/2019 1545
Date Received: 02/12/2019

Laboratory ID: UB12030-008
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/16/2019 0516	MNS		97749

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260B	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		103	70-130
Bromofluorobenzene		95	70-130
Toluene-d8		102	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: RMW-28A
Date Sampled: 02/11/2019 1610
Date Received: 02/12/2019

Laboratory ID: UB12030-009
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	02/14/2019 2304	SLU		97598
1		(Chloride) 300.0	1	02/14/2019 2304	SLU		97595
1		(Nitrate - N) 353.2	5	02/13/2019 0008	MDD		97366
1		(Sulfate) 300.0	1	02/14/2019 2304	SLU		97596

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.17	J	0.20	0.050	mg/L	1
Chloride		300.0	3.2		1.0	0.20	mg/L	1
Nitrate - N		353.2	3.5		0.10	0.0075	mg/L	1
Sulfate		300.0	3.7		1.0	0.20	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/16/2019 0539	MNS		97749

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	ND		20	2.0	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: RMW-28A
Date Sampled: 02/11/2019 1610
Date Received: 02/12/2019

Laboratory ID: UB12030-009
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/16/2019 0539	MNS		97749

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	170		1.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	0.47	J	1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260B	0.50	J	1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		102	70-130
Bromofluorobenzene		91	70-130
Toluene-d8		100	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: RMW-28B
Date Sampled: 02/11/2019 1625
Date Received: 02/12/2019

Laboratory ID: UB12030-010
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	02/15/2019 0022	SLU		97598
1		(Chloride) 300.0	1	02/15/2019 0022	SLU		97595
1		(Nitrate - N) 353.2	1	02/13/2019 0012	MDD		97366
1		(Sulfate) 300.0	1	02/15/2019 0022	SLU		97596

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.11	J	0.20	0.050	mg/L	1
Chloride		300.0	0.98	J	1.0	0.20	mg/L	1
Nitrate - N		353.2	1.1		0.020	0.0015	mg/L	1
Sulfate		300.0	ND		1.0	0.20	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	5030B	8260B	20	02/19/2019 1719	BWS		98012

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	ND		400	40	ug/L	2
Benzene	71-43-2	8260B	ND		20	8.0	ug/L	2
Bromodichloromethane	75-27-4	8260B	ND		20	8.0	ug/L	2
Bromoform	75-25-2	8260B	ND		20	8.0	ug/L	2
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		40	8.0	ug/L	2
2-Butanone (MEK)	78-93-3	8260B	ND		200	40	ug/L	2
Carbon disulfide	75-15-0	8260B	ND		20	8.0	ug/L	2
Carbon tetrachloride	56-23-5	8260B	ND		20	8.0	ug/L	2
Chlorobenzene	108-90-7	8260B	ND		20	8.0	ug/L	2
Chloroethane	75-00-3	8260B	ND		40	8.0	ug/L	2
Chloroform	67-66-3	8260B	ND		20	8.0	ug/L	2
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		20	10	ug/L	2
Cyclohexane	110-82-7	8260B	ND		20	8.0	ug/L	2
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		20	8.0	ug/L	2
Dibromochloromethane	124-48-1	8260B	ND		20	8.0	ug/L	2
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		20	8.0	ug/L	2
1,2-Dichlorobenzene	95-50-1	8260B	ND		20	8.0	ug/L	2
1,3-Dichlorobenzene	541-73-1	8260B	ND		20	8.0	ug/L	2
1,4-Dichlorobenzene	106-46-7	8260B	ND		20	8.0	ug/L	2
Dichlorodifluoromethane	75-71-8	8260B	ND		40	12	ug/L	2
1,1-Dichloroethane	75-34-3	8260B	ND		20	8.0	ug/L	2
1,2-Dichloroethane	107-06-2	8260B	ND		20	8.0	ug/L	2
1,1-Dichloroethene	75-35-4	8260B	ND		20	8.0	ug/L	2
cis-1,2-Dichloroethene	156-59-2	8260B	ND		20	8.0	ug/L	2
trans-1,2-Dichloroethene	156-60-5	8260B	ND		20	8.0	ug/L	2
1,2-Dichloropropane	78-87-5	8260B	ND		20	8.0	ug/L	2

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: RMW-28B
Date Sampled: 02/11/2019 1625
Date Received: 02/12/2019

Laboratory ID: UB12030-010
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	5030B	8260B	20	02/19/2019 1719	BWS		98012

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		20	8.0	ug/L	2
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		20	8.0	ug/L	2
Ethylbenzene	100-41-4	8260B	ND		20	8.0	ug/L	2
2-Hexanone	591-78-6	8260B	ND		200	40	ug/L	2
Isopropylbenzene	98-82-8	8260B	ND		20	8.0	ug/L	2
Methyl acetate	79-20-9	8260B	ND		20	8.0	ug/L	2
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		20	8.0	ug/L	2
4-Methyl-2-pentanone	108-10-1	8260B	ND		200	40	ug/L	2
Methylcyclohexane	108-87-2	8260B	ND		100	8.0	ug/L	2
Methylene chloride	75-09-2	8260B	ND		20	8.0	ug/L	2
Styrene	100-42-5	8260B	ND		20	8.2	ug/L	2
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		20	8.0	ug/L	2
Tetrachloroethene	127-18-4	8260B	1400		20	8.0	ug/L	2
Toluene	108-88-3	8260B	ND		20	8.0	ug/L	2
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		20	8.4	ug/L	2
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		20	8.0	ug/L	2
1,1,1-Trichloroethane	71-55-6	8260B	ND		20	8.0	ug/L	2
1,1,2-Trichloroethane	79-00-5	8260B	ND		20	8.0	ug/L	2
Trichloroethene	79-01-6	8260B	ND		20	8.0	ug/L	2
Trichlorofluoromethane	75-69-4	8260B	ND		20	8.0	ug/L	2
Vinyl chloride	75-01-4	8260B	ND		20	8.0	ug/L	2
Xylenes (total)	1330-20-7	8260B	ND		20	8.0	ug/L	2

Surrogate	Q	Run 2 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		90	70-130
Bromofluorobenzene		97	70-130
Toluene-d8		91	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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QC Summary

Inorganic non-metals - MB

Sample ID: UQ97366-001
Batch: 97366
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Nitrate - N	ND		1	0.020	0.0015	mg/L	02/12/2019 2302

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: UQ97366-002
Batch: 97366
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	0.80	0.81		1	101	90-110	02/12/2019 2303

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MS

Sample ID: UB12030-008MS
Batch: 97366
Analytical Method: 353.2
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	0.16	0.80	0.96		1	100	90-110	02/12/2019 2324

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: UB12030-008MD
Batch: 97366
Analytical Method: 353.2
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Nitrate - N	0.16	0.80	0.93		1	97	3.1	90-110	20	02/12/2019 2326

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MB

Sample ID: UQ97595-001
Batch: 97595
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Chloride	ND		1	1.0	0.20	mg/L	02/14/2019 1748

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - LCS

Sample ID: UQ97595-002
Batch: 97595
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Chloride	20	20		1	100	90-110	02/14/2019 1936

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MS

Sample ID: UB12030-010MS
Batch: 97595
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Chloride	0.98	20	20		1	96	90-110	02/15/2019 0048

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MSD

Sample ID: UB12030-010MD
Batch: 97595
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Chloride	0.98	20	20		1	96	0.00	90-110	20	02/15/2019 0114

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MB

Sample ID: UQ97596-001
Batch: 97596
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Sulfate	ND		1	1.0	0.20	mg/L	02/14/2019 1748

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - LCS

Sample ID: UQ97596-002
Batch: 97596
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Sulfate	20	19		1	97	90-110	02/14/2019 1936

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MS

Sample ID: UB12030-010MS
Batch: 97596
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Sulfate	ND	20	19		1	93	90-110	02/15/2019 0048

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MSD

Sample ID: UB12030-010MD
Batch: 97596
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Sulfate	ND	20	19		1	94	1.1	90-110	20	02/15/2019 0114

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MB

Sample ID: UQ97598-001
Batch: 97598
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Bromide	ND		1	0.20	0.050	mg/L	02/14/2019 1748

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Shealy Environmental Services, Inc.
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Inorganic non-metals - LCS

Sample ID: UQ97598-002
Batch: 97598
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Bromide	8.0	8.4		1	105	90-110	02/14/2019 1936

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MS

Sample ID: UB12030-010MS
Batch: 97598
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Bromide	0.11	8.0	8.2		1	101	90-110	02/15/2019 0048

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: UB12030-010MD
Batch: 97598
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Bromide	0.11	8.0	8.2		1	101	0.00	90-110	20	02/15/2019 0114

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ97749-001
Batch: 97749
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Acetone	ND		1	20	2.0	ug/L	02/15/2019 2249
Benzene	ND		1	1.0	0.40	ug/L	02/15/2019 2249
Bromodichloromethane	ND		1	1.0	0.40	ug/L	02/15/2019 2249
Bromoform	ND		1	1.0	0.40	ug/L	02/15/2019 2249
Bromomethane (Methyl bromide)	ND		1	2.0	0.40	ug/L	02/15/2019 2249
2-Butanone (MEK)	ND		1	10	2.0	ug/L	02/15/2019 2249
Carbon disulfide	ND		1	1.0	0.40	ug/L	02/15/2019 2249
Carbon tetrachloride	ND		1	1.0	0.40	ug/L	02/15/2019 2249
Chlorobenzene	ND		1	1.0	0.40	ug/L	02/15/2019 2249
Chloroethane	ND		1	2.0	0.40	ug/L	02/15/2019 2249
Chloroform	ND		1	1.0	0.40	ug/L	02/15/2019 2249
Chloromethane (Methyl chloride)	ND		1	1.0	0.50	ug/L	02/15/2019 2249
Cyclohexane	ND		1	1.0	0.40	ug/L	02/15/2019 2249
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	0.40	ug/L	02/15/2019 2249
Dibromochloromethane	ND		1	1.0	0.40	ug/L	02/15/2019 2249
1,2-Dibromoethane (EDB)	ND		1	1.0	0.40	ug/L	02/15/2019 2249
1,2-Dichlorobenzene	ND		1	1.0	0.40	ug/L	02/15/2019 2249
1,3-Dichlorobenzene	ND		1	1.0	0.40	ug/L	02/15/2019 2249
1,4-Dichlorobenzene	ND		1	1.0	0.40	ug/L	02/15/2019 2249
Dichlorodifluoromethane	ND		1	2.0	0.60	ug/L	02/15/2019 2249
1,1-Dichloroethane	ND		1	1.0	0.40	ug/L	02/15/2019 2249
1,2-Dichloroethane	ND		1	1.0	0.40	ug/L	02/15/2019 2249
1,1-Dichloroethene	ND		1	1.0	0.40	ug/L	02/15/2019 2249
cis-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	02/15/2019 2249
trans-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	02/15/2019 2249
1,2-Dichloropropane	ND		1	1.0	0.40	ug/L	02/15/2019 2249
cis-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	02/15/2019 2249
trans-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	02/15/2019 2249
Ethylbenzene	ND		1	1.0	0.40	ug/L	02/15/2019 2249
2-Hexanone	ND		1	10	2.0	ug/L	02/15/2019 2249
Isopropylbenzene	ND		1	1.0	0.40	ug/L	02/15/2019 2249
Methyl acetate	ND		1	1.0	0.40	ug/L	02/15/2019 2249
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	0.40	ug/L	02/15/2019 2249
4-Methyl-2-pentanone	ND		1	10	2.0	ug/L	02/15/2019 2249
Methylcyclohexane	ND		1	5.0	0.40	ug/L	02/15/2019 2249
Methylene chloride	ND		1	1.0	0.40	ug/L	02/15/2019 2249
Styrene	ND		1	1.0	0.41	ug/L	02/15/2019 2249
1,1,2,2-Tetrachloroethane	ND		1	1.0	0.40	ug/L	02/15/2019 2249
Tetrachloroethene	ND		1	1.0	0.40	ug/L	02/15/2019 2249
Toluene	ND		1	1.0	0.40	ug/L	02/15/2019 2249
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	0.42	ug/L	02/15/2019 2249
1,2,4-Trichlorobenzene	ND		1	1.0	0.40	ug/L	02/15/2019 2249
1,1,1-Trichloroethane	ND		1	1.0	0.40	ug/L	02/15/2019 2249
1,1,2-Trichloroethane	ND		1	1.0	0.40	ug/L	02/15/2019 2249

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ97749-001
Batch: 97749
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Trichloroethene	ND		1	1.0	0.40	ug/L	02/15/2019 2249
Trichlorofluoromethane	ND		1	1.0	0.40	ug/L	02/15/2019 2249
Vinyl chloride	ND		1	1.0	0.40	ug/L	02/15/2019 2249
Xylenes (total)	ND		1	1.0	0.40	ug/L	02/15/2019 2249

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		100	70-130
Bromofluorobenzene		94	70-130
Toluene-d8		102	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ97749-002
Batch: 97749
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	97		1	97	60-140	02/15/2019 2202
Benzene	50	45		1	89	70-130	02/15/2019 2202
Bromodichloromethane	50	43		1	86	70-130	02/15/2019 2202
Bromoform	50	47		1	93	70-130	02/15/2019 2202
Bromomethane (Methyl bromide)	50	64		1	128	70-130	02/15/2019 2202
2-Butanone (MEK)	100	89		1	89	70-130	02/15/2019 2202
Carbon disulfide	50	42		1	83	70-130	02/15/2019 2202
Carbon tetrachloride	50	46		1	92	70-130	02/15/2019 2202
Chlorobenzene	50	46		1	92	70-130	02/15/2019 2202
Chloroethane	50	51		1	102	70-130	02/15/2019 2202
Chloroform	50	43		1	86	70-130	02/15/2019 2202
Chloromethane (Methyl chloride)	50	47		1	94	60-140	02/15/2019 2202
Cyclohexane	50	46		1	92	70-130	02/15/2019 2202
1,2-Dibromo-3-chloropropane (DBCP)	50	47		1	95	70-130	02/15/2019 2202
Dibromochloromethane	50	46		1	92	70-130	02/15/2019 2202
1,2-Dibromoethane (EDB)	50	48		1	96	70-130	02/15/2019 2202
1,2-Dichlorobenzene	50	46		1	91	70-130	02/15/2019 2202
1,3-Dichlorobenzene	50	45		1	90	70-130	02/15/2019 2202
1,4-Dichlorobenzene	50	46		1	91	70-130	02/15/2019 2202
Dichlorodifluoromethane	50	47		1	95	60-140	02/15/2019 2202
1,1-Dichloroethane	50	41		1	83	70-130	02/15/2019 2202
1,2-Dichloroethane	50	45		1	90	70-130	02/15/2019 2202
1,1-Dichloroethene	50	42		1	85	70-130	02/15/2019 2202
cis-1,2-Dichloroethene	50	41		1	82	70-130	02/15/2019 2202
trans-1,2-Dichloroethene	50	42		1	83	70-130	02/15/2019 2202
1,2-Dichloropropane	50	38		1	77	70-130	02/15/2019 2202
cis-1,3-Dichloropropene	50	40		1	80	70-130	02/15/2019 2202
trans-1,3-Dichloropropene	50	40		1	79	70-130	02/15/2019 2202
Ethylbenzene	50	47		1	93	70-130	02/15/2019 2202
2-Hexanone	100	95		1	95	70-130	02/15/2019 2202
Isopropylbenzene	50	45		1	90	70-130	02/15/2019 2202
Methyl acetate	50	44		1	87	70-130	02/15/2019 2202
Methyl tertiary butyl ether (MTBE)	50	42		1	85	70-130	02/15/2019 2202
4-Methyl-2-pentanone	100	94		1	94	70-130	02/15/2019 2202
Methylcyclohexane	50	44		1	88	70-130	02/15/2019 2202
Methylene chloride	50	44		1	88	70-130	02/15/2019 2202
Styrene	50	46		1	91	70-130	02/15/2019 2202
1,1,2,2-Tetrachloroethane	50	46		1	91	70-130	02/15/2019 2202
Tetrachloroethene	50	46		1	93	70-130	02/15/2019 2202
Toluene	50	44		1	87	70-130	02/15/2019 2202
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	44		1	89	70-130	02/15/2019 2202
1,2,4-Trichlorobenzene	50	42		1	84	70-130	02/15/2019 2202
1,1,1-Trichloroethane	50	43		1	87	70-130	02/15/2019 2202
1,1,2-Trichloroethane	50	44		1	88	70-130	02/15/2019 2202

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ97749-002
Batch: 97749
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	45		1	89	70-130	02/15/2019 2202
Trichlorofluoromethane	50	51		1	101	70-130	02/15/2019 2202
Vinyl chloride	50	48		1	96	70-130	02/15/2019 2202
Xylenes (total)	100	92		1	92	70-130	02/15/2019 2202

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		100	70-130
Bromofluorobenzene		95	70-130
Toluene-d8		97	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MS

Sample ID: UB12030-005MS
Batch: 97749
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	ND	10000	9600		100	96	60-140	02/16/2019 0711
Benzene	ND	5000	4800		100	96	70-130	02/16/2019 0711
Bromodichloromethane	ND	5000	4500		100	91	70-130	02/16/2019 0711
Bromoform	ND	5000	4600		100	91	70-130	02/16/2019 0711
Bromomethane (Methyl bromide)	ND	5000	7900	N	100	159	70-130	02/16/2019 0711
2-Butanone (MEK)	ND	10000	8900		100	89	70-130	02/16/2019 0711
Carbon disulfide	ND	5000	4300		100	85	70-130	02/16/2019 0711
Carbon tetrachloride	ND	5000	5100		100	103	70-130	02/16/2019 0711
Chlorobenzene	ND	5000	4900		100	97	70-130	02/16/2019 0711
Chloroethane	ND	5000	6400		100	127	70-130	02/16/2019 0711
Chloroform	ND	5000	4500		100	91	70-130	02/16/2019 0711
Chloromethane (Methyl chloride)	ND	5000	5600		100	111	60-140	02/16/2019 0711
Cyclohexane	ND	5000	5200		100	105	70-130	02/16/2019 0711
1,2-Dibromo-3-chloropropane (DBCP)	ND	5000	4800		100	96	70-130	02/16/2019 0711
Dibromochloromethane	ND	5000	4600		100	91	70-130	02/16/2019 0711
1,2-Dibromoethane (EDB)	ND	5000	4900		100	97	70-130	02/16/2019 0711
1,2-Dichlorobenzene	ND	5000	4800		100	95	70-130	02/16/2019 0711
1,3-Dichlorobenzene	ND	5000	4700		100	94	70-130	02/16/2019 0711
1,4-Dichlorobenzene	ND	5000	4600		100	93	70-130	02/16/2019 0711
Dichlorodifluoromethane	ND	5000	5700		100	113	60-140	02/16/2019 0711
1,1-Dichloroethane	ND	5000	4600		100	91	70-130	02/16/2019 0711
1,2-Dichloroethane	ND	5000	4700		100	94	70-130	02/16/2019 0711
1,1-Dichloroethene	ND	5000	4800		100	95	70-130	02/16/2019 0711
cis-1,2-Dichloroethene	ND	5000	4300		100	86	70-130	02/16/2019 0711
trans-1,2-Dichloroethene	ND	5000	4500		100	91	70-130	02/16/2019 0711
1,2-Dichloropropane	ND	5000	4100		100	83	70-130	02/16/2019 0711
cis-1,3-Dichloropropene	ND	5000	4000		100	81	70-130	02/16/2019 0711
trans-1,3-Dichloropropene	ND	5000	4000		100	80	70-130	02/16/2019 0711
Ethylbenzene	ND	5000	4900		100	97	70-130	02/16/2019 0711
2-Hexanone	ND	10000	9500		100	95	70-130	02/16/2019 0711
Isopropylbenzene	ND	5000	4800		100	97	70-130	02/16/2019 0711
Methyl acetate	ND	5000	4400		100	87	70-130	02/16/2019 0711
Methyl tertiary butyl ether (MTBE)	ND	5000	4500		100	90	70-130	02/16/2019 0711
4-Methyl-2-pentanone	ND	10000	9300		100	93	70-130	02/16/2019 0711
Methylcyclohexane	ND	5000	4900		100	99	70-130	02/16/2019 0711
Methylene chloride	ND	5000	4700		100	94	70-130	02/16/2019 0711
Styrene	ND	5000	4800		100	96	70-130	02/16/2019 0711
1,1,2,2-Tetrachloroethane	ND	5000	4600		100	91	70-130	02/16/2019 0711
Tetrachloroethene	9300	5000	14000		100	104	70-130	02/16/2019 0711
Toluene	ND	5000	4700		100	95	70-130	02/16/2019 0711
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	5000	5200		100	103	70-130	02/16/2019 0711
1,2,4-Trichlorobenzene	ND	5000	4700		100	93	70-130	02/16/2019 0711
1,1,1-Trichloroethane	ND	5000	4800		100	96	70-130	02/16/2019 0711
1,1,2-Trichloroethane	ND	5000	4500		100	89	70-130	02/16/2019 0711

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MS

Sample ID: UB12030-005MS
Batch: 97749
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	ND	5000	4800		100	97	70-130	02/16/2019 0711
Trichlorofluoromethane	ND	5000	6500	N	100	131	70-130	02/16/2019 0711
Vinyl chloride	ND	5000	6100		100	122	70-130	02/16/2019 0711
Xylenes (total)	ND	10000	9900		100	99	70-130	02/16/2019 0711

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		101	70-130
Bromofluorobenzene		95	70-130
Toluene-d8		99	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MSD

Sample ID: UB12030-005MD
Batch: 97749
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	ND	10000	10000		100	100	3.7	60-140	20	02/16/2019 0734
Benzene	ND	5000	4800		100	95	0.46	70-130	20	02/16/2019 0734
Bromodichloromethane	ND	5000	4500		100	91	0.077	70-130	20	02/16/2019 0734
Bromoform	ND	5000	4800		100	96	5.7	70-130	20	02/16/2019 0734
Bromomethane (Methyl bromide)	ND	5000	7000	N	100	141	12	70-130	20	02/16/2019 0734
2-Butanone (MEK)	ND	10000	9300		100	93	4.4	70-130	20	02/16/2019 0734
Carbon disulfide	ND	5000	4100		100	83	3.0	70-130	20	02/16/2019 0734
Carbon tetrachloride	ND	5000	5100		100	101	1.3	70-130	20	02/16/2019 0734
Chlorobenzene	ND	5000	4900		100	99	1.5	70-130	20	02/16/2019 0734
Chloroethane	ND	5000	5700		100	115	11	70-130	20	02/16/2019 0734
Chloroform	ND	5000	4600		100	91	0.42	70-130	20	02/16/2019 0734
Chloromethane (Methyl chloride)	ND	5000	5300		100	105	5.6	60-140	20	02/16/2019 0734
Cyclohexane	ND	5000	5200		100	104	0.66	70-130	20	02/16/2019 0734
1,2-Dibromo-3-chloropropane (DBCP)	ND	5000	4900		100	97	0.87	70-130	20	02/16/2019 0734
Dibromochloromethane	ND	5000	4700		100	94	2.3	70-130	20	02/16/2019 0734
1,2-Dibromoethane (EDB)	ND	5000	4900		100	97	0.22	70-130	20	02/16/2019 0734
1,2-Dichlorobenzene	ND	5000	4700		100	93	2.1	70-130	20	02/16/2019 0734
1,3-Dichlorobenzene	ND	5000	4700		100	94	0.47	70-130	20	02/16/2019 0734
1,4-Dichlorobenzene	ND	5000	4800		100	96	2.8	70-130	20	02/16/2019 0734
Dichlorodifluoromethane	ND	5000	5300		100	105	7.6	60-140	20	02/16/2019 0734
1,1-Dichloroethane	ND	5000	4600		100	92	0.76	70-130	20	02/16/2019 0734
1,2-Dichloroethane	ND	5000	4700		100	95	0.66	70-130	20	02/16/2019 0734
1,1-Dichloroethene	ND	5000	4600		100	93	2.5	70-130	20	02/16/2019 0734
cis-1,2-Dichloroethene	ND	5000	4400		100	89	3.1	70-130	20	02/16/2019 0734
trans-1,2-Dichloroethene	ND	5000	4500		100	91	0.18	70-130	20	02/16/2019 0734
1,2-Dichloropropane	ND	5000	4100		100	83	0.036	70-130	20	02/16/2019 0734
cis-1,3-Dichloropropene	ND	5000	4100		100	81	0.95	70-130	20	02/16/2019 0734
trans-1,3-Dichloropropene	ND	5000	4000		100	80	0.31	70-130	20	02/16/2019 0734
Ethylbenzene	ND	5000	5000		100	99	1.7	70-130	20	02/16/2019 0734
2-Hexanone	ND	10000	10000		100	101	6.2	70-130	20	02/16/2019 0734
Isopropylbenzene	ND	5000	4900		100	97	0.57	70-130	20	02/16/2019 0734
Methyl acetate	ND	5000	4400		100	89	1.6	70-130	20	02/16/2019 0734
Methyl tertiary butyl ether (MTBE)	ND	5000	4400		100	89	1.8	70-130	20	02/16/2019 0734
4-Methyl-2-pentanone	ND	10000	9700		100	97	3.5	70-130	20	02/16/2019 0734
Methylcyclohexane	ND	5000	5000		100	100	1.7	70-130	20	02/16/2019 0734
Methylene chloride	ND	5000	4500		100	89	5.2	70-130	20	02/16/2019 0734
Styrene	ND	5000	4800		100	97	0.23	70-130	20	02/16/2019 0734
1,1,2,2-Tetrachloroethane	ND	5000	4700		100	94	2.8	70-130	20	02/16/2019 0734
Tetrachloroethene	9300	5000	14000		100	103	0.39	70-130	20	02/16/2019 0734
Toluene	ND	5000	4800		100	96	1.1	70-130	20	02/16/2019 0734
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	5000	5000		100	99	3.7	70-130	20	02/16/2019 0734
1,2,4-Trichlorobenzene	ND	5000	4600		100	92	1.6	70-130	20	02/16/2019 0734
1,1,1-Trichloroethane	ND	5000	4800		100	96	0.55	70-130	20	02/16/2019 0734
1,1,2-Trichloroethane	ND	5000	4600		100	92	3.8	70-130	20	02/16/2019 0734

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MSD

Sample ID: UB12030-005MD
Batch: 97749
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Trichloroethene	ND	5000	4900		100	97	0.57	70-130	20	02/16/2019 0734
Trichlorofluoromethane	ND	5000	5800		100	115	13	70-130	20	02/16/2019 0734
Vinyl chloride	ND	5000	5500		100	110	11	70-130	20	02/16/2019 0734
Xylenes (total)	ND	10000	10000		100	100	0.98	70-130	20	02/16/2019 0734

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		98	70-130
Bromofluorobenzene		98	70-130
Toluene-d8		101	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ97813-001
Batch: 97813
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Acetone	ND		1	20	2.0	ug/L	02/17/2019 1813
Benzene	ND		1	1.0	0.40	ug/L	02/17/2019 1813
Bromodichloromethane	ND		1	1.0	0.40	ug/L	02/17/2019 1813
Bromoform	ND		1	1.0	0.40	ug/L	02/17/2019 1813
Bromomethane (Methyl bromide)	ND		1	2.0	0.40	ug/L	02/17/2019 1813
2-Butanone (MEK)	ND		1	10	2.0	ug/L	02/17/2019 1813
Carbon disulfide	ND		1	1.0	0.40	ug/L	02/17/2019 1813
Carbon tetrachloride	ND		1	1.0	0.40	ug/L	02/17/2019 1813
Chlorobenzene	ND		1	1.0	0.40	ug/L	02/17/2019 1813
Chloroethane	ND		1	2.0	0.40	ug/L	02/17/2019 1813
Chloroform	ND		1	1.0	0.40	ug/L	02/17/2019 1813
Chloromethane (Methyl chloride)	ND		1	1.0	0.50	ug/L	02/17/2019 1813
Cyclohexane	ND		1	1.0	0.40	ug/L	02/17/2019 1813
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	0.40	ug/L	02/17/2019 1813
Dibromochloromethane	ND		1	1.0	0.40	ug/L	02/17/2019 1813
1,2-Dibromoethane (EDB)	ND		1	1.0	0.40	ug/L	02/17/2019 1813
1,2-Dichlorobenzene	ND		1	1.0	0.40	ug/L	02/17/2019 1813
1,3-Dichlorobenzene	ND		1	1.0	0.40	ug/L	02/17/2019 1813
1,4-Dichlorobenzene	ND		1	1.0	0.40	ug/L	02/17/2019 1813
Dichlorodifluoromethane	ND		1	2.0	0.60	ug/L	02/17/2019 1813
1,1-Dichloroethane	ND		1	1.0	0.40	ug/L	02/17/2019 1813
1,2-Dichloroethane	ND		1	1.0	0.40	ug/L	02/17/2019 1813
1,1-Dichloroethene	ND		1	1.0	0.40	ug/L	02/17/2019 1813
cis-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	02/17/2019 1813
trans-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	02/17/2019 1813
1,2-Dichloropropane	ND		1	1.0	0.40	ug/L	02/17/2019 1813
cis-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	02/17/2019 1813
trans-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	02/17/2019 1813
Ethylbenzene	ND		1	1.0	0.40	ug/L	02/17/2019 1813
2-Hexanone	ND		1	10	2.0	ug/L	02/17/2019 1813
Isopropylbenzene	ND		1	1.0	0.40	ug/L	02/17/2019 1813
Methyl acetate	ND		1	1.0	0.40	ug/L	02/17/2019 1813
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	0.40	ug/L	02/17/2019 1813
4-Methyl-2-pentanone	ND		1	10	2.0	ug/L	02/17/2019 1813
Methylcyclohexane	ND		1	5.0	0.40	ug/L	02/17/2019 1813
Methylene chloride	ND		1	1.0	0.40	ug/L	02/17/2019 1813
Styrene	ND		1	1.0	0.41	ug/L	02/17/2019 1813
1,1,2,2-Tetrachloroethane	ND		1	1.0	0.40	ug/L	02/17/2019 1813
Tetrachloroethene	ND		1	1.0	0.40	ug/L	02/17/2019 1813
Toluene	ND		1	1.0	0.40	ug/L	02/17/2019 1813
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	0.42	ug/L	02/17/2019 1813
1,2,4-Trichlorobenzene	ND		1	1.0	0.40	ug/L	02/17/2019 1813
1,1,1-Trichloroethane	ND		1	1.0	0.40	ug/L	02/17/2019 1813
1,1,2-Trichloroethane	ND		1	1.0	0.40	ug/L	02/17/2019 1813

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ97813-001
Batch: 97813
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Trichloroethene	ND		1	1.0	0.40	ug/L	02/17/2019 1813
Trichlorofluoromethane	ND		1	1.0	0.40	ug/L	02/17/2019 1813
Vinyl chloride	ND		1	1.0	0.40	ug/L	02/17/2019 1813
Xylenes (total)	ND		1	1.0	0.40	ug/L	02/17/2019 1813

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		85	70-130
Bromofluorobenzene		101	70-130
Toluene-d8		95	70-130

LOQ = Limit of Quantitation
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LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
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ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ97813-002
Batch: 97813
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	110		1	106	60-140	02/17/2019 1727
Benzene	50	47		1	93	70-130	02/17/2019 1727
Bromodichloromethane	50	46		1	92	70-130	02/17/2019 1727
Bromoform	50	51		1	103	70-130	02/17/2019 1727
Bromomethane (Methyl bromide)	50	48		1	95	70-130	02/17/2019 1727
2-Butanone (MEK)	100	91		1	91	70-130	02/17/2019 1727
Carbon disulfide	50	49		1	98	70-130	02/17/2019 1727
Carbon tetrachloride	50	48		1	96	70-130	02/17/2019 1727
Chlorobenzene	50	50		1	100	70-130	02/17/2019 1727
Chloroethane	50	48		1	96	70-130	02/17/2019 1727
Chloroform	50	46		1	92	70-130	02/17/2019 1727
Chloromethane (Methyl chloride)	50	42		1	85	60-140	02/17/2019 1727
Cyclohexane	50	48		1	97	70-130	02/17/2019 1727
1,2-Dibromo-3-chloropropane (DBCP)	50	52		1	103	70-130	02/17/2019 1727
Dibromochloromethane	50	51		1	102	70-130	02/17/2019 1727
1,2-Dibromoethane (EDB)	50	51		1	102	70-130	02/17/2019 1727
1,2-Dichlorobenzene	50	49		1	99	70-130	02/17/2019 1727
1,3-Dichlorobenzene	50	50		1	101	70-130	02/17/2019 1727
1,4-Dichlorobenzene	50	50		1	101	70-130	02/17/2019 1727
Dichlorodifluoromethane	50	55		1	110	60-140	02/17/2019 1727
1,1-Dichloroethane	50	45		1	91	70-130	02/17/2019 1727
1,2-Dichloroethane	50	46		1	92	70-130	02/17/2019 1727
1,1-Dichloroethene	50	46		1	92	70-130	02/17/2019 1727
cis-1,2-Dichloroethene	50	47		1	94	70-130	02/17/2019 1727
trans-1,2-Dichloroethene	50	47		1	94	70-130	02/17/2019 1727
1,2-Dichloropropane	50	41		1	82	70-130	02/17/2019 1727
cis-1,3-Dichloropropene	50	44		1	88	70-130	02/17/2019 1727
trans-1,3-Dichloropropene	50	47		1	94	70-130	02/17/2019 1727
Ethylbenzene	50	52		1	103	70-130	02/17/2019 1727
2-Hexanone	100	93		1	93	70-130	02/17/2019 1727
Isopropylbenzene	50	50		1	101	70-130	02/17/2019 1727
Methyl acetate	50	43		1	85	70-130	02/17/2019 1727
Methyl tertiary butyl ether (MTBE)	50	47		1	94	70-130	02/17/2019 1727
4-Methyl-2-pentanone	100	87		1	87	70-130	02/17/2019 1727
Methylcyclohexane	50	48		1	97	70-130	02/17/2019 1727
Methylene chloride	50	43		1	87	70-130	02/17/2019 1727
Styrene	50	52		1	105	70-130	02/17/2019 1727
1,1,2,2-Tetrachloroethane	50	50		1	100	70-130	02/17/2019 1727
Tetrachloroethene	50	50		1	101	70-130	02/17/2019 1727
Toluene	50	52		1	104	70-130	02/17/2019 1727
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	46		1	92	70-130	02/17/2019 1727
1,2,4-Trichlorobenzene	50	50		1	100	70-130	02/17/2019 1727
1,1,1-Trichloroethane	50	46		1	93	70-130	02/17/2019 1727
1,1,2-Trichloroethane	50	50		1	101	70-130	02/17/2019 1727

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ97813-002
Batch: 97813
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	48		1	97	70-130	02/17/2019 1727
Trichlorofluoromethane	50	50		1	99	70-130	02/17/2019 1727
Vinyl chloride	50	47		1	95	70-130	02/17/2019 1727
Xylenes (total)	100	100		1	103	70-130	02/17/2019 1727

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		81	70-130
Bromofluorobenzene		97	70-130
Toluene-d8		95	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MS

Sample ID: UB12030-010MS
Batch: 97813
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	ND	5000	3500		50	70	60-140	02/18/2019 0116
Benzene	ND	2500	2400		50	94	70-130	02/18/2019 0116
Bromodichloromethane	ND	2500	2400		50	97	70-130	02/18/2019 0116
Bromoform	ND	2500	2800		50	112	70-130	02/18/2019 0116
Bromomethane (Methyl bromide)	ND	2500	2300		50	90	70-130	02/18/2019 0116
2-Butanone (MEK)	ND	5000	4000		50	80	70-130	02/18/2019 0116
Carbon disulfide	ND	2500	2200		50	89	70-130	02/18/2019 0116
Carbon tetrachloride	ND	2500	2500		50	99	70-130	02/18/2019 0116
Chlorobenzene	ND	2500	2600		50	104	70-130	02/18/2019 0116
Chloroethane	ND	2500	2300		50	91	70-130	02/18/2019 0116
Chloroform	ND	2500	2400		50	96	70-130	02/18/2019 0116
Chloromethane (Methyl chloride)	ND	2500	1900		50	77	60-140	02/18/2019 0116
Cyclohexane	ND	2500	2400		50	95	70-130	02/18/2019 0116
1,2-Dibromo-3-chloropropane (DBCP)	ND	2500	2700		50	107	70-130	02/18/2019 0116
Dibromochloromethane	ND	2500	2700		50	110	70-130	02/18/2019 0116
1,2-Dibromoethane (EDB)	ND	2500	2700		50	107	70-130	02/18/2019 0116
1,2-Dichlorobenzene	ND	2500	2600		50	106	70-130	02/18/2019 0116
1,3-Dichlorobenzene	ND	2500	2700		50	106	70-130	02/18/2019 0116
1,4-Dichlorobenzene	ND	2500	2600		50	105	70-130	02/18/2019 0116
Dichlorodifluoromethane	ND	2500	2400		50	97	60-140	02/18/2019 0116
1,1-Dichloroethane	ND	2500	2200		50	89	70-130	02/18/2019 0116
1,2-Dichloroethane	ND	2500	2400		50	97	70-130	02/18/2019 0116
1,1-Dichloroethene	ND	2500	2200		50	87	70-130	02/18/2019 0116
cis-1,2-Dichloroethene	ND	2500	2300		50	93	70-130	02/18/2019 0116
trans-1,2-Dichloroethene	ND	2500	2200		50	90	70-130	02/18/2019 0116
1,2-Dichloropropane	ND	2500	2100		50	83	70-130	02/18/2019 0116
cis-1,3-Dichloropropene	ND	2500	2100		50	86	70-130	02/18/2019 0116
trans-1,3-Dichloropropene	ND	2500	2300		50	93	70-130	02/18/2019 0116
Ethylbenzene	ND	2500	2700		50	109	70-130	02/18/2019 0116
2-Hexanone	ND	5000	5000		50	100	70-130	02/18/2019 0116
Isopropylbenzene	ND	2500	2800		50	112	70-130	02/18/2019 0116
Methyl acetate	ND	2500	1900		50	77	70-130	02/18/2019 0116
Methyl tertiary butyl ether (MTBE)	ND	2500	2200		50	90	70-130	02/18/2019 0116
4-Methyl-2-pentanone	ND	5000	4400		50	89	70-130	02/18/2019 0116
Methylcyclohexane	ND	2500	2400		50	96	70-130	02/18/2019 0116
Methylene chloride	ND	2500	2000		50	81	70-130	02/18/2019 0116
Styrene	ND	2500	2800		50	111	70-130	02/18/2019 0116
1,1,2,2-Tetrachloroethane	ND	2500	2500		50	102	70-130	02/18/2019 0116
Tetrachloroethene	1600	2500	4300		50	109	70-130	02/18/2019 0116
Toluene	ND	2500	2700		50	108	70-130	02/18/2019 0116
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	2500	2200		50	89	70-130	02/18/2019 0116
1,2,4-Trichlorobenzene	ND	2500	2600		50	105	70-130	02/18/2019 0116
1,1,1-Trichloroethane	ND	2500	2400		50	97	70-130	02/18/2019 0116
1,1,2-Trichloroethane	ND	2500	2700		50	106	70-130	02/18/2019 0116

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MS

Sample ID: UB12030-010MS
Batch: 97813
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	ND	2500	2400		50	96	70-130	02/18/2019 0116
Trichlorofluoromethane	ND	2500	2400		50	98	70-130	02/18/2019 0116
Vinyl chloride	ND	2500	2200		50	88	70-130	02/18/2019 0116
Xylenes (total)	ND	5000	5500		50	109	70-130	02/18/2019 0116

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		87	70-130
Bromofluorobenzene		108	70-130
Toluene-d8		99	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MSD

Sample ID: UB12030-010MD
Batch: 97813
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	ND	5000	3500		50	71	1.3	60-140	20	02/18/2019 0138
Benzene	ND	2500	2300		50	93	0.86	70-130	20	02/18/2019 0138
Bromodichloromethane	ND	2500	2400		50	97	0.0067	70-130	20	02/18/2019 0138
Bromoform	ND	2500	2700		50	108	3.8	70-130	20	02/18/2019 0138
Bromomethane (Methyl bromide)	ND	2500	2300		50	92	1.4	70-130	20	02/18/2019 0138
2-Butanone (MEK)	ND	5000	3800		50	76	4.9	70-130	20	02/18/2019 0138
Carbon disulfide	ND	2500	2300		50	93	5.1	70-130	20	02/18/2019 0138
Carbon tetrachloride	ND	2500	2500		50	100	0.66	70-130	20	02/18/2019 0138
Chlorobenzene	ND	2500	2600		50	103	0.92	70-130	20	02/18/2019 0138
Chloroethane	ND	2500	2400		50	95	4.0	70-130	20	02/18/2019 0138
Chloroform	ND	2500	2300		50	94	2.6	70-130	20	02/18/2019 0138
Chloromethane (Methyl chloride)	ND	2500	1900		50	76	1.5	60-140	20	02/18/2019 0138
Cyclohexane	ND	2500	2300		50	94	1.3	70-130	20	02/18/2019 0138
1,2-Dibromo-3-chloropropane (DBCP)	ND	2500	2700		50	108	1.1	70-130	20	02/18/2019 0138
Dibromochloromethane	ND	2500	2700		50	107	2.4	70-130	20	02/18/2019 0138
1,2-Dibromoethane (EDB)	ND	2500	2600		50	105	2.3	70-130	20	02/18/2019 0138
1,2-Dichlorobenzene	ND	2500	2600		50	105	0.64	70-130	20	02/18/2019 0138
1,3-Dichlorobenzene	ND	2500	2700		50	107	0.39	70-130	20	02/18/2019 0138
1,4-Dichlorobenzene	ND	2500	2700		50	106	1.4	70-130	20	02/18/2019 0138
Dichlorodifluoromethane	ND	2500	2400		50	95	3.0	60-140	20	02/18/2019 0138
1,1-Dichloroethane	ND	2500	2200		50	89	0.49	70-130	20	02/18/2019 0138
1,2-Dichloroethane	ND	2500	2400		50	96	0.85	70-130	20	02/18/2019 0138
1,1-Dichloroethene	ND	2500	2300		50	92	4.7	70-130	20	02/18/2019 0138
cis-1,2-Dichloroethene	ND	2500	2300		50	91	1.8	70-130	20	02/18/2019 0138
trans-1,2-Dichloroethene	ND	2500	2200		50	90	0.29	70-130	20	02/18/2019 0138
1,2-Dichloropropane	ND	2500	2100		50	82	1.1	70-130	20	02/18/2019 0138
cis-1,3-Dichloropropene	ND	2500	2100		50	86	0.21	70-130	20	02/18/2019 0138
trans-1,3-Dichloropropene	ND	2500	2300		50	92	1.0	70-130	20	02/18/2019 0138
Ethylbenzene	ND	2500	2700		50	109	0.62	70-130	20	02/18/2019 0138
2-Hexanone	ND	5000	4700		50	95	5.0	70-130	20	02/18/2019 0138
Isopropylbenzene	ND	2500	2700		50	109	2.5	70-130	20	02/18/2019 0138
Methyl acetate	ND	2500	1900		50	78	1.6	70-130	20	02/18/2019 0138
Methyl tertiary butyl ether (MTBE)	ND	2500	2300		50	90	0.78	70-130	20	02/18/2019 0138
4-Methyl-2-pentanone	ND	5000	4300		50	87	2.3	70-130	20	02/18/2019 0138
Methylcyclohexane	ND	2500	2400		50	95	0.68	70-130	20	02/18/2019 0138
Methylene chloride	ND	2500	2100		50	84	3.7	70-130	20	02/18/2019 0138
Styrene	ND	2500	2700		50	108	2.3	70-130	20	02/18/2019 0138
1,1,2,2-Tetrachloroethane	ND	2500	2500		50	102	0.050	70-130	20	02/18/2019 0138
Tetrachloroethene	1600	2500	4300		50	106	1.6	70-130	20	02/18/2019 0138
Toluene	ND	2500	2700		50	106	1.7	70-130	20	02/18/2019 0138
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	2500	2300		50	92	3.9	70-130	20	02/18/2019 0138
1,2,4-Trichlorobenzene	ND	2500	2600		50	104	0.59	70-130	20	02/18/2019 0138
1,1,1-Trichloroethane	ND	2500	2400		50	96	0.46	70-130	20	02/18/2019 0138
1,1,2-Trichloroethane	ND	2500	2500		50	102	4.2	70-130	20	02/18/2019 0138

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Volatile Organic Compounds by GC/MS - MSD

Sample ID: UB12030-010MD
Batch: 97813
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Trichloroethene	ND	2500	2400		50	96	0.075	70-130	20	02/18/2019 0138
Trichlorofluoromethane	ND	2500	2500		50	98	0.45	70-130	20	02/18/2019 0138
Vinyl chloride	ND	2500	2200		50	88	0.37	70-130	20	02/18/2019 0138
Xylenes (total)	ND	5000	5400		50	109	0.57	70-130	20	02/18/2019 0138

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		85	70-130
Bromofluorobenzene		102	70-130
Toluene-d8		96	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Shealy Environmental Services, Inc.
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Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ98012-001
Batch: 98012
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Acetone	ND		1	20	2.0	ug/L	02/19/2019 1030
Benzene	ND		1	1.0	0.40	ug/L	02/19/2019 1030
Bromodichloromethane	ND		1	1.0	0.40	ug/L	02/19/2019 1030
Bromoform	ND		1	1.0	0.40	ug/L	02/19/2019 1030
Bromomethane (Methyl bromide)	ND		1	2.0	0.40	ug/L	02/19/2019 1030
2-Butanone (MEK)	ND		1	10	2.0	ug/L	02/19/2019 1030
Carbon disulfide	ND		1	1.0	0.40	ug/L	02/19/2019 1030
Carbon tetrachloride	ND		1	1.0	0.40	ug/L	02/19/2019 1030
Chlorobenzene	ND		1	1.0	0.40	ug/L	02/19/2019 1030
Chloroethane	ND		1	2.0	0.40	ug/L	02/19/2019 1030
Chloroform	ND		1	1.0	0.40	ug/L	02/19/2019 1030
Chloromethane (Methyl chloride)	ND		1	1.0	0.50	ug/L	02/19/2019 1030
Cyclohexane	ND		1	1.0	0.40	ug/L	02/19/2019 1030
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	0.40	ug/L	02/19/2019 1030
Dibromochloromethane	ND		1	1.0	0.40	ug/L	02/19/2019 1030
1,2-Dibromoethane (EDB)	ND		1	1.0	0.40	ug/L	02/19/2019 1030
1,2-Dichlorobenzene	ND		1	1.0	0.40	ug/L	02/19/2019 1030
1,3-Dichlorobenzene	ND		1	1.0	0.40	ug/L	02/19/2019 1030
1,4-Dichlorobenzene	ND		1	1.0	0.40	ug/L	02/19/2019 1030
Dichlorodifluoromethane	ND		1	2.0	0.60	ug/L	02/19/2019 1030
1,1-Dichloroethane	ND		1	1.0	0.40	ug/L	02/19/2019 1030
1,2-Dichloroethane	ND		1	1.0	0.40	ug/L	02/19/2019 1030
1,1-Dichloroethene	ND		1	1.0	0.40	ug/L	02/19/2019 1030
cis-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	02/19/2019 1030
trans-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	02/19/2019 1030
1,2-Dichloropropane	ND		1	1.0	0.40	ug/L	02/19/2019 1030
cis-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	02/19/2019 1030
trans-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	02/19/2019 1030
Ethylbenzene	ND		1	1.0	0.40	ug/L	02/19/2019 1030
2-Hexanone	ND		1	10	2.0	ug/L	02/19/2019 1030
Isopropylbenzene	ND		1	1.0	0.40	ug/L	02/19/2019 1030
Methyl acetate	ND		1	1.0	0.40	ug/L	02/19/2019 1030
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	0.40	ug/L	02/19/2019 1030
4-Methyl-2-pentanone	ND		1	10	2.0	ug/L	02/19/2019 1030
Methylcyclohexane	ND		1	5.0	0.40	ug/L	02/19/2019 1030
Methylene chloride	ND		1	1.0	0.40	ug/L	02/19/2019 1030
Styrene	ND		1	1.0	0.41	ug/L	02/19/2019 1030
1,1,2,2-Tetrachloroethane	ND		1	1.0	0.40	ug/L	02/19/2019 1030
Tetrachloroethene	ND		1	1.0	0.40	ug/L	02/19/2019 1030
Toluene	ND		1	1.0	0.40	ug/L	02/19/2019 1030
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	0.42	ug/L	02/19/2019 1030
1,2,4-Trichlorobenzene	ND		1	1.0	0.40	ug/L	02/19/2019 1030
1,1,1-Trichloroethane	ND		1	1.0	0.40	ug/L	02/19/2019 1030
1,1,2-Trichloroethane	ND		1	1.0	0.40	ug/L	02/19/2019 1030

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ98012-001
Batch: 98012
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Trichloroethene	ND		1	1.0	0.40	ug/L	02/19/2019 1030
Trichlorofluoromethane	ND		1	1.0	0.40	ug/L	02/19/2019 1030
Vinyl chloride	ND		1	1.0	0.40	ug/L	02/19/2019 1030
Xylenes (total)	ND		1	1.0	0.40	ug/L	02/19/2019 1030

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		82	70-130
Bromofluorobenzene		96	70-130
Toluene-d8		95	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Shealy Environmental Services, Inc.
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Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ98012-002
Batch: 98012
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	73		1	73	60-140	02/19/2019 0937
Benzene	50	42		1	84	70-130	02/19/2019 0937
Bromodichloromethane	50	47		1	95	70-130	02/19/2019 0937
Bromoform	50	54		1	107	70-130	02/19/2019 0937
Bromomethane (Methyl bromide)	50	47		1	94	70-130	02/19/2019 0937
2-Butanone (MEK)	100	81		1	81	70-130	02/19/2019 0937
Carbon disulfide	50	40		1	80	70-130	02/19/2019 0937
Carbon tetrachloride	50	43		1	87	70-130	02/19/2019 0937
Chlorobenzene	50	50		1	101	70-130	02/19/2019 0937
Chloroethane	50	47		1	95	70-130	02/19/2019 0937
Chloroform	50	44		1	88	70-130	02/19/2019 0937
Chloromethane (Methyl chloride)	50	39		1	78	60-140	02/19/2019 0937
Cyclohexane	50	41		1	82	70-130	02/19/2019 0937
1,2-Dibromo-3-chloropropane (DBCP)	50	54		1	108	70-130	02/19/2019 0937
Dibromochloromethane	50	52		1	104	70-130	02/19/2019 0937
1,2-Dibromoethane (EDB)	50	52		1	105	70-130	02/19/2019 0937
1,2-Dichlorobenzene	50	51		1	102	70-130	02/19/2019 0937
1,3-Dichlorobenzene	50	52		1	105	70-130	02/19/2019 0937
1,4-Dichlorobenzene	50	52		1	105	70-130	02/19/2019 0937
Dichlorodifluoromethane	50	51		1	102	60-140	02/19/2019 0937
1,1-Dichloroethane	50	40		1	80	70-130	02/19/2019 0937
1,2-Dichloroethane	50	42		1	85	70-130	02/19/2019 0937
1,1-Dichloroethene	50	39		1	78	70-130	02/19/2019 0937
cis-1,2-Dichloroethene	50	42		1	85	70-130	02/19/2019 0937
trans-1,2-Dichloroethene	50	41		1	82	70-130	02/19/2019 0937
1,2-Dichloropropane	50	41		1	81	70-130	02/19/2019 0937
cis-1,3-Dichloropropene	50	44		1	88	70-130	02/19/2019 0937
trans-1,3-Dichloropropene	50	46		1	91	70-130	02/19/2019 0937
Ethylbenzene	50	52		1	104	70-130	02/19/2019 0937
2-Hexanone	100	95		1	95	70-130	02/19/2019 0937
Isopropylbenzene	50	52		1	103	70-130	02/19/2019 0937
Methyl acetate	50	36		1	72	70-130	02/19/2019 0937
Methyl tertiary butyl ether (MTBE)	50	42		1	85	70-130	02/19/2019 0937
4-Methyl-2-pentanone	100	89		1	89	70-130	02/19/2019 0937
Methylcyclohexane	50	44		1	87	70-130	02/19/2019 0937
Methylene chloride	50	38		1	76	70-130	02/19/2019 0937
Styrene	50	54		1	107	70-130	02/19/2019 0937
1,1,2,2-Tetrachloroethane	50	53		1	107	70-130	02/19/2019 0937
Tetrachloroethene	50	49		1	98	70-130	02/19/2019 0937
Toluene	50	49		1	99	70-130	02/19/2019 0937
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	40		1	79	70-130	02/19/2019 0937
1,2,4-Trichlorobenzene	50	54		1	107	70-130	02/19/2019 0937
1,1,1-Trichloroethane	50	42		1	85	70-130	02/19/2019 0937
1,1,2-Trichloroethane	50	52		1	105	70-130	02/19/2019 0937

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ98012-002
Batch: 98012
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	46		1	92	70-130	02/19/2019 0937
Trichlorofluoromethane	50	47		1	94	70-130	02/19/2019 0937
Vinyl chloride	50	45		1	90	70-130	02/19/2019 0937
Xylenes (total)	100	100		1	105	70-130	02/19/2019 0937

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		79	70-130
Bromofluorobenzene		97	70-130
Toluene-d8		92	70-130

LOQ = Limit of Quantitation
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LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
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Shealy Environmental Services, Inc.
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Chain of Custody
and
Miscellaneous Documents

SHEALY ENVIRONMENTAL SERVICES, INC.
106 Vantage Point Drive • West Columbia, SC 29172
Telephone No. 803-791-9700 Fax No. 803-791-9111
www.shealylab.com

SHEALY Chain of Custody Record

Number 93755

Client: TRC	Report to Contact: Lisa Clark	Telephone No. / E-mail: 864-281-0030	Quote No.
Address: 50 International Dr Ste150	Sampler's Signature: X	Analysis (Attach list if more space is needed)	Page 1 of 1
City: Greenville	State: SC	Zip Code: 29615	Printed Name: Benjamin Medlin
Project Name: WPA Clemson			
Project No.: 300688.0.0.2	P.O. No.		

Sample ID / Description (Containers for each sample may be combined on one line)	Date 2019	Time	Grab/Composite	Aqueous	Solid	Non-Aqueous	Matrix: Liquids	H2SO4	HNO3	HCl	NaOH	5035 Kit	No. of Containers by Preservative Type	VOCs	Chloride, Sulfate, Bromide	Nitrate	Remarks / Lab ID
TBLK-19110	/	/	G	X									2	X			
DG-06	2-8	1200	G	X									3	X			
DG-06A	2-8	1135	G	X									3	X			
MG-02	2-8	1405	G	X									3	X			
RMW-16A	2-11	1245	G	X									3	X			
RMW-16B	2-11	1315	G	X									3	X			
RMW-16C	2-11	1350	G	X									3	X			
RMW-13A	2-11	1545	G	X									3	X	X	X	
RMW-28A	2-11	1610	G	X									3	X	X	X	
RMW-28B	2-11	1625	G	X									3	X	X	X	

Turn Around Time Required (Prior lab approval required for expedited TAT.)
X Standard ☐ Rush (Specify)

Sample Disposal
☐ Return to Client ☐ Disposal by Lab

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished by	2-11-19	1810	1. Received by TRC Sample Storage	2-11-19	1810
2. Relinquished by TRC Sample Storage	2/12/19	08:22	2. Received by Ken E. Medlin	2/12/19	08:22
3. Relinquished by Ken E. Medlin	2/12/19	12:30	3. Received by	2/12/19	12:30
4. Relinquished by	2/12/19	12:14	4. Laboratory received by L Hite	2-12-19	1214

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on Ice (Circle) (Yes) No Ice Pack

Receipt Temp. 1.2 °C

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Client Copy

Document Number: F-AD-133 Effective Date: 08-01-2014

UB12030

SHEALY ENVIRONMENTAL SERVICES, INC.

Shealy Environmental Services, Inc.
Document Number: ME0018C-14

Effective Date: 8/2/2018

Sample Receipt Checklist (SRC)

Client: TRC Cooler Inspected by/date: LKH / 2-12-19 Lot #: UB12030

Means of receipt: ☑ SESI ☐ Client ☐ UPS ☐ FedEx ☐ Other: _____

☐ Yes	☑ No		1. Were custody seals present on the cooler?
☐ Yes	☐ No	☑ NA	2. If custody seals were present, were they intact and unbroken?

pH Strip ID: _____ Chlorine Strip ID: _____ Tested by: _____

Original temperature upon receipt / Derived (Corrected) temperature upon receipt: %Solid Snap-Cup ID: _____

1.2 / 1.2 °C ___ / ___ °C ___ / ___ °C ___ / ___ °C

Method: ☑ Temperature Blank ☐ Against Bottles IR Gun ID: 5 IR Gun Correction Factor: 0 °C

Method of coolant: ☑ Wet Ice ☐ Ice Packs ☐ Dry Ice ☐ None

☐ Yes	☐ No	☑ NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).
☐ Yes	☐ No	☑ NA	4. Is the commercial courier's packing slip attached to this form?
☑ Yes	☐ No		5. Were proper custody procedures (relinquished/received) followed?
☑ Yes	☐ No		6. Were sample IDs listed on the COC?
☑ Yes	☐ No		7. Were sample IDs listed on all sample containers?
☑ Yes	☐ No		8. Was collection date & time listed on the COC?
☑ Yes	☐ No		9. Was collection date & time listed on all sample containers?
☑ Yes	☐ No		10. Did all container label information (ID, date, time) agree with the COC?
☑ Yes	☐ No		11. Were tests to be performed listed on the COC?
☑ Yes	☐ No		12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)? _____
☑ Yes	☐ No		13. Was adequate sample volume available?
☑ Yes	☐ No		14. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
☐ Yes	☑ No		15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
☐ Yes	☑ No	☐ NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (¼"or 6mm in diameter) in any of the VOA vials?
☐ Yes	☐ No	☑ NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?
☐ Yes	☐ No	☑ NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
☐ Yes	☐ No	☑ NA	19. Were all applicable NH_3/TKN/cyanide/phenol/625 (< 0.5mg/L) samples free of residual chlorine?
☐ Yes	☐ No	☑ NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc…) correctly transcribed from the COC into the comment section in LIMS?
☐ Yes	☑ No		21. Was the quote number listed on the container label? If yes, Quote # _____.

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) _____ were received incorrectly preserved and were adjusted accordingly in sample receiving with _____mL of circle one: H2SO4, HNO3, HCl, NaOH using SR # _____.
Time of preservation _____. If more than one preservative is needed, please note in the comments below.

Sample(s) _____ were received with bubbles >6 mm in diameter.

Samples(s) _____ were received with TRC > 0.5 mg/L (If #19 is *no*) and were adjusted accordingly in sample receiving with sodium thiosulfate ($Na_2S_2O_3$) with Shealy ID: _____.

SR barcode labels applied by: LKH Date: 2-12-19

Comments:

Pace Analytical Energy Services LLC
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

January 30, 2019

Lisa Clark
TRC Environmental Corp.
30 Patewood Drive
Greenville, SC 29615

RE: **WPH CLEMSON**

Pace Workorder: 29274

Dear Lisa Clark:

Enclosed are the analytical results for sample(s) received by the laboratory on Tuesday, January 22, 2019. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Lauren E McGrath

Lauren McGrath 01/30/2019
Lauren.McGrath@pacelabs.com

Customer Service Representative

Enclosures

As a valued client we would appreciate your comments on our service.
Please email PAESfeedback@pacelabs.com.

Total Number of Pages 39

CERTIFICATE OF ANALYSIS

Laboratory Data Quality Review Notes

Project Name: WPH-Clemson, SC

Project Number: 300688.0000.0000.000002

Lab Report: 29274 Pace Analytical Energy Services
Twenty three groundwater samples and one groundwater field duplicate analyzed for dissolved hydrocarbon gases.

Chain of Custody, Sample Temperature, Sample Preservation: Chains of custody (CoCs) signed; sample temperature <6 ^{o}C upon arrival at the laboratory; samples were preserved properly.

Hold Time: Samples analyzed within hold time.

Surrogates: Surrogate recoveries are not applicable to dissolved hydrocarbon gas analyses.

Method Blank: Hydrocarbon gases were not detected in the method blanks.

Trip Blank: A trip blank was not collected with these samples.

Field Blank: A field blank was not collected with these samples.

Equipment Rinse Blank: A rinsate blank was not collected with these samples.

LCS/LCSD: LCS and LCSD recoveries as well as RPDs are within QC Limits.

MS/MSD: MS/MSD analyses were not performed using samples included in this report.

Duplicates: DU-19105 is a field duplicate of DP-20A. Methane, ethane, and ethane were detected in both the parent and field duplicate samples. RPDs for methane, ethane, and ethene were 6.1% or less which is within the QC limit. No qualifiers were assigned.

No data qualifiers were assigned.

Data review performed by: Terry Hertz; TRC Environmental Corp.; 2/27/2019

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LABORATORY ACCREDITATIONS & CERTIFICATIONS

Accreditor:	Pennsylvania Department of Environmental Protection, Bureau of Laboratories
Accreditation ID:	02-00538
Scope:	NELAP Non-Potable Water
Accreditor:	West Virginia Department of Environmental Protection, Division of Water and Waste Management
Accreditation ID:	395
Scope:	Non-Potable Water
Accreditor:	South Carolina Department of Health and Environmental Control, Office of Environmental Laboratory Certification
Accreditation ID:	89009003
Scope:	Clean Water Act (CWA); Resource Conservation and Recovery Act (RCRA)
Accreditor:	State of Virginia
Accreditation ID:	460201
Scope:	Non-Potable Water
Accreditor:	NELAP: New Jersey, Department of Environmental Protection
Accreditation ID:	PA026
Scope:	Non-Potable Water
Accreditor:	NELAP: New York, Department of Health Wadsworth Center
Accreditation ID:	11815
Scope:	Non-Potable Water
Accreditor:	State of Connecticut, Department of Public Health, Division of Environmental Health
Accreditation ID:	PH-0263
Scope:	Clean Water Act (CWA) Resource Conservation and Recovery Act (RCRA)
Accreditor:	NELAP: Texas, Commission on Environmental Quality
Accreditation ID:	T104704453-09-TX
Scope:	Non-Potable Water
Accreditor:	State of New Hampshire
Accreditation ID:	299409
Scope:	Non-potable water
Accreditor:	State of Georgia
Accreditation ID:	Chapter 391-3-26
Scope:	As per the Georgia EPD Rules and Regulations for Commercial Laboratories, PAES is accredited by the Pennsylvania Department of Environmental Protection Bureau of Laboratories under the National Environmental Laboratory Approval Program (NELAC).

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SAMPLE SUMMARY

Workorder: 29274 WPH CLEMSON

Lab ID	Sample ID	Matrix	Date Collected	Date Received
292740001	DP-27	Water	1/14/2019 08:30	1/22/2019 14:03
292740002	DP-27A	Water	1/14/2019 09:30	1/22/2019 14:03
292740003	DP-27B	Water	1/14/2019 11:00	1/22/2019 14:03
292740004	DP-26	Water	1/14/2019 12:30	1/22/2019 14:03
292740005	DP-26A	Water	1/14/2019 13:20	1/22/2019 14:03
292740006	DP-26B	Water	1/14/2019 14:50	1/22/2019 14:03
292740007	DP-25	Water	1/15/2019 08:20	1/22/2019 14:03
292740008	DP-25A	Water	1/15/2019 09:20	1/22/2019 14:03
292740009	DP-25B	Water	1/15/2019 10:45	1/22/2019 14:03
292740010	DP-24	Water	1/15/2019 12:20	1/22/2019 14:03
292740011	DP-24A	Water	1/15/2019 13:20	1/22/2019 14:03
292740012	DP-24B	Water	1/15/2019 14:20	1/22/2019 14:03
292740013	DP-23	Water	1/16/2019 08:30	1/22/2019 14:03
292740014	DP-23A	Water	1/16/2019 09:40	1/22/2019 14:03
292740015	DP-23B	Water	1/16/2019 11:15	1/22/2019 14:03
292740016	DP-22	Water	1/16/2019 12:55	1/22/2019 14:03
292740017	DP-22A	Water	1/16/2019 13:45	1/22/2019 14:03
292740018	DP-22B	Water	1/16/2019 15:00	1/22/2019 14:03
292740019	DP-21	Water	1/18/2019 08:40	1/22/2019 14:03
292740020	DP-21A	Water	1/18/2019 10:35	1/22/2019 14:03
292740021	DP-20	Water	1/18/2019 12:30	1/22/2019 14:03
292740022	DP-20A	Water	1/18/2019 15:00	1/22/2019 14:03
292740023	DP-20B	Water	1/18/2019 16:15	1/22/2019 14:03
292740024	DU-19105	Water		1/22/2019 14:03

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ANALYTICAL RESULTS

Workorder: 29274 WPH CLEMSON

Lab ID: **292740001** Date Received: 1/22/2019 14:03 Matrix: Water

Sample ID: **DP-27** Date Collected: 1/14/2019 08:30

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**0.64**	ug/l	0.50	0.014	1	1/25/2019 07:48	BW	n
Ethane	**0.17**	ug/l	0.10	0.0070	1	1/25/2019 07:48	BW	n
Ethene	**<0.10**	ug/l	0.10	0.0050	1	1/25/2019 07:48	BW	n

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ANALYTICAL RESULTS

Workorder: 29274 WPH CLEMSON

Lab ID: **292740002** Date Received: 1/22/2019 14:03 Matrix: Water

Sample ID: **DP-27A** Date Collected: 1/14/2019 09:30

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**0.82**	ug/l	0.50	0.014	1	1/25/2019 07:57	BW	n
Ethane	**0.29**	ug/l	0.10	0.0070	1	1/25/2019 07:57	BW	n
Ethene	**0.18**	ug/l	0.10	0.0050	1	1/25/2019 07:57	BW	n

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ANALYTICAL RESULTS

Workorder: 29274 WPH CLEMSON

Lab ID: **292740003** Date Received: 1/22/2019 14:03 Matrix: Water

Sample ID: **DP-27B** Date Collected: 1/14/2019 11:00

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**1.2**	ug/l	0.50	0.014	1	1/25/2019 08:10	BW	n
Ethane	**0.53**	ug/l	0.10	0.0070	1	1/25/2019 08:10	BW	n
Ethene	**0.35**	ug/l	0.10	0.0050	1	1/25/2019 08:10	BW	n

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ANALYTICAL RESULTS

Workorder: 29274 WPH CLEMSON

Lab ID: **292740004** Date Received: 1/22/2019 14:03 Matrix: Water

Sample ID: **DP-26** Date Collected: 1/14/2019 12:30

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**<0.50**	ug/l	0.50	0.014	1	1/25/2019 08:20	BW	n
Ethane	**<0.10**	ug/l	0.10	0.0070	1	1/25/2019 08:20	BW	n
Ethene	**<0.10**	ug/l	0.10	0.0050	1	1/25/2019 08:20	BW	n

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ANALYTICAL RESULTS

Workorder: 29274 WPH CLEMSON

Lab ID: **292740005** Date Received: 1/22/2019 14:03 Matrix: Water

Sample ID: **DP-26A** Date Collected: 1/14/2019 13:20

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**1.3**	ug/l	0.50	0.014	1	1/25/2019 08:32	BW	n
Ethane	**0.52**	ug/l	0.10	0.0070	1	1/25/2019 08:32	BW	n
Ethene	**0.29**	ug/l	0.10	0.0050	1	1/25/2019 08:32	BW	n

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ANALYTICAL RESULTS

Workorder: 29274 WPH CLEMSON

Lab ID: **292740006** Date Received: 1/22/2019 14:03 Matrix: Water

Sample ID: **DP-26B** Date Collected: 1/14/2019 14:50

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**2.5**	ug/l	0.50	0.014	1	1/25/2019 08:42	BW	n
Ethane	**1.4**	ug/l	0.10	0.0070	1	1/25/2019 08:42	BW	n
Ethene	**0.48**	ug/l	0.10	0.0050	1	1/25/2019 08:42	BW	n

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ANALYTICAL RESULTS

Workorder: 29274 WPH CLEMSON

Lab ID: **292740007** Date Received: 1/22/2019 14:03 Matrix: Water

Sample ID: **DP-25** Date Collected: 1/15/2019 08:20

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**1.0**	ug/l	0.50	0.014	1	1/25/2019 08:53	BW	n
Ethane	**0.29**	ug/l	0.10	0.0070	1	1/25/2019 08:53	BW	n
Ethene	**0.22**	ug/l	0.10	0.0050	1	1/25/2019 08:53	BW	n

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ANALYTICAL RESULTS

Workorder: 29274 WPH CLEMSON

Lab ID: **292740008** Date Received: 1/22/2019 14:03 Matrix: Water

Sample ID: **DP-25A** Date Collected: 1/15/2019 09:20

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**0.98**	ug/l	0.50	0.014	1	1/25/2019 09:04	BW	n
Ethane	**0.37**	ug/l	0.10	0.0070	1	1/25/2019 09:04	BW	n
Ethene	**0.27**	ug/l	0.10	0.0050	1	1/25/2019 09:04	BW	n

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ANALYTICAL RESULTS

Workorder: 29274 WPH CLEMSON

Lab ID: **292740009** Date Received: 1/22/2019 14:03 Matrix: Water

Sample ID: **DP-25B** Date Collected: 1/15/2019 10:45

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**<0.50**	ug/l	0.50	0.014	1	1/25/2019 09:14	BW	n
Ethane	**0.12**	ug/l	0.10	0.0070	1	1/25/2019 09:14	BW	n
Ethene	**<0.10**	ug/l	0.10	0.0050	1	1/25/2019 09:14	BW	n

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ANALYTICAL RESULTS

Workorder: 29274 WPH CLEMSON

Lab ID: **292740010** Date Received: 1/22/2019 14:03 Matrix: Water

Sample ID: **DP-24** Date Collected: 1/15/2019 12:20

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**<0.50**	ug/l	0.50	0.014	1	1/25/2019 10:02	BW	n
Ethane	**<0.10**	ug/l	0.10	0.0070	1	1/25/2019 10:02	BW	n
Ethene	**<0.10**	ug/l	0.10	0.0050	1	1/25/2019 10:02	BW	n

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ANALYTICAL RESULTS

Workorder: 29274 WPH CLEMSON

Lab ID: **292740011** Date Received: 1/22/2019 14:03 Matrix: Water

Sample ID: **DP-24A** Date Collected: 1/15/2019 13:20

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**0.83**	ug/l	0.50	0.014	1	1/25/2019 10:15	BW	n
Ethane	**<0.10**	ug/l	0.10	0.0070	1	1/25/2019 10:15	BW	n
Ethene	**<0.10**	ug/l	0.10	0.0050	1	1/25/2019 10:15	BW	n

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ANALYTICAL RESULTS

Workorder: 29274 WPH CLEMSON

Lab ID: **292740012** Date Received: 1/22/2019 14:03 Matrix: Water

Sample ID: **DP-24B** Date Collected: 1/15/2019 14:20

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**0.63**	ug/l	0.50	0.014	1	1/25/2019 10:26	BW	n
Ethane	**0.12**	ug/l	0.10	0.0070	1	1/25/2019 10:26	BW	n
Ethene	**<0.10**	ug/l	0.10	0.0050	1	1/25/2019 10:26	BW	n

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ANALYTICAL RESULTS

Workorder: 29274 WPH CLEMSON

Lab ID: **292740013** Date Received: 1/22/2019 14:03 Matrix: Water

Sample ID: **DP-23** Date Collected: 1/16/2019 08:30

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**<0.50**	ug/l	0.50	0.014	1	1/25/2019 11:06	BW	n
Ethane	**<0.10**	ug/l	0.10	0.0070	1	1/25/2019 11:06	BW	n
Ethene	**<0.10**	ug/l	0.10	0.0050	1	1/25/2019 11:06	BW	n

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ANALYTICAL RESULTS

Workorder: 29274 WPH CLEMSON

Lab ID: **292740014** Date Received: 1/22/2019 14:03 Matrix: Water

Sample ID: **DP-23A** Date Collected: 1/16/2019 09:40

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**<0.50**	ug/l	0.50	0.014	1	1/25/2019 11:28	BW	n
Ethane	**<0.10**	ug/l	0.10	0.0070	1	1/25/2019 11:28	BW	n
Ethene	**<0.10**	ug/l	0.10	0.0050	1	1/25/2019 11:28	BW	n

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ANALYTICAL RESULTS

Workorder: 29274 WPH CLEMSON

Lab ID: **292740015** Date Received: 1/22/2019 14:03 Matrix: Water

Sample ID: **DP-23B** Date Collected: 1/16/2019 11:15

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**<0.50**	ug/l	0.50	0.014	1	1/25/2019 11:44	BW	n
Ethane	**0.10**	ug/l	0.10	0.0070	1	1/25/2019 11:44	BW	n
Ethene	**<0.10**	ug/l	0.10	0.0050	1	1/25/2019 11:44	BW	n

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ANALYTICAL RESULTS

Workorder: 29274 WPH CLEMSON

Lab ID: **292740016** Date Received: 1/22/2019 14:03 Matrix: Water

Sample ID: **DP-22** Date Collected: 1/16/2019 12:55

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**<0.50**	ug/l	0.50	0.014	1	1/25/2019 11:55	BW	n
Ethane	**<0.10**	ug/l	0.10	0.0070	1	1/25/2019 11:55	BW	n
Ethene	**<0.10**	ug/l	0.10	0.0050	1	1/25/2019 11:55	BW	n

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ANALYTICAL RESULTS

Workorder: 29274 WPH CLEMSON

Lab ID: **292740017** Date Received: 1/22/2019 14:03 Matrix: Water

Sample ID: **DP-22A** Date Collected: 1/16/2019 13:45

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**1.3**	ug/l	0.50	0.014	1	1/25/2019 12:05	BW	n
Ethane	**0.31**	ug/l	0.10	0.0070	1	1/25/2019 12:05	BW	n
Ethene	**0.22**	ug/l	0.10	0.0050	1	1/25/2019 12:05	BW	n

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ANALYTICAL RESULTS

Workorder: 29274 WPH CLEMSON

Lab ID: **292740018** Date Received: 1/22/2019 14:03 Matrix: Water

Sample ID: **DP-22B** Date Collected: 1/16/2019 15:00

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**1.0**	ug/l	0.50	0.014	1	1/29/2019 11:48	BW	n
Ethane	**0.30**	ug/l	0.10	0.0070	1	1/29/2019 11:48	BW	n
Ethene	**0.24**	ug/l	0.10	0.0050	1	1/29/2019 11:48	BW	n

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ANALYTICAL RESULTS

Workorder: 29274 WPH CLEMSON

Lab ID: **292740019** Date Received: 1/22/2019 14:03 Matrix: Water

Sample ID: **DP-21** Date Collected: 1/18/2019 08:40

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**<0.50**	ug/l	0.50	0.014	1	1/29/2019 12:00	BW	n
Ethane	**<0.10**	ug/l	0.10	0.0070	1	1/29/2019 12:00	BW	n
Ethene	**<0.10**	ug/l	0.10	0.0050	1	1/29/2019 12:00	BW	n

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ANALYTICAL RESULTS

Workorder: 29274 WPH CLEMSON

Lab ID: **292740020** Date Received: 1/22/2019 14:03 Matrix: Water

Sample ID: **DP-21A** Date Collected: 1/18/2019 10:35

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**0.83**	ug/l	0.50	0.014	1	1/29/2019 12:10	BW	n
Ethane	**0.20**	ug/l	0.10	0.0070	1	1/29/2019 12:10	BW	n
Ethene	**0.16**	ug/l	0.10	0.0050	1	1/29/2019 12:10	BW	n

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ANALYTICAL RESULTS

Workorder: 29274 WPH CLEMSON

Lab ID: **292740021** Date Received: 1/22/2019 14:03 Matrix: Water

Sample ID: **DP-20** Date Collected: 1/18/2019 12:30

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**1100**	ug/l	0.50	0.014	1	1/29/2019 12:20	BW	n
Ethane	**0.36**	ug/l	0.10	0.0070	1	1/29/2019 12:20	BW	n
Ethene	**0.15**	ug/l	0.10	0.0050	1	1/29/2019 12:20	BW	n

CERTIFICATE OF ANALYSIS

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ANALYTICAL RESULTS

Workorder: 29274 WPH CLEMSON

Lab ID: **292740022** Date Received: 1/22/2019 14:03 Matrix: Water

Sample ID: **DP-20A** Date Collected: 1/18/2019 15:00

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**17**	ug/l	0.50	0.014	1	1/29/2019 12:32	BW	n
Ethane	**0.18**	ug/l	0.10	0.0070	1	1/29/2019 12:32	BW	n
Ethene	**0.10**	ug/l	0.10	0.0050	1	1/29/2019 12:32	BW	n

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ANALYTICAL RESULTS

Workorder: 29274 WPH CLEMSON

Lab ID: **292740023** Date Received: 1/22/2019 14:03 Matrix: Water

Sample ID: **DP-20B** Date Collected: 1/18/2019 16:15

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**0.82**	ug/l	0.50	0.014	1	1/29/2019 12:41	BW	n
Ethane	**0.24**	ug/l	0.10	0.0070	1	1/29/2019 12:41	BW	n
Ethene	**0.26**	ug/l	0.10	0.0050	1	1/29/2019 12:41	BW	n

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ANALYTICAL RESULTS

Workorder: 29274 WPH CLEMSON

Lab ID: **292740024** Date Received: 1/22/2019 14:03 Matrix: Water

Sample ID: **DU-19105** Date Collected:

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**16**	ug/l	0.50	0.014	1	1/29/2019 12:51	BW	n
Ethane	**0.18**	ug/l	0.10	0.0070	1	1/29/2019 12:51	BW	n
Ethene	**0.10**	ug/l	0.10	0.0050	1	1/29/2019 12:51	BW	n

Pace Analytical Energy Services LLC
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

ANALYTICAL RESULTS QUALIFIERS

Workorder: 29274 WPH CLEMSON

DEFINITIONS/QUALIFIERS

MDL	Method Detection Limit. Can be used synonymously with LOD; Limit Of Detection.
PQL	Practical Quanitation Limit. Can be used synonymously with LOQ; Limit Of Quantitation.
ND	Not detected at or above reporting limit.
DF	Dilution Factor.
S	Surrogate.
RPD	Relative Percent Difference.
% Rec	Percent Recovery.
U	Indicates the compound was analyzed for, but not detected at or above the noted concentration.
J	Estimated concentration greater than the set method detection limit (MDL) and less than the set reporting limit (PQL).
n	The laboratory does not hold NELAP/TNI accreditation for this method or analyte.

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QUALITY CONTROL DATA

Workorder: 29274 WPH CLEMSON

QC Batch: DISG/7333 Analysis Method: AM20GAX

QC Batch Method: AM20GAX

Associated Lab Samples: 292740001, 292740002, 292740003, 292740004, 292740005, 292740006, 292740007, 292740008, 292740009, 292740010, 292740011, 292740012, 292740013, 292740014, 292740015, 292740016, 292740017

METHOD BLANK: 59467

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
RISK				
Methane	ug/l	<0.50	0.50	n
Ethane	ug/l	<0.10	0.10	n
Ethene	ug/l	<0.10	0.10	n

LABORATORY CONTROL SAMPLE & LCSD: 59468 59469

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
RISK										
Methane	ug/l	750	730	740	98	99	80-120	1.1	20	n
Ethane	ug/l	38	39	39	102	102	80-120	0.17	20	n
Ethene	ug/l	35	36	36	102	101	80-120	0.38	20	n

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QUALITY CONTROL DATA

Workorder: 29274 WPH CLEMSON

QC Batch: DISG/7339 Analysis Method: AM20GAX

QC Batch Method: AM20GAX

Associated Lab Samples: 292740018, 292740019, 292740020, 292740021, 292740022, 292740023, 292740024

METHOD BLANK: 59526

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
RISK				
Methane	ug/l	<0.50	0.50	n
Ethane	ug/l	<0.10	0.10	n
Ethene	ug/l	<0.10	0.10	n

LABORATORY CONTROL SAMPLE & LCSD: 59528 59530

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
RISK										
Methane	ug/l	750	730	720	98	97	80-120	1.2	20	n
Ethane	ug/l	38	39	39	102	103	80-120	0.25	20	n
Ethene	ug/l	35	36	36	103	103	80-120	0.29	20	n

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QUALITY CONTROL DATA QUALIFIERS

Workorder: 29274 WPH CLEMSON

QUALITY CONTROL PARAMETER QUALIFIERS

n	The laboratory does not hold NELAP/TNI accreditation for this method or analyte.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 29274 WPH CLEMSON

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
292740001	DP-27			AM20GAX	DISG/7333
292740002	DP-27A			AM20GAX	DISG/7333
292740003	DP-27B			AM20GAX	DISG/7333
292740004	DP-26			AM20GAX	DISG/7333
292740005	DP-26A			AM20GAX	DISG/7333
292740006	DP-26B			AM20GAX	DISG/7333
292740007	DP-25			AM20GAX	DISG/7333
292740008	DP-25A			AM20GAX	DISG/7333
292740009	DP-25B			AM20GAX	DISG/7333
292740010	DP-24			AM20GAX	DISG/7333
292740011	DP-24A			AM20GAX	DISG/7333
292740012	DP-24B			AM20GAX	DISG/7333
292740013	DP-23			AM20GAX	DISG/7333
292740014	DP-23A			AM20GAX	DISG/7333
292740015	DP-23B			AM20GAX	DISG/7333
292740016	DP-22			AM20GAX	DISG/7333
292740017	DP-22A			AM20GAX	DISG/7333
292740018	DP-22B			AM20GAX	DISG/7339
292740019	DP-21			AM20GAX	DISG/7339
292740020	DP-21A			AM20GAX	DISG/7339
292740021	DP-20			AM20GAX	DISG/7339
292740022	DP-20A			AM20GAX	DISG/7339
292740023	DP-20B			AM20GAX	DISG/7339
292740024	DU-19105			AM20GAX	DISG/7339

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: of

Section A Required Client Information:

Company: TRC
Address: 50 International Drive Suite 150
Email To: thertz@trcsolutions.com
Phone: Fax:
Requested Due Date/TAT:

Section B Required Project Information:

Report To:
Copy To:
Purchase Order No.:
Project Name: WPH Clemson
Project Number:

Section C Invoice Information:

Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager:
Pace Profile #:

REGULATORY AGENCY

NPDES GROUND WATER DRINKING WATER
UST RCRA OTHER

Site Location STATE:

Section D Required Client Information

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Matrix Codes MATRIX / CODE

Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Tissue	TS
Other	OT

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	TSP	BAK	Zinc Acetate & NaOH	Other	Analysis Test Y/N	Dissolved Gases (CH4, C2H6, C2H4)	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	DP-23			1/16/19	0830												X	X	X		
2	DP-23A			1/16/19	0940												X	X	X		
3	DP-23B			1/16/19	1115												X	X	X		
4	DP-22			1/16/19	1255												X	X	X		
5	DP-22A			1/16/19	1345												X	X	X		
6	DP-22B			1/16/19	1500												X	X	X		
7	DP-21			1/18/19	0840												X	X	X		
8	DP-21A			1/18/19	1035												X	X	X		
9	DP-20			1/18/19	1230												X	X	X		
10	DP-20A			1/18/19	1500												X	X	X		
11	DP-20B			1/18/19	1615												X	X	X		
12	DUP 19105																X	X	X		

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY):

Temp in °C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

Pace Analytical
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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: of 013681

Section A Required Client Information

Company: IRC
Address: 50 International Drive Suite 150
Email To: theetz@trcsolutions.com
Phone: Fax:
Requested Due Date/TAT:

Section B Required Project Information:

Report To:
Copy To:
Purchase Order No.:
Project Name: WPH Clemson
Project Number:

Section C Invoice Information:

Attention:
Company Name:
Address:
Pace Quote Reference:
Pace Project Manager:
Pace Profile #:

REGULATORY AGENCY

NPDES GROUND WATER DRINKING WATER
UST RCRA OTHER

Site Location STATE:

Section D Required Client Information

SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE

Matrix Codes — MATRIX / CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Tissue TS; Other OT

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED COMPOSITE START DATE	COLLECTED COMPOSITE START TIME	COLLECTED COMPOSITE END/GRAB DATE	COLLECTED COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	TSP	BAK	Zinc Acetate & NaOH	Other	Y/N	Analysis Test: Dissolved Gases (Ethene, ethane, methane)	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	DP-27			1/14/19	0830												X		X		
2	DP-27A			1/14/19	0930												X		X		
3	DP-27B			1/14/19	1100												X		X		
4	DP-26			1/14/19	1230												X		X		
5	DP-26A			1/14/19	1320												X		X		
6	DP-26B			1/14/19	1450												X		X		
7	DP-25			1/15/19	0820												X		X		
8	DP-25A			1/15/19	0920												X		X		
9	DP-25B			1/15/19	1045												X		X		
10	DP-24			1/15/19	1220												X		X		
11	DP-24A			1/15/19	1320												X		X		
12	DP-25B			1/15/19	1420												X		X		

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER:

DATE Signed (MM/DD/YY):

Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

F-ALL-Q-020rev.07, 15-May-2007

Cooler Receipt Form

Client Name: _____ Project: _____ Lab Work Order: _____

A. **Shipping/Container Information** (circle appropriate response)

Courier: FedEx UPS USPS Client Other:_____ **Air bill Present:** Yes No

Tracking Number:_____

Custody Seal on Cooler/Box Present: Yes No **Seals Intact:** Yes No

Cooler/Box Packing Material: Bubble Wrap Absorbent Foam Other:_____

Type of Ice: Wet Blue None **Ice Intact:** Yes Melted

Cooler Temperature:_____ **Radiation Screened:** Yes No **Chain of Custody Present:** Yes No

Comments:_____

B. **Laboratory Assignment/Log-in** (check appropriate response)

	YES	NO	N/A	Comment Reference non-Conformance
Chain of Custody properly filled out				
Chain of Custody relinquished				
Sampler Name & Signature on COC				
Containers intact				
Were samples in separate bags				
Sample container labels match COC Sample name/date and time collected				
Sufficient volume provided				
PAES containers used				
Are containers properly preserved for the requested testing? (as labeled)				
If an unknown preservation state, were containers checked? Exception: VOA's coliform				If yes, see pH form.
Was volume for dissolved testing field filtered, as noted on the COC? Was volume received in a preserved container?				
Headspace present?				

Comments:_____

_____

Cooler contents examined/received by :_____ **Date:**_____

Project Manager Review : ERJ **Date:** 1-22-19

NON-CONFORMANCE FORM

PAES Work Order #: _____

Date: _____ Time of Receipt: _____ Receiver: _____

Client: _____

REASON FOR NON-CONFORMANCE:

_____

_____

_____

_____

_____

_____

_____

_____

_____

ACTION TAKEN:

Client name: TRC Date: 1-22-19 Time: 1545

Emailed client to inquire on relinquishment & confirm correct vial ID's

_____

_____

_____

_____

_____

Customer Service Initials: ERJ Date: 1-22-19

Emma Louis - Re: WPH Cleaners

From: "Szynal, David" <DSzynal@trcsolutions.com>
To: Emma Louis <Emma.Louis@pacelabs.com>
Date: 1/23/2019 3:10 PM
Subject: Re: WPH Cleaners
Cc: "Hertz, Terrance" <THertz@trcsolutions.com>, "Clark, Lisa" <LClark@trcso...

Please rename the sample collected at 1420 to DP-24B.

Thank you,

David Szynal

Sent from my iPhone

On Jan 23, 2019, at 12:32 PM, Emma Louis <Emma.Louis@pacelabs.com> wrote:

> Hi David
>
> I have attached the COCs and our login paperwork for the samples. It looks like we received two samples with the ID DP-25B. One has a collection of 1/15/19 @ 10:45, and the other 1/15/19 @ 14:20. We logged them in as both DP-25B, so if you would like one of them changed let me know.
>
> Thank you

Emma Louis
Project Coordinator
Pace Analytical Energy Services, LLC
220 William Pitt Way
Pittsburgh, PA 15238
412-826-2378 (O) | 412-826-5245 (Main)
www.pacelabs.com

>>> "Szynal, David" <DSzynal@trcsolutions.com> 1/22/2019 5:04 PM >>>
Hey Emma,

Emma Louis - Fwd: WPH Cleaners

From: "Szynal, David" <DSzynal@trcsolutions.com>
To: "Emma.Louis@pacelabs.com" <Emma.Louis@pacelabs.com>
Date: 1/22/2019 5:04 PM
Subject: Fwd: WPH Cleaners
Cc: "Hertz, Terrance" <THertz@trcsolutions.com>, "Clark, Lisa" <LClark@trcso...

Hey Emma,

See my comment below.

Sent from my iPhone

Begin forwarded message:

> **From:** "Szynal, David" <DSzynal@trcsolutions.com>
> **Date:** January 22, 2019 at 4:03:35 PM EST
> **To:** "Hertz, Terrance" <THertz@trcsolutions.com>
> **Cc:** "Clark, Lisa" <LClark@trcsolutions.com>
> **Subject: Re: WPH Cleaners**
>
> Thanks for the email Terry,
>
> Emma comment regarding dp-27 vs dpt-27 is easy. Lab needs to Id that as dp-27.
>
> Emma comment regarding dp-25b and dp-24b that's a little harder to answer without cocs and field notes in front of me. Did I send two sets of bottles with same sample Id? How is Emma telling the difference? Date? Time?
>
> 25 and 24 were sampled on same day. 25 in morning, 24 in afternoon.
>
> Sent from my iPhone
>
> On Jan 22, 2019, at 3:55 PM, Hertz, Terrance <THertz@trcsolutions.com> wrote:
>
> > David: Please see the issues with the samples submitted to Pace that are described in Emma's email below. Please clarify the discrepancies and send info to Emma.
> >
> > Emma: The site name is "WPH-Clemson", as in Clemson, SC, not "WPH Cleaners". Although given that the Clemson Tigers did clean up Alabama at the National Championship I can somewhat understand the error. □□

Regards

Terry Hertz

From: Emma Louis <Emma.Louis@pacelabs.com>
Sent: Tuesday, January 22, 2019 3:48 PM
To: Hertz, Terrance <THertz@trcsolutions.com>
Subject: WPH Cleaners

Hi Terrance,

We received the samples for the project above. The COCs were not relinquished. Could you possibly scan a signed copy over so you can confirm the COC is correct?

Additionally, DP-27: the vials ID was DPT-27. DP-25B: the vials ID was DP-24B. Please confirm the correct sample IDs and if you can, a scanned copy that is relinquished.

Thank you

Emma Louis
Project Coordinator
Pace Analytical Energy Services, LLC
220 William Pitt Way
Pittsburgh, PA 15238
412-826-2378 (O) | 412-826-5245 (Main)
www.pacelabs.com

Pace Analytical Energy Services LLC
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Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

February 27, 2019

Lisa Clark
TRC Environmental Corp.
30 Patewood Drive
Greenville, SC 29615

RE: **WPH CLEMSON / 300688.0.0.2**

Pace Workorder: 29494

Dear Lisa Clark:

Enclosed are the analytical results for sample(s) received by the laboratory on Friday, February 15, 2019. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Ruth Welsh 02/27/2019
Ruth.Welsh@pacelabs.com

Customer Service Representative

Enclosures

As a valued client we would appreciate your comments on our service.
Please email PAESfeedback@pacelabs.com.

Total Number of Pages 24

CERTIFICATE OF ANALYSIS

Laboratory Data Quality Review Notes

Project Name: WPH-Clemson, SC

Project Number: 300688.0000.0000.000002

Lab Report: 29494 Pace Analytical Energy Services
Twelve groundwater samples were analyzed for dissolved hydrocarbon gases.

Chain of Custody, Sample Temperature, Sample Preservation: Chain of custody (CoC) signed; sample temperature <6 ^{o}C upon arrival at the laboratory; samples were preserved properly.

Hold Time: Samples analyzed within hold time.

Surrogates: Surrogate recoveries are not applicable to dissolved hydrocarbon gas analyses.

Method Blank: Hydrocarbon gases were not detected in the method blanks.

Trip Blank: A trip blank was not collected with these samples.

Field Blank: A field blank was not collected with these samples.

Equipment Rinse Blank: A rinsate blank was not collected with these samples.

LCS/LCSD: LCS and LCSD recoveries as well as RPDs are within QC Limits.

MS/MSD: MS/MSD analyses were not performed using samples included in this report.

Duplicates: A field duplicate was not collected with these samples.

Other: Note that the CoC was not signed by TRC staff.

No qualifiers were assigned.

Data review performed by: Terry Hertz; TRC Environmental Corp.; 2/27/2019

Pace Analytical Energy Services LLC
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Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

LABORATORY ACCREDITATIONS & CERTIFICATIONS

Accreditor:	Pennsylvania Department of Environmental Protection, Bureau of Laboratories
Accreditation ID:	02-00538
Scope:	NELAP Non-Potable Water
Accreditor:	West Virginia Department of Environmental Protection, Division of Water and Waste Management
Accreditation ID:	395
Scope:	Non-Potable Water
Accreditor:	South Carolina Department of Health and Environmental Control, Office of Environmental Laboratory Certification
Accreditation ID:	89009003
Scope:	Clean Water Act (CWA); Resource Conservation and Recovery Act (RCRA)
Accreditor:	State of Virginia
Accreditation ID:	460201
Scope:	Non-Potable Water
Accreditor:	NELAP: New Jersey, Department of Environmental Protection
Accreditation ID:	PA026
Scope:	Non-Potable Water
Accreditor:	NELAP: New York, Department of Health Wadsworth Center
Accreditation ID:	11815
Scope:	Non-Potable Water
Accreditor:	State of Connecticut, Department of Public Health, Division of Environmental Health
Accreditation ID:	PH-0263
Scope:	Clean Water Act (CWA) Resource Conservation and Recovery Act (RCRA)
Accreditor:	NELAP: Texas, Commission on Environmental Quality
Accreditation ID:	T104704453-09-TX
Scope:	Non-Potable Water
Accreditor:	State of New Hampshire
Accreditation ID:	299409
Scope:	Non-potable water
Accreditor:	State of Georgia
Accreditation ID:	Chapter 391-3-26
Scope:	As per the Georgia EPD Rules and Regulations for Commercial Laboratories, PAES is accredited by the Pennsylvania Department of Environmental Protection Bureau of Laboratories under the National Environmental Laboratory Approval Program (NELAC).

Pace Analytical Energy Services LLC
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

SAMPLE SUMMARY

Workorder: 29494 WPH CLEMSON / 300688.0.0.2

Lab ID	Sample ID	Matrix	Date Collected	Date Received
294940001	RMW-13A	Water	2/11/2019 15:45	2/15/2019 10:30
294940002	RMW-28A	Water	2/11/2019 16:10	2/15/2019 10:30
294940003	RMW-28B	Water	2/11/2019 16:25	2/15/2019 10:30
294940004	RMW-04	Water	2/12/2019 14:02	2/15/2019 10:30
294940005	RMW-03	Water	2/12/2019 11:32	2/15/2019 10:30
294940006	RMW-29	Water	2/13/2019 11:35	2/15/2019 10:30
294940007	RMW-23C	Water	2/13/2019 12:30	2/15/2019 10:30
294940008	RMW-25	Water	2/13/2019 15:35	2/15/2019 10:30
294940009	RMW-02	Water	2/13/2019 16:00	2/15/2019 10:30
294940010	RMW-05B	Water	2/13/2019 16:40	2/15/2019 10:30
294940011	MW-12	Water	2/14/2019 10:45	2/15/2019 10:30
294940012	MW-11	Water	2/14/2019 12:10	2/15/2019 10:30

Pace Analytical Energy Services LLC
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

PROJECT SUMMARY

Workorder: 29494 WPH CLEMSON / 300688.0.0.2

Workorder Comments

The samples 29494 (0011-0012) were collected in an alternate container type, than that assigned to PAES method AM20GAx. The sample container was not preserved and capped with silicone septa.

Pace Analytical Energy Services LLC
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Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

ANALYTICAL RESULTS

Workorder: 29494 WPH CLEMSON / 300688.0.0.2

Lab ID: **294940001** Date Received: 2/15/2019 10:30 Matrix: Water

Sample ID: **RMW-13A** Date Collected: 2/11/2019 15:45

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**<0.50**	ug/l	0.50	0.099	1	2/16/2019 09:41	TD	n
Ethane	**<0.10**	ug/l	0.10	0.0090	1	2/16/2019 09:41	TD	n
Ethene	**<0.10**	ug/l	0.10	0.0050	1	2/16/2019 09:41	TD	n

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Phone: (412) 826-5245
Fax: (412) 826-3433

ANALYTICAL RESULTS

Workorder: 29494 WPH CLEMSON / 300688.0.0.2

Lab ID: **294940002** Date Received: 2/15/2019 10:30 Matrix: Water

Sample ID: **RMW-28A** Date Collected: 2/11/2019 16:10

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**0.54**	ug/l	0.50	0.099	1	2/16/2019 09:56	TD	n
Ethane	**<0.10**	ug/l	0.10	0.0090	1	2/16/2019 09:56	TD	n
Ethene	**<0.10**	ug/l	0.10	0.0050	1	2/16/2019 09:56	TD	n

Pace Analytical Energy Services LLC
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Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

ANALYTICAL RESULTS

Workorder: 29494 WPH CLEMSON / 300688.0.0.2

Lab ID: **294940003** Date Received: 2/15/2019 10:30 Matrix: Water

Sample ID: **RMW-28B** Date Collected: 2/11/2019 16:25

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**<0.50**	ug/l	0.50	0.099	1	2/16/2019 10:09	TD	n
Ethane	**<0.10**	ug/l	0.10	0.0090	1	2/16/2019 10:09	TD	n
Ethene	**<0.10**	ug/l	0.10	0.0050	1	2/16/2019 10:09	TD	n

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ANALYTICAL RESULTS

Workorder: 29494 WPH CLEMSON / 300688.0.0.2

Lab ID: **294940004** Date Received: 2/15/2019 10:30 Matrix: Water

Sample ID: **RMW-04** Date Collected: 2/12/2019 14:02

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**<0.50**	ug/l	0.50	0.099	1	2/16/2019 10:23	TD	n
Ethane	**<0.10**	ug/l	0.10	0.0090	1	2/16/2019 10:23	TD	n
Ethene	**<0.10**	ug/l	0.10	0.0050	1	2/16/2019 10:23	TD	n

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ANALYTICAL RESULTS

Workorder: 29494 WPH CLEMSON / 300688.0.0.2

Lab ID: **294940005** Date Received: 2/15/2019 10:30 Matrix: Water

Sample ID: **RMW-03** Date Collected: 2/12/2019 11:32

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**<0.50**	ug/l	0.50	0.099	1	2/16/2019 10:44	TD	n
Ethane	**<0.10**	ug/l	0.10	0.0090	1	2/16/2019 10:44	TD	n
Ethene	**<0.10**	ug/l	0.10	0.0050	1	2/16/2019 10:44	TD	n

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ANALYTICAL RESULTS

Workorder: 29494 WPH CLEMSON / 300688.0.0.2

Lab ID: **294940006** Date Received: 2/15/2019 10:30 Matrix: Water

Sample ID: **RMW-29** Date Collected: 2/13/2019 11:35

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**<0.50**	ug/l	0.50	0.099	1	2/16/2019 10:59	TD	n
Ethane	**<0.10**	ug/l	0.10	0.0090	1	2/16/2019 10:59	TD	n
Ethene	**<0.10**	ug/l	0.10	0.0050	1	2/16/2019 10:59	TD	n

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ANALYTICAL RESULTS

Workorder: 29494 WPH CLEMSON / 300688.0.0.2

Lab ID: **294940007** Date Received: 2/15/2019 10:30 Matrix: Water

Sample ID: **RMW-23C** Date Collected: 2/13/2019 12:30

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**13000**	ug/l	0.50	0.099	1	2/16/2019 11:11	TD	n
Ethane	**0.36**	ug/l	0.10	0.0090	1	2/16/2019 11:11	TD	n
Ethene	**1.4**	ug/l	0.10	0.0050	1	2/16/2019 11:11	TD	n

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ANALYTICAL RESULTS

Workorder: 29494 WPH CLEMSON / 300688.0.0.2

Lab ID: **294940008** Date Received: 2/15/2019 10:30 Matrix: Water

Sample ID: **RMW-25** Date Collected: 2/13/2019 15:35

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**<0.50**	ug/l	0.50	0.099	1	2/16/2019 11:26	TD	n
Ethane	**<0.10**	ug/l	0.10	0.0090	1	2/16/2019 11:26	TD	n
Ethene	**<0.10**	ug/l	0.10	0.0050	1	2/16/2019 11:26	TD	n

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ANALYTICAL RESULTS

Workorder: 29494 WPH CLEMSON / 300688.0.0.2

Lab ID: **294940009** Date Received: 2/15/2019 10:30 Matrix: Water

Sample ID: **RMW-02** Date Collected: 2/13/2019 16:00

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**230**	ug/l	0.50	0.014	1	2/20/2019 07:31	BW	n
Ethane	**<0.10**	ug/l	0.10	0.0070	1	2/20/2019 07:31	BW	n
Ethene	**0.13**	ug/l	0.10	0.0050	1	2/20/2019 07:31	BW	n

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ANALYTICAL RESULTS

Workorder: 29494 WPH CLEMSON / 300688.0.0.2

Lab ID: **294940010** Date Received: 2/15/2019 10:30 Matrix: Water

Sample ID: **RMW-05B** Date Collected: 2/13/2019 16:40

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**<0.50**	ug/l	0.50	0.014	1	2/20/2019 07:42	BW	n
Ethane	**<0.10**	ug/l	0.10	0.0070	1	2/20/2019 07:42	BW	n
Ethene	**<0.10**	ug/l	0.10	0.0050	1	2/20/2019 07:42	BW	n

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ANALYTICAL RESULTS

Workorder: 29494 WPH CLEMSON / 300688.0.0.2

Lab ID: **294940011** Date Received: 2/15/2019 10:30 Matrix: Water

Sample ID: **MW-12** Date Collected: 2/14/2019 10:45

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**<0.50**	ug/l	0.50	0.014	1	2/20/2019 07:52	BW	n
Ethane	**<0.10**	ug/l	0.10	0.0070	1	2/20/2019 07:52	BW	n
Ethene	**<0.10**	ug/l	0.10	0.0050	1	2/20/2019 07:52	BW	n

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ANALYTICAL RESULTS

Workorder: 29494 WPH CLEMSON / 300688.0.0.2

Lab ID: **294940012** Date Received: 2/15/2019 10:30 Matrix: Water

Sample ID: **MW-11** Date Collected: 2/14/2019 12:10

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**7.8**	ug/l	0.50	0.014	1	2/20/2019 08:02	BW	n
Ethane	**<0.10**	ug/l	0.10	0.0070	1	2/20/2019 08:02	BW	n
Ethene	**<0.10**	ug/l	0.10	0.0050	1	2/20/2019 08:02	BW	n

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ANALYTICAL RESULTS QUALIFIERS

Workorder: 29494 WPH CLEMSON / 300688.0.0.2

DEFINITIONS/QUALIFIERS

MDL	Method Detection Limit. Can be used synonymously with LOD; Limit Of Detection.
PQL	Practical Quanitation Limit. Can be used synonymously with LOQ; Limit Of Quantitation.
ND	Not detected at or above reporting limit.
DF	Dilution Factor.
S	Surrogate.
RPD	Relative Percent Difference.
% Rec	Percent Recovery.
U	Indicates the compound was analyzed for, but not detected at or above the noted concentration.
J	Estimated concentration greater than the set method detection limit (MDL) and less than the set reporting limit (PQL).
n	The laboratory does not hold NELAP/TNI accreditation for this method or analyte.

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QUALITY CONTROL DATA

Workorder: 29494 WPH CLEMSON / 300688.0.0.2

QC Batch: DISG/7371 Analysis Method: AM20GAX

QC Batch Method: AM20GAX

Associated Lab Samples: 294940001, 294940002, 294940003, 294940004, 294940005, 294940006, 294940007, 294940008

METHOD BLANK: 59837

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
RISK				
Methane	ug/l	<0.50	0.50	n
Ethane	ug/l	<0.10	0.10	n
Ethene	ug/l	<0.10	0.10	n

LABORATORY CONTROL SAMPLE & LCSD: 59839 59841

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
RISK										
Methane	ug/l	770	770	800	101	104	80-120	3.7	20	n
Ethane	ug/l	76	73	73	97	97	80-120	0.49	20	n
Ethene	ug/l	71	69	70	98	100	80-120	1.5	20	n

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QUALITY CONTROL DATA

Workorder: 29494 WPH CLEMSON / 300688.0.0.2

QC Batch: DISG/7373 Analysis Method: AM20GAX

QC Batch Method: AM20GAX

Associated Lab Samples: 294940009, 294940010, 294940011, 294940012

METHOD BLANK: 59855

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
RISK				
Methane	ug/l	<0.50	0.50	n
Ethane	ug/l	<0.10	0.10	n
Ethene	ug/l	<0.10	0.10	n

LABORATORY CONTROL SAMPLE & LCSD: 59857 59859

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
RISK										
Methane	ug/l	750	740	740	99	99	80-120	0.077	20	n
Ethane	ug/l	38	39	40	103	105	80-120	1.9	20	n
Ethene	ug/l	35	36	37	102	104	80-120	1.5	20	n

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QUALITY CONTROL DATA QUALIFIERS

Workorder: 29494 WPH CLEMSON / 300688.0.0.2

QUALITY CONTROL PARAMETER QUALIFIERS

n	The laboratory does not hold NELAP/TNI accreditation for this method or analyte.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 29494 WPH CLEMSON / 300688.0.0.2

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
294940001	RMW-13A			AM20GAX	DISG/7371
294940002	RMW-28A			AM20GAX	DISG/7371
294940003	RMW-28B			AM20GAX	DISG/7371
294940004	RMW-04			AM20GAX	DISG/7371
294940005	RMW-03			AM20GAX	DISG/7371
294940006	RMW-29			AM20GAX	DISG/7371
294940007	RMW-23C			AM20GAX	DISG/7371
294940008	RMW-25			AM20GAX	DISG/7371
294940009	RMW-02			AM20GAX	DISG/7373
294940010	RMW-05B			AM20GAX	DISG/7373
294940011	MW-12			AM20GAX	DISG/7373
294940012	MW-11			AM20GAX	DISG/7373

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CHAIN-OF-CUSTODY / Analytical Request Document

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Page: 1 of 1

013685

Section A Required Client Information:	Section B Required Project Information:	Section C Invoice Information:
Company: TRC	Report To: Lisa Clark	Attention:
Address: 50 International Dr 150 Greenville, SC 29615	Copy To:	Company Name:
		Address:
Email To:	Purchase Order No.:	Pace Quote Reference:
Phone: Fax:	Project Name: WPH Clemson	Pace Project Manager:
Requested Due Date/TAT:	Project Number: 300688.0.0.2	Pace Profile #:

REGULATORY AGENCY

NPDES GROUND WATER DRINKING WATER
UST RCRA OTHER _____

Site Location STATE: _____

Requested Analysis Filtered (Y/N)

ITEM #	Section D Required Client Information — SAMPLE ID (A-Z, 0-9 / ,-) Sample IDs MUST BE UNIQUE	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED: COMPOSITE START DATE	COMPOSITE START TIME	COMPOSITE END/GRAB DATE	COMPOSITE END/GRAB TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H_2SO_4	HNO_3	HCl	TSP	BAK	Zinc Acetate & NaOH	Other	Analysis Test Y/N	Diss. Gasses	Residual Chlorine (Y/N)	Pace Project No./ Lab I.D.
1	RMW-13A	WT				2-11	1545		3					X					X		
2	RMW-28A	WT				2-11	1610		3					X					X		
3	RMW-28B	WT				2-11	1625		3					X					X		
4	RMW-04	WT				2-12	1402		3					X					X		
5	RMW-03	WT				2-12	1132		3					X					X		
6	RMW-29	WT				2-13	1135		3					X					X		
7	RMW-23C	WT				2-13	1230		3					X					X		
8	RMW-25	WT				2-13	1535		3					X					X		
9	RMW-02	WT				2-13	1600		3					X					X		
10	RMW-05B	WT				2-13	1640		3					X					X		
11	MW-12	WT				2-14	1045		3	X									X		
12	MW-11	WT				2-14	1210		3	X									X		

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
MW-11/MW-12 not preserved per lab							

ORIGINAL

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:

SIGNATURE of SAMPLER: DATE Signed (MM/DD/YY):

Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

*Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

Cooler Receipt Form

Client Name: _____ **Project:** _____ **Lab Work Order:** _____

A. **Shipping/Container Information** (circle appropriate response)

Courier: FedEx UPS USPS Client Other:_____ **Air bill Present:** Yes No

Tracking Number:_____

Custody Seal on Cooler/Box Present: Yes No **Seals Intact:** Yes No

Cooler/Box Packing Material: Bubble Wrap Absorbent Foam Other:_____

Type of Ice: Wet Blue None **Ice Intact:** Yes Melted

Cooler Temperature:_____ **Radiation Screened:** Yes No **Chain of Custody Present:** Yes No

Comments:_____

B. **Laboratory Assignment/Log-in** (check appropriate response)

	YES	NO	N/A	Comment Reference non-Conformance
Chain of Custody properly filled out				
Chain of Custody relinquished				
Sampler Name & Signature on COC				
Containers intact				
Were samples in separate bags				
Sample container labels match COC Sample name/date and time collected				
Sufficient volume provided				
PAES containers used				
Are containers properly preserved for the requested testing? (as labeled)				
If an unknown preservation state, were containers checked? Exception: VOA's coliform				If yes, see pH form.
Was volume for dissolved testing field filtered, as noted on the COC? Was volume received in a preserved container?				
Headspace present?				

Comments:_____

_____

Cooler contents examined/received by :_____ **Date:**_____

Project Manager Review :_____ **Date:**_____

NON-CONFORMANCE FORM

PAES Work Order #: _____

Date: _____ Time of Receipt: _____ Receiver: _____

Client: _____

REASON FOR NON-CONFORMANCE:

_____

_____

_____

_____

_____

_____

_____

_____

_____

ACTION TAKEN:

Client name: _____ Date: _____ Time: _____

_____

_____

_____

_____

_____

_____

_____

Customer Service Initials: _____ Date: _____

SHEALY ENVIRONMENTAL SERVICES, INC.

Report of Analysis

TRC Companies, Inc.
50 International Dr.
Suite 150
Greenville, SC 29615
Attention: Lisa Clark

Project Name: WPH Clemson

Project Number: 300688.0000.0000.0002

Lot Number:**UB15044**

Date Completed:02/27/2019

02/27/2019 4:32 PM
Approved and released by:
Lab Director - Greenville: Lucas Odom

The electronic signature above is the equivalent of a handwritten signature.

Shealy Environmental Services, Inc.
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.shealylab.com

Laboratory Data Quality Review Notes

Project Name: WPH-Clemson, SC

Project Number: 300688.0000.0000.000002

Lab Report: UB15044 Shealy Environmental Services
Two groundwater samples were analyzed for volatile organic compounds (VOCs), chloride, bromide, sulfate, and nitrate. One trip blank was analyzed for VOCs.

Chain of Custody, Sample Temperature, Sample Preservation: Chain of custody (CoC) signed; sample temperature <6 ^{o}C upon arrival at the laboratory; samples were preserved properly.

Hold Time: Samples analyzed within hold time.

Surrogates: VOC surrogate recoveries are within QC limits.

Method Blank: Method blanks were free of detections.

Trip Blank: Trip blank TBLK-19113 had acetone detected at 2.0 J ug/L. **Acetone in MW-11 is assigned a "u" qualifier because the concentration (2.2 J ug/L) is comparable to the trip blank concentration.**

Field Blank: A field blank was not collected with these samples.

Equipment Rinse Blank: A rinsate blank was not collected with these samples.

LCS/LCSD: LCS recoveries for anions and VOCs are within QC Limits. LCSD analyses were not performed.

MS/MSD: MS/MSD analyses were not performed using samples included in his report.

Duplicates: A field duplicate was not collected with these samples.

Data review performed by: Terry Hertz; TRC Environmental Corp.; 2/27/2019

Case Narrative
TRC Companies, Inc.
Lot Number: UB15044

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

Sample Summary
TRC Companies, Inc.
Lot Number: UB15044

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	TBLK-19113	Aqueous	02/14/2019	02/15/2019
002	MW-12	Aqueous	02/14/2019 1045	02/15/2019
003	MW-11	Aqueous	02/14/2019 1210	02/15/2019

(3 samples)

Detection Summary

TRC Companies, Inc.

Lot Number: UB15044

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	TBLK-19113	Aqueous	Acetone	8260B	2.0	J	ug/L	5
002	MW-12	Aqueous	Bromide	300.0	0.12	J	mg/L	7
002	MW-12	Aqueous	Chloride	300.0	4.8		mg/L	7
002	MW-12	Aqueous	Nitrate - N	353.2	1.2		mg/L	7
002	MW-12	Aqueous	Sulfate	300.0	42		mg/L	7
002	MW-12	Aqueous	Chloroform	8260B	0.64	J	ug/L	7
002	MW-12	Aqueous	1,2-Dichloroethane	8260B	3.4		ug/L	7
002	MW-12	Aqueous	Tetrachloroethene	8260B	70		ug/L	8
003	MW-11	Aqueous	Bromide	300.0	0.11	J	mg/L	9
003	MW-11	Aqueous	Chloride	300.0	3.3		mg/L	9
003	MW-11	Aqueous	Nitrate - N	353.2	0.30		mg/L	9
003	MW-11	Aqueous	Sulfate	300.0	0.86	J	mg/L	9
003	MW-11	Aqueous	Acetone	8260B	2.2	J	ug/L	9
003	MW-11	Aqueous	Chloroform	8260B	0.83	J	ug/L	9
003	MW-11	Aqueous	1,2-Dichloroethane	8260B	0.45	J	ug/L	9
003	MW-11	Aqueous	Tetrachloroethene	8260B	1.5		ug/L	10

(16 detections)

Client: TRC Companies, Inc.
Description: TBLK-19113
Date Sampled: 02/14/2019
Date Received: 02/15/2019

Laboratory ID: UB15044-001
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/19/2019 1507	BWS		98027

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	2.0	J	20	2.0	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260B	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	ND		1.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
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Client: TRC Companies, Inc.
Description: TBLK-19113
Date Sampled: 02/14/2019
Date Received: 02/15/2019

Laboratory ID: UB15044-001
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/19/2019 1507	BWS		98027

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260B	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		105	70-130
Bromofluorobenzene		99	70-130
Toluene-d8		98	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Shealy Environmental Services, Inc.
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Client: TRC Companies, Inc.
Description: MW-12
Date Sampled: 02/14/2019 1045
Date Received: 02/15/2019

Laboratory ID: UB15044-002
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	02/20/2019 0338	SLU		98106
1		(Chloride) 300.0	1	02/20/2019 0338	SLU		98104
1		(Nitrate - N) 353.2	1	02/15/2019 2307	MDD		97742
3		(Sulfate) 300.0	1	02/26/2019 1544	SLU		98721

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.12	J	0.20	0.050	mg/L	1
Chloride		300.0	4.8		1.0	0.20	mg/L	1
Nitrate - N		353.2	1.2		0.020	0.0015	mg/L	1
Sulfate		300.0	42		1.0	0.20	mg/L	3

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/19/2019 1725	BWS		98027

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	ND		20	2.0	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260B	0.64	J	1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	3.4		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: MW-12
Date Sampled: 02/14/2019 1045
Date Received: 02/15/2019

Laboratory ID: UB15044-002
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/19/2019 1725	BWS		98027

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	70		1.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260B	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		104	70-130
Bromofluorobenzene		94	70-130
Toluene-d8		98	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
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W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: MW-11
Date Sampled: 02/14/2019 1210
Date Received: 02/15/2019

Laboratory ID: UB15044-003
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	02/20/2019 0404	SLU		98106
1		(Chloride) 300.0	1	02/20/2019 0404	SLU		98104
1		(Nitrate - N) 353.2	1	02/15/2019 2224	MDD		97742
3		(Sulfate) 300.0	1	02/26/2019 1613	SLU		98721

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.11	J	0.20	0.050	mg/L	1
Chloride		300.0	3.3		1.0	0.20	mg/L	1
Nitrate - N		353.2	0.30		0.020	0.0015	mg/L	1
Sulfate		300.0	0.86	J	1.0	0.20	mg/L	3

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/19/2019 1749	BWS		98027

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260B	2.2	J	20	2.0	ug/L	1
Benzene	71-43-2	8260B	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260B	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260B	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260B	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260B	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260B	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260B	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260B	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260B	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260B	0.83	J	1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260B	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260B	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260B	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260B	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260B	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260B	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260B	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260B	0.45	J	1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260B	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260B	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260B	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260B	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: MW-11
Date Sampled: 02/14/2019 1210
Date Received: 02/15/2019

Laboratory ID: UB15044-003
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260B	1	02/19/2019 1749	BWS		98027

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
cis-1,3-Dichloropropene	10061-01-5	8260B	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260B	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260B	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260B	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260B	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260B	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260B	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260B	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260B	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260B	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260B	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260B	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260B	1.5		1.0	0.40	ug/L	1
Toluene	108-88-3	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260B	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260B	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260B	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260B	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260B	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260B	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260B	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260B	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
1,2-Dichloroethane-d4		105	70-130
Bromofluorobenzene		96	70-130
Toluene-d8		97	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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QC Summary

Inorganic non-metals - MB

Sample ID: UQ97742-001
Batch: 97742
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Nitrate - N	ND		1	0.020	0.0015	mg/L	02/15/2019 2220

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: UQ97742-002
Batch: 97742
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	0.80	0.79		1	99	90-110	02/15/2019 2221

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MB

Sample ID: UQ98104-001
Batch: 98104
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Chloride	ND		1	1.0	0.20	mg/L	02/19/2019 1528

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Shealy Environmental Services, Inc.
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Inorganic non-metals - LCS

Sample ID: UQ98104-002
Batch: 98104
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Chloride	20	20		1	100	90-110	02/19/2019 1621

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Shealy Environmental Services, Inc.
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Inorganic non-metals - MB

Sample ID: UQ98106-001
Batch: 98106
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Bromide	ND		1	0.20	0.050	mg/L	02/19/2019 1528

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - LCS

Sample ID: UQ98106-002
Batch: 98106
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Bromide	8.0	8.4		1	105	90-110	02/19/2019 1621

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MB

Sample ID: UQ98721-001
Batch: 98721
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Sulfate	ND		1	1.0	0.20	mg/L	02/26/2019 1417

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - LCS

Sample ID: UQ98721-002
Batch: 98721
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Sulfate	20	19		1	95	90-110	02/26/2019 1515

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Shealy Environmental Services, Inc.
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Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ98027-001
Batch: 98027
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Acetone	ND		1	20	2.0	ug/L	02/19/2019 1143
Benzene	ND		1	1.0	0.40	ug/L	02/19/2019 1143
Bromodichloromethane	ND		1	1.0	0.40	ug/L	02/19/2019 1143
Bromoform	ND		1	1.0	0.40	ug/L	02/19/2019 1143
Bromomethane (Methyl bromide)	ND		1	2.0	0.40	ug/L	02/19/2019 1143
2-Butanone (MEK)	ND		1	10	2.0	ug/L	02/19/2019 1143
Carbon disulfide	ND		1	1.0	0.40	ug/L	02/19/2019 1143
Carbon tetrachloride	ND		1	1.0	0.40	ug/L	02/19/2019 1143
Chlorobenzene	ND		1	1.0	0.40	ug/L	02/19/2019 1143
Chloroethane	ND		1	2.0	0.40	ug/L	02/19/2019 1143
Chloroform	ND		1	1.0	0.40	ug/L	02/19/2019 1143
Chloromethane (Methyl chloride)	ND		1	1.0	0.50	ug/L	02/19/2019 1143
Cyclohexane	ND		1	1.0	0.40	ug/L	02/19/2019 1143
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	0.40	ug/L	02/19/2019 1143
Dibromochloromethane	ND		1	1.0	0.40	ug/L	02/19/2019 1143
1,2-Dibromoethane (EDB)	ND		1	1.0	0.40	ug/L	02/19/2019 1143
1,2-Dichlorobenzene	ND		1	1.0	0.40	ug/L	02/19/2019 1143
1,3-Dichlorobenzene	ND		1	1.0	0.40	ug/L	02/19/2019 1143
1,4-Dichlorobenzene	ND		1	1.0	0.40	ug/L	02/19/2019 1143
Dichlorodifluoromethane	ND		1	2.0	0.60	ug/L	02/19/2019 1143
1,1-Dichloroethane	ND		1	1.0	0.40	ug/L	02/19/2019 1143
1,2-Dichloroethane	ND		1	1.0	0.40	ug/L	02/19/2019 1143
1,1-Dichloroethene	ND		1	1.0	0.40	ug/L	02/19/2019 1143
cis-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	02/19/2019 1143
trans-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	02/19/2019 1143
1,2-Dichloropropane	ND		1	1.0	0.40	ug/L	02/19/2019 1143
cis-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	02/19/2019 1143
trans-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	02/19/2019 1143
Ethylbenzene	ND		1	1.0	0.40	ug/L	02/19/2019 1143
2-Hexanone	ND		1	10	2.0	ug/L	02/19/2019 1143
Isopropylbenzene	ND		1	1.0	0.40	ug/L	02/19/2019 1143
Methyl acetate	ND		1	1.0	0.40	ug/L	02/19/2019 1143
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	0.40	ug/L	02/19/2019 1143
4-Methyl-2-pentanone	ND		1	10	2.0	ug/L	02/19/2019 1143
Methylcyclohexane	ND		1	5.0	0.40	ug/L	02/19/2019 1143
Methylene chloride	ND		1	1.0	0.40	ug/L	02/19/2019 1143
Styrene	ND		1	1.0	0.41	ug/L	02/19/2019 1143
1,1,2,2-Tetrachloroethane	ND		1	1.0	0.40	ug/L	02/19/2019 1143
Tetrachloroethene	ND		1	1.0	0.40	ug/L	02/19/2019 1143
Toluene	ND		1	1.0	0.40	ug/L	02/19/2019 1143
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	0.42	ug/L	02/19/2019 1143
1,2,4-Trichlorobenzene	ND		1	1.0	0.40	ug/L	02/19/2019 1143
1,1,1-Trichloroethane	ND		1	1.0	0.40	ug/L	02/19/2019 1143
1,1,2-Trichloroethane	ND		1	1.0	0.40	ug/L	02/19/2019 1143

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Shealy Environmental Services, Inc.
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Volatile Organic Compounds by GC/MS - MB

Sample ID: UQ98027-001
Batch: 98027
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Trichloroethene	ND		1	1.0	0.40	ug/L	02/19/2019 1143
Trichlorofluoromethane	ND		1	1.0	0.40	ug/L	02/19/2019 1143
Vinyl chloride	ND		1	1.0	0.40	ug/L	02/19/2019 1143
Xylenes (total)	ND		1	1.0	0.40	ug/L	02/19/2019 1143

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		104	70-130
Bromofluorobenzene		96	70-130
Toluene-d8		97	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
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N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ98027-002
Batch: 98027
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	90		1	90	60-140	02/19/2019 1022
Benzene	50	47		1	93	70-130	02/19/2019 1022
Bromodichloromethane	50	49		1	99	70-130	02/19/2019 1022
Bromoform	50	51		1	103	70-130	02/19/2019 1022
Bromomethane (Methyl bromide)	50	50		1	101	70-130	02/19/2019 1022
2-Butanone (MEK)	100	91		1	91	70-130	02/19/2019 1022
Carbon disulfide	50	43		1	86	70-130	02/19/2019 1022
Carbon tetrachloride	50	48		1	96	70-130	02/19/2019 1022
Chlorobenzene	50	51		1	102	70-130	02/19/2019 1022
Chloroethane	50	55		1	111	70-130	02/19/2019 1022
Chloroform	50	50		1	99	70-130	02/19/2019 1022
Chloromethane (Methyl chloride)	50	55		1	111	60-140	02/19/2019 1022
Cyclohexane	50	45		1	89	70-130	02/19/2019 1022
1,2-Dibromo-3-chloropropane (DBCP)	50	54		1	108	70-130	02/19/2019 1022
Dibromochloromethane	50	49		1	99	70-130	02/19/2019 1022
1,2-Dibromoethane (EDB)	50	50		1	99	70-130	02/19/2019 1022
1,2-Dichlorobenzene	50	55		1	109	70-130	02/19/2019 1022
1,3-Dichlorobenzene	50	53		1	105	70-130	02/19/2019 1022
1,4-Dichlorobenzene	50	53		1	106	70-130	02/19/2019 1022
Dichlorodifluoromethane	50	61		1	121	60-140	02/19/2019 1022
1,1-Dichloroethane	50	47		1	93	70-130	02/19/2019 1022
1,2-Dichloroethane	50	50		1	99	70-130	02/19/2019 1022
1,1-Dichloroethene	50	43		1	87	70-130	02/19/2019 1022
cis-1,2-Dichloroethene	50	46		1	92	70-130	02/19/2019 1022
trans-1,2-Dichloroethene	50	44		1	88	70-130	02/19/2019 1022
1,2-Dichloropropane	50	42		1	84	70-130	02/19/2019 1022
cis-1,3-Dichloropropene	50	45		1	91	70-130	02/19/2019 1022
trans-1,3-Dichloropropene	50	47		1	93	70-130	02/19/2019 1022
Ethylbenzene	50	51		1	102	70-130	02/19/2019 1022
2-Hexanone	100	100		1	101	70-130	02/19/2019 1022
Isopropylbenzene	50	52		1	103	70-130	02/19/2019 1022
Methyl acetate	50	44		1	88	70-130	02/19/2019 1022
Methyl tertiary butyl ether (MTBE)	50	48		1	96	70-130	02/19/2019 1022
4-Methyl-2-pentanone	100	100		1	101	70-130	02/19/2019 1022
Methylcyclohexane	50	45		1	90	70-130	02/19/2019 1022
Methylene chloride	50	43		1	85	70-130	02/19/2019 1022
Styrene	50	52		1	104	70-130	02/19/2019 1022
1,1,2,2-Tetrachloroethane	50	51		1	102	70-130	02/19/2019 1022
Tetrachloroethene	50	50		1	99	70-130	02/19/2019 1022
Toluene	50	49		1	99	70-130	02/19/2019 1022
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	45		1	90	70-130	02/19/2019 1022
1,2,4-Trichlorobenzene	50	54		1	108	70-130	02/19/2019 1022
1,1,1-Trichloroethane	50	46		1	92	70-130	02/19/2019 1022
1,1,2-Trichloroethane	50	50		1	99	70-130	02/19/2019 1022

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - LCS

Sample ID: UQ98027-002
Batch: 98027
Analytical Method: 8260B

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	47		1	94	70-130	02/19/2019 1022
Trichlorofluoromethane	50	57		1	113	70-130	02/19/2019 1022
Vinyl chloride	50	58		1	116	70-130	02/19/2019 1022
Xylenes (total)	100	100		1	104	70-130	02/19/2019 1022

Surrogate	Q	% Rec	Acceptance Limit
1,2-Dichloroethane-d4		98	70-130
Bromofluorobenzene		97	70-130
Toluene-d8		97	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
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Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Shealy Environmental Services, Inc.
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Chain of Custody

and

Miscellaneous Documents

Shealy Environmental Services, Inc.
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SHEALY ENVIRONMENTAL SERVICES, INC.

Chain of Custody Record

SHEALY ENVIRONMENTAL SERVICES, INC.
106 Vantage Point Drive • West Columbia, SC 29172
Telephone No. 803-791-9700 Fax No. 803-791-9111
www.shealylab.com

Number 93758

Client: TRC	Report to Contact: Lisa Clark	Telephone No. / E-mail:
Address: 50 International Dr Ste 150	Sampler's Signature: X	Quote No.
City: Greenville / State: SC / Zip Code: 29615	Printed Name: Benjamin Medlin	Analysis (Attach list if more space is needed)
Project Name: WPA Clemson		Page 1 of 1
Project No.: 300688.0.0.2 / P.O. No.		UB15044

Sample ID / Description (Containers for each sample may be combined on one line.)	Date 2019	Time	Grab / Composite	Matrix: Aqueous	Solid	Non-Aqueous	No of Containers by Preservative Type: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc NaOH	VOCs	Chloride, Sulfate, Bromide	Nitrate
TBLK-19113	1	1	G	x						2			x		
MW-12	2-14	1045	G	x			2			3			x	x	x
MW-11	2-14	1210	G	x			2			3			x	x	x

Turn Around Time Required (Prior lab approval required for expedited TAT.) ☐ Standard ☐ Rush (Specify)

Sample Disposal ☐ Return to Client ☐ Disposal by Lab

Possible Hazard Identification ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished by	2-14-19	1615	1. Received by: TRC Sample storage	2-14-19	1615
2. Relinquished by: TRC Sample Storage	2/15/19	1025	2. Received by: Matt DeD	2/15/19	1026
3. Relinquished by	Date	Time	3. Received by	Date	Time
4. Relinquished by: Matt DeD	2/15/19	1420	4. Laboratory received by: Mcady Carla	2/15/19	1420

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on ice (Circle) Yes (No) Ice Pack
Receipt Temp. 2-6 °C

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Client Copy

Document Number: F-AD-133 Effective Date: 08-01-2014

Shealy Environmental Services, Inc.
Document Number: MEI0018C-14

Page 1 of 1
Effective Date: 8/2/2018

Sample Receipt Checklist (SRC)

Client: TRC Cooler Inspected by/date: MEC 2-15-19 Lot #: MB150424

Means of receipt: ☑ SESI ☐ Client ☐ UPS ☐ FedEx ☐ Other: _____

☐ Yes	☑ No		1. Were custody seals present on the cooler?
☐ Yes	☐ No	☑ NA	2. If custody seals were present, were they intact and unbroken?

pH Strip ID: N/A Chlorine Strip ID: N/A Tested by: N/A

Original temperature upon receipt / Derived (Corrected) temperature upon receipt: %Solid Snap-Cup ID: N/A

2.6/2.6 °C N/A: ___ °C ___ / ___ °C ___ / ___ °C MEC 2-15-19

Method: ☑ Temperature Blank ☐ Against Bottles IR Gun ID: 5 IR Gun Correction Factor: 2 °C

Method of coolant: ☑ Wet Ice ☐ Ice Packs ☐ Dry Ice ☐ None

☐ Yes	☐ No	☑ NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).
☐ Yes	☐ No	☑ NA	4. Is the commercial courier's packing slip attached to this form?
☑ Yes	☐ No		5. Were proper custody procedures (relinquished/received) followed?
☑ Yes	☐ No		6. Were sample IDs listed on the COC?
☑ Yes	☐ No		7. Were sample IDs listed on all sample containers?
☑ Yes	☐ No		8. Was collection date & time listed on the COC?
☑ Yes	☐ No		9. Was collection date & time listed on all sample containers?
☑ Yes	☐ No		10. Did all container label information (ID, date, time) agree with the COC?
☑ Yes	☐ No		11. Were tests to be performed listed on the COC?
☑ Yes	☐ No		12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)? _____
☑ Yes	☐ No		13. Was adequate sample volume available?
☐ Yes	☑ No		14. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
☐ Yes	☑ No		15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
☐ Yes	☑ No	☐ NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (¼"or 6mm in diameter) in any of the VOA vials?
☐ Yes	☐ No	☑ NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?
☐ Yes	☐ No	☑ NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
☐ Yes	☐ No	☑ NA	19. Were all applicable NH_3/TKN/cyanide/phenol/625 (< 0.5mg/L) samples free of residual chlorine?
☐ Yes	☐ No	☑ NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc…) correctly transcribed from the COC into the comment section in LIMS?
☑ Yes	☐ No		21. Was the quote number listed on the container label? If yes, Quote # 21713

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) N/A were received incorrectly preserved and were adjusted accordingly in sample receiving with N/A mL of circle one: H2SO4, HNO3, HCl, NaOH using SR # N/A. Time of preservation N/A. If more than one preservative is needed, please note in the comments below.

Sample(s) N/A were received with bubbles >6 mm in diameter.

Samples(s) N/A were received with TRC > 0.5 mg/L (If #19 is *no*) and were adjusted accordingly in sample receiving with sodium thiosulfate ($Na_2S_2O_3$) with Shealy ID: N/A.

SR barcode labels applied by: MEC Date: 2-15-19

Comments:

SHEALY ENVIRONMENTAL SERVICES, INC.

Report of Analysis

TRC Companies, Inc.
50 International Dr.
Suite 150
Greenville, SC 29615
Attention: Lisa Clark

Project Name: WPH Clemson

Project Number: 300688.0000.0000.0010

Lot Number:**UK04055**

Date Completed:11/14/2019

11/14/2019 2:38 PM
Approved and released by:
Lab Director - Greenville: Lucas Odom

The electronic signature above is the equivalent of a handwritten signature.

Shealy Environmental Services, Inc.
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Laboratory Data Quality Review Notes

Project Name: WPH-Clemson, SC

Project Number: 300688.0000.0000.000010

Lab Report: UK04055 Shealy Environmental Services
Twenty five groundwater samples were analyzed for bromide.

Chain of Custody, Sample Temperature, Sample Preservation: Chains of custody (CoCs) signed; sample temperature <6 ^{o}C upon arrival at the laboratory; samples were preserved properly.

Hold Time: Samples analyzed within hold time.

Surrogates: Surrogate recoveries are not relevant to bromide analyses.

Method Blank: Method blanks did not have bromide detections.

Trip Blank: A trip blank was not collected with these samples.

Field Blank: A field blank was not collected with these samples.

Equipment Rinse Blank: A rinsate blank was not collected with these samples.

LCS/LCSD: LCS recoveries for bromide were within QC Limits. LCSD analyses were not performed.

MS/MSD: RMW-23A and RMW-23B were used for bromide MS/MSD analyses. Bromide MS and MSD recoveries and RPDs were within QC limits.

Duplicates: A field duplicate was not collected with these samples.

No qualifiers were assigned.

Data review performed by: Terry Hertz; TRC Environmental Corp.; 11/15/2019

Case Narrative
TRC Companies, Inc.
Lot Number: UK04055

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

Sample Summary
TRC Companies, Inc.
Lot Number: UK04055

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	RMW-05A	Aqueous	10/28/2019 1105	11/04/2019
002	RMW-01	Aqueous	10/28/2019 1425	11/04/2019
003	RMW-13A	Aqueous	10/28/2019 1520	11/04/2019
004	RMW-26	Aqueous	10/28/2019 1620	11/04/2019
005	RMW-18	Aqueous	10/29/2019 1120	11/04/2019
006	RMW-10A	Aqueous	10/29/2019 1420	11/04/2019
007	RMW-10	Aqueous	10/29/2019 1540	11/04/2019
008	RMW-06	Aqueous	10/29/2019 1550	11/04/2019
009	RMW-08	Aqueous	10/29/2019 1635	11/04/2019
010	RMW-11	Aqueous	10/29/2019 1640	11/04/2019
011	RMW-14B	Aqueous	10/30/2019 1130	11/04/2019
012	RMW-14C	Aqueous	10/30/2019 1150	11/04/2019
013	RMW-20B	Aqueous	10/30/2019 1520	11/04/2019
014	RMW-20C	Aqueous	10/30/2019 1600	11/04/2019
015	RMW-10B	Aqueous	10/31/2019 1035	11/04/2019
016	RMW-10C	Aqueous	10/31/2019 1115	11/04/2019
017	RMW-23C	Aqueous	10/31/2019 1210	11/04/2019
018	RMW-23B	Aqueous	10/31/2019 1215	11/04/2019
019	RMW-23A	Aqueous	10/31/2019 1255	11/04/2019
020	RMW-23	Aqueous	10/31/2019 1300	11/04/2019
021	RMW-19A	Aqueous	11/01/2019 1050	11/04/2019
022	RMW-19	Aqueous	11/01/2019 1055	11/04/2019
023	RMW-22A	Aqueous	11/01/2019 1145	11/04/2019
024	RMW-22	Aqueous	11/01/2019 1155	11/04/2019
025	RMW-13	Aqueous	11/01/2019 1510	11/04/2019

(25 samples)

Detection Summary

TRC Companies, Inc.

Lot Number: UK04055

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
002	RMW-01	Aqueous	Bromide	300.0	0.24		mg/L	6
004	RMW-26	Aqueous	Bromide	300.0	0.95		mg/L	8
005	RMW-18	Aqueous	Bromide	300.0	0.52		mg/L	9
007	RMW-10	Aqueous	Bromide	300.0	0.32		mg/L	11
008	RMW-06	Aqueous	Bromide	300.0	0.078	J	mg/L	12
009	RMW-08	Aqueous	Bromide	300.0	0.15	J	mg/L	13
010	RMW-11	Aqueous	Bromide	300.0	0.13	J	mg/L	14
017	RMW-23C	Aqueous	Bromide	300.0	0.087	J	mg/L	21
018	RMW-23B	Aqueous	Bromide	300.0	0.089	J	mg/L	22
019	RMW-23A	Aqueous	Bromide	300.0	0.29		mg/L	23
022	RMW-19	Aqueous	Bromide	300.0	0.10	J	mg/L	26
023	RMW-22A	Aqueous	Bromide	300.0	0.11	J	mg/L	27
024	RMW-22	Aqueous	Bromide	300.0	0.67		mg/L	28
025	RMW-13	Aqueous	Bromide	300.0	0.074	J	mg/L	29

(14 detections)

Client: TRC Companies, Inc.
Description: RMW-05A
Date Sampled: 10/28/2019 1105
Date Received: 11/04/2019

Laboratory ID: UK04055-001
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	11/12/2019 1456	GMH		35513

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	ND		0.20	0.050	mg/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: RMW-01
Date Sampled: 10/28/2019 1425
Date Received: 11/04/2019

Laboratory ID: UK04055-002
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	11/12/2019 1515	GMH		35513

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.24		0.20	0.050	mg/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: RMW-13A
Date Sampled: 10/28/2019 1520
Date Received: 11/04/2019

Laboratory ID: UK04055-003
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	11/12/2019 1534	GMH		35513

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	ND		0.20	0.050	mg/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: RMW-26
Date Sampled: 10/28/2019 1620
Date Received: 11/04/2019

Laboratory ID: UK04055-004
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	11/12/2019 1553	GMH		35513

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.95		0.20	0.050	mg/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: RMW-18
Date Sampled: 10/29/2019 1120
Date Received: 11/04/2019

Laboratory ID: UK04055-005
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	11/12/2019 1612	GMH		35513

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.52		0.20	0.050	mg/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: RMW-10A
Date Sampled: 10/29/2019 1420
Date Received: 11/04/2019

Laboratory ID: UK04055-006
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	11/12/2019 1631	GMH		35513

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	ND		0.20	0.050	mg/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: RMW-10
Date Sampled: 10/29/2019 1540
Date Received: 11/04/2019

Laboratory ID: UK04055-007
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	11/12/2019 1650	GMH		35513

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.32		0.20	0.050	mg/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: RMW-06
Date Sampled: 10/29/2019 1550
Date Received: 11/04/2019

Laboratory ID: UK04055-008
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	11/12/2019 2043	GMH		35513

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.078	J	0.20	0.050	mg/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: RMW-08
Date Sampled: 10/29/2019 1635
Date Received: 11/04/2019

Laboratory ID: UK04055-009
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	11/12/2019 2102	GMH		35513

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.15	J	0.20	0.050	mg/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: RMW-11
Date Sampled: 10/29/2019 1640
Date Received: 11/04/2019

Laboratory ID: UK04055-010
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	11/12/2019 2120	GMH		35513

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.13	J	0.20	0.050	mg/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: RMW-14B
Date Sampled: 10/30/2019 1130
Date Received: 11/04/2019

Laboratory ID: UK04055-011
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	11/12/2019 2139	GMH		35513

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	ND		0.20	0.050	mg/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: RMW-14C
Date Sampled: 10/30/2019 1150
Date Received: 11/04/2019

Laboratory ID: UK04055-012
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	11/12/2019 2158	GMH		35513

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	ND		0.20	0.050	mg/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: RMW-20B
Date Sampled: 10/30/2019 1520
Date Received: 11/04/2019

Laboratory ID: UK04055-013
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	11/12/2019 2217	GMH		35513

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	ND		0.20	0.050	mg/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: RMW-20C
Date Sampled: 10/30/2019 1600
Date Received: 11/04/2019

Laboratory ID: UK04055-014
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	11/12/2019 2236	GMH		35513

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	ND		0.20	0.050	mg/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: RMW-10B
Date Sampled: 10/31/2019 1035
Date Received: 11/04/2019

Laboratory ID: UK04055-015
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	11/12/2019 2255	GMH		35513

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	ND		0.20	0.050	mg/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: RMW-10C
Date Sampled: 10/31/2019 1115
Date Received: 11/04/2019

Laboratory ID: UK04055-016
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	11/12/2019 2314	GMH		35513

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	ND		0.20	0.050	mg/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: RMW-23C
Date Sampled: 10/31/2019 1210
Date Received: 11/04/2019

Laboratory ID: UK04055-017
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	11/12/2019 2333	GMH		35513

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.087	J	0.20	0.050	mg/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: RMW-23B
Date Sampled: 10/31/2019 1215
Date Received: 11/04/2019

Laboratory ID: UK04055-018
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	11/13/2019 0030	GMH		35513

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.089	J	0.20	0.050	mg/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: RMW-23A
Date Sampled: 10/31/2019 1255
Date Received: 11/04/2019

Laboratory ID: UK04055-019
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	11/13/2019 0126	GMH		35513

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.29		0.20	0.050	mg/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: RMW-23
Date Sampled: 10/31/2019 1300
Date Received: 11/04/2019

Laboratory ID: UK04055-020
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	11/13/2019 0242	GMH		35663

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	ND		0.20	0.050	mg/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: RMW-19A
Date Sampled: 11/01/2019 1050
Date Received: 11/04/2019

Laboratory ID: UK04055-021
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	11/13/2019 0301	GMH		35663

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	ND		0.20	0.050	mg/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: RMW-19
Date Sampled: 11/01/2019 1055
Date Received: 11/04/2019

Laboratory ID: UK04055-022
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	11/13/2019 0358	GMH		35663

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.10	J	0.20	0.050	mg/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: RMW-22A
Date Sampled: 11/01/2019 1145
Date Received: 11/04/2019

Laboratory ID: UK04055-023
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	11/13/2019 0417	GMH		35663

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.11	J	0.20	0.050	mg/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: RMW-22
Date Sampled: 11/01/2019 1155
Date Received: 11/04/2019

Laboratory ID: UK04055-024
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	11/13/2019 0436	GMH		35663

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.67		0.20	0.050	mg/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Client: TRC Companies, Inc.
Description: RMW-13
Date Sampled: 11/01/2019 1510
Date Received: 11/04/2019

Laboratory ID: UK04055-025
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	11/13/2019 0454	GMH		35663

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.074	J	0.20	0.050	mg/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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QC Summary

Inorganic non-metals - MB

Sample ID: UQ35513-001
Batch: 35513
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Bromide	ND		1	0.20	0.050	mg/L	11/12/2019 1219

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - LCS

Sample ID: UQ35513-002
Batch: 35513
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Bromide	8.0	8.6		1	108	90-110	11/12/2019 1257

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MS

Sample ID: UK04055-018MS
Batch: 35513
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Bromide	0.089	8.0	8.6		1	106	90-110	11/13/2019 0049

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MSD

Sample ID: UK04055-018MD
Batch: 35513
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Bromide	0.089	8.0	8.6		1	106	0.00	90-110	20	11/13/2019 0107

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MS

Sample ID: UK04055-019MS
Batch: 35513
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Bromide	0.29	8.0	8.9		1	108	90-110	11/13/2019 0145

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MSD

Sample ID: UK04055-019MD
Batch: 35513
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Bromide	0.29	8.0	8.9		1	108	0.00	90-110	20	11/13/2019 0204

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MB

Sample ID: UQ35663-001
Batch: 35663
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Bromide	ND		1	0.20	0.050	mg/L	11/13/2019 0011

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - LCS

Sample ID: UQ35663-002
Batch: 35663
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Bromide	8.0	8.5		1	106	90-110	11/13/2019 0223

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Chain of Custody

and

Miscellaneous Documents

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Chain of Custody Record

Number 099506

Client	Report to Contact	Telephone No. / E-mail	Quote No.
TRC	Lisa Clark		

Address	Sampler's Signature	Analysis (Attach list if more space is needed)
50 International Dr Ste 150		Page 1 of 3

City	State	Zip Code	Printed Name
Greenville	SC	29615	Aharon Missirian

Project Name: WPH Clemson

Project No.: 300688.0.0.10

P.O. No.:

UK04055

LJD

Sample ID / Description (Containers for each sample may be combined on one line.)	Date 2019	Time	G=Grab C=Composite	Matrix: Aqueous	Matrix: Solid / Non-Aqueous	No. of Containers by Preservative Type: Unpres.	HNO3	H2SO4	HCl	NaOH	ZnOAc/NaOH	Bromide	Remarks / Cooler I.D.
RMW-05A	10-28	1105	G	X		1						X	
RMW-01	10-28	1425	G	X		1						X	
RMW-13A	10-28	1520	G	X		1						X	
RMW-26	10-28	1620	G	X		1						X	
RMW-18	10-29	1120	G	X		1						X	
RMW-10A	10-29	1420	G	X		1						X	
RMW-10	10-29	1540	G	X		1						X	
RMW-06	10-29	1550	G	X		1						X	
RMW-08	10-29	1635	G	X		1						X	
RMW-11	10-29	1640	G	X		1						X	

Turn Around Time Required (Prior lab approval required for expedited TAT.)
☐ Standard ☐ Rush (Specify)

Sample Disposal
☐ Return to Client ☐ Disposal by Lab

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished by	11-1-19	1640	1. Received by: TRC sample storage	11-1-19	1640
2. Relinquished by: TRC Sample Storage	11/4/19	0935	2. Received by: Matt DP	11/4/19	0935
3. Relinquished by	Date	Time	3. Received by	Date	Time
4. Relinquished by: Matt DP	11/4/19	1450	4. Laboratory Received by	11/4/19	1450

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on Ice (Circle) Yes No Ice Pack

Receipt Temp: 2.6 °C

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Client Copy

Document Number: F-AD-133 Effective Date: 08-01-2014

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Chain of Custody Record

Number 099505

Client	Report to Contact	Telephone No. / E-mail	Quote No.
TRC	Lisa Clark		
Address: 50 International Dr Ste 150	Sampler's Signature	Analysis (Attach list if more space is needed)	Page 2 of 3
City: Greenville; State: SC; Zip Code: 29615	Printed Name: Aharon Mirvinas		
Project Name: WPA Clemson			UK04055

Project No.	P.O. No.			Matrix			No of Containers by Preservative Type							
Sample ID / Description (Containers for each sample may be combined on one line.)	Date 2019	Time	G=Grab C=Composite	Aqueous	Solid	Non-Aqueous	Oxygen	H2SO4	HNO3	HCl	NaOH	5035 Kit	Bromide	Remarks / Cooler I.D.
RMW-14B	10-30	1130	G	X			1						X	
RMW-14C	10-30	1150	G	X			1						X	
RMW-20B	10-30	1520	G	X			1						X	
RMW-20C	10-30	1600	G	X			1						X	
RMW-10B	10-31	1035	G	X			1						X	
RMW-10C	10-31	1115	G	X			1						X	
RMW-23C	10-31	1210	G	X			1						X	
RMW-23B	10-31	1215	G	X			1						X	
RMW-23A	10-31	1255	G	X			1						X	
RMW-23	10-31	1300	G	X			1						X	

Turn Around Time Required (Prior lab approval required for expedited TAT.) ☐ Standard ☐ Rush (Specify)

Sample Disposal ☐ Return to Client ☐ Disposal by Lab

Possible Hazard Identification ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished by: Aharon Mirvinas	11-1-19	1640	1. Received by: TRC Sample Storage	11-1-19	1640
2. Relinquished by: TRC Sample Storage	11/4/19	0935	2. Received by: Matthew D.	11/4/19	0935
3. Relinquished by	Date	Time	3. Received by	Date	Time
4. Relinquished by: Matthew D.	11/4/19	14:50	4. Laboratory received by: Shawn Jones	11/4/19	1450

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on ice (Circle) Yes No Ice Pack
Receipt Temp: 2.4 °C

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Client Copy

Document Number: F-AD-133 Effective Date: 08-01-2014

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Chain of Custody Record

Number 099504

Client	Report to Contact	Telephone No. / E-mail	Quote No.
TRC	Lisa Clark		

Address	Sampler's Signature	Analysis (Attach list if more space is needed)	Page 3 of 3
50 International Dr Ste 150	x		

City	State	Zip Code	Printed Name
Greenville	SC	29615	Aharon Mirsky

Project Name: WPH Clemson

Project No.: 300688.0.0.10

P.O. No.:

UK04055

UK

Sample ID / Description (Containers for each sample may be combined on one line.)	Date	Time	G=Grab C=Composite	Matrix: Aqueous	Matrix: Solid	Matrix: Non-Aqueous	No of Containers by Preservative Type: Unpres.	H2SO4	HNO3	HCl	NaOH	SAS Kit	Bromide
RMW-19A	11-1	1050	G	x			1						x
RMW-19	11-1	1055	G	x			1						x
RMW-22A	11-1	1145	G	x			1						x
RMW-22	11-1	1155	G	x			1						x
RMW-13	11-1	1510	G	x			1						x
~~RMW-14E AM~~	~~10-30 PM~~	~~1150 AM~~											

Turn Around Time Required (Prior lab approval required for expedited TAT.) ☐ Standard ☐ Rush (Specify)

Sample Disposal ☐ Return to Client ☐ Disposal by Lab

Possible Hazard Identification ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

QC Requirements (Specify)

	Date	Time
1. Relinquished by	11-1-19	1640
2. Relinquished by TRC Sample Storage	11/4/19	0935
3. Relinquished by	Date	Time
4. Relinquished by	11/4/19	1450

	Date	Time
1. Received by TRC sample storage	11-1-19	1640
2. Received by	11/4/19	0935
3. Received by	Date	Time
4. Laboratory received by	11/4/19	1450

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on Ice (Circle) (Yes) No Ice Pack
Receipt Temp. 2.4 °C

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Client Copy

Document Number: F-AD-133 Effective Date: 08-01-2014

Shealy Environmental Services, Inc.
Document Number: ME0018C-14

Page 1 of 1
Effective Date: 8/2/2018

Sample Receipt Checklist (SRC)

Client: TRC Cooler Inspected by/date: BMG / 11/04/19 Lot #: UK04055

Means of receipt: ☑ SESI ☐ Client ☐ UPS ☐ FedEx ☐ Other:

☐ Yes	☑ No		1. Were custody seals present on the cooler?
☐ Yes	☐ No	☑ NA	2. If custody seals were present, were they intact and unbroken?

pH Strip ID: NA Chlorine Strip ID: NA Tested by: NA

Original temperature upon receipt / Derived (Corrected) temperature upon receipt %Solid Snap-Cup ID: NA

2.6 / 2.6 °C NA / NA °C NA / NA °C NA / NA °C

Method: ☑ Temperature Blank ☐ Against Bottles IR Gun ID: 5 IR Gun Correction Factor: 0 °C

Method of coolant: ☑ Wet Ice ☐ Ice Packs ☐ Dry Ice ☐ None

☐ Yes	☐ No	☑ NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).
☐ Yes	☐ No	☑ NA	4. Is the commercial courier's packing slip attached to this form?
☑ Yes	☐ No		5. Were proper custody procedures (relinquished/received) followed?
☑ Yes	☐ No		6. Were sample IDs listed on the COC?
☑ Yes	☐ No		7. Were sample IDs listed on all sample containers?
☑ Yes	☐ No		8. Was collection date & time listed on the COC?
☑ Yes	☐ No		9. Was collection date & time listed on all sample containers?
☑ Yes	☐ No		10. Did all container label information (ID, date, time) agree with the COC?
☑ Yes	☐ No		11. Were tests to be performed listed on the COC?
☑ Yes	☐ No		12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)?
☑ Yes	☐ No		13. Was adequate sample volume available?
☐ Yes	☑ No		14. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
☐ Yes	☑ No		15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
☐ Yes	☐ No	☑ NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (¼"or 6mm in diameter) in any of the VOA vials?
☐ Yes	☐ No	☑ NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?
☐ Yes	☐ No	☑ NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
☐ Yes	☐ No	☑ NA	19. Were all applicable NH_3/TKN/cyanide/phenol/625 (< 0.5mg/L) samples free of residual chlorine?
☐ Yes	☐ No	☑ NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc…) correctly transcribed from the COC into the comment section in LIMS?
☐ Yes	☑ No		21. Was the quote number listed on the container label? If yes, Quote # NA

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) NA were received incorrectly preserved and were adjusted accordingly in sample receiving with NA mL of circle one: H2SO4, HNO3, HCl, NaOH using SR # NA.
Time of preservation NA. If more than one preservative is needed, please note in the comments below.

Sample(s) NA were received with bubbles >6 mm in diameter.

Samples(s) NA were received with TRC > 0.5 mg/L (If #19 is ***no***) and were adjusted accordingly in sample receiving with sodium thiosulfate ($Na_2S_2O_3$) with Shealy ID: NA.

SR barcode labels applied by: BMG Date: 11/04/19

Comments:

SHEALY ENVIRONMENTAL SERVICES, INC.

Report of Analysis

TRC Companies, Inc.
50 International Dr.
Suite 150
Greenville, SC 29615
Attention: Terry Hertz

Project Name: WPH Clemson

Project Number: 300688.0000.0000.0002

Lot Number:**UK11025**

Date Completed:11/20/2019

Project Manager:**Lucas Odom**

11/21/2019 10:14 AM
Approved and released by:
Project Manager: Kelly M. Nance

The electronic signature above is the equivalent of a handwritten signature.

Shealy Environmental Services, Inc.
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Case Narrative
TRC Companies, Inc.
Lot Number: UK11025

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

Sample Summary
TRC Companies, Inc.
Lot Number: UK11025

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	Injectate 2019	Aqueous	10/25/2019 1000	11/11/2019

(1 sample)

Detection Summary

TRC Companies, Inc.

Lot Number: UK11025

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page

(0 detections)

Inorganic non-metals

Client: TRC Companies, Inc.
Laboratory ID: UK11025-001
Description: Injectate 2019
Matrix: Aqueous
Date Sampled: 10/25/2019 1000
Date Received: 11/11/2019

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	11/20/2019 0005	GMH		36357

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	ND		0.20	0.050	mg/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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QC Summary

Inorganic non-metals - MB

Sample ID: UQ36357-001
Batch: 36357
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Bromide	ND		1	0.20	0.050	mg/L	11/19/2019 1716

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - LCS

Sample ID: UQ36357-002
Batch: 36357
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Bromide	8.0	8.6		1	108	90-110	11/19/2019 1754

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Chain of Custody

and

Miscellaneous Documents

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SHEALY Chain of Custody Record

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106 Vantage Point Drive • West Columbia, SC 29172
Telephone No. 803-791-9700 Fax No. 803-791-9111
www.shealylab.com

Number 097683

Client: TRC	Report to Contact: Terry Hertz	Telephone No. / E-mail: 864-404-8548 / THertz@TRCcompanies.com	Quote No.
Address: 50 International Drive Suite 150	Sampler's Signature: x TERRY HERTZ	Analysis (Attach list if more space is needed)	Page 1 of 1
City: Greenville	State: SC Zip Code: 29615	Printed Name: Terry Hertz	
Project Name: WPH Clemson			
Project No.: 300688.0000.0000 P10	P.O. No.		

Sample ID / Description (Containers for each sample may be combined on one line.)	Date	Time	Grab/Composite	Matrix: Aqueous	Matrix: Solid	Matrix: Non-Aqueous	No. of Containers by Preservative Type: Unpres.	H2SO4	HNO3	HCl	NaOH	S2O3 NA	Bromide	Remarks / Cooler I.D.
Injectate 2019	10/25/2019	10:00	G	X			3						X	Provide Method 300 Chromatograms
														REPORT SEPERATELY, DILUTE AS NECESSARY TO GET ALL PEAKS ON SCALE EVEN IF NOT A TARGET ANALYTE

UK11025
LID

Turn Around Time Required (Prior lab approval required for expedited TAT.): X Standard ☐ Rush (Specify)

Sample Disposal: ☐ Return to Client X Disposal by Lab

Possible Hazard Identification: X Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

QC Requirements (Specify): Level 2

	Relinquished by	Date	Time	Received by	Date	Time
1.	Terry Hertz	10/25/19	10:10		10.25.19	1010
2.		11-8-19	1534	TRC Sample Storage	11-8-19	1534
3.	TRC Sample Storage	11/11/19	1100		11/11/19	1100
4.	Matt DP	11/11/19	1510	Lab	11/11/19	1510

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on ice (Circle) Yes No Ice Pack
Receipt Temp. 3.0 °C

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Client Copy

Document Number: F-AD-133 Effective Date: 08-01-2014

Shealy Environmental Services, Inc.
Document Number: ME0018C-14

Page 1 of 1
Effective Date: 8/2/2018

Sample Receipt Checklist (SRC)

Client: TRC Cooler Inspected by/date: JSH / 11/11/19 Lot #: UK11025

Means of receipt: ☑ SESI ☐ Client ☐ UPS ☐ FedEx ☐ Other: _____

☐ Yes	☑ No		1. Were custody seals present on the cooler?
☐ Yes	☐ No	☑ NA	2. If custody seals were present, were they intact and unbroken?

pH Strip ID: NA Chlorine Strip ID: NA Tested by: NA

Original temperature upon receipt / Derived (Corrected) temperature upon receipt %Solid Snap-Cup ID: NA

3.0 / 3.0 °C NA / NA °C NA / NA °C NA / NA °C

Method: ☑ Temperature Blank ☐ Against Bottles IR Gun ID: 5 IR Gun Correction Factor: 0 °C

Method of coolant: ☑ Wet Ice ☐ Ice Packs ☐ Dry Ice ☐ None

☐ Yes	☐ No	☑ NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).
☐ Yes	☐ No	☑ NA	4. Is the commercial courier's packing slip attached to this form?
☑ Yes	☐ No		5. Were proper custody procedures (relinquished/received) followed?
☑ Yes	☐ No		6. Were sample IDs listed on the COC?
☑ Yes	☐ No		7. Were sample IDs listed on all sample containers?
☑ Yes	☐ No		8. Was collection date & time listed on the COC?
☑ Yes	☐ No		9. Was collection date & time listed on all sample containers?
☑ Yes	☐ No		10. Did all container label information (ID, date, time) agree with the COC?
☑ Yes	☐ No		11. Were tests to be performed listed on the COC?
☑ Yes	☐ No		12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)? _____
☑ Yes	☐ No		13. Was adequate sample volume available?
☐ Yes	☑ No		14. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
☐ Yes	☑ No		15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
☐ Yes	☐ No	☑ NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (¼"or 6mm in diameter) in any of the VOA vials?
☐ Yes	☐ No	☑ NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?
☐ Yes	☐ No	☑ NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
☐ Yes	☐ No	☑ NA	19. Were all applicable NH_3/TKN/cyanide/phenol/625 (< 0.5mg/L) samples free of residual chlorine?
☑ Yes	☐ No	☐ NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc…) correctly transcribed from the COC into the comment section in LIMS?
☑ Yes	☐ No		21. Was the quote number listed on the container label? If yes, Quote # 21491

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) NA were received incorrectly preserved and were adjusted accordingly in sample receiving with NA mL of circle one: H_2SO_4, HNO_3, HCl, NaOH using SR # NA.
Time of preservation NA. If more than one preservative is needed, please note in the comments below.

Sample(s) NA were received with bubbles >6 mm in diameter.

Samples(s) NA were received with TRC > 0.5 mg/L (If #19 is ***no***) and were adjusted accordingly in sample receiving with sodium thiosulfate ($Na_2S_2O_3$) with Shealy ID: NA .

SR barcode labels applied by: JSH Date: 11/11/19

Comments:

SHEALY ENVIRONMENTAL SERVICES, INC.

Report of Analysis

TRC Companies, Inc.
50 International Dr.
Suite 150
Greenville, SC 29615
Attention: Lisa Clark

Project Name: WPH Clemson

Project Number: 300688.0000.0000.0002

Lot Number:**UK11024**

Date Completed:11/20/2019

Project Manager:**Lucas Odom**

11/21/2019 10:13 AM
Approved and released by:
Project Manager: Kelly M. Nance

The electronic signature above is the equivalent of a handwritten signature.

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Laboratory Data Quality Review Notes

Project Name: WPH-Clemson, SC

Project Number: 300688.0000.0000.000010

Lab Report: UK11024 Shealy Environmental Services
Nineteen groundwater samples were analyzed for bromide.

Chain of Custody, Sample Temperature, Sample Preservation: Chains of custody (CoCs) signed; sample temperature <6 ^{o}C upon arrival at the laboratory; samples were preserved properly.

Hold Time: Samples analyzed within hold time.

Surrogates: Surrogate recoveries are not relevant to bromide analyses.

Method Blank: Method blanks did not have bromide detections.

Trip Blank: A trip blank was not collected with these samples.

Field Blank: A field blank was not collected with these samples.

Equipment Rinse Blank: A rinsate blank was not collected with these samples.

LCS/LCSD: LCS recoveries for bromide were within QC Limits. LCSD analyses were not performed.

MS/MSD: RMW-09, RMW-08A, and RMW-27B were used for bromide MS/MSD analyses. Bromide MS and MSD recoveries and RPDs were within QC limits except as follows:

- The RMW-08A bromide MS recovery was within the QC limits, but the corresponding MSD recovery was 1% above the upper QC limit. No qualifier was assigned.

Duplicates: A field duplicate was not collected with these samples.

No qualifiers were assigned.

Data review performed by: Terry Hertz; TRC Environmental Corp.; 11/25/2019

Case Narrative
TRC Companies, Inc.
Lot Number: UK11024

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Shealy Environmental Services, Inc. ("Shealy") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Shealy policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Shealy Project Manager listed on the cover page.

Inorganic non-metals
The matrix spike duplicate (MSD) associated with sample -009 had bromide recovered outside of the acceptance limits. The laboratory control sample (LCS) was recovered within the required acceptance limits; therefore, this likely demonstrates a matrix effect.

Sample Summary
TRC Companies, Inc.
Lot Number: UK11024

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	RMW-20	Aqueous	11/04/2019 1105	11/11/2019
002	RMW-14	Aqueous	11/04/2019 1125	11/11/2019
003	RMW-07	Aqueous	11/04/2019 1145	11/11/2019
004	RMW-09	Aqueous	11/04/2019 1200	11/11/2019
005	RMW-14A	Aqueous	11/04/2019 1350	11/11/2019
006	RMW-21	Aqueous	11/04/2019 1355	11/11/2019
007	RMW-28A	Aqueous	11/06/2019 1130	11/11/2019
008	RMW-28B	Aqueous	11/06/2019 1150	11/11/2019
009	RMW-08A	Aqueous	11/06/2019 1405	11/11/2019
010	RMW-06A	Aqueous	11/06/2019 1420	11/11/2019
011	RMW-05B	Aqueous	11/06/2019 1450	11/11/2019
012	RMW-20A	Aqueous	11/06/2019 1455	11/11/2019
013	RMW-27	Aqueous	11/07/2019 1020	11/11/2019
014	RMW-27A	Aqueous	11/07/2019 1025	11/11/2019
015	RMW-27B	Aqueous	11/07/2019 1105	11/11/2019
016	RMW-02	Aqueous	11/07/2019 1145	11/11/2019
017	RMW-18A	Aqueous	11/08/2019 1020	11/11/2019
018	RMW-21A	Aqueous	11/08/2019 1055	11/11/2019
019	RMW-24	Aqueous	11/08/2019 1315	11/11/2019

(19 samples)

Detection Summary

TRC Companies, Inc.

Lot Number: UK11024

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	RMW-20	Aqueous	Bromide	300.0	0.22		mg/L	5
002	RMW-14	Aqueous	Bromide	300.0	0.10	J	mg/L	6
003	RMW-07	Aqueous	Bromide	300.0	0.31		mg/L	7
004	RMW-09	Aqueous	Bromide	300.0	0.15	J	mg/L	8
006	RMW-21	Aqueous	Bromide	300.0	0.18	J	mg/L	10
007	RMW-28A	Aqueous	Bromide	300.0	0.099	J	mg/L	11
009	RMW-08A	Aqueous	Bromide	300.0	0.66		mg/L	13
012	RMW-20A	Aqueous	Bromide	300.0	0.060	J	mg/L	16
013	RMW-27	Aqueous	Bromide	300.0	0.72		mg/L	17
016	RMW-02	Aqueous	Bromide	300.0	0.86		mg/L	20
017	RMW-18A	Aqueous	Bromide	300.0	1.3		mg/L	21
018	RMW-21A	Aqueous	Bromide	300.0	0.55		mg/L	22
019	RMW-24	Aqueous	Bromide	300.0	0.45		mg/L	23

(13 detections)

Inorganic non-metals

Client: TRC Companies, Inc.
Laboratory ID: UK11024-001
Description: RMW-20
Matrix: Aqueous
Date Sampled: 11/04/2019 1105
Date Received: 11/11/2019

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	11/19/2019 0815	HKL		36290

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.22		0.20	0.050	mg/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Inorganic non-metals

Client: TRC Companies, Inc.
Laboratory ID: UK11024-002
Description: RMW-14
Matrix: Aqueous
Date Sampled: 11/04/2019 1125
Date Received: 11/11/2019

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	11/19/2019 0911	HKL		36290

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.10	J	0.20	0.050	mg/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Inorganic non-metals

Client: TRC Companies, Inc.
Laboratory ID: UK11024-003
Description: RMW-07
Matrix: Aqueous
Date Sampled: 11/04/2019 1145
Date Received: 11/11/2019

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	11/19/2019 0930	HKL		36290

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.31		0.20	0.050	mg/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Inorganic non-metals

Client: TRC Companies, Inc.
Laboratory ID: UK11024-004
Description: RMW-09
Matrix: Aqueous
Date Sampled: 11/04/2019 1200
Date Received: 11/11/2019

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	11/19/2019 0949	HKL		36290

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.15	J	0.20	0.050	mg/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Inorganic non-metals

Client: TRC Companies, Inc.
Laboratory ID: UK11024-005
Description: RMW-14A
Matrix: Aqueous
Date Sampled: 11/04/2019 1350
Date Received: 11/11/2019

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	11/18/2019 2132	HKL		36195

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	ND		0.20	0.050	mg/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Inorganic non-metals

Client: TRC Companies, Inc.
Laboratory ID: UK11024-006
Description: RMW-21
Matrix: Aqueous
Date Sampled: 11/04/2019 1355
Date Received: 11/11/2019

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	11/18/2019 2153	HKL		36195

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.18	J	0.20	0.050	mg/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Inorganic non-metals

Client: TRC Companies, Inc.
Laboratory ID: UK11024-007
Description: RMW-28A
Matrix: Aqueous
Date Sampled: 11/06/2019 1130
Date Received: 11/11/2019

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	11/18/2019 2215	HKL		36195

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.099	J	0.20	0.050	mg/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Inorganic non-metals

Client: TRC Companies, Inc.
Laboratory ID: UK11024-008
Description: RMW-28B
Matrix: Aqueous
Date Sampled: 11/06/2019 1150
Date Received: 11/11/2019

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	11/18/2019 2236	HKL		36195

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	ND		0.20	0.050	mg/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Inorganic non-metals

Client: TRC Companies, Inc.
Laboratory ID: UK11024-009
Description: RMW-08A
Matrix: Aqueous
Date Sampled: 11/06/2019 1405
Date Received: 11/11/2019

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	11/19/2019 1844	GMH		36357

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.66		0.20	0.050	mg/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Inorganic non-metals

Client: TRC Companies, Inc.
Laboratory ID: UK11024-010
Description: RMW-06A
Matrix: Aqueous
Date Sampled: 11/06/2019 1420
Date Received: 11/11/2019

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	11/19/2019 1940	GMH		36357

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	ND		0.20	0.050	mg/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Inorganic non-metals

Client: TRC Companies, Inc.
Laboratory ID: UK11024-011
Description: RMW-05B
Matrix: Aqueous
Date Sampled: 11/06/2019 1450
Date Received: 11/11/2019

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	11/19/2019 1959	GMH		36357

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	ND		0.20	0.050	mg/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Inorganic non-metals

Client: TRC Companies, Inc.
Laboratory ID: UK11024-012
Description: RMW-20A
Matrix: Aqueous
Date Sampled: 11/06/2019 1455
Date Received: 11/11/2019

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	11/19/2019 2018	GMH		36357

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.060	J	0.20	0.050	mg/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Inorganic non-metals

Client: TRC Companies, Inc.
Laboratory ID: UK11024-013
Description: RMW-27
Matrix: Aqueous
Date Sampled: 11/07/2019 1020
Date Received: 11/11/2019

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	11/19/2019 2037	GMH		36357

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.72		0.20	0.050	mg/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Inorganic non-metals

Client: TRC Companies, Inc.
Laboratory ID: UK11024-014
Description: RMW-27A
Matrix: Aqueous
Date Sampled: 11/07/2019 1025
Date Received: 11/11/2019

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	11/19/2019 2056	GMH		36357

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	ND		0.20	0.050	mg/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Inorganic non-metals

Client: TRC Companies, Inc.
Laboratory ID: UK11024-015
Description: RMW-27B
Matrix: Aqueous
Date Sampled: 11/07/2019 1105
Date Received: 11/11/2019

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	11/19/2019 2153	GMH		36357

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	ND		0.20	0.050	mg/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Inorganic non-metals

Client: TRC Companies, Inc.
Laboratory ID: UK11024-016
Description: RMW-02
Matrix: Aqueous
Date Sampled: 11/07/2019 1145
Date Received: 11/11/2019

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	11/19/2019 2249	GMH		36357

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.86		0.20	0.050	mg/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Inorganic non-metals

Client: TRC Companies, Inc.
Laboratory ID: UK11024-017
Description: RMW-18A
Matrix: Aqueous
Date Sampled: 11/08/2019 1020
Date Received: 11/11/2019

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	11/19/2019 2308	GMH		36357

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	1.3		0.20	0.050	mg/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Inorganic non-metals

Client: TRC Companies, Inc.
Laboratory ID: UK11024-018
Description: RMW-21A
Matrix: Aqueous
Date Sampled: 11/08/2019 1055
Date Received: 11/11/2019

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	11/19/2019 2327	GMH		36357

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.55		0.20	0.050	mg/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Inorganic non-metals

Client: TRC Companies, Inc.
Laboratory ID: UK11024-019
Description: RMW-24
Matrix: Aqueous
Date Sampled: 11/08/2019 1315
Date Received: 11/11/2019

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	11/19/2019 2346	GMH		36357

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.45		0.20	0.050	mg/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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QC Summary

Inorganic non-metals - MB

Sample ID: UQ36195-001
Batch: 36195
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Bromide	ND		1	0.20	0.050	mg/L	11/18/2019 1202

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - LCS

Sample ID: UQ36195-002
Batch: 36195
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Bromide	8.0	8.4		1	105	90-110	11/18/2019 1244

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MB

Sample ID: UQ36290-001
Batch: 36290
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Bromide	ND		1	0.20	0.050	mg/L	11/19/2019 0118

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - LCS

Sample ID: UQ36290-002
Batch: 36290
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Bromide	8.0	8.6		1	108	90-110	11/19/2019 0137

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Sample ID: UK11024-004MS
Batch: 36290
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Bromide	0.15	8.0	8.4		1	103	90-110	11/19/2019 1008

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: UK11024-004MD
Matrix: Aqueous
Batch: 36290
Analytical Method: 300.0

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Bromide	0.15	8.0	8.5		1	104	1.2	90-110	20	11/19/2019 1027

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MB

Sample ID: UQ36357-001
Batch: 36357
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Bromide	ND		1	0.20	0.050	mg/L	11/19/2019 1716

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Shealy Environmental Services, Inc.
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Inorganic non-metals - LCS

Sample ID: UQ36357-002
Batch: 36357
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Bromide	8.0	8.6		1	108	90-110	11/19/2019 1754

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MS

Sample ID: UK11024-009MS
Batch: 36357
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Bromide	0.66	8.0	9.3		1	108	90-110	11/19/2019 1903

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MSD

Sample ID: UK11024-009MD
Batch: 36357
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Bromide	0.66	8.0	9.5	N	1	111	2.1	90-110	20	11/19/2019 1922

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MS

Sample ID: UK11024-015MS
Batch: 36357
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Bromide	ND	8.0	8.6		1	108	90-110	11/19/2019 2211

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MSD

Sample ID: UK11024-015MD
Batch: 36357
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Bromide	ND	8.0	8.5		1	106	1.2	90-110	20	11/19/2019 2230

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Shealy Environmental Services, Inc.
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Chain of Custody

and

Miscellaneous Documents

Shealy Environmental Services, Inc.
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SHEALY ENVIRONMENTAL SERVICES, INC.

SHEALY **Chain of Custody Record**

SHEALY ENVIRONMENTAL SERVICES, INC.
106 Vantage Point Drive • West Columbia, SC 29172
Telephone No. 803-791-9700 Fax No. 803-791-9111
www.shealylab.com

Number 099503

Client	Report to Contact	Telephone No. / E-mail	Quote No.
TRC	Lisa Clark		

Address	Sampler's Signature	Analysis (Attach list if more space is needed)
50 International Dr Ste 150		Page 1 of 2

City	State	Zip Code	Printed Name
Greenville	SC	29615	Aharon Misiunas

Project Name: WPH Clemson

Project No.: 300688.0.010

P.O. No.:

UK11024

LID

Sample ID / Description (Containers for each sample may be combined on one line.)	Date 2019	Time	Grab/Composite	Matrix: Aqueous	Matrix: Solid	Matrix: Non-Aqueous	No of Containers by Preservative Type: Unpres.	HNO3	H2SO4	HCl	NaOH	ZnAc/NaOH	Analysis: Bromide
RMW-20	11.4	1105	G	X			1						X
RMW-14	11.4	1125	G	X			1						X
RMW-01	11.4	1145	G	X			1						X
RMW-09	11.4	1200	G	X			1						X
RMW-14A	11.4	1350	G	X			1						X
RMW-28	11.4	1355	G	X			1						X
RMW-28A	11.6	1130	G	X			1						X
RMW-28B	11.6	1150	G	X			1						X
RMW-08A	11.6	1405	G	X			1						X
RMW-06A	11.6	1420	G	X			1						X

Turn Around Time Required (Prior lab approval required for expedited TAT.)
☐ Standard ☐ Rush (Specify)

Sample Disposal
☐ Return to Client ☐ Disposal by Lab

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

QC Requirements (Specify)

	Date	Time
1. Relinquished by:	11-8-19	1537
2. Relinquished by: TRC Sample Storage	11/11/19	1100
3. Relinquished by:		
4. Relinquished by:	11/11/19	1510

	Date	Time
1. Received by: TRC Sample Storage	11-8-19	1537
2. Received by:	11/11/19	1100
3. Received by:		
4. Laboratory received by:	11/11/19	1510

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on Ice (Circle) Yes No Ice Pack

Receipt Temp. 3.0 °C

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Client Copy

Document Number: F-AD-133 Effective Date: 02-01-2014

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Telephone No. 803-791-9700 Fax No. 803-791-9111
www.shealylab.com

Chain of Custody Record

Number 92121

Client	Report to Contact	Telephone No. / E-mail	Quote No.
TRC	Lisa Clark		

Address	Sampler's Signature	Analysis (Attach list if more space is needed)	Page 2 of 2
50 International Dr STE 150	x		

City	State	Zip Code	Printed Name
Greenville	SC	29615	Aharon Misivnas

Project Name	Project No.	P.O. No.
WPA Clemson	300698.0.0.10	

UK11024
LJO

Sample ID / Description (Containers for each sample may be combined on one line.)	Date 2019	Time	Grab/Composite	Matrix: Aqueous	Soil	Non-Aqueous	No of Containers by Preservative Type: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnOAc/NaOH	Bromide
RMW-05B	11.6	1450	G	X			1						X
RMW-20A	11.6	1455	G	X			1						X
RMW-27	11.7	1020	G	X			1						X
RMW-27A	11.7	1025	G	X			1						X
RMW-27B	11.7	1105	G	X			1						X
RMW-02	11.7	1145	G	X			1						X
RMW-18A	11.8	1030	G	X			1						X
RMW-21A	11.8	1055	G	X			1						X
RMW-24	11.8	1315	G	X			1						X

Turn Around Time Required (Prior lab approval required for expedited TAT.) ☐ Standard ☐ Rush (Specify)

Sample Disposal ☐ Return to Client ☐ Disposal by Lab

Possible Hazard Identification ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished by	11.8.19	1537	1. Received by TRC Sample Storage	11.8.19	1537
2. Relinquished by TRC Sample Storage	11/11/19	1100	2. Received by	11/11/19	1100
3. Relinquished by	Date	Time	3. Received by	Date	Time
4. Relinquished by	11/11/19	1510	4. Laboratory received by	11/11/19	1510

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on Ice (Circle) Yes No Ice Pack

Receipt Temp 3.0 °C

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Client Copy

Document Number: F-AD-138 Effective Date: 08-01-2014

SHEALY ENVIRONMENTAL SERVICES, INC.

Shealy Environmental Services, Inc.
Document Number: ME0018C-14

Page 1 of 1
Effective Date: 8/2/2018

Sample Receipt Checklist (SRC)

Client: TRC Cooler Inspected by/date: JSH / 11/11/19 Lot #: UK11024

Means of receipt: ☑ SESI ☐ Client ☐ UPS ☐ FedEx ☐ Other: _____

☐ Yes	☑ No		1. Were custody seals present on the cooler?
☐ Yes	☐ No	☑ NA	2. If custody seals were present, were they intact and unbroken?

pH Strip ID: NA Chlorine Strip ID: NA Tested by: NA

Original temperature upon receipt / Derived (Corrected) temperature upon receipt %Solid Snap-Cup ID: NA

3.0 / 3.0 °C NA / NA °C NA / NA °C NA / NA °C

Method: ☑ Temperature Blank ☐ Against Bottles IR Gun ID: 5 IR Gun Correction Factor: 0 °C

Method of coolant: ☑ Wet Ice ☐ Ice Packs ☐ Dry Ice ☐ None

☐ Yes	☐ No	☑ NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).
☐ Yes	☐ No	☑ NA	4. Is the commercial courier's packing slip attached to this form?
☑ Yes	☐ No		5. Were proper custody procedures (relinquished/received) followed?
☑ Yes	☐ No		6. Were sample IDs listed on the COC?
☑ Yes	☐ No		7. Were sample IDs listed on all sample containers?
☑ Yes	☐ No		8. Was collection date & time listed on the COC?
☑ Yes	☐ No		9. Was collection date & time listed on all sample containers?
☑ Yes	☐ No		10. Did all container label information (ID, date, time) agree with the COC?
☑ Yes	☐ No		11. Were tests to be performed listed on the COC?
☑ Yes	☐ No		12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)? _____
☑ Yes	☐ No		13. Was adequate sample volume available?
☐ Yes	☑ No		14. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
☐ Yes	☑ No		15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
☐ Yes	☐ No	☑ NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (¼"or 6mm in diameter) in any of the VOA vials?
☐ Yes	☐ No	☑ NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?
☐ Yes	☐ No	☑ NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
☐ Yes	☐ No	☑ NA	19. Were all applicable NH_3/TKN/cyanide/phenol/625 (< 0.5mg/L) samples free of residual chlorine?
☐ Yes	☐ No	☑ NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc…) correctly transcribed from the COC into the comment section in LIMS?
☑ Yes	☐ No		21. Was the quote number listed on the container label? If yes, Quote # 21491

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) NA _____ were received incorrectly preserved and were adjusted accordingly in sample receiving with NA mL of circle one: H2SO4, HNO3, HCl, NaOH using SR # NA.

Time of preservation NA. If more than one preservative is needed, please note in the comments below.

Sample(s) NA _____ were received with bubbles >6 mm in diameter.

Samples(s) NA _____ were received with TRC > 0.5 mg/L (If #19 is *no*) and were adjusted accordingly in sample receiving with sodium thiosulfate ($Na_2S_2O_3$) with Shealy ID: NA.

SR barcode labels applied by: JSH Date: 11/11/19

Comments:

Report of Analysis

TRC Companies, Inc.
50 International Dr.
Suite 150
Greenville, SC 29615
Attention: Lisa Clark

Project Name: WPH Clemson

Project Number: 300688.0000.0000.00011

Lot Number:**VC10049**

Date Completed:03/18/2020

03/24/2020 10:52 AM
Approved and released by:
Lab Director - Greenville: **Lucas Odom**

The electronic signature above is the equivalent of a handwritten signature.

Pace Analytical Services, LLC (*formerly Shealy Environmental Services, Inc.*)
106 Vantage Point Drive West Columbia, SC 29172
Tel: 803-791-9700 Fax: 803-791-9111 www.pacelabs.com

Laboratory Data Quality Review Notes

Project Name: WPH-Clemson, SC

Project Number: 300688.0000.0000.000011

Lab Report: **VC10049** Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.); West Columbia, SC; subcontracted job: **33215**

Samples and Analyses: Three groundwater samples, collected 09-Mar-2020 and analyzed for VOCs, chloride, bromide, sulfate, and nitrate; one trip blank, analyzed for VOCs only

Chain of Custody, Sample Temperature, Sample Preservation: Chain of custody was signed; sample temperature was <6 ^{o}C upon arrival at the laboratory; samples were preserved properly.

Hold Time: Samples were analyzed within acceptable hold time.

Surrogates: VOC surrogate recoveries are within QC limits.

Method Blank: No target analytes were detected in the laboratory method blanks.

Trip Blank: No target analytes were detected in the trip blank; analyzed for VOCs only.

Field Blank: A field blank was not collected with these samples.

Equipment Rinse Blank: A rinsate blank was not collected with these samples.

LCS/LCSD: LCS recoveries for all analyses are within QC limits. LCSD analyses were not performed.

MS/MSD: MS/MSD analyses were performed for bromide, chloride, sulfate, and VOCs using sample RMW-23B. MS and MSD recoveries and MS/MSD RPDs are within QC limits.

Duplicates: A field duplicate was not collected with these samples. No laboratory duplicate analyses were included.

Dilutions: Non-detect (ND) results were reported at elevated DLs and LOQs due to dilution (5×) in the VOCs analysis for sample RMW-23B. No other dilutions were associated with ND results.

No data qualifiers were assigned in this review.

Data reviewer: Amy Bass; TRC Environmental Corporation; 24-Mar-2020

Case Narrative
TRC Companies, Inc.
Lot Number: VC10049

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Pace Analytical Services, LLC ("Pace") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Pace policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Pace Project Manager listed on the cover page.

Dissolved Gasses

The analysis for Dissolved Gasses has been submitted to Pace Energy for analysis. This data is found on Pace workorder 33215.

Sample Summary
TRC Companies, Inc.
Lot Number: VC10049

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	TBLK-20101	Aqueous	03/09/2020	03/10/2020
002	RMW-11	Aqueous	03/09/2020 1210	03/10/2020
003	RMW-23	Aqueous	03/09/2020 1615	03/10/2020
004	RMW-23B	Aqueous	03/09/2020 1700	03/10/2020

(4 samples)

Detection Summary

TRC Companies, Inc.

Lot Number: VC10049

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
002	RMW-11	Aqueous	Bromide	300.0	0.14	J	mg/L	7
002	RMW-11	Aqueous	Chloride	300.0	7.4		mg/L	7
002	RMW-11	Aqueous	Nitrate - N	353.2	5.3		mg/L	7
002	RMW-11	Aqueous	Sulfate	300.0	100		mg/L	7
002	RMW-11	Aqueous	Chloroform	8260D	2.0		ug/L	8
002	RMW-11	Aqueous	1,2-Dichloroethane	8260D	0.79	J	ug/L	8
002	RMW-11	Aqueous	Tetrachloroethene	8260D	91		ug/L	8
003	RMW-23	Aqueous	Bromide	300.0	0.12	J	mg/L	10
003	RMW-23	Aqueous	Chloride	300.0	5.6		mg/L	10
003	RMW-23	Aqueous	Nitrate - N	353.2	0.063		mg/L	10
003	RMW-23	Aqueous	Sulfate	300.0	50		mg/L	10
003	RMW-23	Aqueous	cis-1,2-Dichloroethene	8260D	9.3		ug/L	11
003	RMW-23	Aqueous	Methyl acetate	8260D	0.52	J	ug/L	11
003	RMW-23	Aqueous	Tetrachloroethene	8260D	17		ug/L	11
003	RMW-23	Aqueous	Trichloroethene	8260D	2.4		ug/L	12
004	RMW-23B	Aqueous	Bromide	300.0	0.11	J	mg/L	13
004	RMW-23B	Aqueous	Chloride	300.0	7.6		mg/L	13
004	RMW-23B	Aqueous	Nitrate - N	353.2	0.66		mg/L	13
004	RMW-23B	Aqueous	cis-1,2-Dichloroethene	8260D	660		ug/L	14
004	RMW-23B	Aqueous	trans-1,2-Dichloroethene	8260D	2.1	J	ug/L	14
004	RMW-23B	Aqueous	Tetrachloroethene	8260D	56		ug/L	14

(21 detections)

Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC10049-001
Description: TBLK-20101
Matrix: Aqueous
Date Sampled: 03/09/2020
Date Received: 03/10/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/11/2020 2114	ALR1		47601

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	ND		1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and >_DL
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC10049-001
Description: TBLK-20101
Matrix: Aqueous
Date Sampled: 03/09/2020
Date Received: 03/10/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/11/2020 2114	ALR1		47601

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Trichloroethene	79-01-6	8260D	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		100	70-130
1,2-Dichloroethane-d4		98	70-130
Toluene-d8		103	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
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Inorganic non-metals

Client: TRC Companies, Inc.
Laboratory ID: VC10049-002
Description: RMW-11
Matrix: Aqueous
Date Sampled: 03/09/2020 1210
Date Received: 03/10/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	03/17/2020 1837	AMR		48212
1		(Chloride) 300.0	1	03/17/2020 1837	AMR		48211
1		(Nitrate - N) 353.2	5	03/11/2020 1044	MSG		47460
1		(Sulfate) 300.0	1	03/17/2020 1837	AMR		48201

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.14	J	0.20	0.050	mg/L	1
Chloride		300.0	7.4		1.0	0.20	mg/L	1
Nitrate - N		353.2	5.3		0.10	0.050	mg/L	1
Sulfate		300.0	100		1.0	0.20	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC10049-002
Description: RMW-11
Matrix: Aqueous
Date Sampled: 03/09/2020 1210
Date Received: 03/10/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/12/2020 0305	ALR1		47601

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	2.0		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	0.79	J	1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	91		1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
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E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and >_DL
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W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC10049-002
Description: RMW-11
Matrix: Aqueous
Date Sampled: 03/09/2020 1210
Date Received: 03/10/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/12/2020 0305	ALR1		47601

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Trichloroethene	79-01-6	8260D	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		103	70-130
1,2-Dichloroethane-d4		104	70-130
Toluene-d8		106	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and >_DL
H = Out of holding time
W = Reported on wet weight basis

Inorganic non-metals

Client: TRC Companies, Inc.
Laboratory ID: VC10049-003
Description: RMW-23
Matrix: Aqueous
Date Sampled: 03/09/2020 1615
Date Received: 03/10/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	03/17/2020 1856	AMR		48212
1		(Chloride) 300.0	1	03/17/2020 1856	AMR		48211
1		(Nitrate - N) 353.2	1	03/11/2020 1045	MSG		47460
1		(Sulfate) 300.0	1	03/17/2020 1856	AMR		48201

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.12	J	0.20	0.050	mg/L	1
Chloride		300.0	5.6		1.0	0.20	mg/L	1
Nitrate - N		353.2	0.063		0.020	0.010	mg/L	1
Sulfate		300.0	50		1.0	0.20	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and >_DL
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC10049-003
Description: RMW-23
Matrix: Aqueous
Date Sampled: 03/09/2020 1615
Date Received: 03/10/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/12/2020 0328	ALR1		47601

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	9.3		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	0.52	J	1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	17		1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and >_DL

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC10049-003
Description: RMW-23
Matrix: Aqueous
Date Sampled: 03/09/2020 1615
Date Received: 03/10/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/12/2020 0328	ALR1		47601

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Trichloroethene	79-01-6	8260D	2.4		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		104	70-130
1,2-Dichloroethane-d4		106	70-130
Toluene-d8		105	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and >_DL
H = Out of holding time
W = Reported on wet weight basis

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Inorganic non-metals

Client: TRC Companies, Inc.
Laboratory ID: VC10049-004
Description: RMW-23B
Matrix: Aqueous
Date Sampled: 03/09/2020 1700
Date Received: 03/10/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	03/17/2020 1915	AMR		48212
1		(Chloride) 300.0	1	03/17/2020 1915	AMR		48211
1		(Nitrate - N) 353.2	1	03/11/2020 1047	MSG		47460
1		(Sulfate) 300.0	1	03/17/2020 1915	AMR		48201

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.11	J	0.20	0.050	mg/L	1
Chloride		300.0	7.6		1.0	0.20	mg/L	1
Nitrate - N		353.2	0.66		0.020	0.010	mg/L	1
Sulfate		300.0	ND		1.0	0.20	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and >_DL
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC10049-004
Description: RMW-23B
Matrix: Aqueous
Date Sampled: 03/09/2020 1700
Date Received: 03/10/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	5	03/12/2020 0351	ALR1		47601

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		100	25	ug/L	1
Benzene	71-43-2	8260D	ND		5.0	2.0	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		5.0	2.0	ug/L	1
Bromoform	75-25-2	8260D	ND		5.0	2.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		10	2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		50	10	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		5.0	2.0	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		5.0	2.0	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		5.0	2.0	ug/L	1
Chloroethane	75-00-3	8260D	ND		10	2.0	ug/L	1
Chloroform	67-66-3	8260D	ND		5.0	2.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		5.0	2.5	ug/L	1
Cyclohexane	110-82-7	8260D	ND		5.0	2.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		5.0	2.0	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		5.0	2.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		5.0	2.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		5.0	2.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		5.0	2.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		5.0	2.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		10	3.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		5.0	2.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		5.0	2.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		5.0	2.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	660		5.0	2.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	2.1	J	5.0	2.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		5.0	2.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		5.0	2.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		5.0	2.0	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		5.0	2.0	ug/L	1
2-Hexanone	591-78-6	8260D	ND		50	10	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		5.0	2.0	ug/L	1
Methyl acetate	79-20-9	8260D	ND		5.0	2.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		5.0	2.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		50	10	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		25	2.0	ug/L	1
Methylene chloride	75-09-2	8260D	ND		5.0	2.0	ug/L	1
Styrene	100-42-5	8260D	ND		5.0	2.1	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		5.0	2.0	ug/L	1
Tetrachloroethene	127-18-4	8260D	56		5.0	2.0	ug/L	1
Toluene	108-88-3	8260D	ND		5.0	2.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		5.0	2.1	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		5.0	2.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		5.0	2.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		5.0	2.0	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and >_DL
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC10049-004
Description: RMW-23B
Matrix: Aqueous
Date Sampled: 03/09/2020 1700
Date Received: 03/10/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	5	03/12/2020 0351	ALR1		47601

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Trichloroethene	79-01-6	8260D	ND		5.0	2.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		5.0	2.0	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		5.0	2.0	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		5.0	2.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		101	70-130
1,2-Dichloroethane-d4		101	70-130
Toluene-d8		105	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and >_DL
H = Out of holding time
W = Reported on wet weight basis

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QC Summary

Inorganic non-metals - MB

Sample ID: VQ47460-001
Batch: 47460
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Nitrate - N	ND		1	0.020	0.010	mg/L	03/11/2020 1041

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and >_DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: VQ47460-002
Batch: 47460
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	0.80	0.77		1	96	90-110	03/11/2020 1043

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and >_DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: VQ48201-001
Batch: 48201
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Sulfate	ND		1	1.0	0.20	mg/L	03/17/2020 1756

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and >_DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: VQ48201-002
Batch: 48201
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Sulfate	20	20		1	101	90-110	03/17/2020 1819

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and >_DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Sample ID: VC10049-004MS
Batch: 48201
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Sulfate	ND	20	21		1	103	90-110	03/17/2020 1934

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and >_DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: VC10049-004MD
Batch: 48201
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Sulfate	ND	20	21		1	104	0.97	90-110	20	03/17/2020 1953

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and >_DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MB

Sample ID: VQ48211-001
Batch: 48211
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Chloride	ND		1	1.0	0.20	mg/L	03/17/2020 1756

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and >_DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: VQ48211-002
Batch: 48211
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Chloride	20	21		1	107	90-110	03/17/2020 1819

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and >_DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Sample ID: VC10049-004MS
Batch: 48211
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Chloride	7.6	20	29		1	105	90-110	03/17/2020 1934

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and >_DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: VC10049-004MD
Batch: 48211
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Chloride	7.6	20	29		1	106	1.0	90-110	20	03/17/2020 1953

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and >_DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: VQ48212-001
Batch: 48212
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Bromide	ND		1	0.20	0.050	mg/L	03/17/2020 1756

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and >_DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: VQ48212-002
Batch: 48212
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Bromide	8.0	8.5		1	106	90-110	03/17/2020 1819

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and >_DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Sample ID: VC10049-004MS
Batch: 48212
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Bromide	0.11	8.0	8.4		1	104	90-110	03/17/2020 1934

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and >_DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: VC10049-004MD
Batch: 48212
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Bromide	0.11	8.0	8.5		1	105	1.2	90-110	20	03/17/2020 1953

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and >_DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: VQ47601-001
Batch: 47601
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Acetone	ND		1	20	5.0	ug/L	03/11/2020 2034
Benzene	ND		1	1.0	0.40	ug/L	03/11/2020 2034
Bromodichloromethane	ND		1	1.0	0.40	ug/L	03/11/2020 2034
Bromoform	ND		1	1.0	0.40	ug/L	03/11/2020 2034
Bromomethane (Methyl bromide)	ND		1	2.0	0.40	ug/L	03/11/2020 2034
2-Butanone (MEK)	ND		1	10	2.0	ug/L	03/11/2020 2034
Carbon disulfide	ND		1	1.0	0.40	ug/L	03/11/2020 2034
Carbon tetrachloride	ND		1	1.0	0.40	ug/L	03/11/2020 2034
Chlorobenzene	ND		1	1.0	0.40	ug/L	03/11/2020 2034
Chloroethane	ND		1	2.0	0.40	ug/L	03/11/2020 2034
Chloroform	ND		1	1.0	0.40	ug/L	03/11/2020 2034
Chloromethane (Methyl chloride)	ND		1	1.0	0.50	ug/L	03/11/2020 2034
Cyclohexane	ND		1	1.0	0.40	ug/L	03/11/2020 2034
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	0.40	ug/L	03/11/2020 2034
Dibromochloromethane	ND		1	1.0	0.40	ug/L	03/11/2020 2034
1,2-Dibromoethane (EDB)	ND		1	1.0	0.40	ug/L	03/11/2020 2034
1,2-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/11/2020 2034
1,3-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/11/2020 2034
1,4-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/11/2020 2034
Dichlorodifluoromethane	ND		1	2.0	0.60	ug/L	03/11/2020 2034
1,1-Dichloroethane	ND		1	1.0	0.40	ug/L	03/11/2020 2034
1,2-Dichloroethane	ND		1	1.0	0.40	ug/L	03/11/2020 2034
1,1-Dichloroethene	ND		1	1.0	0.40	ug/L	03/11/2020 2034
cis-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	03/11/2020 2034
trans-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	03/11/2020 2034
1,2-Dichloropropane	ND		1	1.0	0.40	ug/L	03/11/2020 2034
cis-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	03/11/2020 2034
trans-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	03/11/2020 2034
Ethylbenzene	ND		1	1.0	0.40	ug/L	03/11/2020 2034
2-Hexanone	ND		1	10	2.0	ug/L	03/11/2020 2034
Isopropylbenzene	ND		1	1.0	0.40	ug/L	03/11/2020 2034
Methyl acetate	ND		1	1.0	0.40	ug/L	03/11/2020 2034
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	0.40	ug/L	03/11/2020 2034
4-Methyl-2-pentanone	ND		1	10	2.0	ug/L	03/11/2020 2034
Methylcyclohexane	ND		1	5.0	0.40	ug/L	03/11/2020 2034
Methylene chloride	ND		1	1.0	0.40	ug/L	03/11/2020 2034
Styrene	ND		1	1.0	0.41	ug/L	03/11/2020 2034
1,1,2,2-Tetrachloroethane	ND		1	1.0	0.40	ug/L	03/11/2020 2034
Tetrachloroethene	ND		1	1.0	0.40	ug/L	03/11/2020 2034
Toluene	ND		1	1.0	0.40	ug/L	03/11/2020 2034
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	0.42	ug/L	03/11/2020 2034
1,2,4-Trichlorobenzene	ND		1	1.0	0.40	ug/L	03/11/2020 2034
1,1,1-Trichloroethane	ND		1	1.0	0.40	ug/L	03/11/2020 2034
1,1,2-Trichloroethane	ND		1	1.0	0.40	ug/L	03/11/2020 2034

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and >_DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: VQ47601-001
Batch: 47601
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Trichloroethene	ND		1	1.0	0.40	ug/L	03/11/2020 2034
Trichlorofluoromethane	ND		1	1.0	0.40	ug/L	03/11/2020 2034
Vinyl chloride	ND		1	1.0	0.40	ug/L	03/11/2020 2034
Xylenes (total)	ND		1	1.0	0.40	ug/L	03/11/2020 2034

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		100	70-130
1,2-Dichloroethane-d4		101	70-130
Toluene-d8		103	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and >_DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: VQ47601-002
Batch: 47601
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	130		1	135	60-140	03/11/2020 1931
Benzene	50	49		1	98	70-130	03/11/2020 1931
Bromodichloromethane	50	50		1	101	70-130	03/11/2020 1931
Bromoform	50	44		1	87	70-130	03/11/2020 1931
Bromomethane (Methyl bromide)	50	44		1	89	70-130	03/11/2020 1931
2-Butanone (MEK)	100	120		1	125	70-130	03/11/2020 1931
Carbon disulfide	50	47		1	94	70-130	03/11/2020 1931
Carbon tetrachloride	50	48		1	96	70-130	03/11/2020 1931
Chlorobenzene	50	47		1	94	70-130	03/11/2020 1931
Chloroethane	50	48		1	96	70-130	03/11/2020 1931
Chloroform	50	47		1	94	70-130	03/11/2020 1931
Chloromethane (Methyl chloride)	50	47		1	94	60-140	03/11/2020 1931
Cyclohexane	50	46		1	92	70-130	03/11/2020 1931
1,2-Dibromo-3-chloropropane (DBCP)	50	48		1	96	70-130	03/11/2020 1931
Dibromochloromethane	50	50		1	99	70-130	03/11/2020 1931
1,2-Dibromoethane (EDB)	50	49		1	98	70-130	03/11/2020 1931
1,2-Dichlorobenzene	50	49		1	98	70-130	03/11/2020 1931
1,3-Dichlorobenzene	50	48		1	97	70-130	03/11/2020 1931
1,4-Dichlorobenzene	50	47		1	94	70-130	03/11/2020 1931
Dichlorodifluoromethane	50	49		1	97	60-140	03/11/2020 1931
1,1-Dichloroethane	50	48		1	97	70-130	03/11/2020 1931
1,2-Dichloroethane	50	47		1	94	70-130	03/11/2020 1931
1,1-Dichloroethene	50	47		1	94	70-130	03/11/2020 1931
cis-1,2-Dichloroethene	50	48		1	96	70-130	03/11/2020 1931
trans-1,2-Dichloroethene	50	48		1	95	70-130	03/11/2020 1931
1,2-Dichloropropane	50	51		1	101	70-130	03/11/2020 1931
cis-1,3-Dichloropropene	50	53		1	106	70-130	03/11/2020 1931
trans-1,3-Dichloropropene	50	52		1	104	70-130	03/11/2020 1931
Ethylbenzene	50	49		1	98	70-130	03/11/2020 1931
2-Hexanone	100	110		1	112	70-130	03/11/2020 1931
Isopropylbenzene	50	50		1	100	70-130	03/11/2020 1931
Methyl acetate	50	53		1	105	70-130	03/11/2020 1931
Methyl tertiary butyl ether (MTBE)	50	47		1	94	70-130	03/11/2020 1931
4-Methyl-2-pentanone	100	110		1	110	70-130	03/11/2020 1931
Methylcyclohexane	50	49		1	98	70-130	03/11/2020 1931
Methylene chloride	50	45		1	91	70-130	03/11/2020 1931
Styrene	50	52		1	103	70-130	03/11/2020 1931
1,1,2,2-Tetrachloroethane	50	50		1	100	70-130	03/11/2020 1931
Tetrachloroethene	50	46		1	93	70-130	03/11/2020 1931
Toluene	50	48		1	96	70-130	03/11/2020 1931
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	47		1	94	70-130	03/11/2020 1931
1,2,4-Trichlorobenzene	50	50		1	100	70-130	03/11/2020 1931
1,1,1-Trichloroethane	50	47		1	94	70-130	03/11/2020 1931
1,1,2-Trichloroethane	50	50		1	99	70-130	03/11/2020 1931

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and >_DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: VQ47601-002
Batch: 47601
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	48		1	95	70-130	03/11/2020 1931
Trichlorofluoromethane	50	46		1	92	70-130	03/11/2020 1931
Vinyl chloride	50	48		1	95	70-130	03/11/2020 1931
Xylenes (total)	100	100		1	100	70-130	03/11/2020 1931

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		98	70-130
1,2-Dichloroethane-d4		94	70-130
Toluene-d8		96	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and >_DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: VC10049-004MS
Batch: 47601
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	ND	500	420		5	84	60-140	03/12/2020 0502
Benzene	ND	250	250		5	101	70-130	03/12/2020 0502
Bromodichloromethane	ND	250	260		5	102	70-130	03/12/2020 0502
Bromoform	ND	250	180		5	73	70-130	03/12/2020 0502
Bromomethane (Methyl bromide)	ND	250	240		5	96	70-130	03/12/2020 0502
2-Butanone (MEK)	ND	500	520		5	104	70-130	03/12/2020 0502
Carbon disulfide	ND	250	240		5	94	70-130	03/12/2020 0502
Carbon tetrachloride	ND	250	260		5	106	70-130	03/12/2020 0502
Chlorobenzene	ND	250	230		5	94	70-130	03/12/2020 0502
Chloroethane	ND	250	280		5	114	70-130	03/12/2020 0502
Chloroform	ND	250	250		5	100	70-130	03/12/2020 0502
Chloromethane (Methyl chloride)	ND	250	260		5	102	60-140	03/12/2020 0502
Cyclohexane	ND	250	240		5	97	70-130	03/12/2020 0502
1,2-Dibromo-3-chloropropane (DBCP)	ND	250	210		5	84	70-130	03/12/2020 0502
Dibromochloromethane	ND	250	230		5	92	70-130	03/12/2020 0502
1,2-Dibromoethane (EDB)	ND	250	240		5	96	70-130	03/12/2020 0502
1,2-Dichlorobenzene	ND	250	220		5	89	70-130	03/12/2020 0502
1,3-Dichlorobenzene	ND	250	220		5	88	70-130	03/12/2020 0502
1,4-Dichlorobenzene	ND	250	220		5	86	70-130	03/12/2020 0502
Dichlorodifluoromethane	ND	250	270		5	109	60-140	03/12/2020 0502
1,1-Dichloroethane	ND	250	250		5	102	70-130	03/12/2020 0502
1,2-Dichloroethane	ND	250	230		5	94	70-130	03/12/2020 0502
1,1-Dichloroethene	ND	250	270		5	108	70-130	03/12/2020 0502
cis-1,2-Dichloroethene	660	250	920		5	102	70-130	03/12/2020 0502
trans-1,2-Dichloroethene	2.1	250	270		5	107	70-130	03/12/2020 0502
1,2-Dichloropropane	ND	250	260		5	102	70-130	03/12/2020 0502
cis-1,3-Dichloropropene	ND	250	250		5	99	70-130	03/12/2020 0502
trans-1,3-Dichloropropene	ND	250	240		5	94	70-130	03/12/2020 0502
Ethylbenzene	ND	250	260		5	102	70-130	03/12/2020 0502
2-Hexanone	ND	500	500		5	99	70-130	03/12/2020 0502
Isopropylbenzene	ND	250	260		5	104	70-130	03/12/2020 0502
Methyl acetate	ND	250	240		5	96	70-130	03/12/2020 0502
Methyl tertiary butyl ether (MTBE)	ND	250	220		5	88	70-130	03/12/2020 0502
4-Methyl-2-pentanone	ND	500	510		5	102	70-130	03/12/2020 0502
Methylcyclohexane	ND	250	260		5	104	70-130	03/12/2020 0502
Methylene chloride	ND	250	220		5	89	70-130	03/12/2020 0502
Styrene	ND	250	260		5	104	70-130	03/12/2020 0502
1,1,2,2-Tetrachloroethane	ND	250	230		5	94	70-130	03/12/2020 0502
Tetrachloroethene	56	250	300		5	98	70-130	03/12/2020 0502
Toluene	ND	250	250		5	101	70-130	03/12/2020 0502
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	250	250		5	101	70-130	03/12/2020 0502
1,2,4-Trichlorobenzene	ND	250	230		5	93	70-130	03/12/2020 0502
1,1,1-Trichloroethane	ND	250	250		5	100	70-130	03/12/2020 0502
1,1,2-Trichloroethane	ND	250	240		5	97	70-130	03/12/2020 0502

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and >_DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: VC10049-004MS
Batch: 47601
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	ND	250	250		5	100	70-130	03/12/2020 0502
Trichlorofluoromethane	ND	250	270		5	108	70-130	03/12/2020 0502
Vinyl chloride	ND	250	260		5	105	70-130	03/12/2020 0502
Xylenes (total)	ND	500	530		5	107	70-130	03/12/2020 0502

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		108	70-130
1,2-Dichloroethane-d4		101	70-130
Toluene-d8		107	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and >_DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MSD

Sample ID: VC10049-004MD
Batch: 47601
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	ND	500	470		5	94	11	60-140	20	03/12/2020 0525
Benzene	ND	250	280		5	113	11	70-130	20	03/12/2020 0525
Bromodichloromethane	ND	250	290		5	117	13	70-130	20	03/12/2020 0525
Bromoform	ND	250	210		5	86	16	70-130	20	03/12/2020 0525
Bromomethane (Methyl bromide)	ND	250	250		5	99	3.3	70-130	20	03/12/2020 0525
2-Butanone (MEK)	ND	500	580		5	116	11	70-130	20	03/12/2020 0525
Carbon disulfide	ND	250	280		5	112	17	70-130	20	03/12/2020 0525
Carbon tetrachloride	ND	250	300		5	121	14	70-130	20	03/12/2020 0525
Chlorobenzene	ND	250	260		5	106	12	70-130	20	03/12/2020 0525
Chloroethane	ND	250	290		5	117	2.5	70-130	20	03/12/2020 0525
Chloroform	ND	250	280		5	113	12	70-130	20	03/12/2020 0525
Chloromethane (Methyl chloride)	ND	250	260		5	105	2.6	60-140	20	03/12/2020 0525
Cyclohexane	ND	250	270		5	109	11	70-130	20	03/12/2020 0525
1,2-Dibromo-3-chloropropane (DBCP)	ND	250	240		5	97	15	70-130	20	03/12/2020 0525
Dibromochloromethane	ND	250	260		5	105	14	70-130	20	03/12/2020 0525
1,2-Dibromoethane (EDB)	ND	250	270		5	108	12	70-130	20	03/12/2020 0525
1,2-Dichlorobenzene	ND	250	260		5	104	16	70-130	20	03/12/2020 0525
1,3-Dichlorobenzene	ND	250	260		5	103	15	70-130	20	03/12/2020 0525
1,4-Dichlorobenzene	ND	250	250		5	100	15	70-130	20	03/12/2020 0525
Dichlorodifluoromethane	ND	250	280		5	111	1.9	60-140	20	03/12/2020 0525
1,1-Dichloroethane	ND	250	280		5	114	11	70-130	20	03/12/2020 0525
1,2-Dichloroethane	ND	250	260		5	104	11	70-130	20	03/12/2020 0525
1,1-Dichloroethene	ND	250	310		5	123	13	70-130	20	03/12/2020 0525
cis-1,2-Dichloroethene	660	250	930		5	108	1.5	70-130	20	03/12/2020 0525
trans-1,2-Dichloroethene	2.1	250	300		5	120	11	70-130	20	03/12/2020 0525
1,2-Dichloropropane	ND	250	290		5	117	13	70-130	20	03/12/2020 0525
cis-1,3-Dichloropropene	ND	250	280		5	114	14	70-130	20	03/12/2020 0525
trans-1,3-Dichloropropene	ND	250	270		5	108	14	70-130	20	03/12/2020 0525
Ethylbenzene	ND	250	290		5	115	12	70-130	20	03/12/2020 0525
2-Hexanone	ND	500	580		5	116	16	70-130	20	03/12/2020 0525
Isopropylbenzene	ND	250	290		5	117	12	70-130	20	03/12/2020 0525
Methyl acetate	ND	250	270		5	108	12	70-130	20	03/12/2020 0525
Methyl tertiary butyl ether (MTBE)	ND	250	240		5	94	7.0	70-130	20	03/12/2020 0525
4-Methyl-2-pentanone	ND	500	590		5	117	14	70-130	20	03/12/2020 0525
Methylcyclohexane	ND	250	290		5	117	12	70-130	20	03/12/2020 0525
Methylene chloride	ND	250	260		5	102	14	70-130	20	03/12/2020 0525
Styrene	ND	250	300		5	119	13	70-130	20	03/12/2020 0525
1,1,2,2-Tetrachloroethane	ND	250	270		5	109	15	70-130	20	03/12/2020 0525
Tetrachloroethene	56	250	330		5	111	10	70-130	20	03/12/2020 0525
Toluene	ND	250	280		5	113	11	70-130	20	03/12/2020 0525
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	250	280		5	113	11	70-130	20	03/12/2020 0525
1,2,4-Trichlorobenzene	ND	250	270		5	107	14	70-130	20	03/12/2020 0525
1,1,1-Trichloroethane	ND	250	290		5	114	13	70-130	20	03/12/2020 0525
1,1,2-Trichloroethane	ND	250	270		5	110	12	70-130	20	03/12/2020 0525

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and >_DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Pace Analytical Services, LLC *(formerly Shealy Environmental Services, Inc.)*
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Volatile Organic Compounds by GC/MS - MSD

Sample ID: VC10049-004MD
Batch: 47601
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Trichloroethene	ND	250	280		5	114	13	70-130	20	03/12/2020 0525
Trichlorofluoromethane	ND	250	280		5	113	4.7	70-130	20	03/12/2020 0525
Vinyl chloride	ND	250	270		5	109	3.7	70-130	20	03/12/2020 0525
Xylenes (total)	ND	500	600		5	121	13	70-130	20	03/12/2020 0525

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		105	70-130
1,2-Dichloroethane-d4		100	70-130
Toluene-d8		105	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and >_DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Chain of Custody

and

Miscellaneous Documents

SHEALY ENVIRONMENTAL SERVICES, INC.
106 Vantage Point Drive • West Columbia, SC 29172
Telephone No. 803-791-9700 Fax No. 803-791-9111
www.shealylab.com

SHEALY Chain of Custody Record

Number 102649

Client: TRC	Report to Contact: Lisa Clark	Telephone No. / E-mail:	Quote No.
Address: 50 International Dr Suite 150	Sampler's Signature: X	Analysis (Attach list if more space is needed)	Page 1 of 1
City: Greenville	State: SC	Zip Code: 29615	
Project Name: WPH Clemson	Printed Name: Benjamin Medlin		
Project No.: 300688.0.0.11	P.O. No.		

Sample ID / Description (Containers for each sample may be combined on one line.)	Date 2020	Time	Grab/Composite	Aqueous	Solid	Non-Aqueous	Matrix	No. of Containers by Preservative Type: Unpres.	H2SO4	HNO3	HCl	NaOH	Na2S2O3	TSP	VOCs	Cl, SO4, Br	NO3	Diss. Gasses	
TBLK-20101	1	1	G	X							2				X				
RMW-11	3.9	1210	G	X				2			3			3	X	X	X	X	
RMW-23	3.9	1615	G	X				2			3			3	X	X	X	X	
RMW-23B/RMW-23B MS/MSD	3.9	1700	G	X				4			6			6	X	X	X	X	

VC10049
LJO
Remarks / Cooler I.D.

Turn Around Time Required (Prior lab approval required for expedited TAT.)
☐ Standard ☐ Rush (Specify)

Sample Disposal
☐ Return to Client ☐ Disposal by Lab

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

QC Requirements: (Specify)

	Date	Time		Date	Time
1. Relinquished by	3.9.20	1830	1. Received by TRC SS	3.9.20	1830
2. Relinquished by TRC SS	3/10/20	1030	2. Received by	3/10/20	1030
3. Relinquished by	3/10/20		3. Received by	Date	Time
4. Relinquished by	Date	Time	4. Laboratory received by	Date 3/10/20	Time 1145

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on ice (Circle) Yes No Ice Pack

Receipt Temp. 2.7 °C

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Client Copy

Document Number: F-AD-133 Effective Date: 08-01-2014

Shealy Environmental Services, Inc.
Document Number: ME0018C-14

Page 1 of 1
Effective Date: 8/2/2018

Sample Receipt Checklist (SRC)

Client: TRC Cooler Inspected by/date: BMG / 03/10/2020 Lot #: VC10049

Means of receipt: ☑ SESI ☐ Client ☐ UPS ☐ FedEx ☐ Other:

☐ Yes	☑ No		1. Were custody seals present on the cooler?
☐ Yes	☐ No	☑ NA	2. If custody seals were present, were they intact and unbroken?

pH Strip ID: NA Chlorine Strip ID: NA Tested by: NA

Original temperature upon receipt / Derived (Corrected) temperature upon receipt %Solid Snap-Cup ID: NA

2.7 /2.7 °C NA /NA °C NA /NA °C NA /NA °C

Method: ☑ Temperature Blank ☐ Against Bottles IR Gun ID: 6 IR Gun Correction Factor: 0 °C

Method of coolant: ☑ Wet Ice ☐ Ice Packs ☐ Dry Ice ☐ None

☐ Yes	☐ No	☑ NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).
☐ Yes	☐ No	☑ NA	4. Is the commercial courier's packing slip attached to this form?
☑ Yes	☐ No		5. Were proper custody procedures (relinquished/received) followed?
☑ Yes	☐ No		6. Were sample IDs listed on the COC?
☑ Yes	☐ No		7. Were sample IDs listed on all sample containers?
☑ Yes	☐ No		8. Was collection date & time listed on the COC?
☑ Yes	☐ No		9. Was collection date & time listed on all sample containers?
☑ Yes	☐ No		10. Did all container label information (ID, date, time) agree with the COC?
☑ Yes	☐ No		11. Were tests to be performed listed on the COC?
☑ Yes	☐ No		12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)?
☑ Yes	☐ No		13. Was adequate sample volume available?
☑ Yes	☐ No		14. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
☐ Yes	☑ No		15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
☐ Yes	☑ No	☐ NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (¼"or 6mm in diameter) in any of the VOA vials?
☐ Yes	☐ No	☑ NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?
☐ Yes	☐ No	☑ NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
☐ Yes	☐ No	☑ NA	19. Were all applicable NH_3/TKN/cyanide/phenol/625 (< 0.5mg/L) samples free of residual chlorine?
☐ Yes	☐ No	☑ NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc…) correctly transcribed from the COC into the comment section in LIMS?
☐ Yes	☑ No		21. Was the quote number listed on the container label? If yes, Quote # NA

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) NA were received incorrectly preserved and were adjusted accordingly in sample receiving with NA mL of circle one: H2SO4, HNO3, HCl, NaOH using SR # NA. Time of preservation NA. If more than one preservative is needed, please note in the comments below.

Sample(s) NA were received with bubbles >6 mm in diameter.

Samples(s) NA were received with TRC > 0.5 mg/L (If #19 is *no*) and were adjusted accordingly in sample receiving with sodium thiosulfate ($Na_2S_2O_3$) with Shealy ID: NA.

SR barcode labels applied by: JSH Date: 03/10/2020

Comments:

Pace Analytical Energy Services LLC
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

March 20, 2020

Lucas Odom
Pace Analytical Services South Carolina
106 Vantage Point Drive
West Columbia, SC 29172

RE: **WPH CLEMSON / 300688.0.0.11**

Pace Workorder: 33215

Dear Lucas Odom:

Enclosed are the analytical results for sample(s) received by the laboratory on Thursday, March 12, 2020. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Ruth Welsh 03/20/2020
Ruth.Welsh@pacelabs.com

Customer Service Representative

Enclosures

As a valued client we would appreciate your comments on our service.
Please email PAESfeedback@pacelabs.com.

Total Number of Pages 15

CERTIFICATE OF ANALYSIS

Laboratory Data Quality Review Notes

Project Name: WPH-Clemson, SC

Project Number: 300688.0000.0000.000011

Lab Report: **33215** Pace Analytical Energy Services LLC; Pittsburgh, PA
This lab report is the subcontracted job related to **VC10049**.

Samples and Analyses: Three groundwater samples, collected 09-Mar-2020 and analyzed for dissolved hydrocarbon gases (methane, ethane, ethene)

Chain of Custody, Sample Temperature, Sample Preservation: Chain of custody was signed (sample transfer from Pace Analytical, Columbia, to Pace Analytical, Pittsburgh); sample temperature was <6 ^{o}C upon arrival at the laboratory; samples were preserved properly.

Hold Time: Samples were analyzed within acceptable hold time.

Surrogates: Surrogate recoveries are not applicable to dissolved hydrocarbon gas analyses.

Method Blank: Target analytes were not detected in the laboratory method blank.

Trip Blank: A trip blank was not analyzed with these samples.

Field Blank: A field blank was not collected with these samples.

Equipment Rinse Blank: A rinsate blank was not collected with these samples.

LCS/LCSD: LCS and LCSD recoveries and LCS/LCSD RPDs are within QC limits.

MS/MSD: MS/MSD analyses were performed using sample RMW-23B. MS and MSD recoveries and MS/MSD RPDs are within QC limits.

Duplicates: A field duplicate was not collected with these samples.

Dilutions: No dilutions were performed with these sample analyses.

No data qualifiers were assigned in this review.

Data reviewer: Amy Bass; TRC Environmental Corporation; 24-Mar-2020

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LABORATORY ACCREDITATIONS & CERTIFICATIONS

Accreditor:	Pennsylvania Department of Environmental Protection, Bureau of Laboratories
Accreditation ID:	02-00538
Scope:	NELAP Non-Potable Water
Accreditor:	West Virginia Department of Environmental Protection, Division of Water and Waste Management
Accreditation ID:	395
Scope:	Non-Potable Water
Accreditor:	South Carolina Department of Health and Environmental Control, Office of Environmental Laboratory Certification
Accreditation ID:	89009003
Scope:	Clean Water Act (CWA); Resource Conservation and Recovery Act (RCRA)
Accreditor:	State of Virginia
Accreditation ID:	460201
Scope:	Non-Potable Water
Accreditor:	NELAP: New Jersey, Department of Environmental Protection
Accreditation ID:	PA026
Scope:	Non-Potable Water
Accreditor:	NELAP: New York, Department of Health Wadsworth Center
Accreditation ID:	11815
Scope:	Non-Potable Water
Accreditor:	State of Connecticut, Department of Public Health, Division of Environmental Health
Accreditation ID:	PH-0263
Scope:	Clean Water Act (CWA) Resource Conservation and Recovery Act (RCRA)
Accreditor:	NELAP: Texas, Commission on Environmental Quality
Accreditation ID:	T104704453-09-TX
Scope:	Non-Potable Water
Accreditor:	State of New Hampshire
Accreditation ID:	299409
Scope:	Non-potable water
Accreditor:	State of Georgia
Accreditation ID:	Chapter 391-3-26
Scope:	As per the Georgia EPD Rules and Regulations for Commercial Laboratories, PAES is accredited by the Pennsylvania Department of Environmental Protection Bureau of Laboratories under the National Environmental Laboratory Approval Program (NELAC).

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SAMPLE SUMMARY

Workorder: 33215 WPH CLEMSON / 300688.0.0.11

Lab ID	Sample ID	Matrix	Date Collected	Date Received
332150001	RMW-11	Water	3/9/2020 12:10	3/12/2020 10:45
332150002	RMW-23	Water	3/9/2020 16:15	3/12/2020 10:45
332150003	RMW-23B	Water	3/9/2020 17:00	3/12/2020 10:45
332150004	RMW-23B MS	Water	3/9/2020 17:00	3/12/2020 10:45
332150005	RMW-23B MSD	Water	3/9/2020 17:00	3/12/2020 10:45

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PROJECT SUMMARY

Workorder: 33215 WPH CLEMSON / 300688.0.0.11

Workorder Comments

The container pH for samples 33215 (0001-0005) were measured as below the expected pH (< 10) for those samples preserved with trisodium phosphate, as assigned to PAES method AM20GAx.

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ANALYTICAL RESULTS

Workorder: 33215 WPH CLEMSON / 300688.0.0.11

Lab ID: **332150001** Date Received: 3/12/2020 10:45 Matrix: Water

Sample ID: **RMW-11** Date Collected: 3/9/2020 12:10

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**0.094U**	ug/l	0.50	0.094	1	3/18/2020 13:39	MM	n
Ethane	**0.011U**	ug/l	0.10	0.011	1	3/18/2020 13:39	MM	n
Ethene	**0.015J**	ug/l	0.10	0.0080	1	3/18/2020 13:39	MM	n

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ANALYTICAL RESULTS

Workorder: 33215 WPH CLEMSON / 300688.0.0.11

Lab ID: **332150002** Date Received: 3/12/2020 10:45 Matrix: Water

Sample ID: **RMW-23** Date Collected: 3/9/2020 16:15

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**20000**	ug/l	0.50	0.094	1	3/18/2020 13:52	MM	n
Ethane	**0.64**	ug/l	0.10	0.011	1	3/18/2020 13:52	MM	n
Ethene	**0.25**	ug/l	0.10	0.0080	1	3/18/2020 13:52	MM	n

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ANALYTICAL RESULTS

Workorder: 33215 WPH CLEMSON / 300688.0.0.11

Lab ID: **332150003** Date Received: 3/12/2020 10:45 Matrix: Water

Sample ID: **RMW-23B** Date Collected: 3/9/2020 17:00

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**2900**	ug/l	0.50	0.094	1	3/18/2020 13:27	MM	n
Ethane	**0.041J**	ug/l	0.10	0.011	1	3/18/2020 13:27	MM	n
Ethene	**0.67**	ug/l	0.10	0.0080	1	3/18/2020 13:27	MM	n

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ANALYTICAL RESULTS

Workorder: 33215 WPH CLEMSON / 300688.0.0.11

Lab ID: **332150004** Date Received: 3/12/2020 10:45 Matrix: Water

Sample ID: **RMW-23B MS** Date Collected: 3/9/2020 17:00

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**3500**	ug/l	0.50	0.094	1	3/18/2020 14:07	MM	n
Ethane	**36**	ug/l	0.10	0.011	1	3/18/2020 14:07	MM	n
Ethene	**35**	ug/l	0.10	0.0080	1	3/18/2020 14:07	MM	n

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ANALYTICAL RESULTS

Workorder: 33215 WPH CLEMSON / 300688.0.0.11

Lab ID: **332150005** Date Received: 3/12/2020 10:45 Matrix: Water

Sample ID: **RMW-23B MSD** Date Collected: 3/9/2020 17:00

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**3500**	ug/l	0.50	0.094	1	3/18/2020 14:20	MM	n
Ethane	**36**	ug/l	0.10	0.011	1	3/18/2020 14:20	MM	n
Ethene	**34**	ug/l	0.10	0.0080	1	3/18/2020 14:20	MM	n

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ANALYTICAL RESULTS QUALIFIERS

Workorder: 33215 WPH CLEMSON / 300688.0.0.11

DEFINITIONS/QUALIFIERS

MDL	Method Detection Limit. Can be used synonymously with LOD; Limit Of Detection.
PQL	Practical Quanitation Limit. Can be used synonymously with LOQ; Limit Of Quantitation.
ND	Not detected at or above reporting limit.
DF	Dilution Factor.
S	Surrogate.
RPD	Relative Percent Difference.
% Rec	Percent Recovery.
U	Indicates the compound was analyzed for, but not detected at or above the noted concentration.
J	Estimated concentration greater than the set method detection limit (MDL) and less than the set reporting limit (PQL).
n	The laboratory does not hold NELAP/TNI accreditation for this method or analyte.

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QUALITY CONTROL DATA

Workorder: 33215 WPH CLEMSON / 300688.0.0.11

QC Batch: DISG/8158 Analysis Method: AM20GAX

QC Batch Method: AM20GAX

Associated Lab Samples: 332150001, 332150002, 332150003, 332150004, 332150005

METHOD BLANK: 66377

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
RISK				
Methane	ug/l	0.094U	0.094	n
Ethane	ug/l	0.011U	0.011	n
Ethene	ug/l	0.0080U	0.0080	n

LABORATORY CONTROL SAMPLE & LCSD: 66378 66379

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Methane	ug/l	750	790	840	106	112	80-120	5.6	20	n
Ethane	ug/l	38	43	43	115	114	80-120	0.61	20	n
Ethene	ug/l	35	41	40	115	114	80-120	0.54	20	n

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 66396 66397 Original: 332150003

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
RISK											
Methane	ug/l	2900	750	3500	3500	75	75	70-130	0.11	20	n
Ethane	ug/l	0.041	38	36	36	96	95	70-130	1.3	20	n
Ethene	ug/l	0.67	35	35	34	97	96	70-130	1.4	20	n

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QUALITY CONTROL DATA QUALIFIERS

Workorder: 33215 WPH CLEMSON / 300688.0.0.11

QUALITY CONTROL PARAMETER QUALIFIERS

n	The laboratory does not hold NELAP/TNI accreditation for this method or analyte.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 33215 WPH CLEMSON / 300688.0.0.11

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
332150001	RMW-11			AM20GAX	DISG/8158
332150002	RMW-23			AM20GAX	DISG/8158
332150003	RMW-23B			AM20GAX	DISG/8158
332150004	RMW-23B MS			AM20GAX	DISG/8158
332150005	RMW-23B MSD			AM20GAX	DISG/8158

SHEALY

Chain of Custody Record

33215

Shealy Environmental Services, Inc.
106 Vantage Point Drive
West Columbia, South Carolina 29172
Telephone No. (803) 791-9700 Fax No. (803) 791-9111
www.shealylab.com

Number

Client: Pace Analytical - Columbia	Report to Contact: Lucas Odom	Telephone No. / E-mail: 803-206-9537/lodom@shealylab.com	Quote No.
Address: 106 Vantage Point Dr.	Sampler's Signature	Analysis (Attach list if more space is needed)	Page 1 of 1
City: West Columbia; State: SC; Zip Code: 29172	X ______ Printed Name		Laboratory Lot Number
Project Name: WPH Clemson			
Project Number: 300688.0.0.11; P.O No.			

Sample ID / Description (Containers for each sample may be combined on one line)	Date	Time	G=Grab C=Composite	Matrix: Aqueous	Matrix: Solid	Matrix: Non-Aqueous	Matrix:	No of Containers by Preservative Type: Unpres.	H2SO4	HNO3	HCl	NaOH	5035 Kit	TSP	Dissolved Gasses	Remarks / Cooler I.D.
RMW-11	3/9/2020	1210	G	x										3	X	
RMW-23	3/9/2020	1615	G	x										3	X	
345 RMW-23B	3/9/2020	1700	G	x										6	X	**MS/MSD**
																VC10049

Turn Around Time Required (Prior lab approval required for expedited TAT): X Standard; Rush

Sample Disposal: ☐ Return to Client ☒ Disposal by Lab

Possible Hazard Identification (List any known hazards in the remarks): ☐ Non-Hazardous ☐ Flammable ☐ Skin Irritant ☐ SDS provided ☐ Unknown

QC Requirements

	Date	Time		Date	Time
1. Relinquished by [signature]	3/11/2020	1800	1. Received by		
2. Relinquished by			2. Received by		
3. Relinquished by			3. Received by		
4. Relinquished by			4. Laboratory Received by [signature] PACE	3.12.2020	1045

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on Ice (Check) ☐ Y ☐ N ☐ Ice Pack
Receipt Temp. 1.1 °C

Cooler Receipt Form

Client Name: Shealy **Project:** 300688.0.0.11 **Lab Work Order:** 33215

A. **Shipping/Container Information** (circle appropriate response)

Courier: (FedEx) UPS USPS Client Other:_____ **Air bill Present:** (Yes) No

Tracking Number: 166334637121

Custody Seal on Cooler/Box Present: (Yes) No **Seals Intact:** (Yes) No

Cooler/Box Packing Material: (Bubble Wrap) Absorbent Foam Other:_____

Type of Ice: (Wet) Blue None **Ice Intact:** (Yes) Melted

Cooler Temperature: 1.1°C **Radiation Screened:** Yes (No) **Chain of Custody Present:** (Yes) No

Comments:_____

B. **Laboratory Assignment/Log-in** (check appropriate response)

	YES	NO	N/A	Comment Reference non-Conformance
Chain of Custody properly filled out	✓			
Chain of Custody relinquished	✓			
Sampler Name & Signature on COC			✓	
Containers intact	✓			
Were samples in separate bags	✓			
Sample container labels match COC Sample name/date and time collected	✓			
Sufficient volume provided	✓			
PAES containers used	✓			
Are containers properly preserved for the requested testing? (as labeled)	✓			
If an unknown preservation state, were containers checked? Exception: VOA's coliform			✓	If yes, see pH form.
Was volume for dissolved testing field filtered, as noted on the COC? Was volume received in a preserved container?			✓	
Headspace present?		✓		

Comments:_____

Cooler contents examined/received by : LG **Date:** 3.12.2020

Project Manager Review : JW **Date:** 3.12.2020

Report of Analysis

TRC Companies, Inc.
50 International Dr.
Suite 150
Greenville, SC 29615
Attention: Lisa Clark

Project Name: WPH Clemson

Project Number: 300688.0000.0000.00011

Lot Number:**VC11080**

Date Completed:03/20/2020

03/24/2020 3:41 PM
Approved and released by:
Lab Director - Greenville: **Lucas Odom**

The electronic signature above is the equivalent of a handwritten signature.

Pace Analytical Services, LLC (*formerly Shealy Environmental Services, Inc.*)
106 Vantage Point Drive West Columbia, SC 29172
Tel: 803-791-9700 Fax: 803-791-9111 www.pacelabs.com

Laboratory Data Quality Review Notes

Project Name: WPH-Clemson, SC

Project Number: 300688.0000.0000.000011

Lab Report: **VC11080** Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.); West Columbia, SC; subcontracted job: **33226**

Samples and Analyses: Two groundwater samples, collected 10-Mar-2020 and analyzed for VOCs, chloride, bromide, sulfate, and nitrate; one trip blank, analyzed for VOCs

Chain of Custody, Sample Temperature, Sample Preservation: Chain of custody was signed; sample temperature was <6 ^{o}C upon arrival at the laboratory; samples were preserved properly.

Hold Time: Samples were analyzed within acceptable hold time.

Surrogates: VOC surrogate recoveries are within QC limits.

Method Blank: No target analytes were detected in the laboratory method blanks.

Trip Blank: No target analytes were detected in the trip blank; analyzed for VOCs only.

Field Blank: A field blank was not collected with these samples.

Equipment Rinse Blank: A rinsate blank was not collected with these samples.

LCS/LCSD: LCS recoveries for all analyses are within QC limits. LCSD analyses were not performed.

MS/MSD: MS analysis was performed for VOCs using sample RMW-23C; MSD analysis was not performed. MS recoveries are within QC limits.

Duplicates: A field duplicate was not collected with these samples. No laboratory duplicate analyses were included.

Dilutions: ND results were reported at elevated DLs and LOQs due to dilution in the VOCs analysis for samples RMW-23C (5×) and RMW-23A (20×). No other dilutions were associated with ND results.

No data qualifiers were assigned in this review.

Data reviewer: Amy Bass; TRC Environmental Corporation; 25-Mar-2020

Case Narrative
TRC Companies, Inc.
Lot Number: VC11080

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Pace Analytical Services, LLC ("Pace") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Pace policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Pace Project Manager listed on the cover page.

Dissolved Gasses

The analysis for dissolved gasses has been performed by Pace Energy. This data is located on Pace Energy report 33226.

Sample Summary
TRC Companies, Inc.
Lot Number: VC11080

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	TBLK-20102	Aqueous	03/10/2020	03/11/2020
002	RMW-23C	Aqueous	03/10/2020 1210	03/11/2020
003	RMW-23A	Aqueous	03/10/2020 1500	03/11/2020

(3 samples)

Detection Summary

TRC Companies, Inc.

Lot Number: VC11080

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
002	RMW-23C	Aqueous	Bromide	300.0	0.11	J	mg/L	7
002	RMW-23C	Aqueous	Chloride	300.0	4.5		mg/L	7
002	RMW-23C	Aqueous	Nitrate - N	353.2	0.54		mg/L	7
002	RMW-23C	Aqueous	Sulfate	300.0	0.42	J	mg/L	7
002	RMW-23C	Aqueous	cis-1,2-Dichloroethene	8260D	750		ug/L	8
002	RMW-23C	Aqueous	Tetrachloroethene	8260D	100		ug/L	8
002	RMW-23C	Aqueous	Vinyl chloride	8260D	2.9	J	ug/L	9
003	RMW-23A	Aqueous	Bromide	300.0	0.24		mg/L	10
003	RMW-23A	Aqueous	Chloride	300.0	7.1		mg/L	10
003	RMW-23A	Aqueous	Nitrate - N	353.2	0.15		mg/L	10
003	RMW-23A	Aqueous	cis-1,2-Dichloroethene	8260D	1200		ug/L	11
003	RMW-23A	Aqueous	Tetrachloroethene	8260D	210		ug/L	11
003	RMW-23A	Aqueous	Trichloroethene	8260D	11	J	ug/L	12
003	RMW-23A	Aqueous	Vinyl chloride	8260D	10	J	ug/L	12

(14 detections)

Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc. | Laboratory ID: VC11080-001
Description: TBLK-20102 | Matrix: Aqueous
Date Sampled: 03/10/2020
Date Received: 03/11/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/12/2020 0203	STM		47610

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	ND		1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC11080-001
Description: TBLK-20102
Matrix: Aqueous
Date Sampled: 03/10/2020
Date Received: 03/11/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/12/2020 0203	STM		47610

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Trichloroethene	79-01-6	8260D	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		112	70-130
1,2-Dichloroethane-d4		112	70-130
Toluene-d8		118	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

Inorganic non-metals

Client: TRC Companies, Inc.
Laboratory ID: VC11080-002
Description: RMW-23C
Matrix: Aqueous
Date Sampled: 03/10/2020 1210
Date Received: 03/11/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	03/18/2020 1752	AMR		48400
1		(Chloride) 300.0	1	03/18/2020 1752	AMR		48399
1		(Nitrate - N) 353.2	1	03/11/2020 1933	AMR		47644
1		(Sulfate) 300.0	1	03/18/2020 1752	AMR		48397

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.11	J	0.20	0.050	mg/L	1
Chloride		300.0	4.5		1.0	0.20	mg/L	1
Nitrate - N		353.2	0.54		0.020	0.010	mg/L	1
Sulfate		300.0	0.42	J	1.0	0.20	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc. | Laboratory ID: VC11080-002
Description: RMW-23C | Matrix: Aqueous
Date Sampled: 03/10/2020 1210
Date Received: 03/11/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	5	03/12/2020 0230	STM		47610

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		100	25	ug/L	1
Benzene	71-43-2	8260D	ND		5.0	2.0	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		5.0	2.0	ug/L	1
Bromoform	75-25-2	8260D	ND		5.0	2.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		10	2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		50	10	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		5.0	2.0	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		5.0	2.0	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		5.0	2.0	ug/L	1
Chloroethane	75-00-3	8260D	ND		10	2.0	ug/L	1
Chloroform	67-66-3	8260D	ND		5.0	2.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		5.0	2.5	ug/L	1
Cyclohexane	110-82-7	8260D	ND		5.0	2.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		5.0	2.0	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		5.0	2.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		5.0	2.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		5.0	2.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		5.0	2.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		5.0	2.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		10	3.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		5.0	2.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		5.0	2.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		5.0	2.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	750		5.0	2.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		5.0	2.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		5.0	2.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		5.0	2.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		5.0	2.0	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		5.0	2.0	ug/L	1
2-Hexanone	591-78-6	8260D	ND		50	10	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		5.0	2.0	ug/L	1
Methyl acetate	79-20-9	8260D	ND		5.0	2.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		5.0	2.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		50	10	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		25	2.0	ug/L	1
Methylene chloride	75-09-2	8260D	ND		5.0	2.0	ug/L	1
Styrene	100-42-5	8260D	ND		5.0	2.1	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		5.0	2.0	ug/L	1
Tetrachloroethene	127-18-4	8260D	100		5.0	2.0	ug/L	1
Toluene	108-88-3	8260D	ND		5.0	2.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		5.0	2.1	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		5.0	2.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		5.0	2.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		5.0	2.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC11080-002
Description: RMW-23C
Matrix: Aqueous
Date Sampled: 03/10/2020 1210
Date Received: 03/11/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	5	03/12/2020 0230	STM		47610

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Trichloroethene	79-01-6	8260D	ND		5.0	2.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		5.0	2.0	ug/L	1
Vinyl chloride	75-01-4	8260D	2.9	J	5.0	2.0	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		5.0	2.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		114	70-130
1,2-Dichloroethane-d4		112	70-130
Toluene-d8		118	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Inorganic non-metals

Client: TRC Companies, Inc.
Laboratory ID: VC11080-003
Description: RMW-23A
Matrix: Aqueous
Date Sampled: 03/10/2020 1500
Date Received: 03/11/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2		(Bromide) 300.0	1	03/20/2020 0450	AMR		48496
2		(Chloride) 300.0	1	03/20/2020 0450	AMR		48495
1		(Nitrate - N) 353.2	1	03/11/2020 1924	AMR		47644
2		(Sulfate) 300.0	1	03/20/2020 0450	AMR		48492

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.24		0.20	0.050	mg/L	2
Chloride		300.0	7.1		1.0	0.20	mg/L	2
Nitrate - N		353.2	0.15		0.020	0.010	mg/L	1
Sulfate		300.0	ND		1.0	0.20	mg/L	2

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC11080-003
Description: RMW-23A
Matrix: Aqueous
Date Sampled: 03/10/2020 1500
Date Received: 03/11/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	5030B	8260D	20	03/13/2020 1604	TML		47774

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		400	100	ug/L	2
Benzene	71-43-2	8260D	ND		20	8.0	ug/L	2
Bromodichloromethane	75-27-4	8260D	ND		20	8.0	ug/L	2
Bromoform	75-25-2	8260D	ND		20	8.0	ug/L	2
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		40	8.0	ug/L	2
2-Butanone (MEK)	78-93-3	8260D	ND		200	40	ug/L	2
Carbon disulfide	75-15-0	8260D	ND		20	8.0	ug/L	2
Carbon tetrachloride	56-23-5	8260D	ND		20	8.0	ug/L	2
Chlorobenzene	108-90-7	8260D	ND		20	8.0	ug/L	2
Chloroethane	75-00-3	8260D	ND		40	8.0	ug/L	2
Chloroform	67-66-3	8260D	ND		20	8.0	ug/L	2
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		20	10	ug/L	2
Cyclohexane	110-82-7	8260D	ND		20	8.0	ug/L	2
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		20	8.0	ug/L	2
Dibromochloromethane	124-48-1	8260D	ND		20	8.0	ug/L	2
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		20	8.0	ug/L	2
1,2-Dichlorobenzene	95-50-1	8260D	ND		20	8.0	ug/L	2
1,3-Dichlorobenzene	541-73-1	8260D	ND		20	8.0	ug/L	2
1,4-Dichlorobenzene	106-46-7	8260D	ND		20	8.0	ug/L	2
Dichlorodifluoromethane	75-71-8	8260D	ND		40	12	ug/L	2
1,1-Dichloroethane	75-34-3	8260D	ND		20	8.0	ug/L	2
1,2-Dichloroethane	107-06-2	8260D	ND		20	8.0	ug/L	2
1,1-Dichloroethene	75-35-4	8260D	ND		20	8.0	ug/L	2
cis-1,2-Dichloroethene	156-59-2	8260D	1200		20	8.0	ug/L	2
trans-1,2-Dichloroethene	156-60-5	8260D	ND		20	8.0	ug/L	2
1,2-Dichloropropane	78-87-5	8260D	ND		20	8.0	ug/L	2
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		20	8.0	ug/L	2
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		20	8.0	ug/L	2
Ethylbenzene	100-41-4	8260D	ND		20	8.0	ug/L	2
2-Hexanone	591-78-6	8260D	ND		200	40	ug/L	2
Isopropylbenzene	98-82-8	8260D	ND		20	8.0	ug/L	2
Methyl acetate	79-20-9	8260D	ND		20	8.0	ug/L	2
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		20	8.0	ug/L	2
4-Methyl-2-pentanone	108-10-1	8260D	ND		200	40	ug/L	2
Methylcyclohexane	108-87-2	8260D	ND		100	8.0	ug/L	2
Methylene chloride	75-09-2	8260D	ND		20	8.0	ug/L	2
Styrene	100-42-5	8260D	ND		20	8.2	ug/L	2
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		20	8.0	ug/L	2
Tetrachloroethene	127-18-4	8260D	210		20	8.0	ug/L	2
Toluene	108-88-3	8260D	ND		20	8.0	ug/L	2
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		20	8.4	ug/L	2
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		20	8.0	ug/L	2
1,1,1-Trichloroethane	71-55-6	8260D	ND		20	8.0	ug/L	2
1,1,2-Trichloroethane	79-00-5	8260D	ND		20	8.0	ug/L	2

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC11080-003
Description: RMW-23A
Matrix: Aqueous
Date Sampled: 03/10/2020 1500
Date Received: 03/11/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	5030B	8260D	20	03/13/2020 1604	TML		47774

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Trichloroethene	79-01-6	8260D	11	J	20	8.0	ug/L	2
Trichlorofluoromethane	75-69-4	8260D	ND		20	8.0	ug/L	2
Vinyl chloride	75-01-4	8260D	10	J	20	8.0	ug/L	2
Xylenes (total)	1330-20-7	8260D	ND		20	8.0	ug/L	2

Surrogate	Q	Run 2 % Recovery	Acceptance Limits
Bromofluorobenzene		98	70-130
1,2-Dichloroethane-d4		102	70-130
Toluene-d8		105	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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QC Summary

Inorganic non-metals - MB

Sample ID: VQ47644-001
Batch: 47644
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Nitrate - N	ND		1	0.020	0.010	mg/L	03/11/2020 1920

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: VQ47644-002
Batch: 47644
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	0.80	0.75		1	93	90-110	03/11/2020 1921

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: VQ48397-001
Batch: 48397
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Sulfate	ND		1	1.0	0.20	mg/L	03/18/2020 1508

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: VQ48397-002
Batch: 48397
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Sulfate	20	20		1	101	90-110	03/18/2020 1605

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MB

Sample ID: VQ48399-001
Batch: 48399
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Chloride	ND		1	1.0	0.20	mg/L	03/18/2020 1508

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: VQ48399-002
Batch: 48399
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Chloride	20	21		1	107	90-110	03/18/2020 1605

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MB

Sample ID: VQ48400-001
Batch: 48400
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Bromide	ND		1	0.20	0.050	mg/L	03/18/2020 1508

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: VQ48400-002
Batch: 48400
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Bromide	8.0	8.5		1	106	90-110	03/18/2020 1605

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: VQ48492-001
Batch: 48492
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Sulfate	ND		1	1.0	0.20	mg/L	03/19/2020 1350

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: VQ48492-002
Batch: 48492
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Sulfate	20	19		1	96	90-110	03/19/2020 1322

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: VQ48495-001
Batch: 48495
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Chloride	ND		1	1.0	0.20	mg/L	03/19/2020 1350

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: VQ48495-002
Batch: 48495
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Chloride	20	20		1	99	90-110	03/19/2020 1322

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MB

Sample ID: VQ48496-001
Batch: 48496
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Bromide	ND		1	0.20	0.050	mg/L	03/19/2020 1350

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: VQ48496-002
Batch: 48496
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Bromide	8.0	7.9		1	99	90-110	03/19/2020 1322

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: VQ47610-001
Batch: 47610
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Acetone	ND		1	20	5.0	ug/L	03/11/2020 2236
Benzene	ND		1	1.0	0.40	ug/L	03/11/2020 2236
Bromodichloromethane	ND		1	1.0	0.40	ug/L	03/11/2020 2236
Bromoform	ND		1	1.0	0.40	ug/L	03/11/2020 2236
Bromomethane (Methyl bromide)	ND		1	2.0	0.40	ug/L	03/11/2020 2236
2-Butanone (MEK)	ND		1	10	2.0	ug/L	03/11/2020 2236
Carbon disulfide	ND		1	1.0	0.40	ug/L	03/11/2020 2236
Carbon tetrachloride	ND		1	1.0	0.40	ug/L	03/11/2020 2236
Chlorobenzene	ND		1	1.0	0.40	ug/L	03/11/2020 2236
Chloroethane	ND		1	2.0	0.40	ug/L	03/11/2020 2236
Chloroform	ND		1	1.0	0.40	ug/L	03/11/2020 2236
Chloromethane (Methyl chloride)	ND		1	1.0	0.50	ug/L	03/11/2020 2236
Cyclohexane	ND		1	1.0	0.40	ug/L	03/11/2020 2236
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	0.40	ug/L	03/11/2020 2236
Dibromochloromethane	ND		1	1.0	0.40	ug/L	03/11/2020 2236
1,2-Dibromoethane (EDB)	ND		1	1.0	0.40	ug/L	03/11/2020 2236
1,2-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/11/2020 2236
1,3-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/11/2020 2236
1,4-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/11/2020 2236
Dichlorodifluoromethane	ND		1	2.0	0.60	ug/L	03/11/2020 2236
1,1-Dichloroethane	ND		1	1.0	0.40	ug/L	03/11/2020 2236
1,2-Dichloroethane	ND		1	1.0	0.40	ug/L	03/11/2020 2236
1,1-Dichloroethene	ND		1	1.0	0.40	ug/L	03/11/2020 2236
cis-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	03/11/2020 2236
trans-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	03/11/2020 2236
1,2-Dichloropropane	ND		1	1.0	0.40	ug/L	03/11/2020 2236
cis-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	03/11/2020 2236
trans-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	03/11/2020 2236
Ethylbenzene	ND		1	1.0	0.40	ug/L	03/11/2020 2236
2-Hexanone	ND		1	10	2.0	ug/L	03/11/2020 2236
Isopropylbenzene	ND		1	1.0	0.40	ug/L	03/11/2020 2236
Methyl acetate	ND		1	1.0	0.40	ug/L	03/11/2020 2236
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	0.40	ug/L	03/11/2020 2236
4-Methyl-2-pentanone	ND		1	10	2.0	ug/L	03/11/2020 2236
Methylcyclohexane	ND		1	5.0	0.40	ug/L	03/11/2020 2236
Methylene chloride	ND		1	1.0	0.40	ug/L	03/11/2020 2236
Styrene	ND		1	1.0	0.41	ug/L	03/11/2020 2236
1,1,2,2-Tetrachloroethane	ND		1	1.0	0.40	ug/L	03/11/2020 2236
Tetrachloroethene	ND		1	1.0	0.40	ug/L	03/11/2020 2236
Toluene	ND		1	1.0	0.40	ug/L	03/11/2020 2236
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	0.42	ug/L	03/11/2020 2236
1,2,4-Trichlorobenzene	ND		1	1.0	0.40	ug/L	03/11/2020 2236
1,1,1-Trichloroethane	ND		1	1.0	0.40	ug/L	03/11/2020 2236
1,1,2-Trichloroethane	ND		1	1.0	0.40	ug/L	03/11/2020 2236

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: VQ47610-001
Batch: 47610
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Trichloroethene	ND		1	1.0	0.40	ug/L	03/11/2020 2236
Trichlorofluoromethane	ND		1	1.0	0.40	ug/L	03/11/2020 2236
Vinyl chloride	ND		1	1.0	0.40	ug/L	03/11/2020 2236
Xylenes (total)	ND		1	1.0	0.40	ug/L	03/11/2020 2236

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		115	70-130
1,2-Dichloroethane-d4		112	70-130
Toluene-d8		119	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: VQ47610-002
Batch: 47610
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	100		1	105	60-140	03/11/2020 2016
Benzene	50	50		1	100	70-130	03/11/2020 2016
Bromodichloromethane	50	52		1	104	70-130	03/11/2020 2016
Bromoform	50	54		1	108	70-130	03/11/2020 2016
Bromomethane (Methyl bromide)	50	42		1	84	70-130	03/11/2020 2016
2-Butanone (MEK)	100	110		1	108	70-130	03/11/2020 2016
Carbon disulfide	50	51		1	102	70-130	03/11/2020 2016
Carbon tetrachloride	50	50		1	99	70-130	03/11/2020 2016
Chlorobenzene	50	51		1	101	70-130	03/11/2020 2016
Chloroethane	50	45		1	90	70-130	03/11/2020 2016
Chloroform	50	48		1	96	70-130	03/11/2020 2016
Chloromethane (Methyl chloride)	50	44		1	89	60-140	03/11/2020 2016
Cyclohexane	50	49		1	98	70-130	03/11/2020 2016
1,2-Dibromo-3-chloropropane (DBCP)	50	54		1	109	70-130	03/11/2020 2016
Dibromochloromethane	50	52		1	105	70-130	03/11/2020 2016
1,2-Dibromoethane (EDB)	50	51		1	102	70-130	03/11/2020 2016
1,2-Dichlorobenzene	50	51		1	102	70-130	03/11/2020 2016
1,3-Dichlorobenzene	50	52		1	103	70-130	03/11/2020 2016
1,4-Dichlorobenzene	50	51		1	102	70-130	03/11/2020 2016
Dichlorodifluoromethane	50	45		1	89	60-140	03/11/2020 2016
1,1-Dichloroethane	50	49		1	99	70-130	03/11/2020 2016
1,2-Dichloroethane	50	49		1	99	70-130	03/11/2020 2016
1,1-Dichloroethene	50	50		1	100	70-130	03/11/2020 2016
cis-1,2-Dichloroethene	50	50		1	100	70-130	03/11/2020 2016
trans-1,2-Dichloroethene	50	49		1	98	70-130	03/11/2020 2016
1,2-Dichloropropane	50	50		1	100	70-130	03/11/2020 2016
cis-1,3-Dichloropropene	50	53		1	105	70-130	03/11/2020 2016
trans-1,3-Dichloropropene	50	53		1	106	70-130	03/11/2020 2016
Ethylbenzene	50	51		1	103	70-130	03/11/2020 2016
2-Hexanone	100	110		1	107	70-130	03/11/2020 2016
Isopropylbenzene	50	52		1	105	70-130	03/11/2020 2016
Methyl acetate	50	47		1	95	70-130	03/11/2020 2016
Methyl tertiary butyl ether (MTBE)	50	49		1	97	70-130	03/11/2020 2016
4-Methyl-2-pentanone	100	110		1	106	70-130	03/11/2020 2016
Methylcyclohexane	50	54		1	108	70-130	03/11/2020 2016
Methylene chloride	50	49		1	98	70-130	03/11/2020 2016
Styrene	50	53		1	106	70-130	03/11/2020 2016
1,1,2,2-Tetrachloroethane	50	52		1	103	70-130	03/11/2020 2016
Tetrachloroethene	50	52		1	105	70-130	03/11/2020 2016
Toluene	50	51		1	101	70-130	03/11/2020 2016
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	52		1	104	70-130	03/11/2020 2016
1,2,4-Trichlorobenzene	50	53		1	106	70-130	03/11/2020 2016
1,1,1-Trichloroethane	50	49		1	99	70-130	03/11/2020 2016
1,1,2-Trichloroethane	50	50		1	101	70-130	03/11/2020 2016

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: VQ47610-002
Batch: 47610
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	51		1	102	70-130	03/11/2020 2016
Trichlorofluoromethane	50	46		1	92	70-130	03/11/2020 2016
Vinyl chloride	50	45		1	91	70-130	03/11/2020 2016
Xylenes (total)	100	100		1	103	70-130	03/11/2020 2016

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		100	70-130
1,2-Dichloroethane-d4		99	70-130
Toluene-d8		103	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: VC11080-002MS
Batch: 47610
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	ND	500	420		5	85	60-140	03/12/2020 0350
Benzene	ND	250	280		5	113	70-130	03/12/2020 0350
Bromodichloromethane	ND	250	290		5	116	70-130	03/12/2020 0350
Bromoform	ND	250	230		5	91	70-130	03/12/2020 0350
Bromomethane (Methyl bromide)	ND	250	310		5	122	70-130	03/12/2020 0350
2-Butanone (MEK)	ND	500	510		5	102	70-130	03/12/2020 0350
Carbon disulfide	ND	250	270		5	110	70-130	03/12/2020 0350
Carbon tetrachloride	ND	250	290		5	117	70-130	03/12/2020 0350
Chlorobenzene	ND	250	280		5	111	70-130	03/12/2020 0350
Chloroethane	ND	250	320		5	128	70-130	03/12/2020 0350
Chloroform	ND	250	280		5	110	70-130	03/12/2020 0350
Chloromethane (Methyl chloride)	ND	250	260		5	104	60-140	03/12/2020 0350
Cyclohexane	ND	250	260		5	105	70-130	03/12/2020 0350
1,2-Dibromo-3-chloropropane (DBCP)	ND	250	260		5	103	70-130	03/12/2020 0350
Dibromochloromethane	ND	250	260		5	106	70-130	03/12/2020 0350
1,2-Dibromoethane (EDB)	ND	250	280		5	113	70-130	03/12/2020 0350
1,2-Dichlorobenzene	ND	250	260		5	106	70-130	03/12/2020 0350
1,3-Dichlorobenzene	ND	250	270		5	108	70-130	03/12/2020 0350
1,4-Dichlorobenzene	ND	250	260		5	106	70-130	03/12/2020 0350
Dichlorodifluoromethane	ND	250	290		5	115	60-140	03/12/2020 0350
1,1-Dichloroethane	ND	250	280		5	111	70-130	03/12/2020 0350
1,2-Dichloroethane	ND	250	270		5	108	70-130	03/12/2020 0350
1,1-Dichloroethene	ND	250	310		5	126	70-130	03/12/2020 0350
cis-1,2-Dichloroethene	750	250	1000	E	5	107	70-130	03/12/2020 0350
trans-1,2-Dichloroethene	ND	250	300		5	122	70-130	03/12/2020 0350
1,2-Dichloropropane	ND	250	280		5	112	70-130	03/12/2020 0350
cis-1,3-Dichloropropene	ND	250	280		5	113	70-130	03/12/2020 0350
trans-1,3-Dichloropropene	ND	250	280		5	113	70-130	03/12/2020 0350
Ethylbenzene	ND	250	300		5	119	70-130	03/12/2020 0350
2-Hexanone	ND	500	530		5	107	70-130	03/12/2020 0350
Isopropylbenzene	ND	250	300		5	120	70-130	03/12/2020 0350
Methyl acetate	ND	250	240		5	97	70-130	03/12/2020 0350
Methyl tertiary butyl ether (MTBE)	ND	250	270		5	107	70-130	03/12/2020 0350
4-Methyl-2-pentanone	ND	500	530		5	107	70-130	03/12/2020 0350
Methylcyclohexane	ND	250	290		5	117	70-130	03/12/2020 0350
Methylene chloride	ND	250	270		5	110	70-130	03/12/2020 0350
Styrene	ND	250	300		5	119	70-130	03/12/2020 0350
1,1,2,2-Tetrachloroethane	ND	250	280		5	110	70-130	03/12/2020 0350
Tetrachloroethene	100	250	410		5	123	70-130	03/12/2020 0350
Toluene	ND	250	290		5	118	70-130	03/12/2020 0350
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	250	290		5	116	70-130	03/12/2020 0350
1,2,4-Trichlorobenzene	ND	250	270		5	108	70-130	03/12/2020 0350
1,1,1-Trichloroethane	ND	250	280		5	111	70-130	03/12/2020 0350
1,1,2-Trichloroethane	ND	250	280		5	113	70-130	03/12/2020 0350

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: VC11080-002MS
Batch: 47610
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	ND	250	300		5	119	70-130	03/12/2020 0350
Trichlorofluoromethane	ND	250	300		5	122	70-130	03/12/2020 0350
Vinyl chloride	2.9	250	270		5	106	70-130	03/12/2020 0350
Xylenes (total)	ND	500	620		5	123	70-130	03/12/2020 0350

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		114	70-130
1,2-Dichloroethane-d4		109	70-130
Toluene-d8		118	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Pace Analytical Services, LLC *(formerly Shealy Environmental Services, Inc.)*
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Volatile Organic Compounds by GC/MS - MB

Sample ID: VQ47774-001
Batch: 47774
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Acetone	ND		1	20	5.0	ug/L	03/13/2020 0913
Benzene	ND		1	1.0	0.40	ug/L	03/13/2020 0913
Bromodichloromethane	ND		1	1.0	0.40	ug/L	03/13/2020 0913
Bromoform	ND		1	1.0	0.40	ug/L	03/13/2020 0913
Bromomethane (Methyl bromide)	ND		1	2.0	0.40	ug/L	03/13/2020 0913
2-Butanone (MEK)	ND		1	10	2.0	ug/L	03/13/2020 0913
Carbon disulfide	ND		1	1.0	0.40	ug/L	03/13/2020 0913
Carbon tetrachloride	ND		1	1.0	0.40	ug/L	03/13/2020 0913
Chlorobenzene	ND		1	1.0	0.40	ug/L	03/13/2020 0913
Chloroethane	ND		1	2.0	0.40	ug/L	03/13/2020 0913
Chloroform	ND		1	1.0	0.40	ug/L	03/13/2020 0913
Chloromethane (Methyl chloride)	ND		1	1.0	0.50	ug/L	03/13/2020 0913
Cyclohexane	ND		1	1.0	0.40	ug/L	03/13/2020 0913
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	0.40	ug/L	03/13/2020 0913
Dibromochloromethane	ND		1	1.0	0.40	ug/L	03/13/2020 0913
1,2-Dibromoethane (EDB)	ND		1	1.0	0.40	ug/L	03/13/2020 0913
1,2-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/13/2020 0913
1,3-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/13/2020 0913
1,4-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/13/2020 0913
Dichlorodifluoromethane	ND		1	2.0	0.60	ug/L	03/13/2020 0913
1,1-Dichloroethane	ND		1	1.0	0.40	ug/L	03/13/2020 0913
1,2-Dichloroethane	ND		1	1.0	0.40	ug/L	03/13/2020 0913
1,1-Dichloroethene	ND		1	1.0	0.40	ug/L	03/13/2020 0913
cis-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	03/13/2020 0913
trans-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	03/13/2020 0913
1,2-Dichloropropane	ND		1	1.0	0.40	ug/L	03/13/2020 0913
cis-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	03/13/2020 0913
trans-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	03/13/2020 0913
Ethylbenzene	ND		1	1.0	0.40	ug/L	03/13/2020 0913
2-Hexanone	ND		1	10	2.0	ug/L	03/13/2020 0913
Isopropylbenzene	ND		1	1.0	0.40	ug/L	03/13/2020 0913
Methyl acetate	ND		1	1.0	0.40	ug/L	03/13/2020 0913
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	0.40	ug/L	03/13/2020 0913
4-Methyl-2-pentanone	ND		1	10	2.0	ug/L	03/13/2020 0913
Methylcyclohexane	ND		1	5.0	0.40	ug/L	03/13/2020 0913
Methylene chloride	ND		1	1.0	0.40	ug/L	03/13/2020 0913
Styrene	ND		1	1.0	0.41	ug/L	03/13/2020 0913
1,1,2,2-Tetrachloroethane	ND		1	1.0	0.40	ug/L	03/13/2020 0913
Tetrachloroethene	ND		1	1.0	0.40	ug/L	03/13/2020 0913
Toluene	ND		1	1.0	0.40	ug/L	03/13/2020 0913
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	0.42	ug/L	03/13/2020 0913
1,2,4-Trichlorobenzene	ND		1	1.0	0.40	ug/L	03/13/2020 0913
1,1,1-Trichloroethane	ND		1	1.0	0.40	ug/L	03/13/2020 0913
1,1,2-Trichloroethane	ND		1	1.0	0.40	ug/L	03/13/2020 0913

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: VQ47774-001
Batch: 47774
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Trichloroethene	ND		1	1.0	0.40	ug/L	03/13/2020 0913
Trichlorofluoromethane	ND		1	1.0	0.40	ug/L	03/13/2020 0913
Vinyl chloride	ND		1	1.0	0.40	ug/L	03/13/2020 0913
Xylenes (total)	ND		1	1.0	0.40	ug/L	03/13/2020 0913

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		100	70-130
1,2-Dichloroethane-d4		100	70-130
Toluene-d8		104	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: VQ47774-002
Batch: 47774
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	92		1	92	60-140	03/13/2020 0826
Benzene	50	52		1	104	70-130	03/13/2020 0826
Bromodichloromethane	50	53		1	106	70-130	03/13/2020 0826
Bromoform	50	42		1	84	70-130	03/13/2020 0826
Bromomethane (Methyl bromide)	50	41		1	82	70-130	03/13/2020 0826
2-Butanone (MEK)	100	110		1	110	70-130	03/13/2020 0826
Carbon disulfide	50	50		1	100	70-130	03/13/2020 0826
Carbon tetrachloride	50	53		1	105	70-130	03/13/2020 0826
Chlorobenzene	50	50		1	99	70-130	03/13/2020 0826
Chloroethane	50	46		1	91	70-130	03/13/2020 0826
Chloroform	50	51		1	102	70-130	03/13/2020 0826
Chloromethane (Methyl chloride)	50	44		1	88	60-140	03/13/2020 0826
Cyclohexane	50	50		1	101	70-130	03/13/2020 0826
1,2-Dibromo-3-chloropropane (DBCP)	50	47		1	93	70-130	03/13/2020 0826
Dibromochloromethane	50	50		1	100	70-130	03/13/2020 0826
1,2-Dibromoethane (EDB)	50	50		1	99	70-130	03/13/2020 0826
1,2-Dichlorobenzene	50	51		1	101	70-130	03/13/2020 0826
1,3-Dichlorobenzene	50	50		1	100	70-130	03/13/2020 0826
1,4-Dichlorobenzene	50	49		1	98	70-130	03/13/2020 0826
Dichlorodifluoromethane	50	43		1	85	60-140	03/13/2020 0826
1,1-Dichloroethane	50	53		1	106	70-130	03/13/2020 0826
1,2-Dichloroethane	50	48		1	95	70-130	03/13/2020 0826
1,1-Dichloroethene	50	49		1	99	70-130	03/13/2020 0826
cis-1,2-Dichloroethene	50	51		1	103	70-130	03/13/2020 0826
trans-1,2-Dichloroethene	50	51		1	103	70-130	03/13/2020 0826
1,2-Dichloropropane	50	54		1	108	70-130	03/13/2020 0826
cis-1,3-Dichloropropene	50	55		1	110	70-130	03/13/2020 0826
trans-1,3-Dichloropropene	50	52		1	105	70-130	03/13/2020 0826
Ethylbenzene	50	52		1	103	70-130	03/13/2020 0826
2-Hexanone	100	110		1	109	70-130	03/13/2020 0826
Isopropylbenzene	50	53		1	106	70-130	03/13/2020 0826
Methyl acetate	50	54		1	107	70-130	03/13/2020 0826
Methyl tertiary butyl ether (MTBE)	50	44		1	89	70-130	03/13/2020 0826
4-Methyl-2-pentanone	100	110		1	111	70-130	03/13/2020 0826
Methylcyclohexane	50	53		1	105	70-130	03/13/2020 0826
Methylene chloride	50	47		1	94	70-130	03/13/2020 0826
Styrene	50	54		1	108	70-130	03/13/2020 0826
1,1,2,2-Tetrachloroethane	50	51		1	102	70-130	03/13/2020 0826
Tetrachloroethene	50	50		1	100	70-130	03/13/2020 0826
Toluene	50	50		1	101	70-130	03/13/2020 0826
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	49		1	99	70-130	03/13/2020 0826
1,2,4-Trichlorobenzene	50	51		1	102	70-130	03/13/2020 0826
1,1,1-Trichloroethane	50	51		1	101	70-130	03/13/2020 0826
1,1,2-Trichloroethane	50	51		1	102	70-130	03/13/2020 0826

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: VQ47774-002
Batch: 47774
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	50		1	100	70-130	03/13/2020 0826
Trichlorofluoromethane	50	45		1	91	70-130	03/13/2020 0826
Vinyl chloride	50	47		1	93	70-130	03/13/2020 0826
Xylenes (total)	100	100		1	104	70-130	03/13/2020 0826

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		103	70-130
1,2-Dichloroethane-d4		97	70-130
Toluene-d8		100	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Chain of Custody

and

Miscellaneous Documents

SHEALY **Chain of Custody Record**

SHEALY ENVIRONMENTAL SERVICES, INC.
106 Vantage Point Drive • West Columbia, SC 29172
Telephone No. 803-791-9700 Fax No. 803-791-9111
www.shealylab.com

Number 102497

Client	Report to Contact	Telephone No. / E-mail	Quote No.
TRC	Lisa Clark		

Address	Sampler's Signature	Analysis (Attach list if more space is needed)	Page 1 of 1
50 International Dr Suite 150	X		

City	State	Zip Code	Printed Name
Greenville	SC	29615	Benjamin Medlin

Project Name	Project No.	P.O. No.
WPH Clemson	300688.0.0.11	

VC11080

Sample ID / Description (Containers for each sample may be combined on one line.)	Date 2020	Time	Grab / Composite	Matrix: Aqueous	Solid	Non-Aqueous	No of Containers by Preservative Type: Unpres.	H2SO4	HNO3	HCl	NaOH	SAS Vial	TSP	VOCs	Cl, SO4, Br	NO3	Diss. Gases						Remarks / Cooler I.D.
TBLK-20102	1	1	G	X						2				X									
RMW-23C	3.10	1210	G	X			2			3			3	X	X	X	X						
RMW-23A	3.10	1500	G	X			2			3			3	X	X	X	X						

Turn Around Time Required (Prior lab approval required for expedited TAT.)	Sample Disposal	Possible Hazard Identification	QC Requirements (Specify)
☐ Standard ☐ Rush (Specify)	☐ Return to Client ☐ Disposal by Lab	☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown	

	Relinquished by	Date	Time	Received by	Date	Time
1.		3.10.20	1620	TRC Sample Storage	3.10.20	1620
2.	TRC Sample Storage	3/11/20	0850		3/11/20	0850
3.		3/11/20	1525		Date	Time
4.		Date	Time	Laboratory received by	3/11/2020	1520

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on Ice (Circle) Yes No Ice Pack

Receipt Temp 2.3 °C

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Client Copy

Document Number: F-AD-139 Effective Date: 08-01-2014

Shealy Environmental Services, Inc.
Document Number: ME0018C-14

Page 1 of 1
Effective Date: 8/2/2018

Sample Receipt Checklist (SRC)

Client: TRC Cooler Inspected by/date: JSH / 03/11/2020 Lot #: VC11080

Means of receipt: ☑ SESI ☐ Client ☐ UPS ☐ FedEx ☐ Other: ____

☐ Yes	☑ No		1. Were custody seals present on the cooler?
☐ Yes	☐ No	☑ NA	2. If custody seals were present, were they intact and unbroken?

pH Strip ID: NA Chlorine Strip ID: NA Tested by: NA

Original temperature upon receipt / Derived (Corrected) temperature upon receipt %Solid Snap-Cup ID: NA

2.3 / 2.3 °C NA / NA °C NA / NA °C NA / NA °C

Method: ☑ Temperature Blank ☐ Against Bottles IR Gun ID: 6 IR Gun Correction Factor: 0 °C

Method of coolant: ☑ Wet Ice ☐ Ice Packs ☐ Dry Ice ☐ None

☐ Yes	☐ No	☑ NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).
☐ Yes	☐ No	☑ NA	4. Is the commercial courier's packing slip attached to this form?
☑ Yes	☐ No		5. Were proper custody procedures (relinquished/received) followed?
☑ Yes	☐ No		6. Were sample IDs listed on the COC?
☑ Yes	☐ No		7. Were sample IDs listed on all sample containers?
☑ Yes	☐ No		8. Was collection date & time listed on the COC?
☑ Yes	☐ No		9. Was collection date & time listed on all sample containers?
☑ Yes	☐ No		10. Did all container label information (ID, date, time) agree with the COC?
☑ Yes	☐ No		11. Were tests to be performed listed on the COC?
☑ Yes	☐ No		12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)?
☑ Yes	☐ No		13. Was adequate sample volume available?
☐ Yes	☑ No		14. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
☐ Yes	☑ No		15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
☐ Yes	☑ No	☐ NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (¼"or 6mm in diameter) in any of the VOA vials?
☐ Yes	☐ No	☑ NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?
☐ Yes	☐ No	☑ NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
☐ Yes	☐ No	☑ NA	19. Were all applicable NH_3/TKN/cyanide/phenol/625 (< 0.5mg/L) samples free of residual chlorine?
☐ Yes	☐ No	☑ NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc…) correctly transcribed from the COC into the comment section in LIMS?
☐ Yes	☑ No		21. Was the quote number listed on the container label? If yes, Quote # NA

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) NA were received incorrectly preserved and were adjusted accordingly in sample receiving with NA mL of circle one: H2SO4, HNO3, HCl, NaOH using SR # NA.
Time of preservation NA. If more than one preservative is needed, please note in the comments below.

Sample(s) NA were received with bubbles >6 mm in diameter.

Samples(s) NA were received with TRC > 0.5 mg/L (If #19 is *no*) and were adjusted accordingly in sample receiving with sodium thiosulfate ($Na_2S_2O_3$) with Shealy ID: NA.

SR barcode labels applied by: JSH Date: 03/11/2020

Comments:

Pace Analytical Energy Services LLC
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

March 20, 2020

Lucas Odom
Pace Analytical Services South Carolina
106 Vantage Point Drive
West Columbia, SC 29172

RE: **WPH CLEMSON / 300688.0.0.11**

Pace Workorder: 33226

Dear Lucas Odom:

Enclosed are the analytical results for sample(s) received by the laboratory on Friday, March 13, 2020. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Ruth Welsh 03/20/2020
Ruth.Welsh@pacelabs.com

Customer Service Representative

Enclosures

As a valued client we would appreciate your comments on our service.
Please email PAESfeedback@pacelabs.com.

Total Number of Pages 12

CERTIFICATE OF ANALYSIS

Laboratory Data Quality Review Notes

Project Name: WPH-Clemson, SC

Project Number: 300688.0000.0000.000011

Lab Report: **33226** Pace Analytical Energy Services LLC; Pittsburgh, PA
This lab report is the subcontracted job related to **VC10080**.

Samples and Analyses: Two groundwater samples, collected 10-Mar-2020 and analyzed for dissolved hydrocarbon gases (methane, ethane, ethene)

Chain of Custody, Sample Temperature, Sample Preservation: Chain of custody was signed (sample transfer from Pace Analytical, Columbia, to Pace Analytical, Pittsburgh); sample temperature was <6 ^{o}C upon arrival at the laboratory; samples were preserved properly.

Hold Time: Samples were analyzed within acceptable hold time.

Surrogates: Surrogate recoveries are not applicable to dissolved hydrocarbon gas analyses.

Method Blank: Target analytes were not detected in the laboratory method blank.

Trip Blank: A trip blank was not analyzed with these samples.

Field Blank: A field blank was not collected with these samples.

Equipment Rinse Blank: A rinsate blank was not collected with these samples.

LCS/LCSD: LCS and LCSD recoveries and LCS/LCSD RPDs are within QC limits.

MS/MSD: MS/MSD analyses were not performed using a sample from this data set.

Duplicates: A field duplicate was not collected with these samples.

Dilutions: No dilutions were performed with these sample analyses.

No data qualifiers were assigned in this review.

Data reviewer: Amy Bass; TRC Environmental Corporation; 25-Mar-2020

Pace Analytical Energy Services LLC
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

LABORATORY ACCREDITATIONS & CERTIFICATIONS

Accreditor:	Pennsylvania Department of Environmental Protection, Bureau of Laboratories
Accreditation ID:	02-00538
Scope:	NELAP Non-Potable Water
Accreditor:	West Virginia Department of Environmental Protection, Division of Water and Waste Management
Accreditation ID:	395
Scope:	Non-Potable Water
Accreditor:	South Carolina Department of Health and Environmental Control, Office of Environmental Laboratory Certification
Accreditation ID:	89009003
Scope:	Clean Water Act (CWA); Resource Conservation and Recovery Act (RCRA)
Accreditor:	State of Virginia
Accreditation ID:	460201
Scope:	Non-Potable Water
Accreditor:	NELAP: New Jersey, Department of Environmental Protection
Accreditation ID:	PA026
Scope:	Non-Potable Water
Accreditor:	NELAP: New York, Department of Health Wadsworth Center
Accreditation ID:	11815
Scope:	Non-Potable Water
Accreditor:	State of Connecticut, Department of Public Health, Division of Environmental Health
Accreditation ID:	PH-0263
Scope:	Clean Water Act (CWA) Resource Conservation and Recovery Act (RCRA)
Accreditor:	NELAP: Texas, Commission on Environmental Quality
Accreditation ID:	T104704453-09-TX
Scope:	Non-Potable Water
Accreditor:	State of New Hampshire
Accreditation ID:	299409
Scope:	Non-potable water
Accreditor:	State of Georgia
Accreditation ID:	Chapter 391-3-26
Scope:	As per the Georgia EPD Rules and Regulations for Commercial Laboratories, PAES is accredited by the Pennsylvania Department of Environmental Protection Bureau of Laboratories under the National Environmental Laboratory Approval Program (NELAC).

Pace Analytical Energy Services LLC
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
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SAMPLE SUMMARY

Workorder: 33226 WPH CLEMSON / 300688.0.0.11

Lab ID	Sample ID	Matrix	Date Collected	Date Received
332260001	RMW-23C	Water	3/10/2020 12:10	3/13/2020 11:00
332260002	RMW-23A	Water	3/10/2020 15:00	3/13/2020 11:00

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PROJECT SUMMARY

Workorder: 33226 WPH CLEMSON / 300688.0.0.11

Workorder Comments

The container pH for samples 33226 (0001-0002) were measured as below the expected pH (< 10) for those samples preserved with trisodium phosphate, as assigned to PAES method AM20GAx.

Pace Analytical Energy Services LLC
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Pittsburgh, PA 15238
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ANALYTICAL RESULTS

Workorder: 33226 WPH CLEMSON / 300688.0.0.11

Lab ID: **332260001** Date Received: 3/13/2020 11:00 Matrix: Water

Sample ID: **RMW-23C** Date Collected: 3/10/2020 12:10

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**18000**	ug/l	0.50	0.094	1	3/18/2020 15:20	MM	n
Ethane	**2.2**	ug/l	0.10	0.011	1	3/18/2020 15:20	MM	n
Ethene	**2.2**	ug/l	0.10	0.0080	1	3/18/2020 15:20	MM	n

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Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

ANALYTICAL RESULTS

Workorder: 33226 WPH CLEMSON / 300688.0.0.11

Lab ID: **332260002** Date Received: 3/13/2020 11:00 Matrix: Water

Sample ID: **RMW-23A** Date Collected: 3/10/2020 15:00

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**8200**	ug/l	0.50	0.094	1	3/18/2020 15:33	MM	n
Ethane	**390**	ug/l	0.10	0.011	1	3/18/2020 15:33	MM	n
Ethene	**50**	ug/l	0.10	0.0080	1	3/18/2020 15:33	MM	n

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ANALYTICAL RESULTS QUALIFIERS

Workorder: 33226 WPH CLEMSON / 300688.0.0.11

DEFINITIONS/QUALIFIERS

MDL	Method Detection Limit. Can be used synonymously with LOD; Limit Of Detection.
PQL	Practical Quanitation Limit. Can be used synonymously with LOQ; Limit Of Quantitation.
ND	Not detected at or above reporting limit.
DF	Dilution Factor.
S	Surrogate.
RPD	Relative Percent Difference.
% Rec	Percent Recovery.
U	Indicates the compound was analyzed for, but not detected at or above the noted concentration.
J	Estimated concentration greater than the set method detection limit (MDL) and less than the set reporting limit (PQL).
n	The laboratory does not hold NELAP/TNI accreditation for this method or analyte.

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QUALITY CONTROL DATA

Workorder: 33226 WPH CLEMSON / 300688.0.0.11

QC Batch: DISG/8158 Analysis Method: AM20GAX

QC Batch Method: AM20GAX

Associated Lab Samples: 332260001, 332260002

METHOD BLANK: 66377

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
RISK				
Methane	ug/l	0.094U	0.094	n
Ethane	ug/l	0.011U	0.011	n
Ethene	ug/l	0.0080U	0.0080	n

LABORATORY CONTROL SAMPLE & LCSD: 66378 66379

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Methane	ug/l	750	790	840	106	112	80-120	5.6	20	n
Ethane	ug/l	38	43	43	115	114	80-120	0.61	20	n
Ethene	ug/l	35	41	40	115	114	80-120	0.54	20	n

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 66396 66397 Original: 332150003

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
RISK											
Methane	ug/l	2900	750	3500	3500	75	75	70-130	0.11	20	n
Ethane	ug/l	0.041	38	36	36	96	95	70-130	1.3	20	n
Ethene	ug/l	0.67	35	35	34	97	96	70-130	1.4	20	n

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QUALITY CONTROL DATA QUALIFIERS

Workorder: 33226 WPH CLEMSON / 300688.0.0.11

QUALITY CONTROL PARAMETER QUALIFIERS

n	The laboratory does not hold NELAP/TNI accreditation for this method or analyte.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 33226 WPH CLEMSON / 300688.0.0.11

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
332260001	RMW-23C			AM20GAX	DISG/8158
332260002	RMW-23A			AM20GAX	DISG/8158

SHEALY

Chain of Custody Record 33226

Sheally Environmental Services, Inc.
106 Vantage Point Drive
West Columbia, South Carolina 29172
Telephone No. (803) 791-9700 Fax No. (803) 791-9111
www.shealylab.com

Number

Client: Pace Analytical - Columbia	Report to Contact: Lucas Odom	Telephone No. / E-mail: 803-206-9537/lodom@shealylab.com	Quote No.
Address: 106 Vantage Point Dr.	Sampler's Signature: X ____	Analysis (Attach list if more space is needed)	Page 1 of 1
City: West Columbia; State: SC; Zip Code: 29172	Printed Name		
Project Name: WPH Clemson			Laboratory Lot Number
Project Number: 300688.0.0.11; P.O No.			

Sample ID / Description (Containers for each sample may be combined on one line)	Date	Time	G=Grab C=Composite	Matrix: Aqueous	Matrix: Solid	Matrix: Non-Aqueous		No of Containers by Preservative Type: Unpres.	H2SO4	HNO3	HCl	NaOH	5035 Kit	TSP	Dissolved Gasses								Remarks / Cooler I.D.
RMW-23C	3/10/2020	1210	G	x										3	X								VC11080
RMW-23A	3/10/2020	1500	G	x										3	X								

Turn Around Time Required (Prior lab approval required for expedited TAT) X Standard Rush	Sample Disposal ☐ Return to Client ☒ Disposal by Lab		Possible Hazard Identification (List any known hazards in the remarks) ☐ Non-Hazardous ☐ Flammable ☐ Skin Irritant ☐ SDS provided ☐ Unknown		QC Requirements
1. Relinquished by Lindsey Hile	Date 3/12/2020	Time 1800	1. Received by [signature]	Date	Time
2. Relinquished by	Date	Time	2. Received by	Date	Time
3. Relinquished by	Date	Time	3. Received by	Date	Time
4. Relinquished by	Date	Time	4. Laboratory Received by [signature]	Date 3.13.2020	Time 1100

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on Ice (Check) ☐ Y ☐ N ☐ Ice Pack
Receipt Temp. 2.2 °C

Document Number: ME002OW-01

Cooler Receipt Form

Client Name: Shealy **Project:** WPH Clemson **Lab Work Order:** 33226

A. **Shipping/Container Information** (circle appropriate response)

Courier: (FedEx) UPS USPS Client Other:_____ **Air bill Present:** (Yes) No

Tracking Number: 166334637202

Custody Seal on Cooler/Box Present: (Yes) No **Seals Intact:** (Yes) No

Cooler/Box Packing Material: (Bubble Wrap) Absorbent Foam Other:_____

Type of Ice: (Wet) Blue None **Ice Intact:** (Yes) Melted

Cooler Temperature: 0.8°C **Radiation Screened:** Yes (No) **Chain of Custody Present:** (Yes) No

Comments:_____

B. **Laboratory Assignment/Log-in** (check appropriate response)

	YES	NO	N/A	Comment Reference non-Conformance
Chain of Custody properly filled out	✓			
Chain of Custody relinquished	✓			
Sampler Name & Signature on COC			✓	
Containers intact	✓			
Were samples in separate bags	✓			
Sample container labels match COC Sample name/date and time collected	✓			
Sufficient volume provided	✓			
PAES containers used	✓			
Are containers properly preserved for the requested testing? (as labeled)	✓			
If an unknown preservation state, were containers checked? Exception: VOA's coliform			✓	If yes, see pH form.
Was volume for dissolved testing field filtered, as noted on the COC? Was volume received in a preserved container?			✓	
Headspace present?		✓		

Comments:_____

Cooler contents examined/received by : LY **Date:** 3.13.2020

Project Manager Review : ERJ **Date:** 3/13/2020

Report of Analysis

TRC Companies, Inc.
50 International Dr.
Suite 150
Greenville, SC 29615
Attention: Lisa Clark

Project Name: WPH Clemson

Project Number: 300688.0000.0000.00011

Lot Number:**VC12037**

Date Completed:03/20/2020

03/31/2020 1:41 PM
Approved and released by:
Lab Director - Greenville: **Lucas Odom**

The electronic signature above is the equivalent of a handwritten signature.

Pace Analytical Services, LLC (*formerly Shealy Environmental Services, Inc.*)
106 Vantage Point Drive West Columbia, SC 29172
Tel: 803-791-9700 Fax: 803-791-9111 www.pacelabs.com

Laboratory Data Quality Review Notes

Project Name: WPH-Clemson, SC

Project Number: 300688.0000.0000.000011

Lab Report: **VC12037** Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.); West Columbia, SC; subcontracted job: **33266**

Samples and Analyses: Six groundwater samples and one field duplicate, collected 11-Mar-2020 and analyzed for VOCs, chloride, bromide, sulfate, and nitrate; one trip blank, analyzed for VOCs only

Chain of Custody, Sample Temperature, Sample Preservation: Chain of custody was signed; sample temperature was <6 ^{o}C upon arrival at the laboratory; samples were preserved properly.

Hold Time: Sample analyses were performed within acceptable hold times.

Surrogates: VOC surrogate recoveries are within QC limits.

Method Blank: No target analytes were detected in the laboratory method blanks.

Trip Blank: No target analytes were detected in the trip blank; analyzed for VOCs only.

Field Blank: A field blank was not collected with these samples.

Equipment Rinse Blank: A rinsate blank was not collected with these samples.

LCS/LCSD: LCS recoveries for all analyses are within QC limits. LCSD analyses were not performed.

MS/MSD: MS/MSD analyses were performed only for VOCs, using sample RMW-14A. MS recoveries for cyclohexane and methyl acetate (both ND), and MS and MSD recoveries for tetrachloroethene (detected) are below the QC limits. MS/MSD RPDs are within QC limits. **In the RMW-14A results, cyclohexane and methyl acetate are assigned "uj" qualifiers, and tetrachloroethene is assigned a "j" qualifier due to low MS/MSD recoveries.**

Duplicates: A field duplicate sample (DU-20101) was collected for sample RMW-14B. RPDs were calculated for analytes detected above 5× the LOQ in both samples; absolute differences were used to evaluate analytes detected below 5× the LOQ in one or both samples. RPD values were ≤ 30%, and absolute differences were ≤ LOQ; therefore, results are in acceptable agreement.

Dilutions: ND results were reported at elevated DLs and LOQs due to dilution in the VOCs analysis of sample RMW-20A (2× dilution). No other dilutions were associated with ND results.

Data reviewer: Amy Bass; TRC Environmental Corporation; 01-Apr-2020

Case Narrative
TRC Companies, Inc.
Lot Number: VC12037

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Pace Analytical Services, LLC ("Pace") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Pace policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Pace Project Manager listed on the cover page.

VOCs by GC/MS

The continuing calibration verification (CCV) associated with batch 48012 recovered outside acceptance criteria for Dichlorodifluoromethane and Chloromethane . An LOQ standard was analyzed, and the target analyte was detected. Since the associated samples are non-detect, no corrective action was taken.

Due to suspected matrix interferences, the MS associated with batch 47792 recovered Cyclohexane and Methyl Acetate marginally outside of method criteria. The associated MSD recovered these compounds marginally inside of method criteria. In addition, the MS/MSD recovered Tetrachloroethene below method criteria. The relative percent difference between the MS/MSD for all three compounds is within method criteria further demonstrating matrix interferences are impacting the recoveries.

Bromide/Chloride by IC

Due to the matrix interference of a nontarget analyte, sulfate, sample -003 has been analzyed at a dilution. The LOQs have been adjusted accordingly to reflect the dilution.

Dissolved Gasses

The analysis for dissolved gasses has been performed by Pace Energy. This data is found on report 33266.

Sample Summary
TRC Companies, Inc.
Lot Number: VC12037

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	TBLK-20103	Aqueous	03/11/2020	03/12/2020
002	RMW-14B	Aqueous	03/11/2020 1155	03/12/2020
003	RMW-14A	Aqueous	03/11/2020 1250	03/12/2020
004	RMW-14C	Aqueous	03/11/2020 1410	03/12/2020
005	RMW-14	Aqueous	03/11/2020 1430	03/12/2020
006	RMW-20A	Aqueous	03/11/2020 1610	03/12/2020
007	RMW-20	Aqueous	03/11/2020 1630	03/12/2020
008	DU-20101	Aqueous	03/11/2020	03/12/2020

(8 samples)

Detection Summary

TRC Companies, Inc.

Lot Number: VC12037

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
002	RMW-14B	Aqueous	Chloride	300.0	0.85	J	mg/L	7
002	RMW-14B	Aqueous	Nitrate - N	353.2	0.36		mg/L	7
002	RMW-14B	Aqueous	Sulfate	300.0	0.63	J	mg/L	7
002	RMW-14B	Aqueous	Tetrachloroethene	8260D	0.87	J	ug/L	8
003	RMW-14A	Aqueous	Nitrate - N	353.2	0.70		mg/L	10
003	RMW-14A	Aqueous	Sulfate	300.0	150		mg/L	10
003	RMW-14A	Aqueous	Chloroform	8260D	6.8		ug/L	11
003	RMW-14A	Aqueous	1,1-Dichloroethene	8260D	5.7		ug/L	11
003	RMW-14A	Aqueous	Tetrachloroethene	8260D	530		ug/L	11
003	RMW-14A	Aqueous	1,1,2-Trichloro-1,2,2-	8260D	2.1	J	ug/L	11
004	RMW-14C	Aqueous	Chloride	300.0	0.82	J	mg/L	13
004	RMW-14C	Aqueous	Nitrate - N	353.2	0.44		mg/L	13
004	RMW-14C	Aqueous	Sulfate	300.0	0.29	J	mg/L	13
004	RMW-14C	Aqueous	cis-1,2-Dichloroethene	8260D	0.45	J	ug/L	14
004	RMW-14C	Aqueous	Tetrachloroethene	8260D	4.6		ug/L	14
005	RMW-14	Aqueous	Chloride	300.0	2.8		mg/L	16
005	RMW-14	Aqueous	Nitrate - N	353.2	1.5		mg/L	16
005	RMW-14	Aqueous	Sulfate	300.0	120		mg/L	16
005	RMW-14	Aqueous	Tetrachloroethene	8260D	34		ug/L	17
006	RMW-20A	Aqueous	Chloride	300.0	2.3		mg/L	19
006	RMW-20A	Aqueous	Nitrate - N	353.2	0.90		mg/L	19
006	RMW-20A	Aqueous	2-Butanone (MEK)	8260D	200		ug/L	20
006	RMW-20A	Aqueous	cis-1,2-Dichloroethene	8260D	1600		ug/L	20
006	RMW-20A	Aqueous	Tetrachloroethene	8260D	21		ug/L	20
006	RMW-20A	Aqueous	Vinyl chloride	8260D	11	J	ug/L	21
007	RMW-20	Aqueous	Bromide	300.0	0.15	J	mg/L	22
007	RMW-20	Aqueous	Chloride	300.0	13		mg/L	22
007	RMW-20	Aqueous	Nitrate - N	353.2	5.7		mg/L	22
007	RMW-20	Aqueous	Sulfate	300.0	83		mg/L	22
007	RMW-20	Aqueous	cis-1,2-Dichloroethene	8260D	1.0		ug/L	23
007	RMW-20	Aqueous	Tetrachloroethene	8260D	29		ug/L	23
008	DU-20101	Aqueous	Chloride	300.0	0.81	J	mg/L	25
008	DU-20101	Aqueous	Nitrate - N	353.2	0.37		mg/L	25
008	DU-20101	Aqueous	Sulfate	300.0	0.34	J	mg/L	25
008	DU-20101	Aqueous	Tetrachloroethene	8260D	0.96	J	ug/L	26

(35 detections)

Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC12037-001
Description: TBLK-20103
Matrix: Aqueous
Date Sampled: 03/11/2020
Date Received: 03/12/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/13/2020 1132	TML		47792

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	ND		1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

Pace Analytical Services, LLC *(formerly Shealy Environmental Services, Inc.)*
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC12037-001
Description: TBLK-20103
Matrix: Aqueous
Date Sampled: 03/11/2020
Date Received: 03/12/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/13/2020 1132	TML		47792

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Trichloroethene	79-01-6	8260D	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		98	70-130
1,2-Dichloroethane-d4		103	70-130
Toluene-d8		107	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

Inorganic non-metals

Client: TRC Companies, Inc.
Laboratory ID: VC12037-002
Description: RMW-14B
Matrix: Aqueous
Date Sampled: 03/11/2020 1155
Date Received: 03/12/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	03/20/2020 0038	AMR		48496
1		(Chloride) 300.0	1	03/20/2020 0038	AMR		48495
1		(Nitrate - N) 353.2	1	03/12/2020 1811	AMR		47843
1		(Sulfate) 300.0	1	03/20/2020 0038	AMR		48492

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	ND		0.20	0.050	mg/L	1
Chloride		300.0	0.85	J	1.0	0.20	mg/L	1
Nitrate - N		353.2	0.36		0.020	0.010	mg/L	1
Sulfate		300.0	0.63	J	1.0	0.20	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

Pace Analytical Services, LLC *(formerly Shealy Environmental Services, Inc.)*
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc. | Laboratory ID: VC12037-002
Description: RMW-14B | Matrix: Aqueous
Date Sampled: 03/11/2020 1155
Date Received: 03/12/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/13/2020 1157	TML		47792

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	0.87	J	1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC12037-002
Description: RMW-14B
Matrix: Aqueous
Date Sampled: 03/11/2020 1155
Date Received: 03/12/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/13/2020 1157	TML		47792

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Trichloroethene	79-01-6	8260D	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		98	70-130
1,2-Dichloroethane-d4		105	70-130
Toluene-d8		106	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

Inorganic non-metals

Client: TRC Companies, Inc.
Laboratory ID: VC12037-003
Description: RMW-14A
Matrix: Aqueous
Date Sampled: 03/11/2020 1250
Date Received: 03/12/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	5	03/20/2020 0106	AMR		48496
1		(Chloride) 300.0	5	03/20/2020 0106	AMR		48495
1		(Nitrate - N) 353.2	1	03/12/2020 1813	AMR		47843
1		(Sulfate) 300.0	5	03/20/2020 0106	AMR		48492

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	ND		1.0	0.25	mg/L	1
Chloride		300.0	ND		5.0	1.0	mg/L	1
Nitrate - N		353.2	0.70		0.020	0.010	mg/L	1
Sulfate		300.0	150		5.0	1.0	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc. | Laboratory ID: VC12037-003
Description: RMW-14A | Matrix: Aqueous
Date Sampled: 03/11/2020 1250
Date Received: 03/12/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	5	03/13/2020 1337	TML		47792

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		100	25	ug/L	1
Benzene	71-43-2	8260D	ND		5.0	2.0	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		5.0	2.0	ug/L	1
Bromoform	75-25-2	8260D	ND		5.0	2.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		10	2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		50	10	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		5.0	2.0	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		5.0	2.0	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		5.0	2.0	ug/L	1
Chloroethane	75-00-3	8260D	ND		10	2.0	ug/L	1
Chloroform	67-66-3	8260D	6.8		5.0	2.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		5.0	2.5	ug/L	1
Cyclohexane	110-82-7	8260D	ND		5.0	2.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		5.0	2.0	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		5.0	2.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		5.0	2.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		5.0	2.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		5.0	2.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		5.0	2.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		10	3.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		5.0	2.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		5.0	2.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	5.7		5.0	2.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		5.0	2.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		5.0	2.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		5.0	2.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		5.0	2.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		5.0	2.0	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		5.0	2.0	ug/L	1
2-Hexanone	591-78-6	8260D	ND		50	10	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		5.0	2.0	ug/L	1
Methyl acetate	79-20-9	8260D	ND		5.0	2.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		5.0	2.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		50	10	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		25	2.0	ug/L	1
Methylene chloride	75-09-2	8260D	ND		5.0	2.0	ug/L	1
Styrene	100-42-5	8260D	ND		5.0	2.1	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		5.0	2.0	ug/L	1
Tetrachloroethene	127-18-4	8260D	530		5.0	2.0	ug/L	1
Toluene	108-88-3	8260D	ND		5.0	2.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	2.1	J	5.0	2.1	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		5.0	2.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		5.0	2.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		5.0	2.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC12037-003
Description: RMW-14A
Matrix: Aqueous
Date Sampled: 03/11/2020 1250
Date Received: 03/12/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	5	03/13/2020 1337	TML		47792

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Trichloroethene	79-01-6	8260D	ND		5.0	2.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		5.0	2.0	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		5.0	2.0	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		5.0	2.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		100	70-130
1,2-Dichloroethane-d4		104	70-130
Toluene-d8		107	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Inorganic non-metals

Client: TRC Companies, Inc.
Laboratory ID: VC12037-004
Description: RMW-14C
Matrix: Aqueous
Date Sampled: 03/11/2020 1410
Date Received: 03/12/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	03/20/2020 0134	AMR		48496
1		(Chloride) 300.0	1	03/20/2020 0134	AMR		48495
1		(Nitrate - N) 353.2	1	03/12/2020 1814	AMR		47843
1		(Sulfate) 300.0	1	03/20/2020 0134	AMR		48492

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	ND		0.20	0.050	mg/L	1
Chloride		300.0	0.82	J	1.0	0.20	mg/L	1
Nitrate - N		353.2	0.44		0.020	0.010	mg/L	1
Sulfate		300.0	0.29	J	1.0	0.20	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc. | Laboratory ID: VC12037-004
Description: RMW-14C | Matrix: Aqueous
Date Sampled: 03/11/2020 1410
Date Received: 03/12/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/13/2020 1221	TML		47792

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	0.45	J	1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	4.6		1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC12037-004
Description: RMW-14C
Matrix: Aqueous
Date Sampled: 03/11/2020 1410
Date Received: 03/12/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/13/2020 1221	TML		47792

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Trichloroethene	79-01-6	8260D	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		100	70-130
1,2-Dichloroethane-d4		103	70-130
Toluene-d8		106	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

Inorganic non-metals

Client: TRC Companies, Inc.
Laboratory ID: VC12037-005
Description: RMW-14
Matrix: Aqueous
Date Sampled: 03/11/2020 1430
Date Received: 03/12/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	03/20/2020 0202	AMR		48496
1		(Chloride) 300.0	1	03/20/2020 0202	AMR		48495
1		(Nitrate - N) 353.2	1	03/12/2020 1815	AMR		47843
1		(Sulfate) 300.0	1	03/20/2020 0202	AMR		48492

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	ND		0.20	0.050	mg/L	1
Chloride		300.0	2.8		1.0	0.20	mg/L	1
Nitrate - N		353.2	1.5		0.020	0.010	mg/L	1
Sulfate		300.0	120		1.0	0.20	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC12037-005
Description: RMW-14
Matrix: Aqueous
Date Sampled: 03/11/2020 1430
Date Received: 03/12/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/13/2020 1247	TML		47792

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	34		1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC12037-005
Description: RMW-14
Matrix: Aqueous
Date Sampled: 03/11/2020 1430
Date Received: 03/12/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/13/2020 1247	TML		47792

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Trichloroethene	79-01-6	8260D	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		100	70-130
1,2-Dichloroethane-d4		104	70-130
Toluene-d8		108	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

Inorganic non-metals

Client: TRC Companies, Inc.
Laboratory ID: VC12037-006
Description: RMW-20A
Matrix: Aqueous
Date Sampled: 03/11/2020 1610
Date Received: 03/12/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	03/20/2020 0230	AMR		48496
1		(Chloride) 300.0	1	03/20/2020 0230	AMR		48495
1		(Nitrate - N) 353.2	1	03/12/2020 1817	AMR		47843
1		(Sulfate) 300.0	1	03/20/2020 0230	AMR		48492

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	ND		0.20	0.050	mg/L	1
Chloride		300.0	2.3		1.0	0.20	mg/L	1
Nitrate - N		353.2	0.90		0.020	0.010	mg/L	1
Sulfate		300.0	ND		1.0	0.20	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc. | Laboratory ID: VC12037-006
Description: RMW-20A | Matrix: Aqueous
Date Sampled: 03/11/2020 1610
Date Received: 03/12/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	5030B	8260D	20	03/17/2020 0527	JTH		48040

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		400	100	ug/L	2
Benzene	71-43-2	8260D	ND		20	8.0	ug/L	2
Bromodichloromethane	75-27-4	8260D	ND		20	8.0	ug/L	2
Bromoform	75-25-2	8260D	ND		20	8.0	ug/L	2
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		40	8.0	ug/L	2
2-Butanone (MEK)	78-93-3	8260D	200		200	40	ug/L	2
Carbon disulfide	75-15-0	8260D	ND		20	8.0	ug/L	2
Carbon tetrachloride	56-23-5	8260D	ND		20	8.0	ug/L	2
Chlorobenzene	108-90-7	8260D	ND		20	8.0	ug/L	2
Chloroethane	75-00-3	8260D	ND		40	8.0	ug/L	2
Chloroform	67-66-3	8260D	ND		20	8.0	ug/L	2
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		20	10	ug/L	2
Cyclohexane	110-82-7	8260D	ND		20	8.0	ug/L	2
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		20	8.0	ug/L	2
Dibromochloromethane	124-48-1	8260D	ND		20	8.0	ug/L	2
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		20	8.0	ug/L	2
1,2-Dichlorobenzene	95-50-1	8260D	ND		20	8.0	ug/L	2
1,3-Dichlorobenzene	541-73-1	8260D	ND		20	8.0	ug/L	2
1,4-Dichlorobenzene	106-46-7	8260D	ND		20	8.0	ug/L	2
Dichlorodifluoromethane	75-71-8	8260D	ND		40	12	ug/L	2
1,1-Dichloroethane	75-34-3	8260D	ND		20	8.0	ug/L	2
1,2-Dichloroethane	107-06-2	8260D	ND		20	8.0	ug/L	2
1,1-Dichloroethene	75-35-4	8260D	ND		20	8.0	ug/L	2
cis-1,2-Dichloroethene	156-59-2	8260D	1600		20	8.0	ug/L	2
trans-1,2-Dichloroethene	156-60-5	8260D	ND		20	8.0	ug/L	2
1,2-Dichloropropane	78-87-5	8260D	ND		20	8.0	ug/L	2
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		20	8.0	ug/L	2
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		20	8.0	ug/L	2
Ethylbenzene	100-41-4	8260D	ND		20	8.0	ug/L	2
2-Hexanone	591-78-6	8260D	ND		200	40	ug/L	2
Isopropylbenzene	98-82-8	8260D	ND		20	8.0	ug/L	2
Methyl acetate	79-20-9	8260D	ND		20	8.0	ug/L	2
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		20	8.0	ug/L	2
4-Methyl-2-pentanone	108-10-1	8260D	ND		200	40	ug/L	2
Methylcyclohexane	108-87-2	8260D	ND		100	8.0	ug/L	2
Methylene chloride	75-09-2	8260D	ND		20	8.0	ug/L	2
Styrene	100-42-5	8260D	ND		20	8.2	ug/L	2
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		20	8.0	ug/L	2
Tetrachloroethene	127-18-4	8260D	21		20	8.0	ug/L	2
Toluene	108-88-3	8260D	ND		20	8.0	ug/L	2
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		20	8.4	ug/L	2
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		20	8.0	ug/L	2
1,1,1-Trichloroethane	71-55-6	8260D	ND		20	8.0	ug/L	2
1,1,2-Trichloroethane	79-00-5	8260D	ND		20	8.0	ug/L	2

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC12037-006
Description: RMW-20A
Matrix: Aqueous
Date Sampled: 03/11/2020 1610
Date Received: 03/12/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	5030B	8260D	20	03/17/2020 0527	JTH		48040

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Trichloroethene	79-01-6	8260D	ND		20	8.0	ug/L	2
Trichlorofluoromethane	75-69-4	8260D	ND		20	8.0	ug/L	2
Vinyl chloride	75-01-4	8260D	11	J	20	8.0	ug/L	2
Xylenes (total)	1330-20-7	8260D	ND		20	8.0	ug/L	2

Surrogate	Q	Run 2 % Recovery	Acceptance Limits
Bromofluorobenzene		99	70-130
1,2-Dichloroethane-d4		129	70-130
Toluene-d8		97	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Inorganic non-metals

Client: TRC Companies, Inc.
Laboratory ID: VC12037-007
Description: RMW-20
Matrix: Aqueous
Date Sampled: 03/11/2020 1630
Date Received: 03/12/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	03/20/2020 0258	AMR		48496
1		(Chloride) 300.0	1	03/20/2020 0258	AMR		48495
1		(Nitrate - N) 353.2	5	03/12/2020 1841	AMR		47843
1		(Sulfate) 300.0	1	03/20/2020 0258	AMR		48492

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.15	J	0.20	0.050	mg/L	1
Chloride		300.0	13		1.0	0.20	mg/L	1
Nitrate - N		353.2	5.7		0.10	0.050	mg/L	1
Sulfate		300.0	83		1.0	0.20	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc. | Laboratory ID: VC12037-007
Description: RMW-20 | Matrix: Aqueous
Date Sampled: 03/11/2020 1630
Date Received: 03/12/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/13/2020 1312	TML		47792

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	1.0		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	29		1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC12037-007
Description: RMW-20
Matrix: Aqueous
Date Sampled: 03/11/2020 1630
Date Received: 03/12/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/13/2020 1312	TML		47792

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Trichloroethene	79-01-6	8260D	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		99	70-130
1,2-Dichloroethane-d4		104	70-130
Toluene-d8		106	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

Inorganic non-metals

Client: TRC Companies, Inc.
Laboratory ID: VC12037-008
Description: DU-20101
Matrix: Aqueous
Date Sampled: 03/11/2020
Date Received: 03/12/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	03/20/2020 0326	AMR		48496
1		(Chloride) 300.0	1	03/20/2020 0326	AMR		48495
1		(Nitrate - N) 353.2	1	03/12/2020 1823	AMR		47843
1		(Sulfate) 300.0	1	03/20/2020 0326	AMR		48492

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	ND		0.20	0.050	mg/L	1
Chloride		300.0	0.81	J	1.0	0.20	mg/L	1
Nitrate - N		353.2	0.37		0.020	0.010	mg/L	1
Sulfate		300.0	0.34	J	1.0	0.20	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc. | Laboratory ID: VC12037-008
Description: DU-20101 | Matrix: Aqueous
Date Sampled: 03/11/2020
Date Received: 03/12/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/16/2020 1408	JM1		48012

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	0.96	J	1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC12037-008
Description: DU-20101
Matrix: Aqueous
Date Sampled: 03/11/2020
Date Received: 03/12/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/16/2020 1408	JM1		48012

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Trichloroethene	79-01-6	8260D	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		98	70-130
1,2-Dichloroethane-d4		96	70-130
Toluene-d8		104	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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QC Summary

Inorganic non-metals - MB

Sample ID: VQ47843-001
Batch: 47843
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Nitrate - N	ND		1	0.020	0.010	mg/L	03/12/2020 1753

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: VQ47843-002
Batch: 47843
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	0.80	0.77		1	97	90-110	03/12/2020 1754

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: VQ48492-001
Batch: 48492
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Sulfate	ND		1	1.0	0.20	mg/L	03/19/2020 1350

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: VQ48492-002
Batch: 48492
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Sulfate	20	19		1	96	90-110	03/19/2020 1322

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: VQ48495-001
Batch: 48495
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Chloride	ND		1	1.0	0.20	mg/L	03/19/2020 1350

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: VQ48495-002
Batch: 48495
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Chloride	20	20		1	99	90-110	03/19/2020 1322

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MB

Sample ID: VQ48496-001
Batch: 48496
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Bromide	ND		1	0.20	0.050	mg/L	03/19/2020 1350

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: VQ48496-002
Batch: 48496
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Bromide	8.0	7.9		1	99	90-110	03/19/2020 1322

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: VQ47792-001
Batch: 47792
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Acetone	ND		1	20	5.0	ug/L	03/13/2020 1017
Benzene	ND		1	1.0	0.40	ug/L	03/13/2020 1017
Bromodichloromethane	ND		1	1.0	0.40	ug/L	03/13/2020 1017
Bromoform	ND		1	1.0	0.40	ug/L	03/13/2020 1017
Bromomethane (Methyl bromide)	ND		1	2.0	0.40	ug/L	03/13/2020 1017
2-Butanone (MEK)	ND		1	10	2.0	ug/L	03/13/2020 1017
Carbon disulfide	ND		1	1.0	0.40	ug/L	03/13/2020 1017
Carbon tetrachloride	ND		1	1.0	0.40	ug/L	03/13/2020 1017
Chlorobenzene	ND		1	1.0	0.40	ug/L	03/13/2020 1017
Chloroethane	ND		1	2.0	0.40	ug/L	03/13/2020 1017
Chloroform	ND		1	1.0	0.40	ug/L	03/13/2020 1017
Chloromethane (Methyl chloride)	ND		1	1.0	0.50	ug/L	03/13/2020 1017
Cyclohexane	ND		1	1.0	0.40	ug/L	03/13/2020 1017
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	0.40	ug/L	03/13/2020 1017
Dibromochloromethane	ND		1	1.0	0.40	ug/L	03/13/2020 1017
1,2-Dibromoethane (EDB)	ND		1	1.0	0.40	ug/L	03/13/2020 1017
1,2-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/13/2020 1017
1,3-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/13/2020 1017
1,4-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/13/2020 1017
Dichlorodifluoromethane	ND		1	2.0	0.60	ug/L	03/13/2020 1017
1,1-Dichloroethane	ND		1	1.0	0.40	ug/L	03/13/2020 1017
1,2-Dichloroethane	ND		1	1.0	0.40	ug/L	03/13/2020 1017
1,1-Dichloroethene	ND		1	1.0	0.40	ug/L	03/13/2020 1017
cis-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	03/13/2020 1017
trans-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	03/13/2020 1017
1,2-Dichloropropane	ND		1	1.0	0.40	ug/L	03/13/2020 1017
cis-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	03/13/2020 1017
trans-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	03/13/2020 1017
Ethylbenzene	ND		1	1.0	0.40	ug/L	03/13/2020 1017
2-Hexanone	ND		1	10	2.0	ug/L	03/13/2020 1017
Isopropylbenzene	ND		1	1.0	0.40	ug/L	03/13/2020 1017
Methyl acetate	ND		1	1.0	0.40	ug/L	03/13/2020 1017
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	0.40	ug/L	03/13/2020 1017
4-Methyl-2-pentanone	ND		1	10	2.0	ug/L	03/13/2020 1017
Methylcyclohexane	ND		1	5.0	0.40	ug/L	03/13/2020 1017
Methylene chloride	ND		1	1.0	0.40	ug/L	03/13/2020 1017
Styrene	ND		1	1.0	0.41	ug/L	03/13/2020 1017
1,1,2,2-Tetrachloroethane	ND		1	1.0	0.40	ug/L	03/13/2020 1017
Tetrachloroethene	ND		1	1.0	0.40	ug/L	03/13/2020 1017
Toluene	ND		1	1.0	0.40	ug/L	03/13/2020 1017
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	0.42	ug/L	03/13/2020 1017
1,2,4-Trichlorobenzene	ND		1	1.0	0.40	ug/L	03/13/2020 1017
1,1,1-Trichloroethane	ND		1	1.0	0.40	ug/L	03/13/2020 1017
1,1,2-Trichloroethane	ND		1	1.0	0.40	ug/L	03/13/2020 1017

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: VQ47792-001
Batch: 47792
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Trichloroethene	ND		1	1.0	0.40	ug/L	03/13/2020 1017
Trichlorofluoromethane	ND		1	1.0	0.40	ug/L	03/13/2020 1017
Vinyl chloride	ND		1	1.0	0.40	ug/L	03/13/2020 1017
Xylenes (total)	ND		1	1.0	0.40	ug/L	03/13/2020 1017

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		101	70-130
1,2-Dichloroethane-d4		104	70-130
Toluene-d8		108	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: VQ47792-002
Batch: 47792
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	99		1	99	60-140	03/13/2020 0837
Benzene	50	56		1	112	70-130	03/13/2020 0837
Bromodichloromethane	50	56		1	111	70-130	03/13/2020 0837
Bromoform	50	46		1	93	70-130	03/13/2020 0837
Bromomethane (Methyl bromide)	50	55		1	110	70-130	03/13/2020 0837
2-Butanone (MEK)	100	99		1	99	70-130	03/13/2020 0837
Carbon disulfide	50	54		1	108	70-130	03/13/2020 0837
Carbon tetrachloride	50	57		1	113	70-130	03/13/2020 0837
Chlorobenzene	50	56		1	113	70-130	03/13/2020 0837
Chloroethane	50	53		1	105	70-130	03/13/2020 0837
Chloroform	50	55		1	110	70-130	03/13/2020 0837
Chloromethane (Methyl chloride)	50	54		1	108	60-140	03/13/2020 0837
Cyclohexane	50	47		1	94	70-130	03/13/2020 0837
1,2-Dibromo-3-chloropropane (DBCP)	50	42		1	83	70-130	03/13/2020 0837
Dibromochloromethane	50	57		1	115	70-130	03/13/2020 0837
1,2-Dibromoethane (EDB)	50	56		1	112	70-130	03/13/2020 0837
1,2-Dichlorobenzene	50	56		1	112	70-130	03/13/2020 0837
1,3-Dichlorobenzene	50	58		1	115	70-130	03/13/2020 0837
1,4-Dichlorobenzene	50	56		1	113	70-130	03/13/2020 0837
Dichlorodifluoromethane	50	47		1	93	60-140	03/13/2020 0837
1,1-Dichloroethane	50	54		1	109	70-130	03/13/2020 0837
1,2-Dichloroethane	50	54		1	107	70-130	03/13/2020 0837
1,1-Dichloroethene	50	56		1	112	70-130	03/13/2020 0837
cis-1,2-Dichloroethene	50	54		1	109	70-130	03/13/2020 0837
trans-1,2-Dichloroethene	50	57		1	113	70-130	03/13/2020 0837
1,2-Dichloropropane	50	56		1	112	70-130	03/13/2020 0837
cis-1,3-Dichloropropene	50	57		1	115	70-130	03/13/2020 0837
trans-1,3-Dichloropropene	50	56		1	113	70-130	03/13/2020 0837
Ethylbenzene	50	58		1	117	70-130	03/13/2020 0837
2-Hexanone	100	94		1	94	70-130	03/13/2020 0837
Isopropylbenzene	50	59		1	118	70-130	03/13/2020 0837
Methyl acetate	50	40		1	81	70-130	03/13/2020 0837
Methyl tertiary butyl ether (MTBE)	50	53		1	107	70-130	03/13/2020 0837
4-Methyl-2-pentanone	100	93		1	93	70-130	03/13/2020 0837
Methylcyclohexane	50	53		1	106	70-130	03/13/2020 0837
Methylene chloride	50	54		1	108	70-130	03/13/2020 0837
Styrene	50	52		1	104	70-130	03/13/2020 0837
1,1,2,2-Tetrachloroethane	50	55		1	109	70-130	03/13/2020 0837
Tetrachloroethene	50	59		1	118	70-130	03/13/2020 0837
Toluene	50	56		1	113	70-130	03/13/2020 0837
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	52		1	105	70-130	03/13/2020 0837
1,2,4-Trichlorobenzene	50	59		1	118	70-130	03/13/2020 0837
1,1,1-Trichloroethane	50	56		1	111	70-130	03/13/2020 0837
1,1,2-Trichloroethane	50	55		1	111	70-130	03/13/2020 0837

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: VQ47792-002
Batch: 47792
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	58		1	116	70-130	03/13/2020 0837
Trichlorofluoromethane	50	56		1	112	70-130	03/13/2020 0837
Vinyl chloride	50	61		1	122	70-130	03/13/2020 0837
Xylenes (total)	100	110		1	114	70-130	03/13/2020 0837

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		109	70-130
1,2-Dichloroethane-d4		109	70-130
Toluene-d8		113	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: VC12037-003MS
Batch: 47792
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	ND	500	390		5	79	60-140	03/13/2020 1815
Benzene	ND	250	210		5	84	70-130	03/13/2020 1815
Bromodichloromethane	ND	250	230		5	91	70-130	03/13/2020 1815
Bromoform	ND	250	180		5	71	70-130	03/13/2020 1815
Bromomethane (Methyl bromide)	ND	250	270		5	108	70-130	03/13/2020 1815
2-Butanone (MEK)	ND	500	400		5	80	70-130	03/13/2020 1815
Carbon disulfide	ND	250	210		5	83	70-130	03/13/2020 1815
Carbon tetrachloride	ND	250	220		5	86	70-130	03/13/2020 1815
Chlorobenzene	ND	250	200		5	80	70-130	03/13/2020 1815
Chloroethane	ND	250	260		5	105	70-130	03/13/2020 1815
Chloroform	6.8	250	220		5	87	70-130	03/13/2020 1815
Chloromethane (Methyl chloride)	ND	250	240		5	97	60-140	03/13/2020 1815
Cyclohexane	ND	250	160	N	5	65	70-130	03/13/2020 1815
1,2-Dibromo-3-chloropropane (DBCP)	ND	250	180		5	72	70-130	03/13/2020 1815
Dibromochloromethane	ND	250	220		5	89	70-130	03/13/2020 1815
1,2-Dibromoethane (EDB)	ND	250	220		5	89	70-130	03/13/2020 1815
1,2-Dichlorobenzene	ND	250	200		5	78	70-130	03/13/2020 1815
1,3-Dichlorobenzene	ND	250	190		5	77	70-130	03/13/2020 1815
1,4-Dichlorobenzene	ND	250	190		5	76	70-130	03/13/2020 1815
Dichlorodifluoromethane	ND	250	230		5	91	60-140	03/13/2020 1815
1,1-Dichloroethane	ND	250	210		5	84	70-130	03/13/2020 1815
1,2-Dichloroethane	ND	250	220		5	88	70-130	03/13/2020 1815
1,1-Dichloroethene	5.7	250	230		5	90	70-130	03/13/2020 1815
cis-1,2-Dichloroethene	ND	250	220		5	89	70-130	03/13/2020 1815
trans-1,2-Dichloroethene	ND	250	230		5	91	70-130	03/13/2020 1815
1,2-Dichloropropane	ND	250	220		5	88	70-130	03/13/2020 1815
cis-1,3-Dichloropropene	ND	250	210		5	83	70-130	03/13/2020 1815
trans-1,3-Dichloropropene	ND	250	210		5	85	70-130	03/13/2020 1815
Ethylbenzene	ND	250	210		5	82	70-130	03/13/2020 1815
2-Hexanone	ND	500	380		5	77	70-130	03/13/2020 1815
Isopropylbenzene	ND	250	210		5	86	70-130	03/13/2020 1815
Methyl acetate	ND	250	170	N	5	69	70-130	03/13/2020 1815
Methyl tertiary butyl ether (MTBE)	ND	250	230		5	93	70-130	03/13/2020 1815
4-Methyl-2-pentanone	ND	500	390		5	79	70-130	03/13/2020 1815
Methylcyclohexane	ND	250	190		5	75	70-130	03/13/2020 1815
Methylene chloride	ND	250	220		5	90	70-130	03/13/2020 1815
Styrene	ND	250	190		5	76	70-130	03/13/2020 1815
1,1,2,2-Tetrachloroethane	ND	250	230		5	93	70-130	03/13/2020 1815
Tetrachloroethene	530	250	570	N	5	12	70-130	03/13/2020 1815
Toluene	ND	250	210		5	84	70-130	03/13/2020 1815
1,1,2-Trichloro-1,2,2-Trifluoroethane	2.1	250	200		5	77	70-130	03/13/2020 1815
1,2,4-Trichlorobenzene	ND	250	220		5	88	70-130	03/13/2020 1815
1,1,1-Trichloroethane	ND	250	210		5	83	70-130	03/13/2020 1815
1,1,2-Trichloroethane	ND	250	230		5	92	70-130	03/13/2020 1815

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: VC12037-003MS
Batch: 47792
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	ND	250	210		5	82	70-130	03/13/2020 1815
Trichlorofluoromethane	ND	250	250		5	98	70-130	03/13/2020 1815
Vinyl chloride	ND	250	260		5	102	70-130	03/13/2020 1815
Xylenes (total)	ND	500	430		5	86	70-130	03/13/2020 1815

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		104	70-130
1,2-Dichloroethane-d4		103	70-130
Toluene-d8		108	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MSD

Sample ID: VC12037-003MD
Batch: 47792
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	ND	500	370		5	74	5.8	60-140	20	03/13/2020 1840
Benzene	ND	250	230		5	93	11	70-130	20	03/13/2020 1840
Bromodichloromethane	ND	250	250		5	99	8.7	70-130	20	03/13/2020 1840
Bromoform	ND	250	190		5	77	8.4	70-130	20	03/13/2020 1840
Bromomethane (Methyl bromide)	ND	250	280		5	114	4.8	70-130	20	03/13/2020 1840
2-Butanone (MEK)	ND	500	410		5	82	2.6	70-130	20	03/13/2020 1840
Carbon disulfide	ND	250	220		5	88	6.3	70-130	20	03/13/2020 1840
Carbon tetrachloride	ND	250	230		5	93	7.8	70-130	20	03/13/2020 1840
Chlorobenzene	ND	250	220		5	90	11	70-130	20	03/13/2020 1840
Chloroethane	ND	250	280		5	114	7.8	70-130	20	03/13/2020 1840
Chloroform	6.8	250	250		5	96	9.3	70-130	20	03/13/2020 1840
Chloromethane (Methyl chloride)	ND	250	270		5	108	10	60-140	20	03/13/2020 1840
Cyclohexane	ND	250	170		5	70	6.7	70-130	20	03/13/2020 1840
1,2-Dibromo-3-chloropropane (DBCP)	ND	250	180		5	72	0.79	70-130	20	03/13/2020 1840
Dibromochloromethane	ND	250	240		5	97	8.0	70-130	20	03/13/2020 1840
1,2-Dibromoethane (EDB)	ND	250	250		5	100	12	70-130	20	03/13/2020 1840
1,2-Dichlorobenzene	ND	250	210		5	84	7.5	70-130	20	03/13/2020 1840
1,3-Dichlorobenzene	ND	250	210		5	85	9.8	70-130	20	03/13/2020 1840
1,4-Dichlorobenzene	ND	250	210		5	84	10	70-130	20	03/13/2020 1840
Dichlorodifluoromethane	ND	250	240		5	94	3.3	60-140	20	03/13/2020 1840
1,1-Dichloroethane	ND	250	240		5	94	11	70-130	20	03/13/2020 1840
1,2-Dichloroethane	ND	250	240		5	97	9.7	70-130	20	03/13/2020 1840
1,1-Dichloroethene	5.7	250	260		5	100	9.8	70-130	20	03/13/2020 1840
cis-1,2-Dichloroethene	ND	250	250		5	98	9.5	70-130	20	03/13/2020 1840
trans-1,2-Dichloroethene	ND	250	250		5	99	9.2	70-130	20	03/13/2020 1840
1,2-Dichloropropane	ND	250	240		5	97	11	70-130	20	03/13/2020 1840
cis-1,3-Dichloropropene	ND	250	230		5	92	11	70-130	20	03/13/2020 1840
trans-1,3-Dichloropropene	ND	250	230		5	93	9.7	70-130	20	03/13/2020 1840
Ethylbenzene	ND	250	240		5	94	14	70-130	20	03/13/2020 1840
2-Hexanone	ND	500	420		5	83	8.1	70-130	20	03/13/2020 1840
Isopropylbenzene	ND	250	240		5	95	9.7	70-130	20	03/13/2020 1840
Methyl acetate	ND	250	180		5	70	1.8	70-130	20	03/13/2020 1840
Methyl tertiary butyl ether (MTBE)	ND	250	240		5	94	1.1	70-130	20	03/13/2020 1840
4-Methyl-2-pentanone	ND	500	420		5	84	6.9	70-130	20	03/13/2020 1840
Methylcyclohexane	ND	250	200		5	80	6.3	70-130	20	03/13/2020 1840
Methylene chloride	ND	250	240		5	96	7.0	70-130	20	03/13/2020 1840
Styrene	ND	250	210		5	85	12	70-130	20	03/13/2020 1840
1,1,2,2-Tetrachloroethane	ND	250	240		5	98	4.9	70-130	20	03/13/2020 1840
Tetrachloroethene	530	250	660	N	5	49	15	70-130	20	03/13/2020 1840
Toluene	ND	250	230		5	94	11	70-130	20	03/13/2020 1840
1,1,2-Trichloro-1,2,2-Trifluoroethane	2.1	250	210		5	85	9.5	70-130	20	03/13/2020 1840
1,2,4-Trichlorobenzene	ND	250	230		5	90	2.4	70-130	20	03/13/2020 1840
1,1,1-Trichloroethane	ND	250	230		5	90	8.0	70-130	20	03/13/2020 1840
1,1,2-Trichloroethane	ND	250	250		5	100	8.3	70-130	20	03/13/2020 1840

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MSD

Sample ID: VC12037-003MD
Batch: 47792
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Trichloroethene	ND	250	230		5	93	12	70-130	20	03/13/2020 1840
Trichlorofluoromethane	ND	250	260		5	105	6.4	70-130	20	03/13/2020 1840
Vinyl chloride	ND	250	280		5	112	9.7	70-130	20	03/13/2020 1840
Xylenes (total)	ND	500	480		5	97	12	70-130	20	03/13/2020 1840

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		104	70-130
1,2-Dichloroethane-d4		102	70-130
Toluene-d8		107	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: VQ48012-001
Batch: 48012
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Acetone	ND		1	20	5.0	ug/L	03/16/2020 1026
Benzene	ND		1	1.0	0.40	ug/L	03/16/2020 1026
Bromodichloromethane	ND		1	1.0	0.40	ug/L	03/16/2020 1026
Bromoform	ND		1	1.0	0.40	ug/L	03/16/2020 1026
Bromomethane (Methyl bromide)	ND		1	2.0	0.40	ug/L	03/16/2020 1026
2-Butanone (MEK)	ND		1	10	2.0	ug/L	03/16/2020 1026
Carbon disulfide	ND		1	1.0	0.40	ug/L	03/16/2020 1026
Carbon tetrachloride	ND		1	1.0	0.40	ug/L	03/16/2020 1026
Chlorobenzene	ND		1	1.0	0.40	ug/L	03/16/2020 1026
Chloroethane	ND		1	2.0	0.40	ug/L	03/16/2020 1026
Chloroform	ND		1	1.0	0.40	ug/L	03/16/2020 1026
Chloromethane (Methyl chloride)	ND		1	1.0	0.50	ug/L	03/16/2020 1026
Cyclohexane	ND		1	1.0	0.40	ug/L	03/16/2020 1026
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	0.40	ug/L	03/16/2020 1026
Dibromochloromethane	ND		1	1.0	0.40	ug/L	03/16/2020 1026
1,2-Dibromoethane (EDB)	ND		1	1.0	0.40	ug/L	03/16/2020 1026
1,2-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/16/2020 1026
1,3-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/16/2020 1026
1,4-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/16/2020 1026
Dichlorodifluoromethane	ND		1	2.0	0.60	ug/L	03/16/2020 1026
1,1-Dichloroethane	ND		1	1.0	0.40	ug/L	03/16/2020 1026
1,2-Dichloroethane	ND		1	1.0	0.40	ug/L	03/16/2020 1026
1,1-Dichloroethene	ND		1	1.0	0.40	ug/L	03/16/2020 1026
cis-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	03/16/2020 1026
trans-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	03/16/2020 1026
1,2-Dichloropropane	ND		1	1.0	0.40	ug/L	03/16/2020 1026
cis-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	03/16/2020 1026
trans-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	03/16/2020 1026
Ethylbenzene	ND		1	1.0	0.40	ug/L	03/16/2020 1026
2-Hexanone	ND		1	10	2.0	ug/L	03/16/2020 1026
Isopropylbenzene	ND		1	1.0	0.40	ug/L	03/16/2020 1026
Methyl acetate	ND		1	1.0	0.40	ug/L	03/16/2020 1026
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	0.40	ug/L	03/16/2020 1026
4-Methyl-2-pentanone	ND		1	10	2.0	ug/L	03/16/2020 1026
Methylcyclohexane	ND		1	5.0	0.40	ug/L	03/16/2020 1026
Methylene chloride	ND		1	1.0	0.40	ug/L	03/16/2020 1026
Styrene	ND		1	1.0	0.41	ug/L	03/16/2020 1026
1,1,2,2-Tetrachloroethane	ND		1	1.0	0.40	ug/L	03/16/2020 1026
Tetrachloroethene	ND		1	1.0	0.40	ug/L	03/16/2020 1026
Toluene	ND		1	1.0	0.40	ug/L	03/16/2020 1026
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	0.42	ug/L	03/16/2020 1026
1,2,4-Trichlorobenzene	ND		1	1.0	0.40	ug/L	03/16/2020 1026
1,1,1-Trichloroethane	ND		1	1.0	0.40	ug/L	03/16/2020 1026
1,1,2-Trichloroethane	ND		1	1.0	0.40	ug/L	03/16/2020 1026

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: VQ48012-001
Batch: 48012
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Trichloroethene	ND		1	1.0	0.40	ug/L	03/16/2020 1026
Trichlorofluoromethane	ND		1	1.0	0.40	ug/L	03/16/2020 1026
Vinyl chloride	ND		1	1.0	0.40	ug/L	03/16/2020 1026
Xylenes (total)	ND		1	1.0	0.40	ug/L	03/16/2020 1026

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		100	70-130
1,2-Dichloroethane-d4		95	70-130
Toluene-d8		104	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: VQ48012-002
Batch: 48012
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	93		1	93	60-140	03/16/2020 0932
Benzene	50	53		1	107	70-130	03/16/2020 0932
Bromodichloromethane	50	56		1	113	70-130	03/16/2020 0932
Bromoform	50	61		1	121	70-130	03/16/2020 0932
Bromomethane (Methyl bromide)	50	42		1	84	70-130	03/16/2020 0932
2-Butanone (MEK)	100	98		1	98	70-130	03/16/2020 0932
Carbon disulfide	50	50		1	100	70-130	03/16/2020 0932
Carbon tetrachloride	50	49		1	99	70-130	03/16/2020 0932
Chlorobenzene	50	54		1	109	70-130	03/16/2020 0932
Chloroethane	50	47		1	94	70-130	03/16/2020 0932
Chloroform	50	51		1	103	70-130	03/16/2020 0932
Chloromethane (Methyl chloride)	50	39		1	79	60-140	03/16/2020 0932
Cyclohexane	50	52		1	103	70-130	03/16/2020 0932
1,2-Dibromo-3-chloropropane (DBCP)	50	57		1	113	70-130	03/16/2020 0932
Dibromochloromethane	50	57		1	114	70-130	03/16/2020 0932
1,2-Dibromoethane (EDB)	50	57		1	113	70-130	03/16/2020 0932
1,2-Dichlorobenzene	50	55		1	110	70-130	03/16/2020 0932
1,3-Dichlorobenzene	50	55		1	111	70-130	03/16/2020 0932
1,4-Dichlorobenzene	50	55		1	109	70-130	03/16/2020 0932
Dichlorodifluoromethane	50	37		1	74	60-140	03/16/2020 0932
1,1-Dichloroethane	50	52		1	103	70-130	03/16/2020 0932
1,2-Dichloroethane	50	52		1	104	70-130	03/16/2020 0932
1,1-Dichloroethene	50	49		1	98	70-130	03/16/2020 0932
cis-1,2-Dichloroethene	50	53		1	106	70-130	03/16/2020 0932
trans-1,2-Dichloroethene	50	52		1	103	70-130	03/16/2020 0932
1,2-Dichloropropane	50	54		1	108	70-130	03/16/2020 0932
cis-1,3-Dichloropropene	50	58		1	115	70-130	03/16/2020 0932
trans-1,3-Dichloropropene	50	58		1	115	70-130	03/16/2020 0932
Ethylbenzene	50	55		1	110	70-130	03/16/2020 0932
2-Hexanone	100	110		1	106	70-130	03/16/2020 0932
Isopropylbenzene	50	56		1	112	70-130	03/16/2020 0932
Methyl acetate	50	51		1	103	70-130	03/16/2020 0932
Methyl tertiary butyl ether (MTBE)	50	53		1	105	70-130	03/16/2020 0932
4-Methyl-2-pentanone	100	110		1	113	70-130	03/16/2020 0932
Methylcyclohexane	50	50		1	101	70-130	03/16/2020 0932
Methylene chloride	50	51		1	103	70-130	03/16/2020 0932
Styrene	50	58		1	115	70-130	03/16/2020 0932
1,1,2,2-Tetrachloroethane	50	55		1	111	70-130	03/16/2020 0932
Tetrachloroethene	50	55		1	109	70-130	03/16/2020 0932
Toluene	50	54		1	107	70-130	03/16/2020 0932
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	47		1	94	70-130	03/16/2020 0932
1,2,4-Trichlorobenzene	50	57		1	115	70-130	03/16/2020 0932
1,1,1-Trichloroethane	50	50		1	101	70-130	03/16/2020 0932
1,1,2-Trichloroethane	50	55		1	110	70-130	03/16/2020 0932

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: VQ48012-002
Batch: 48012
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	55		1	111	70-130	03/16/2020 0932
Trichlorofluoromethane	50	44		1	87	70-130	03/16/2020 0932
Vinyl chloride	50	41		1	82	70-130	03/16/2020 0932
Xylenes (total)	100	110		1	110	70-130	03/16/2020 0932

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		107	70-130
1,2-Dichloroethane-d4		105	70-130
Toluene-d8		109	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: VQ48040-001
Batch: 48040
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Acetone	ND		1	20	5.0	ug/L	03/16/2020 2142
Benzene	ND		1	1.0	0.40	ug/L	03/16/2020 2142
Bromodichloromethane	ND		1	1.0	0.40	ug/L	03/16/2020 2142
Bromoform	ND		1	1.0	0.40	ug/L	03/16/2020 2142
Bromomethane (Methyl bromide)	ND		1	2.0	0.40	ug/L	03/16/2020 2142
2-Butanone (MEK)	ND		1	10	2.0	ug/L	03/16/2020 2142
Carbon disulfide	ND		1	1.0	0.40	ug/L	03/16/2020 2142
Carbon tetrachloride	ND		1	1.0	0.40	ug/L	03/16/2020 2142
Chlorobenzene	ND		1	1.0	0.40	ug/L	03/16/2020 2142
Chloroethane	ND		1	2.0	0.40	ug/L	03/16/2020 2142
Chloroform	ND		1	1.0	0.40	ug/L	03/16/2020 2142
Chloromethane (Methyl chloride)	ND		1	1.0	0.50	ug/L	03/16/2020 2142
Cyclohexane	ND		1	1.0	0.40	ug/L	03/16/2020 2142
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	0.40	ug/L	03/16/2020 2142
Dibromochloromethane	ND		1	1.0	0.40	ug/L	03/16/2020 2142
1,2-Dibromoethane (EDB)	ND		1	1.0	0.40	ug/L	03/16/2020 2142
1,2-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/16/2020 2142
1,3-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/16/2020 2142
1,4-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/16/2020 2142
Dichlorodifluoromethane	ND		1	2.0	0.60	ug/L	03/16/2020 2142
1,1-Dichloroethane	ND		1	1.0	0.40	ug/L	03/16/2020 2142
1,2-Dichloroethane	ND		1	1.0	0.40	ug/L	03/16/2020 2142
1,1-Dichloroethene	ND		1	1.0	0.40	ug/L	03/16/2020 2142
cis-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	03/16/2020 2142
trans-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	03/16/2020 2142
1,2-Dichloropropane	ND		1	1.0	0.40	ug/L	03/16/2020 2142
cis-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	03/16/2020 2142
trans-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	03/16/2020 2142
Ethylbenzene	ND		1	1.0	0.40	ug/L	03/16/2020 2142
2-Hexanone	ND		1	10	2.0	ug/L	03/16/2020 2142
Isopropylbenzene	ND		1	1.0	0.40	ug/L	03/16/2020 2142
Methyl acetate	ND		1	1.0	0.40	ug/L	03/16/2020 2142
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	0.40	ug/L	03/16/2020 2142
4-Methyl-2-pentanone	ND		1	10	2.0	ug/L	03/16/2020 2142
Methylcyclohexane	ND		1	5.0	0.40	ug/L	03/16/2020 2142
Methylene chloride	ND		1	1.0	0.40	ug/L	03/16/2020 2142
Styrene	ND		1	1.0	0.41	ug/L	03/16/2020 2142
1,1,2,2-Tetrachloroethane	ND		1	1.0	0.40	ug/L	03/16/2020 2142
Tetrachloroethene	ND		1	1.0	0.40	ug/L	03/16/2020 2142
Toluene	ND		1	1.0	0.40	ug/L	03/16/2020 2142
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	0.42	ug/L	03/16/2020 2142
1,2,4-Trichlorobenzene	ND		1	1.0	0.40	ug/L	03/16/2020 2142
1,1,1-Trichloroethane	ND		1	1.0	0.40	ug/L	03/16/2020 2142
1,1,2-Trichloroethane	ND		1	1.0	0.40	ug/L	03/16/2020 2142

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: VQ48040-001
Batch: 48040
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Trichloroethene	ND		1	1.0	0.40	ug/L	03/16/2020 2142
Trichlorofluoromethane	ND		1	1.0	0.40	ug/L	03/16/2020 2142
Vinyl chloride	ND		1	1.0	0.40	ug/L	03/16/2020 2142
Xylenes (total)	ND		1	1.0	0.40	ug/L	03/16/2020 2142

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		93	70-130
1,2-Dichloroethane-d4		123	70-130
Toluene-d8		95	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: VQ48040-002
Batch: 48040
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	120		1	117	60-140	03/16/2020 2037
Benzene	50	48		1	96	70-130	03/16/2020 2037
Bromodichloromethane	50	53		1	105	70-130	03/16/2020 2037
Bromoform	50	45		1	89	70-130	03/16/2020 2037
Bromomethane (Methyl bromide)	50	53		1	106	70-130	03/16/2020 2037
2-Butanone (MEK)	100	110		1	106	70-130	03/16/2020 2037
Carbon disulfide	50	45		1	91	70-130	03/16/2020 2037
Carbon tetrachloride	50	52		1	104	70-130	03/16/2020 2037
Chlorobenzene	50	49		1	98	70-130	03/16/2020 2037
Chloroethane	50	47		1	95	70-130	03/16/2020 2037
Chloroform	50	53		1	105	70-130	03/16/2020 2037
Chloromethane (Methyl chloride)	50	48		1	95	60-140	03/16/2020 2037
Cyclohexane	50	49		1	99	70-130	03/16/2020 2037
1,2-Dibromo-3-chloropropane (DBCP)	50	61		1	123	70-130	03/16/2020 2037
Dibromochloromethane	50	53		1	107	70-130	03/16/2020 2037
1,2-Dibromoethane (EDB)	50	52		1	104	70-130	03/16/2020 2037
1,2-Dichlorobenzene	50	47		1	95	70-130	03/16/2020 2037
1,3-Dichlorobenzene	50	46		1	92	70-130	03/16/2020 2037
1,4-Dichlorobenzene	50	46		1	92	70-130	03/16/2020 2037
Dichlorodifluoromethane	50	56		1	113	60-140	03/16/2020 2037
1,1-Dichloroethane	50	50		1	100	70-130	03/16/2020 2037
1,2-Dichloroethane	50	54		1	107	70-130	03/16/2020 2037
1,1-Dichloroethene	50	44		1	89	70-130	03/16/2020 2037
cis-1,2-Dichloroethene	50	46		1	91	70-130	03/16/2020 2037
trans-1,2-Dichloroethene	50	46		1	93	70-130	03/16/2020 2037
1,2-Dichloropropane	50	49		1	98	70-130	03/16/2020 2037
cis-1,3-Dichloropropene	50	50		1	101	70-130	03/16/2020 2037
trans-1,3-Dichloropropene	50	54		1	109	70-130	03/16/2020 2037
Ethylbenzene	50	51		1	102	70-130	03/16/2020 2037
2-Hexanone	100	130		1	128	70-130	03/16/2020 2037
Isopropylbenzene	50	46		1	92	70-130	03/16/2020 2037
Methyl acetate	50	54		1	107	70-130	03/16/2020 2037
Methyl tertiary butyl ether (MTBE)	50	49		1	98	70-130	03/16/2020 2037
4-Methyl-2-pentanone	100	110		1	111	70-130	03/16/2020 2037
Methylcyclohexane	50	47		1	94	70-130	03/16/2020 2037
Methylene chloride	50	46		1	92	70-130	03/16/2020 2037
Styrene	50	47		1	93	70-130	03/16/2020 2037
1,1,2,2-Tetrachloroethane	50	50		1	101	70-130	03/16/2020 2037
Tetrachloroethene	50	45		1	90	70-130	03/16/2020 2037
Toluene	50	51		1	101	70-130	03/16/2020 2037
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	47		1	93	70-130	03/16/2020 2037
1,2,4-Trichlorobenzene	50	48		1	96	70-130	03/16/2020 2037
1,1,1-Trichloroethane	50	52		1	104	70-130	03/16/2020 2037
1,1,2-Trichloroethane	50	50		1	101	70-130	03/16/2020 2037

LOQ = Limit of Quantitation
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LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: VQ48040-002
Batch: 48040
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	46		1	93	70-130	03/16/2020 2037
Trichlorofluoromethane	50	56		1	113	70-130	03/16/2020 2037
Vinyl chloride	50	48		1	97	70-130	03/16/2020 2037
Xylenes (total)	100	89		1	89	70-130	03/16/2020 2037

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		95	70-130
1,2-Dichloroethane-d4		107	70-130
Toluene-d8		95	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
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N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Chain of Custody

and

Miscellaneous Documents

SHEALY **Chain of Custody Record**

SHEALY ENVIRONMENTAL SERVICES, INC.
106 Vantage Point Drive • West Columbia, SC 29172
Telephone No. 803-791-9700 Fax No. 803-791-9111
www.shealylab.com

Number 102498

Client	TRC
Address	50 International Dr Suite 150
City	Greenville
State	SC
Zip Code	29615
Project Name	WPH Clemson
Project No.	300688.0.0.11
P.O. No.	
Report to Contact	Lisa Clark
Sampler's Signature	X [signature]
Printed Name	Benjamin Medlin
Telephone No. / E-mail	
Quote No.	
Page	1 of 1

Analysis (Attach list if more space is needed)

VC12037

Sample ID / Description (Containers for each sample may be combined on one line)	Date 2020	Time	G=Grab C=Composite	Matrix: Aqueous	Solid	Non-Aqueous	Unpres.	H2SO4	HNO3	HCl	NaOH	Sodium Thiosulfate	TSP	VOCs	Cl, SO4, Br	NO3	Diss. Gasses	Remarks / Cooler I.D.
TBLK-20103	/	/	G							2				X				
RMW-14B	3·11	1155	G	X			2			3			3	X	X	X	X	
RMW-14A	3·11	1250	G	X			2			3			3	X	X	X	X	
RMW-14C	3·11	1410	G	X			2			3			3	X	X	X	X	
RMW-14	3·11	1430	G	X			2			3			3	X	X	X	X	
RMW-20A	3·11	1610	G	X			2			3			3	X	X	X	X	
RMW-20	3·11	1630	G	X			2			3			3	X	X	X	X	
DU-20101	/	/	G	X			2			3			3	X	X	X	X	

Turn Around Time Required (Prior lab approval required for expedited TAT.) ☐ Standard ☐ Rush (Specify)

Sample Disposal ☐ Return to Client ☐ Disposal by Lab

Possible Hazard Identification ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

QC Requirements (Specify)

Relinquished by	Date	Time	Received by	Date	Time
1. [signature]	3·11·20	1800	1. TRC Sample Storage	3·11·20	1800
2. TRC Sample Storage	3/12/20	0900	2. [signature]	3/12/20	0900
3. [signature]	3/12/20	1405	3.		
4.			4. Laboratory received by [signature]	3/12/2020	1405

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on ice (Circle) (Yes) No Ice Pack
Receipt Temp. 3.5 °C

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Client Copy

Document Number: F-AD-135 Effective Date: 08-01-2014

Shealy Environmental Services, Inc.
Document Number: MF0018C-14

Effective Date: 8/2/2018

Sample Receipt Checklist (SRC)

Client: TRC Cooler Inspected by/date: JSH / 03/12/2020 Lot #: VC12037

Means of receipt: ☑ SESI ☐ Client ☐ UPS ☐ FedEx ☐ Other:

☐ Yes	☑ No		1. Were custody seals present on the cooler?
☐ Yes	☐ No	☑ NA	2. If custody seals were present, were they intact and unbroken?

pH Strip ID: NA Chlorine Strip ID: NA Tested by: NA

Original temperature upon receipt / Derived (Corrected) temperature upon receipt %Solid Snap-Cup ID: NA

3.5 /3.5 °C NA /NA °C NA /NA °C NA /NA °C

Method: ☑ Temperature Blank ☐ Against Bottles IR Gun ID: 6 IR Gun Correction Factor: 0 °C

Method of coolant: ☑ Wet Ice ☐ Ice Packs ☐ Dry Ice ☐ None

☐ Yes	☐ No	☑ NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).
☐ Yes	☐ No	☑ NA	4. Is the commercial courier's packing slip attached to this form?
☑ Yes	☐ No		5. Were proper custody procedures (relinquished/received) followed?
☑ Yes	☐ No		6. Were sample IDs listed on the COC?
☑ Yes	☐ No		7. Were sample IDs listed on all sample containers?
☑ Yes	☐ No		8. Was collection date & time listed on the COC?
☑ Yes	☐ No		9. Was collection date & time listed on all sample containers?
☐ Yes	☑ No		10. Did all container label information (ID, date, time) agree with the COC?
☑ Yes	☐ No		11. Were tests to be performed listed on the COC?
☑ Yes	☐ No		12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)?
☑ Yes	☐ No		13. Was adequate sample volume available?
☑ Yes	☐ No		14. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
☐ Yes	☑ No		15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
☐ Yes	☑ No	☐ NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (¼"or 6mm in diameter) in any of the VOA vials?
☐ Yes	☐ No	☑ NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?
☐ Yes	☐ No	☑ NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
☐ Yes	☐ No	☑ NA	19. Were all applicable NH_3/TKN/cyanide/phenol/625 (< 0.5mg/L) samples free of residual chlorine?
☐ Yes	☐ No	☑ NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc...) correctly transcribed from the COC into the comment section in LIMS?
☐ Yes	☑ No		21. Was the quote number listed on the container label? If yes, Quote # NA

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) NA were received incorrectly preserved and were adjusted accordingly in sample receiving with NA mL of circle one: H2SO4, HNO3, HCl, NaOH using SR # NA.
Time of preservation NA. If more than one preservative is needed, please note in the comments below.

Sample(s) NA were received with bubbles >6 mm in diameter.

Samples(s) NA were received with TRC > 0.5 mg/L (If #19 is *no*) and were adjusted accordingly in sample receiving with sodium thiosulfate ($Na_2S_2O_3$) with Shealy ID: NA.

SR barcode labels applied by: JSH Date: 03/13/2020

Comments:

Pace Analytical Energy Services LLC
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

March 27, 2020

Lucas Odom
Pace Analytical Services South Carolina
106 Vantage Point Drive
West Columbia, SC 29172

RE: **WPH CLEMSON / TRC**

Pace Workorder: 33266

Dear Lucas Odom:

Enclosed are the analytical results for sample(s) received by the laboratory on Tuesday, March 17, 2020. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Ruth Welsh 03/27/2020
Ruth.Welsh@pacelabs.com

Customer Service Representative

Enclosures

As a valued client we would appreciate your comments on our service.
Please email PAESfeedback@pacelabs.com.

Total Number of Pages 17

CERTIFICATE OF ANALYSIS

Laboratory Data Quality Review Notes

Project Name: WPH-Clemson, SC

Project Number: 300688.0000.0000.000011

Lab Report: **33266** Pace Analytical Energy Services LLC; Pittsburgh, PA
This lab report is the subcontracted job related to **VC12037**.

Samples and Analyses: Six groundwater samples and one field duplicate, collected 11-Mar-2020 and analyzed for dissolved hydrocarbon gases (methane, ethane, ethene)

Chain of Custody, Sample Temperature, Sample Preservation: Chain of custody was signed (sample transfer from Pace Analytical, Columbia, to Pace Analytical, Pittsburgh); sample temperature was <6 ^{o}C upon arrival at the laboratory; samples were preserved properly.

Hold Time: Sample analyses were performed within acceptable hold time.

Surrogates: Surrogate recoveries are not applicable to dissolved hydrocarbon gas analyses.

Method Blank: Target analytes were not detected in the laboratory method blank.

Trip Blank: A trip blank was not analyzed with these samples.

Field Blank: A field blank was not collected with these samples.

Equipment Rinse Blank: A rinsate blank was not collected with these samples.

LCS/LCSD: LCS and LCSD recoveries and LCS/LCSD RPDs are within QC limits.

MS/MSD: MS/MSD analyses were not performed with samples from this data set.

Duplicates: A field duplicate sample (DU-20101) was collected for sample RMW-14B. The field duplicate analysis was based on the absolute difference since the only detected analyte (methane) was detected below 5× the LOQ in both samples. The absolute difference was ≤ LOQ; therefore, results are in acceptable agreement.

Dilutions: No dilutions were performed with these sample analyses.

No data qualifiers were assigned in this review.

Data reviewer: Amy Bass; TRC Environmental Corporation; 01-Apr-2020

Pace Analytical Energy Services LLC
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

LABORATORY ACCREDITATIONS & CERTIFICATIONS

Accreditor:	Pennsylvania Department of Environmental Protection, Bureau of Laboratories
Accreditation ID:	02-00538
Scope:	NELAP Non-Potable Water
Accreditor:	West Virginia Department of Environmental Protection, Division of Water and Waste Management
Accreditation ID:	395
Scope:	Non-Potable Water
Accreditor:	South Carolina Department of Health and Environmental Control, Office of Environmental Laboratory Certification
Accreditation ID:	89009003
Scope:	Clean Water Act (CWA); Resource Conservation and Recovery Act (RCRA)
Accreditor:	State of Virginia
Accreditation ID:	460201
Scope:	Non-Potable Water
Accreditor:	NELAP: New Jersey, Department of Environmental Protection
Accreditation ID:	PA026
Scope:	Non-Potable Water
Accreditor:	NELAP: New York, Department of Health Wadsworth Center
Accreditation ID:	11815
Scope:	Non-Potable Water
Accreditor:	State of Connecticut, Department of Public Health, Division of Environmental Health
Accreditation ID:	PH-0263
Scope:	Clean Water Act (CWA) Resource Conservation and Recovery Act (RCRA)
Accreditor:	NELAP: Texas, Commission on Environmental Quality
Accreditation ID:	T104704453-09-TX
Scope:	Non-Potable Water
Accreditor:	State of New Hampshire
Accreditation ID:	299409
Scope:	Non-potable water
Accreditor:	State of Georgia
Accreditation ID:	Chapter 391-3-26
Scope:	As per the Georgia EPD Rules and Regulations for Commercial Laboratories, PAES is accredited by the Pennsylvania Department of Environmental Protection Bureau of Laboratories under the National Environmental Laboratory Approval Program (NELAC).

Pace Analytical Energy Services LLC
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

SAMPLE SUMMARY

Workorder: 33266 WPH CLEMSON / TRC

Lab ID	Sample ID	Matrix	Date Collected	Date Received
332660001	RMW-14B	Water	3/11/2020 11:55	3/17/2020 10:40
332660002	RMW-14A	Water	3/11/2020 12:50	3/17/2020 10:40
332660003	RMW-14C	Water	3/11/2020 14:10	3/17/2020 10:40
332660004	RMW-14	Water	3/11/2020 14:30	3/17/2020 10:40
332660005	RMW-20A	Water	3/11/2020 16:10	3/17/2020 10:40
332660006	RMW-20	Water	3/11/2020 16:30	3/17/2020 10:40
332660007	DU-20101	Water	3/11/2020 00:00	3/17/2020 10:40

Pace Analytical Energy Services LLC
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

PROJECT SUMMARY

Workorder: 33266 WPH CLEMSON / TRC

Workorder Comments

The container pH for samples 33266 (0006-0007) were measured as below the expected pH (< 10) for those samples preserved with trisodium phosphate, as assigned to PAES method AM20GAx.

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ANALYTICAL RESULTS

Workorder: 33266 WPH CLEMSON / TRC

Lab ID: **332660001** Date Received: 3/17/2020 10:40 Matrix: Water

Sample ID: **RMW-14B** Date Collected: 3/11/2020 11:55

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**0.051J**	ug/l	0.50	0.046	1	3/23/2020 11:51	BW	n
Ethane	**0.0050U**	ug/l	0.10	0.0050	1	3/23/2020 11:51	BW	n
Ethene	**0.0040U**	ug/l	0.10	0.0040	1	3/23/2020 11:51	BW	n

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ANALYTICAL RESULTS

Workorder: 33266 WPH CLEMSON / TRC

Lab ID: **332660002** Date Received: 3/17/2020 10:40 Matrix: Water

Sample ID: **RMW-14A** Date Collected: 3/11/2020 12:50

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**0.14J**	ug/l	0.50	0.046	1	3/23/2020 12:04	BW	n
Ethane	**0.0075J**	ug/l	0.10	0.0050	1	3/23/2020 12:04	BW	n
Ethene	**0.0084J**	ug/l	0.10	0.0040	1	3/23/2020 12:04	BW	n

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ANALYTICAL RESULTS

Workorder: 33266 WPH CLEMSON / TRC

Lab ID: **332660003** Date Received: 3/17/2020 10:40 Matrix: Water

Sample ID: **RMW-14C** Date Collected: 3/11/2020 14:10

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**0.098J**	ug/l	0.50	0.046	1	3/23/2020 12:14	BW	n
Ethane	**0.0050U**	ug/l	0.10	0.0050	1	3/23/2020 12:14	BW	n
Ethene	**0.0040U**	ug/l	0.10	0.0040	1	3/23/2020 12:14	BW	n

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ANALYTICAL RESULTS

Workorder: 33266 WPH CLEMSON / TRC

Lab ID: **332660004** Date Received: 3/17/2020 10:40 Matrix: Water

Sample ID: **RMW-14** Date Collected: 3/11/2020 14:30

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**0.046J**	ug/l	0.50	0.046	1	3/23/2020 12:23	BW	n
Ethane	**0.0050U**	ug/l	0.10	0.0050	1	3/23/2020 12:23	BW	n
Ethene	**0.015J**	ug/l	0.10	0.0040	1	3/23/2020 12:23	BW	n

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ANALYTICAL RESULTS

Workorder: 33266 WPH CLEMSON / TRC

Lab ID: **332660005** Date Received: 3/17/2020 10:40 Matrix: Water

Sample ID: **RMW-20A** Date Collected: 3/11/2020 16:10

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**8300**	ug/l	0.50	0.046	1	3/23/2020 12:35	BW	n
Ethane	**5.0**	ug/l	0.10	0.0050	1	3/23/2020 12:35	BW	n
Ethene	**1.8**	ug/l	0.10	0.0040	1	3/23/2020 12:35	BW	n

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ANALYTICAL RESULTS

Workorder: 33266 WPH CLEMSON / TRC

Lab ID: **332660006** Date Received: 3/17/2020 10:40 Matrix: Water

Sample ID: **RMW-20** Date Collected: 3/11/2020 16:30

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**16**	ug/l	0.50	0.046	1	3/23/2020 12:48	BW	n
Ethane	**0.63**	ug/l	0.10	0.0050	1	3/23/2020 12:48	BW	n
Ethene	**0.053J**	ug/l	0.10	0.0040	1	3/23/2020 12:48	BW	n

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ANALYTICAL RESULTS

Workorder: 33266 WPH CLEMSON / TRC

Lab ID: **332660007** Date Received: 3/17/2020 10:40 Matrix: Water

Sample ID: **DU-20101** Date Collected: 3/11/2020 00:00

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**0.055J**	ug/l	0.50	0.046	1	3/23/2020 12:58	BW	n
Ethane	**0.0050U**	ug/l	0.10	0.0050	1	3/23/2020 12:58	BW	n
Ethene	**0.0040U**	ug/l	0.10	0.0040	1	3/23/2020 12:58	BW	n

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ANALYTICAL RESULTS QUALIFIERS

Workorder: 33266 WPH CLEMSON / TRC

DEFINITIONS/QUALIFIERS

MDL	Method Detection Limit. Can be used synonymously with LOD; Limit Of Detection.
PQL	Practical Quanitation Limit. Can be used synonymously with LOQ; Limit Of Quantitation.
ND	Not detected at or above reporting limit.
DF	Dilution Factor.
S	Surrogate.
RPD	Relative Percent Difference.
% Rec	Percent Recovery.
U	Indicates the compound was analyzed for, but not detected at or above the noted concentration.
J	Estimated concentration greater than the set method detection limit (MDL) and less than the set reporting limit (PQL).
n	The laboratory does not hold NELAP/TNI accreditation for this method or analyte.

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QUALITY CONTROL DATA

Workorder: 33266 WPH CLEMSON / TRC

QC Batch: DISG/8165 Analysis Method: AM20GAX

QC Batch Method: AM20GAX

Associated Lab Samples: 332660001, 332660002, 332660003, 332660004, 332660005, 332660006, 332660007

METHOD BLANK: 66451

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
RISK				
Methane	ug/l	0.046U	0.046	n
Ethane	ug/l	0.0050U	0.0050	n
Ethene	ug/l	0.0040U	0.0040	n

LABORATORY CONTROL SAMPLE & LCSD: 66452 66453

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Methane	ug/l	750	820	790	110	106	80-120	3.6	20	n
Ethane	ug/l	38	37	37	98	97	80-120	1.3	20	n
Ethene	ug/l	35	36	34	101	96	80-120	4.7	20	n

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QUALITY CONTROL DATA QUALIFIERS

Workorder: 33266 WPH CLEMSON / TRC

QUALITY CONTROL PARAMETER QUALIFIERS

n	The laboratory does not hold NELAP/TNI accreditation for this method or analyte.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 33266 WPH CLEMSON / TRC

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
332660001	RMW-14B			AM20GAX	DISG/8165
332660002	RMW-14A			AM20GAX	DISG/8165
332660003	RMW-14C			AM20GAX	DISG/8165
332660004	RMW-14			AM20GAX	DISG/8165
332660005	RMW-20A			AM20GAX	DISG/8165
332660006	RMW-20			AM20GAX	DISG/8165
332660007	DU-20101			AM20GAX	DISG/8165

SHEALY

Chain of Custody Record

33266

Shealy Environmental Services, Inc.
106 Vantage Point Drive
West Columbia, South Carolina 29172
Telephone No. (803) 791-9700 Fax No. (803) 791-9111
www.shealylab.com

Number

Client	Report to Contact	Telephone No. / E-mail	Quote No.
Pace Analytical - Columbia	Lucas Odom	803-206-9537/lodom@shealylab.com	
Address: 106 Vantage Point Dr.	Sampler's Signature: X _____ Printed Name	Analysis (Attach list if more space is needed)	Page 1 of 1
City: West Columbia / State: SC / Zip Code: 29172			Laboratory Lot Number
Project Name: WPH Clemson			
Project Number: 300688.0.0.11	P.O No.		

Sample ID / Description (Containers for each sample may be combined on one line)	Date	Time	G=Grab C=Composite	Matrix: Aqueous	Solid	Non-Aqueous		No of Containers by Preservative Type: Unpres.	H2SO4	HNO3	HCl	NaOH	5035 Kit	TSP	Dissolved Gasses									Remarks / Cooler I.D.
RMW-14B	03/11/2020	11:55	G	x										3	X									VC12037-002
RMW-14A	03/11/2020	12:50	G	x										3	X									VC12037-003
RMW-14C	03/11/2020	14:10	G	x										3	X									VC12037-004
RMW-14	03/11/2020	14:30	G	x										3	X									VC12037-005
RMW-20A	03/11/2020	16:10	G	x										3	X									VC12037-006
RMW-20	03/11/2020	16:30	G	x										3	X									VC12037-007
DU-20101	03/11/2020	00:00	G	x										3	X									VC12037-008

Turn Around Time Required (Prior lab approval required for expedited TAT)
X Standard Rush

Sample Disposal
☐ Return to Client ☒ Disposal by Lab

Possible Hazard Identification (List any known hazards in the remarks)
☐ Non-Hazardous ☐ Flammable ☐ Skin Irritant ☐ SDS provided ☐ Unknown

QC Requirements

1. Relinquished by: Meebly Cuff	Date: 3-12-2020	Time: 1800	1. Received by	Date	Time
2. Relinquished by	Date	Time	2. Received by	Date	Time
3. Relinquished by	Date	Time	3. Received by	Date	Time
4. Relinquished by	Date	Time	4. Laboratory Received by: PMES	Date: 3.17.2020	Time: 1040

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on Ice (Check) ☐ Y ☐ N ☐ Ice Pack

Receipt Temp. _____ °C

Cooler Receipt Form

Client Name: Pace **Project:** WPH Clemson **Lab Work Order:** 33266

A. **Shipping/Container Information** (circle appropriate response)

Courier: (FedEx) UPS USPS Client Other:_____ **Air bill Present:** (Yes) No

Tracking Number: 166334637305

Custody Seal on Cooler/Box Present: (Yes) No **Seals Intact:** (Yes) No

Cooler/Box Packing Material: (Bubble Wrap) Absorbent Foam Other:_____

Type of Ice: (Wet) Blue None **Ice Intact:** (Yes) Melted

Cooler Temperature: -1.7°C **Radiation Screened:** Yes (No) **Chain of Custody Present:** (Yes) No

Comments:_____

B. **Laboratory Assignment/Log-in** (check appropriate response)

	YES	NO	N/A	Comment Reference non-Conformance
Chain of Custody properly filled out	✓			
Chain of Custody relinquished	✓			
Sampler Name & Signature on COC			✓	
Containers intact	✓			
Were samples in separate bags	✓			
Sample container labels match COC Sample name/date and time collected	✓			
Sufficient volume provided	✓			
PAES containers used	✓			
Are containers properly preserved for the requested testing? (as labeled)	✓			
If an unknown preservation state, were containers checked? Exception: VOA's coliform			✓	If yes, see pH form.
Was volume for dissolved testing field filtered, as noted on the COC? Was volume received in a preserved container?			✓	
Headspace present?		✓		

Comments:_____

_____

Cooler contents examined/received by : LO **Date:** 3.17.2020

Project Manager Review : JW **Date:** 3.17.2020

Report of Analysis

TRC Companies, Inc.
50 International Dr.
Suite 150
Greenville, SC 29615
Attention: Lisa Clark

Project Name: WPH Clemson

Project Number: 300688.0000.0000.00011

Lot Number:**VC13031**

Date Completed:03/23/2020

04/02/2020 2:54 PM
Approved and released by:
Lab Director - Greenville: **Lucas Odom**

The electronic signature above is the equivalent of a handwritten signature.

Pace Analytical Services, LLC (*formerly Shealy Environmental Services, Inc.*)
106 Vantage Point Drive West Columbia, SC 29172
Tel: 803-791-9700 Fax: 803-791-9111 www.pacelabs.com

Laboratory Data Quality Review Notes

Project Name: WPH-Clemson, SC

Project Number: 300688.0000.0000 Phase 4

Lab Report: **VC13031** Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.); West Columbia, SC; subcontracted job: **33267**

Samples and Analyses: Five groundwater samples, collected 12-Mar-2020 and analyzed for VOCs, chloride, bromide, sulfate, and nitrate; one trip blank, analyzed for VOCs only

Chain of Custody, Sample Temperature, Sample Preservation: Chain of custody was signed; sample temperature was <6 ^{o}C upon arrival at the laboratory; samples were preserved properly.

Hold Time: Sample analyses were performed within acceptable hold times.

Surrogates: VOC surrogate recoveries are within QC limits.

Method Blank: One target analyte was detected in the laboratory method blanks, as follows:

- Bromide (0.056 J mg/L) was detected in the method blank**. The positive results for bromide in samples RMW-13, RMW-06A, RMW-06, and RMW-20C are assigned "u" qualifiers (revised to ND) at the LOQ.** These results shall be considered ND based on method blank contamination.

Trip Blank: No target analytes were detected in the trip blank; analyzed for VOCs only.

Field Blank: A field blank was not collected with these samples.

Equipment Rinse Blank: A rinsate blank was not collected with these samples.

LCS/LCSD: LCS recoveries for all analyses are within QC limits. LCSD analyses were not performed.

MS/MSD: MS/MSD analyses were performed for VOCs, bromide, chloride, and nitrate using sample RMW-06A. MS and MSD recoveries and MS/MSD RPDs are within QC limits, with the following exceptions:

- The MS and MSD recoveries for nitrate (detected) are below the QC limits. **The positive result for nitrate in sample RMW-06A is assigned a "j-" qualifier due to low MS/MSD recoveries.**

Duplicates: No field duplicate sample was collected with this sample set. No laboratory duplicates were included with these analyses.

Dilutions: All dilutions in these analyses were associated with positive detects; no ND results were reported at elevated DLs and LOQs due to dilution.

Data reviewer: Amy Bass; TRC Environmental Corporation; 28-Sep-2020

Case Narrative
TRC Companies, Inc.
Lot Number: VC13031

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Pace Analytical Services, LLC ("Pace") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Pace policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Pace Project Manager listed on the cover page.

VOCs by GC/MS

The continuing calibration verification (CCV) associated with analytical batch 48012 recovered outside acceptance criteriafor Dichlorodifluoromethane and Chloromethane. An LOQ standard was analyzed, and the target analyte was detected. Since the associated samples are non-detect for these compounds, no corrective action was taken.

Bromide

The method blank and continuing calibration blanks for analytical batch 48673 yielded a "J" value detection for Bromide. The associated samples did not contain detections above the LOQ for the target analyte; therefore, re-extraction and/or re-analysis of samples was not performed. Associated detections have been qualified with a "B".

Nitrate

Due to suspected matrix interferences, the MS/MSD associated with batch 47904 recovered marginally below method criteria.

Dissolved Gasses

The analysis for Dissolved Gasses has been performed by Pace Energy. The data for this analysis is found on Pace Energy report 33267.

Sample Summary
TRC Companies, Inc.
Lot Number: VC13031

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	TBLK-20104	Aqueous	03/12/2020	03/13/2020
002	RMW-13	Aqueous	03/12/2020 1135	03/13/2020
003	RMW-13A	Aqueous	03/12/2020 1145	03/13/2020
004	RMW-06A	Aqueous	03/12/2020 1430	03/13/2020
005	RMW-06	Aqueous	03/12/2020 1450	03/13/2020
006	RMW-20C	Aqueous	03/12/2020 1700	03/13/2020

(6 samples)

Detection Summary

TRC Companies, Inc.

Lot Number: VC13031

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
002	RMW-13	Aqueous	Bromide	300.0	0.085	BJ	mg/L	8
002	RMW-13	Aqueous	Chloride	300.0	4.6		mg/L	8
002	RMW-13	Aqueous	Nitrate - N	353.2	1.4		mg/L	8
002	RMW-13	Aqueous	Sulfate	300.0	79		mg/L	8
002	RMW-13	Aqueous	Chloroform	8260D	0.51	J	ug/L	9
002	RMW-13	Aqueous	1,2-Dichloroethane	8260D	0.46	J	ug/L	9
002	RMW-13	Aqueous	Tetrachloroethene	8260D	170		ug/L	9
003	RMW-13A	Aqueous	Chloride	300.0	0.86	J	mg/L	11
003	RMW-13A	Aqueous	Nitrate - N	353.2	0.18		mg/L	11
003	RMW-13A	Aqueous	Sulfate	300.0	1.1		mg/L	11
004	RMW-06A	Aqueous	Bromide	300.0	0.064	BJ	mg/L	14
004	RMW-06A	Aqueous	Chloride	300.0	0.97	J	mg/L	14
004	RMW-06A	Aqueous	Nitrate - N	353.2	1.9		mg/L	14
004	RMW-06A	Aqueous	Chloroform	8260D	0.55	J	ug/L	15
004	RMW-06A	Aqueous	1,2-Dichloroethane	8260D	0.46	J	ug/L	15
004	RMW-06A	Aqueous	Tetrachloroethene	8260D	87		ug/L	15
005	RMW-06	Aqueous	Bromide	300.0	0.12	BJ	mg/L	17
005	RMW-06	Aqueous	Chloride	300.0	12		mg/L	17
005	RMW-06	Aqueous	Nitrate - N	353.2	2.7		mg/L	17
005	RMW-06	Aqueous	Sulfate	300.0	10		mg/L	17
005	RMW-06	Aqueous	Chloroform	8260D	0.68	J	ug/L	18
005	RMW-06	Aqueous	Tetrachloroethene	8260D	78		ug/L	18
006	RMW-20C	Aqueous	Bromide	300.0	0.059	BJ	mg/L	20
006	RMW-20C	Aqueous	Chloride	300.0	2.5		mg/L	20
006	RMW-20C	Aqueous	Nitrate - N	353.2	1.2		mg/L	20
006	RMW-20C	Aqueous	Sulfate	300.0	0.48	J	mg/L	20
006	RMW-20C	Aqueous	Acetone	8260D	8.1	J	ug/L	21
006	RMW-20C	Aqueous	2-Butanone (MEK)	8260D	9.1	J	ug/L	21
006	RMW-20C	Aqueous	Tetrachloroethene	8260D	3.5		ug/L	21

(29 detections)

Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC13031-001
Description: TBLK-20104
Matrix: Aqueous
Date Sampled: 03/12/2020
Date Received: 03/13/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/16/2020 1221	JM1		48012

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	ND		1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC13031-001
Description: TBLK-20104
Matrix: Aqueous
Date Sampled: 03/12/2020
Date Received: 03/13/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/16/2020 1221	JM1		48012

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Trichloroethene	79-01-6	8260D	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		99	70-130
1,2-Dichloroethane-d4		95	70-130
Toluene-d8		104	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Inorganic non-metals

Client: TRC Companies, Inc.
Laboratory ID: VC13031-002
Description: RMW-13
Matrix: Aqueous
Date Sampled: 03/12/2020 1135
Date Received: 03/13/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	03/21/2020 0018	HKL		48673
1		(Chloride) 300.0	1	03/21/2020 0018	HKL		48670
1		(Nitrate - N) 353.2	1	03/14/2020 1120	MDD		47904
1		(Sulfate) 300.0	1	03/21/2020 0018	HKL		48668

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.085	BJ	0.20	0.050	mg/L	1
Chloride		300.0	4.6		1.0	0.20	mg/L	1
Nitrate - N		353.2	1.4		0.020	0.010	mg/L	1
Sulfate		300.0	79		1.0	0.20	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc. | Laboratory ID: VC13031-002
Description: RMW-13 | Matrix: Aqueous
Date Sampled: 03/12/2020 1135
Date Received: 03/13/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/16/2020 1435	JM1		48012

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	0.51	J	1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	0.46	J	1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	170		1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC13031-002
Description: RMW-13
Matrix: Aqueous
Date Sampled: 03/12/2020 1135
Date Received: 03/13/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/16/2020 1435	JM1		48012

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Trichloroethene	79-01-6	8260D	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		96	70-130
1,2-Dichloroethane-d4		94	70-130
Toluene-d8		102	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Inorganic non-metals

Client: TRC Companies, Inc.
Laboratory ID: VC13031-003
Description: RMW-13A
Matrix: Aqueous
Date Sampled: 03/12/2020 1145
Date Received: 03/13/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	03/21/2020 0046	HKL		48673
1		(Chloride) 300.0	1	03/21/2020 0046	HKL		48670
1		(Nitrate - N) 353.2	1	03/14/2020 1121	MDD		47904
1		(Sulfate) 300.0	1	03/21/2020 0046	HKL		48668

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	ND		0.20	0.050	mg/L	1
Chloride		300.0	0.86	J	1.0	0.20	mg/L	1
Nitrate - N		353.2	0.18		0.020	0.010	mg/L	1
Sulfate		300.0	1.1		1.0	0.20	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc. | Laboratory ID: VC13031-003
Description: RMW-13A | Matrix: Aqueous
Date Sampled: 03/12/2020 1145
Date Received: 03/13/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/16/2020 1503	JM1		48012

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	ND		1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC13031-003
Description: RMW-13A
Matrix: Aqueous
Date Sampled: 03/12/2020 1145
Date Received: 03/13/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/16/2020 1503	JM1		48012

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Trichloroethene	79-01-6	8260D	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		101	70-130
1,2-Dichloroethane-d4		96	70-130
Toluene-d8		105	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Inorganic non-metals

Client: TRC Companies, Inc.
Laboratory ID: VC13031-004
Description: RMW-06A
Matrix: Aqueous
Date Sampled: 03/12/2020 1430
Date Received: 03/13/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	03/21/2020 0114	HKL		48673
1		(Chloride) 300.0	1	03/21/2020 0114	HKL		48670
1		(Nitrate - N) 353.2	2	03/14/2020 1122	MDD		47904
1		(Sulfate) 300.0	1	03/21/2020 0114	HKL		48668

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.064	BJ	0.20	0.050	mg/L	1
Chloride		300.0	0.97	J	1.0	0.20	mg/L	1
Nitrate - N		353.2	1.9		0.040	0.020	mg/L	1
Sulfate		300.0	ND		1.0	0.20	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc. | Laboratory ID: VC13031-004
Description: RMW-06A | Matrix: Aqueous
Date Sampled: 03/12/2020 1430
Date Received: 03/13/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/16/2020 1530	JM1		48012

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	0.55	J	1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	0.46	J	1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	87		1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC13031-004
Description: RMW-06A
Matrix: Aqueous
Date Sampled: 03/12/2020 1430
Date Received: 03/13/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/16/2020 1530	JM1		48012

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Trichloroethene	79-01-6	8260D	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		97	70-130
1,2-Dichloroethane-d4		95	70-130
Toluene-d8		103	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Inorganic non-metals

Client: TRC Companies, Inc.
Laboratory ID: VC13031-005
Description: RMW-06
Matrix: Aqueous
Date Sampled: 03/12/2020 1450
Date Received: 03/13/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	03/21/2020 0335	HKL		48673
1		(Chloride) 300.0	1	03/21/2020 0335	HKL		48670
1		(Nitrate - N) 353.2	2	03/14/2020 1130	MDD		47904
1		(Sulfate) 300.0	1	03/21/2020 0335	HKL		48668

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.12	BJ	0.20	0.050	mg/L	1
Chloride		300.0	12		1.0	0.20	mg/L	1
Nitrate - N		353.2	2.7		0.040	0.020	mg/L	1
Sulfate		300.0	10		1.0	0.20	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc. | Laboratory ID: VC13031-005
Description: RMW-06 | Matrix: Aqueous
Date Sampled: 03/12/2020 1450
Date Received: 03/13/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/16/2020 1557	JM1		48012

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	0.68	J	1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	78		1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC13031-005
Description: RMW-06
Matrix: Aqueous
Date Sampled: 03/12/2020 1450
Date Received: 03/13/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/16/2020 1557	JM1		48012

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Trichloroethene	79-01-6	8260D	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		99	70-130
1,2-Dichloroethane-d4		96	70-130
Toluene-d8		103	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Inorganic non-metals

Client: TRC Companies, Inc.
Laboratory ID: VC13031-006
Description: RMW-20C
Matrix: Aqueous
Date Sampled: 03/12/2020 1700
Date Received: 03/13/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	03/21/2020 0403	HKL		48673
1		(Chloride) 300.0	1	03/21/2020 0403	HKL		48670
1		(Nitrate - N) 353.2	1	03/14/2020 1132	MDD		47904
1		(Sulfate) 300.0	1	03/21/2020 0403	HKL		48668

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.059	BJ	0.20	0.050	mg/L	1
Chloride		300.0	2.5		1.0	0.20	mg/L	1
Nitrate - N		353.2	1.2		0.020	0.010	mg/L	1
Sulfate		300.0	0.48	J	1.0	0.20	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
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W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc. | Laboratory ID: VC13031-006
Description: RMW-20C | Matrix: Aqueous
Date Sampled: 03/12/2020 1700
Date Received: 03/13/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/16/2020 1623	JM1		48012

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	8.1	J	20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	9.1	J	10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	3.5		1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
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E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC13031-006
Description: RMW-20C
Matrix: Aqueous
Date Sampled: 03/12/2020 1700
Date Received: 03/13/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/16/2020 1623	JM1		48012

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Trichloroethene	79-01-6	8260D	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		101	70-130
1,2-Dichloroethane-d4		96	70-130
Toluene-d8		104	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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QC Summary

Inorganic non-metals - MB

Sample ID: VQ47904-001
Batch: 47904
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Nitrate - N	ND		1	0.020	0.010	mg/L	03/14/2020 1117

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: VQ47904-002
Batch: 47904
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	0.80	0.84		1	104	90-110	03/14/2020 1118

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MS

Sample ID: VC13031-004MS
Batch: 47904
Analytical Method: 353.2
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	1.9	0.80	2.6	N	2	87	90-110	03/14/2020 1124

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: VC13031-004MD
Batch: 47904
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Nitrate - N	1.9	0.80	2.6	N	2	88	0.36	90-110	20	03/14/2020 1125

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: VQ48668-001
Batch: 48668
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Sulfate	ND		1	1.0	0.20	mg/L	03/20/2020 1230

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - LCS

Sample ID: VQ48668-002
Batch: 48668
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Sulfate	20	20		1	100	90-110	03/20/2020 1326

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Sample ID: VC13031-004MS
Batch: 48668
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Sulfate	ND	20	20		1	99	90-110	03/21/2020 0143

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: VC13031-004MD
Batch: 48668
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Sulfate	ND	20	20		1	102	2.5	90-110	20	03/21/2020 0307

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: VQ48670-001
Batch: 48670
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Chloride	ND		1	1.0	0.20	mg/L	03/20/2020 1230

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: VQ48670-002
Batch: 48670
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Chloride	20	20		1	102	90-110	03/20/2020 1326

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MS

Sample ID: VC13031-004MS
Batch: 48670
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Chloride	0.97	20	20		1	97	90-110	03/21/2020 0143

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: VC13031-004MD
Batch: 48670
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Chloride	0.97	20	21		1	99	1.9	90-110	20	03/21/2020 0307

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: VQ48673-001
Batch: 48673
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Bromide	0.056	J	1	0.20	0.050	mg/L	03/20/2020 1230

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: VQ48673-002
Batch: 48673
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Bromide	8.0	8.3		1	104	90-110	03/20/2020 1326

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Sample ID: VC13031-004MS
Batch: 48673
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Bromide	0.064	8.0	7.7		1	95	90-110	03/21/2020 0143

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: VC13031-004MD
Batch: 48673
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Bromide	0.064	8.0	7.8		1	97	1.3	90-110	20	03/21/2020 0307

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: VQ48012-001
Batch: 48012
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Acetone	ND		1	20	5.0	ug/L	03/16/2020 1026
Benzene	ND		1	1.0	0.40	ug/L	03/16/2020 1026
Bromodichloromethane	ND		1	1.0	0.40	ug/L	03/16/2020 1026
Bromoform	ND		1	1.0	0.40	ug/L	03/16/2020 1026
Bromomethane (Methyl bromide)	ND		1	2.0	0.40	ug/L	03/16/2020 1026
2-Butanone (MEK)	ND		1	10	2.0	ug/L	03/16/2020 1026
Carbon disulfide	ND		1	1.0	0.40	ug/L	03/16/2020 1026
Carbon tetrachloride	ND		1	1.0	0.40	ug/L	03/16/2020 1026
Chlorobenzene	ND		1	1.0	0.40	ug/L	03/16/2020 1026
Chloroethane	ND		1	2.0	0.40	ug/L	03/16/2020 1026
Chloroform	ND		1	1.0	0.40	ug/L	03/16/2020 1026
Chloromethane (Methyl chloride)	ND		1	1.0	0.50	ug/L	03/16/2020 1026
Cyclohexane	ND		1	1.0	0.40	ug/L	03/16/2020 1026
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	0.40	ug/L	03/16/2020 1026
Dibromochloromethane	ND		1	1.0	0.40	ug/L	03/16/2020 1026
1,2-Dibromoethane (EDB)	ND		1	1.0	0.40	ug/L	03/16/2020 1026
1,2-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/16/2020 1026
1,3-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/16/2020 1026
1,4-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/16/2020 1026
Dichlorodifluoromethane	ND		1	2.0	0.60	ug/L	03/16/2020 1026
1,1-Dichloroethane	ND		1	1.0	0.40	ug/L	03/16/2020 1026
1,2-Dichloroethane	ND		1	1.0	0.40	ug/L	03/16/2020 1026
1,1-Dichloroethene	ND		1	1.0	0.40	ug/L	03/16/2020 1026
cis-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	03/16/2020 1026
trans-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	03/16/2020 1026
1,2-Dichloropropane	ND		1	1.0	0.40	ug/L	03/16/2020 1026
cis-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	03/16/2020 1026
trans-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	03/16/2020 1026
Ethylbenzene	ND		1	1.0	0.40	ug/L	03/16/2020 1026
2-Hexanone	ND		1	10	2.0	ug/L	03/16/2020 1026
Isopropylbenzene	ND		1	1.0	0.40	ug/L	03/16/2020 1026
Methyl acetate	ND		1	1.0	0.40	ug/L	03/16/2020 1026
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	0.40	ug/L	03/16/2020 1026
4-Methyl-2-pentanone	ND		1	10	2.0	ug/L	03/16/2020 1026
Methylcyclohexane	ND		1	5.0	0.40	ug/L	03/16/2020 1026
Methylene chloride	ND		1	1.0	0.40	ug/L	03/16/2020 1026
Styrene	ND		1	1.0	0.41	ug/L	03/16/2020 1026
1,1,2,2-Tetrachloroethane	ND		1	1.0	0.40	ug/L	03/16/2020 1026
Tetrachloroethene	ND		1	1.0	0.40	ug/L	03/16/2020 1026
Toluene	ND		1	1.0	0.40	ug/L	03/16/2020 1026
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	0.42	ug/L	03/16/2020 1026
1,2,4-Trichlorobenzene	ND		1	1.0	0.40	ug/L	03/16/2020 1026
1,1,1-Trichloroethane	ND		1	1.0	0.40	ug/L	03/16/2020 1026
1,1,2-Trichloroethane	ND		1	1.0	0.40	ug/L	03/16/2020 1026

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: VQ48012-001
Batch: 48012
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Trichloroethene	ND		1	1.0	0.40	ug/L	03/16/2020 1026
Trichlorofluoromethane	ND		1	1.0	0.40	ug/L	03/16/2020 1026
Vinyl chloride	ND		1	1.0	0.40	ug/L	03/16/2020 1026
Xylenes (total)	ND		1	1.0	0.40	ug/L	03/16/2020 1026

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		100	70-130
1,2-Dichloroethane-d4		95	70-130
Toluene-d8		104	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: VQ48012-002
Batch: 48012
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	93		1	93	60-140	03/16/2020 0932
Benzene	50	53		1	107	70-130	03/16/2020 0932
Bromodichloromethane	50	56		1	113	70-130	03/16/2020 0932
Bromoform	50	61		1	121	70-130	03/16/2020 0932
Bromomethane (Methyl bromide)	50	42		1	84	70-130	03/16/2020 0932
2-Butanone (MEK)	100	98		1	98	70-130	03/16/2020 0932
Carbon disulfide	50	50		1	100	70-130	03/16/2020 0932
Carbon tetrachloride	50	49		1	99	70-130	03/16/2020 0932
Chlorobenzene	50	54		1	109	70-130	03/16/2020 0932
Chloroethane	50	47		1	94	70-130	03/16/2020 0932
Chloroform	50	51		1	103	70-130	03/16/2020 0932
Chloromethane (Methyl chloride)	50	39		1	79	60-140	03/16/2020 0932
Cyclohexane	50	52		1	103	70-130	03/16/2020 0932
1,2-Dibromo-3-chloropropane (DBCP)	50	57		1	113	70-130	03/16/2020 0932
Dibromochloromethane	50	57		1	114	70-130	03/16/2020 0932
1,2-Dibromoethane (EDB)	50	57		1	113	70-130	03/16/2020 0932
1,2-Dichlorobenzene	50	55		1	110	70-130	03/16/2020 0932
1,3-Dichlorobenzene	50	55		1	111	70-130	03/16/2020 0932
1,4-Dichlorobenzene	50	55		1	109	70-130	03/16/2020 0932
Dichlorodifluoromethane	50	37		1	74	60-140	03/16/2020 0932
1,1-Dichloroethane	50	52		1	103	70-130	03/16/2020 0932
1,2-Dichloroethane	50	52		1	104	70-130	03/16/2020 0932
1,1-Dichloroethene	50	49		1	98	70-130	03/16/2020 0932
cis-1,2-Dichloroethene	50	53		1	106	70-130	03/16/2020 0932
trans-1,2-Dichloroethene	50	52		1	103	70-130	03/16/2020 0932
1,2-Dichloropropane	50	54		1	108	70-130	03/16/2020 0932
cis-1,3-Dichloropropene	50	58		1	115	70-130	03/16/2020 0932
trans-1,3-Dichloropropene	50	58		1	115	70-130	03/16/2020 0932
Ethylbenzene	50	55		1	110	70-130	03/16/2020 0932
2-Hexanone	100	110		1	106	70-130	03/16/2020 0932
Isopropylbenzene	50	56		1	112	70-130	03/16/2020 0932
Methyl acetate	50	51		1	103	70-130	03/16/2020 0932
Methyl tertiary butyl ether (MTBE)	50	53		1	105	70-130	03/16/2020 0932
4-Methyl-2-pentanone	100	110		1	113	70-130	03/16/2020 0932
Methylcyclohexane	50	50		1	101	70-130	03/16/2020 0932
Methylene chloride	50	51		1	103	70-130	03/16/2020 0932
Styrene	50	58		1	115	70-130	03/16/2020 0932
1,1,2,2-Tetrachloroethane	50	55		1	111	70-130	03/16/2020 0932
Tetrachloroethene	50	55		1	109	70-130	03/16/2020 0932
Toluene	50	54		1	107	70-130	03/16/2020 0932
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	47		1	94	70-130	03/16/2020 0932
1,2,4-Trichlorobenzene	50	57		1	115	70-130	03/16/2020 0932
1,1,1-Trichloroethane	50	50		1	101	70-130	03/16/2020 0932
1,1,2-Trichloroethane	50	55		1	110	70-130	03/16/2020 0932

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: VQ48012-002
Batch: 48012
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	55		1	111	70-130	03/16/2020 0932
Trichlorofluoromethane	50	44		1	87	70-130	03/16/2020 0932
Vinyl chloride	50	41		1	82	70-130	03/16/2020 0932
Xylenes (total)	100	110		1	110	70-130	03/16/2020 0932

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		107	70-130
1,2-Dichloroethane-d4		105	70-130
Toluene-d8		109	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: VC13031-004MS
Batch: 48012
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	ND	100	110		1	106	60-140	03/16/2020 2055
Benzene	ND	50	56		1	112	70-130	03/16/2020 2055
Bromodichloromethane	ND	50	56		1	113	70-130	03/16/2020 2055
Bromoform	ND	50	44		1	88	70-130	03/16/2020 2055
Bromomethane (Methyl bromide)	ND	50	44		1	88	70-130	03/16/2020 2055
2-Butanone (MEK)	ND	100	110		1	110	70-130	03/16/2020 2055
Carbon disulfide	ND	50	51		1	103	70-130	03/16/2020 2055
Carbon tetrachloride	ND	50	57		1	114	70-130	03/16/2020 2055
Chlorobenzene	ND	50	55		1	110	70-130	03/16/2020 2055
Chloroethane	ND	50	56		1	112	70-130	03/16/2020 2055
Chloroform	0.55	50	55		1	109	70-130	03/16/2020 2055
Chloromethane (Methyl chloride)	ND	50	46		1	93	60-140	03/16/2020 2055
Cyclohexane	ND	50	50		1	100	70-130	03/16/2020 2055
1,2-Dibromo-3-chloropropane (DBCP)	ND	50	51		1	101	70-130	03/16/2020 2055
Dibromochloromethane	ND	50	52		1	103	70-130	03/16/2020 2055
1,2-Dibromoethane (EDB)	ND	50	56		1	112	70-130	03/16/2020 2055
1,2-Dichlorobenzene	ND	50	51		1	103	70-130	03/16/2020 2055
1,3-Dichlorobenzene	ND	50	53		1	106	70-130	03/16/2020 2055
1,4-Dichlorobenzene	ND	50	52		1	104	70-130	03/16/2020 2055
Dichlorodifluoromethane	ND	50	48		1	96	60-140	03/16/2020 2055
1,1-Dichloroethane	ND	50	55		1	110	70-130	03/16/2020 2055
1,2-Dichloroethane	0.46	50	53		1	106	70-130	03/16/2020 2055
1,1-Dichloroethene	ND	50	63		1	126	70-130	03/16/2020 2055
cis-1,2-Dichloroethene	ND	50	58		1	116	70-130	03/16/2020 2055
trans-1,2-Dichloroethene	ND	50	60		1	121	70-130	03/16/2020 2055
1,2-Dichloropropane	ND	50	56		1	111	70-130	03/16/2020 2055
cis-1,3-Dichloropropene	ND	50	55		1	109	70-130	03/16/2020 2055
trans-1,3-Dichloropropene	ND	50	53		1	106	70-130	03/16/2020 2055
Ethylbenzene	ND	50	58		1	115	70-130	03/16/2020 2055
2-Hexanone	ND	100	110		1	108	70-130	03/16/2020 2055
Isopropylbenzene	ND	50	58		1	117	70-130	03/16/2020 2055
Methyl acetate	ND	50	47		1	93	70-130	03/16/2020 2055
Methyl tertiary butyl ether (MTBE)	ND	50	53		1	106	70-130	03/16/2020 2055
4-Methyl-2-pentanone	ND	100	110		1	107	70-130	03/16/2020 2055
Methylcyclohexane	ND	50	59		1	118	70-130	03/16/2020 2055
Methylene chloride	ND	50	55		1	109	70-130	03/16/2020 2055
Styrene	ND	50	59		1	118	70-130	03/16/2020 2055
1,1,2,2-Tetrachloroethane	ND	50	55		1	109	70-130	03/16/2020 2055
Tetrachloroethene	87	50	150		1	118	70-130	03/16/2020 2055
Toluene	ND	50	58		1	116	70-130	03/16/2020 2055
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	50	58		1	116	70-130	03/16/2020 2055
1,2,4-Trichlorobenzene	ND	50	56		1	112	70-130	03/16/2020 2055
1,1,1-Trichloroethane	ND	50	55		1	109	70-130	03/16/2020 2055
1,1,2-Trichloroethane	ND	50	56		1	111	70-130	03/16/2020 2055

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: VC13031-004MS
Batch: 48012
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	ND	50	59		1	118	70-130	03/16/2020 2055
Trichlorofluoromethane	ND	50	57		1	114	70-130	03/16/2020 2055
Vinyl chloride	ND	50	48		1	95	70-130	03/16/2020 2055
Xylenes (total)	ND	100	120		1	120	70-130	03/16/2020 2055

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		98	70-130
1,2-Dichloroethane-d4		94	70-130
Toluene-d8		102	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MSD

Sample ID: VC13031-004MD
Batch: 48012
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	ND	100	110		1	106	0.46	60-140	20	03/16/2020 2121
Benzene	ND	50	56		1	113	0.87	70-130	20	03/16/2020 2121
Bromodichloromethane	ND	50	58		1	115	2.5	70-130	20	03/16/2020 2121
Bromoform	ND	50	46		1	91	3.4	70-130	20	03/16/2020 2121
Bromomethane (Methyl bromide)	ND	50	43		1	85	3.4	70-130	20	03/16/2020 2121
2-Butanone (MEK)	ND	100	110		1	113	2.9	70-130	20	03/16/2020 2121
Carbon disulfide	ND	50	51		1	103	0.15	70-130	20	03/16/2020 2121
Carbon tetrachloride	ND	50	58		1	116	1.7	70-130	20	03/16/2020 2121
Chlorobenzene	ND	50	56		1	113	2.8	70-130	20	03/16/2020 2121
Chloroethane	ND	50	52		1	105	7.1	70-130	20	03/16/2020 2121
Chloroform	0.55	50	56		1	110	1.3	70-130	20	03/16/2020 2121
Chloromethane (Methyl chloride)	ND	50	45		1	90	3.4	60-140	20	03/16/2020 2121
Cyclohexane	ND	50	51		1	102	2.4	70-130	20	03/16/2020 2121
1,2-Dibromo-3-chloropropane (DBCP)	ND	50	53		1	106	5.0	70-130	20	03/16/2020 2121
Dibromochloromethane	ND	50	53		1	106	2.5	70-130	20	03/16/2020 2121
1,2-Dibromoethane (EDB)	ND	50	57		1	115	2.5	70-130	20	03/16/2020 2121
1,2-Dichlorobenzene	ND	50	53		1	106	3.1	70-130	20	03/16/2020 2121
1,3-Dichlorobenzene	ND	50	55		1	109	3.0	70-130	20	03/16/2020 2121
1,4-Dichlorobenzene	ND	50	54		1	107	3.4	70-130	20	03/16/2020 2121
Dichlorodifluoromethane	ND	50	48		1	96	0.93	60-140	20	03/16/2020 2121
1,1-Dichloroethane	ND	50	55		1	111	0.91	70-130	20	03/16/2020 2121
1,2-Dichloroethane	0.46	50	54		1	107	1.0	70-130	20	03/16/2020 2121
1,1-Dichloroethene	ND	50	63		1	126	0.45	70-130	20	03/16/2020 2121
cis-1,2-Dichloroethene	ND	50	58		1	116	0.74	70-130	20	03/16/2020 2121
trans-1,2-Dichloroethene	ND	50	61		1	122	1.3	70-130	20	03/16/2020 2121
1,2-Dichloropropane	ND	50	57		1	114	2.0	70-130	20	03/16/2020 2121
cis-1,3-Dichloropropene	ND	50	56		1	111	1.7	70-130	20	03/16/2020 2121
trans-1,3-Dichloropropene	ND	50	55		1	110	3.3	70-130	20	03/16/2020 2121
Ethylbenzene	ND	50	59		1	118	2.6	70-130	20	03/16/2020 2121
2-Hexanone	ND	100	110		1	111	3.3	70-130	20	03/16/2020 2121
Isopropylbenzene	ND	50	60		1	120	2.8	70-130	20	03/16/2020 2121
Methyl acetate	ND	50	48		1	95	2.0	70-130	20	03/16/2020 2121
Methyl tertiary butyl ether (MTBE)	ND	50	53		1	107	0.96	70-130	20	03/16/2020 2121
4-Methyl-2-pentanone	ND	100	110		1	110	2.5	70-130	20	03/16/2020 2121
Methylcyclohexane	ND	50	59		1	119	0.76	70-130	20	03/16/2020 2121
Methylene chloride	ND	50	54		1	109	0.38	70-130	20	03/16/2020 2121
Styrene	ND	50	60		1	120	1.9	70-130	20	03/16/2020 2121
1,1,2,2-Tetrachloroethane	ND	50	56		1	112	2.2	70-130	20	03/16/2020 2121
Tetrachloroethene	87	50	150		1	126	2.8	70-130	20	03/16/2020 2121
Toluene	ND	50	59		1	118	2.3	70-130	20	03/16/2020 2121
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	50	58		1	115	1.0	70-130	20	03/16/2020 2121
1,2,4-Trichlorobenzene	ND	50	58		1	116	4.0	70-130	20	03/16/2020 2121
1,1,1-Trichloroethane	ND	50	55		1	110	0.97	70-130	20	03/16/2020 2121
1,1,2-Trichloroethane	ND	50	56		1	112	0.65	70-130	20	03/16/2020 2121

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MSD

Sample ID: VC13031-004MD
Batch: 48012
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Trichloroethene	ND	50	61		1	121	2.7	70-130	20	03/16/2020 2121
Trichlorofluoromethane	ND	50	56		1	113	0.77	70-130	20	03/16/2020 2121
Vinyl chloride	ND	50	46		1	92	3.5	70-130	20	03/16/2020 2121
Xylenes (total)	ND	100	120		1	123	2.4	70-130	20	03/16/2020 2121

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		98	70-130
1,2-Dichloroethane-d4		94	70-130
Toluene-d8		103	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Chain of Custody

and

Miscellaneous Documents

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

SHEALY **Chain of Custody Record**

SHEALY ENVIRONMENTAL SERVICES, INC.
106 Vantage Point Drive • West Columbia, SC 29172
Telephone No. 803-791-9700 Fax No. 803-791-9111
www.shealylab.com

Number 102611

Client	Report to Contact	Telephone No. / E-mail	Quote No.
TRC	Lisa Clark		

Address	Sampler's Signature	Analysis (Attach list if more space is needed)	Page 1 of 1
50 International Dr Suite 150	X		

City	State	Zip Code	Printed Name	
Greenville	SC	29615	Benjamin Medlin	

Project Name	
WPH Clemson	

Project No.	P.O. No.
300688.0.0.11	

VC13031

Sample ID / Description (Containers for each sample may be combined on one line.)	Date 2020	Time	# of Containers	Matrix: Aqueous	Matrix: Solid	Matrix: Non-Aqueous	No of Containers by Preservative Type: Unpres.	HNO3	HCl	NaOH	Zn(Ac)2	TSP	VOCs	Cl, SO4, Br	NO3	Diss. Gasses	Remarks / Cooler I.D.
TBLK-20104	/	/	G	X					2								
RMW-13	3·12	1135	G	X			2		3			3	X	X	X	X	
RMW-13A	3·12	1145	G	X			2		3			3	X	X	X	X	
RMW-06A / RMW-06A/MS/MSD	3·12	1430	G	X			4		6			6	X	X	X	X	
RMW-06	3·12	1450	G	X			2		3			3	X	X	X	X	
RMW-20C	3·12	1700	G	X			2		3			3	X	X	X	X	

Turn Around Time Required (Prior lab approval required for expedited TAT.)
☐ Standard ☐ Rush (Specify)

Sample Disposal
☐ Return to Client ☐ Disposal by Lab

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

QC Requirements (Specify)

	Relinquished by	Date	Time	Received by	Date	Time
1.		3·12·20	1815	TRC Sample Storage	3·12·20	1815
2.	TRC Sample Storage	3·13·20	1012		3·13·20	1012
3.		3·13·20	1340		Date	Time
4.		Date	Time	Laboratory received by: L Hale	3/13/2020	1340

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on Ice (Circle) (Yes) No Ice Pack

Receipt Temp 2.0 °C

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Client Copy

Document Number: F-AD-135 Effective Date: 08-01-2014

Shealy Environmental Services, Inc.
Document Number: MED013C-14

Page 1 of 1
Effective Date: 8/2/2018

Sample Receipt Checklist (SRC)

Client: TRC Cooler Inspected by/date: LKH / 03/13/2020 Lot #: VC13031

Means of receipt: ☑ SESI ☐ Client ☐ UPS ☐ FedEx ☐ Other: _____

☐ Yes	☑ No		1. Were custody seals present on the cooler?
☐ Yes	☐ No	☑ NA	2. If custody seals were present, were they intact and unbroken?

pH Strip ID: NA Chlorine Strip ID: NA Tested by: NA

Original temperature upon receipt / Derived (Corrected) temperature upon receipt %Solid Snap-Cup ID: NA

2.0 / 2.0 °C NA / NA °C NA / NA °C NA / NA °C

Method: ☑ Temperature Blank ☐ Against Bottles IR Gun ID: 6 IR Gun Correction Factor: 0 °C

Method of coolant: ☑ Wet Ice ☐ Ice Packs ☐ Dry Ice ☐ None

☐ Yes	☐ No	☑ NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).
☐ Yes	☐ No	☑ NA	4. Is the commercial courier's packing slip attached to this form?
☑ Yes	☐ No		5. Were proper custody procedures (relinquished/received) followed?
☑ Yes	☐ No		6. Were sample IDs listed on the COC?
☑ Yes	☐ No		7. Were sample IDs listed on all sample containers?
☑ Yes	☐ No		8. Was collection date & time listed on the COC?
☑ Yes	☐ No		9. Was collection date & time listed on all sample containers?
☐ Yes	☐ No		10. Did all container label information (ID, date, time) agree with the COC?
☑ Yes	☐ No		11. Were tests to be performed listed on the COC?
☑ Yes	☐ No		12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)? _____
☑ Yes	☐ No		13. Was adequate sample volume available?
☐ Yes	☑ No		14. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
☐ Yes	☑ No		15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
☐ Yes	☑ No	☐ NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (¼"or 6mm in diameter) in any of the VOA vials?
☐ Yes	☐ No	☑ NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?
☐ Yes	☐ No	☑ NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
☐ Yes	☐ No	☑ NA	19. Were all applicable NH_3/TKN/cyanide/phenol/625 (< 0.5mg/L) samples free of residual chlorine?
☐ Yes	☐ No	☑ NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc…) correctly transcribed from the COC into the comment section in LIMS?
☐ Yes	☑ No		21. Was the quote number listed on the container label? If yes, Quote # NA

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) NA were received incorrectly preserved and were adjusted accordingly in sample receiving with NA mL of circle one: H_2SO_4, HNO_3, HCl, NaOH using SR # NA.
Time of preservation NA. If more than one preservative is needed, please note in the comments below.

Sample(s) NA were received with bubbles >6 mm in diameter.

Samples(s) NA were received with TRC > 0.5 mg/L (If #19 is *no*) and were adjusted accordingly in sample receiving with sodium thiosulfate ($Na_2S_2O_3$) with Shealy ID: NA.

SR barcode labels applied by: LKH Date: 03/13/2020

Comments:

Pace Analytical Energy Services LLC
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

March 31, 2020

Lucas Odom
Pace Analytical Services South Carolina
106 Vantage Point Drive
West Columbia, SC 29172

RE: **WPH CLEMSON / TRC**

Pace Workorder: 33267

Dear Lucas Odom:

Enclosed are the analytical results for sample(s) received by the laboratory on Tuesday, March 17, 2020. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Ruth Welsh 03/31/2020
Ruth.Welsh@pacelabs.com

Customer Service Representative

Enclosures

As a valued client we would appreciate your comments on our service.
Please email PAESfeedback@pacelabs.com.

Total Number of Pages 19

CERTIFICATE OF ANALYSIS

Laboratory Data Quality Review Notes

Project Name: WPH-Clemson, SC

Project Number: 300688.0000.0000 Phase 4

Lab Report: **33267** Pace Analytical Energy Services LLC; Pittsburgh, PA
This lab report is the subcontracted job related to **VC13031**.

Samples and Analyses: Five groundwater samples, collected 12-Mar-2020 and analyzed for dissolved hydrocarbon gases (methane, ethane, ethene)

Chain of Custody, Sample Temperature, Sample Preservation: Chain of custody was signed (sample transfer from Pace Analytical, Columbia, to Pace Analytical, Pittsburgh); sample temperature was <6 ^{o}C upon arrival at the laboratory; samples were preserved properly.

Hold Time: Sample analyses were performed within acceptable hold time.

Surrogates: Surrogate recoveries are not applicable to dissolved hydrocarbon gas analyses.

Method Blank: Target analytes were not detected in the laboratory method blanks.

Trip Blank: A trip blank was not analyzed with these samples.

Field Blank: A field blank was not collected with these samples.

Equipment Rinse Blank: A rinsate blank was not collected with these samples.

LCS/LCSD: LCS and LCSD recoveries and LCS/LCSD RPDs are within the laboratory QC limits.

MS/MSD: MS/MSD analyses were performed using sample RMW-06A and using an "external" sample (not from this data set; external sample results are not relevant to this review). The MS and MSD recoveries and RPDs using sample RMW-06A are within the laboratory QC limits.

Duplicates: No field duplicate sample was collected with this sample set. No laboratory duplicates were included with these analyses.

Dilutions: No dilutions were performed with these sample analyses.

No data qualifiers were assigned in this review.

Data reviewer: Amy Bass; TRC Environmental Corporation; 28-Sep-2020

Pace Analytical Energy Services LLC
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LABORATORY ACCREDITATIONS & CERTIFICATIONS

Accreditor:	Pennsylvania Department of Environmental Protection, Bureau of Laboratories
Accreditation ID:	02-00538
Scope:	NELAP Non-Potable Water
Accreditor:	West Virginia Department of Environmental Protection, Division of Water and Waste Management
Accreditation ID:	395
Scope:	Non-Potable Water
Accreditor:	South Carolina Department of Health and Environmental Control, Office of Environmental Laboratory Certification
Accreditation ID:	89009003
Scope:	Clean Water Act (CWA); Resource Conservation and Recovery Act (RCRA)
Accreditor:	State of Virginia
Accreditation ID:	460201
Scope:	Non-Potable Water
Accreditor:	NELAP: New Jersey, Department of Environmental Protection
Accreditation ID:	PA026
Scope:	Non-Potable Water
Accreditor:	NELAP: New York, Department of Health Wadsworth Center
Accreditation ID:	11815
Scope:	Non-Potable Water
Accreditor:	State of Connecticut, Department of Public Health, Division of Environmental Health
Accreditation ID:	PH-0263
Scope:	Clean Water Act (CWA) Resource Conservation and Recovery Act (RCRA)
Accreditor:	NELAP: Texas, Commission on Environmental Quality
Accreditation ID:	T104704453-09-TX
Scope:	Non-Potable Water
Accreditor:	State of New Hampshire
Accreditation ID:	299409
Scope:	Non-potable water
Accreditor:	State of Georgia
Accreditation ID:	Chapter 391-3-26
Scope:	As per the Georgia EPD Rules and Regulations for Commercial Laboratories, PAES is accredited by the Pennsylvania Department of Environmental Protection Bureau of Laboratories under the National Environmental Laboratory Approval Program (NELAC).

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SAMPLE SUMMARY

Workorder: 33267 WPH CLEMSON / TRC

Lab ID	Sample ID	Matrix	Date Collected	Date Received
332670001	RMW-13	Water	3/12/2020 11:35	3/17/2020 10:40
332670002	RMW-13A	Water	3/12/2020 11:45	3/17/2020 10:40
332670003	RMW-06A	Water	3/12/2020 14:30	3/17/2020 10:40
332670004	RMW-06A MS	Water	3/12/2020 14:30	3/17/2020 10:40
332670005	RMW-06A MSD	Water	3/12/2020 14:30	3/17/2020 10:40
332670006	RMW-06	Water	3/12/2020 14:50	3/17/2020 10:40
332670007	RMW-20C	Water	3/12/2020 17:00	3/17/2020 10:40

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PROJECT SUMMARY

Workorder: 33267 WPH CLEMSON / TRC

Workorder Comments

The container pH for samples 33267 (0002-0006) were measured as below the expected pH (< 10) for those samples preserved with trisodium phosphate, as assigned to PAES method AM20GAx.

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ANALYTICAL RESULTS

Workorder: 33267 WPH CLEMSON / TRC

Lab ID: **332670001** Date Received: 3/17/2020 10:40 Matrix: Water

Sample ID: **RMW-13** Date Collected: 3/12/2020 11:35

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**0.071J**	ug/l	0.50	0.046	1	3/23/2020 13:08	BW	n
Ethane	**0.0050U**	ug/l	0.10	0.0050	1	3/23/2020 13:08	BW	n
Ethene	**0.059J**	ug/l	0.10	0.0040	1	3/23/2020 13:08	BW	n

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ANALYTICAL RESULTS

Workorder: 33267 WPH CLEMSON / TRC

Lab ID: **332670002** Date Received: 3/17/2020 10:40 Matrix: Water

Sample ID: **RMW-13A** Date Collected: 3/12/2020 11:45

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**0.054J**	ug/l	0.50	0.046	1	3/25/2020 08:44	BW	n
Ethane	**0.0050U**	ug/l	0.10	0.0050	1	3/25/2020 08:44	BW	n
Ethene	**0.0098J**	ug/l	0.10	0.0040	1	3/25/2020 08:44	BW	n

CERTIFICATE OF ANALYSIS

Pace Analytical Energy Services LLC
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ANALYTICAL RESULTS

Workorder: 33267 WPH CLEMSON / TRC

Lab ID: **332670003** Date Received: 3/17/2020 10:40 Matrix: Water

Sample ID: **RMW-06A** Date Collected: 3/12/2020 14:30

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**0.079J**	ug/l	0.50	0.046	1	3/25/2020 08:55	BW	n
Ethane	**0.0052J**	ug/l	0.10	0.0050	1	3/25/2020 08:55	BW	n
Ethene	**0.013J**	ug/l	0.10	0.0040	1	3/25/2020 08:55	BW	n

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ANALYTICAL RESULTS

Workorder: 33267 WPH CLEMSON / TRC

Lab ID: **332670004** Date Received: 3/17/2020 10:40 Matrix: Water

Sample ID: **RMW-06A MS** Date Collected: 3/12/2020 14:30

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**38**	ug/l	0.50	0.046	1	3/25/2020 09:04	BW	n
Ethane	**71**	ug/l	0.10	0.0050	1	3/25/2020 09:04	BW	n
Ethene	**65**	ug/l	0.10	0.0040	1	3/25/2020 09:04	BW	n

Pace Analytical Energy Services LLC
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

ANALYTICAL RESULTS

Workorder: 33267 WPH CLEMSON / TRC

Lab ID: **332670005** Date Received: 3/17/2020 10:40 Matrix: Water

Sample ID: **RMW-06A MSD** Date Collected: 3/12/2020 14:30

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**38**	ug/l	0.50	0.046	1	3/25/2020 09:18	BW	n
Ethane	**70**	ug/l	0.10	0.0050	1	3/25/2020 09:18	BW	n
Ethene	**64**	ug/l	0.10	0.0040	1	3/25/2020 09:18	BW	n

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ANALYTICAL RESULTS

Workorder: 33267 WPH CLEMSON / TRC

Lab ID: **332670006** Date Received: 3/17/2020 10:40 Matrix: Water

Sample ID: **RMW-06** Date Collected: 3/12/2020 14:50

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**0.046U**	ug/l	0.50	0.046	1	3/25/2020 09:29	BW	n
Ethane	**0.0050U**	ug/l	0.10	0.0050	1	3/25/2020 09:29	BW	n
Ethene	**0.018J**	ug/l	0.10	0.0040	1	3/25/2020 09:29	BW	n

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ANALYTICAL RESULTS

Workorder: 33267 WPH CLEMSON / TRC

Lab ID: **332670007** Date Received: 3/17/2020 10:40 Matrix: Water

Sample ID: **RMW-20C** Date Collected: 3/12/2020 17:00

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**920**	ug/l	0.50	0.046	1	3/26/2020 07:42	BW	n
Ethane	**0.31**	ug/l	0.10	0.0050	1	3/26/2020 07:42	BW	n
Ethene	**0.70**	ug/l	0.10	0.0040	1	3/26/2020 07:42	BW	n

CERTIFICATE OF ANALYSIS

Pace Analytical Energy Services LLC
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Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

ANALYTICAL RESULTS QUALIFIERS

Workorder: 33267 WPH CLEMSON / TRC

DEFINITIONS/QUALIFIERS

MDL	Method Detection Limit. Can be used synonymously with LOD; Limit Of Detection.
PQL	Practical Quanitation Limit. Can be used synonymously with LOQ; Limit Of Quantitation.
ND	Not detected at or above reporting limit.
DF	Dilution Factor.
S	Surrogate.
RPD	Relative Percent Difference.
% Rec	Percent Recovery.
U	Indicates the compound was analyzed for, but not detected at or above the noted concentration.
J	Estimated concentration greater than the set method detection limit (MDL) and less than the set reporting limit (PQL).
n	The laboratory does not hold NELAP/TNI accreditation for this method or analyte.

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QUALITY CONTROL DATA

Workorder: 33267 WPH CLEMSON / TRC

QC Batch: DISG/8165 Analysis Method: AM20GAX

QC Batch Method: AM20GAX

Associated Lab Samples: 332670001

METHOD BLANK: 66451

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
RISK				
Methane	ug/l	0.046U	0.046	n
Ethane	ug/l	0.0050U	0.0050	n
Ethene	ug/l	0.0040U	0.0040	n

LABORATORY CONTROL SAMPLE & LCSD: 66452 66453

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Methane	ug/l	750	820	790	110	106	80-120	3.6	20	n
Ethane	ug/l	38	37	37	98	97	80-120	1.3	20	n
Ethene	ug/l	35	36	34	101	96	80-120	4.7	20	n

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QUALITY CONTROL DATA

Workorder: 33267 WPH CLEMSON / TRC

QC Batch: DISG/8168 Analysis Method: AM20GAX

QC Batch Method: AM20GAX

Associated Lab Samples: 332670002, 332670003, 332670004, 332670005, 332670006

METHOD BLANK: 66465

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
RISK				
Methane	ug/l	0.046U	0.046	n
Ethane	ug/l	0.0050U	0.0050	n
Ethene	ug/l	0.0040U	0.0040	n

LABORATORY CONTROL SAMPLE & LCSD: 66466 66467

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Methane	ug/l	750	780	770	104	103	80-120	1.4	20	n
Ethane	ug/l	38	41	40	108	106	80-120	2.4	20	n
Ethene	ug/l	35	38	37	108	105	80-120	3.2	20	n

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 66507 66508 Original: 332670003

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
RISK											
Methane	ug/l	0.079	40	38	38	95	94	70-130	1.3	20	n
Ethane	ug/l	0.0052	76	71	70	94	92	70-130	2	20	n
Ethene	ug/l	0.013	71	65	64	92	91	70-130	0.98	20	n

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QUALITY CONTROL DATA

Workorder: 33267 WPH CLEMSON / TRC

QC Batch: DISG/8172 Analysis Method: AM20GAX

QC Batch Method: AM20GAX

Associated Lab Samples: 332670007

METHOD BLANK: 66493

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
RISK				
Methane	ug/l	0.046U	0.046	n
Ethane	ug/l	0.0050U	0.0050	n
Ethene	ug/l	0.0040U	0.0040	n

LABORATORY CONTROL SAMPLE & LCSD: 66495 66497

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Methane	ug/l	750	750	780	100	105	80-120	4.7	20	n
Ethane	ug/l	38	38	38	101	102	80-120	0.88	20	n
Ethene	ug/l	35	35	36	100	101	80-120	0.3	20	n

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 66567 66568 Original: 333190004

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
RISK											
Methane	ug/l	34	40	84	83	123	119	70-130	1.6	20	n
Ethane	ug/l	0.032	76	77	75	101	99	70-130	2	20	n
Ethene	ug/l	0.015	71	71	70	100	99	70-130	1.3	20	n

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QUALITY CONTROL DATA QUALIFIERS

Workorder: 33267 WPH CLEMSON / TRC

QUALITY CONTROL PARAMETER QUALIFIERS

n	The laboratory does not hold NELAP/TNI accreditation for this method or analyte.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 33267 WPH CLEMSON / TRC

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
332670001	RMW-13			AM20GAX	DISG/8165
332670002	RMW-13A			AM20GAX	DISG/8168
332670003	RMW-06A			AM20GAX	DISG/8168
332670004	RMW-06A MS			AM20GAX	DISG/8168
332670005	RMW-06A MSD			AM20GAX	DISG/8168
332670006	RMW-06			AM20GAX	DISG/8168
332670007	RMW-20C			AM20GAX	DISG/8172

SHEALY

Chain of Custody Record

33267

Shealy Environmental Services, Inc.
106 Vantage Point Drive
West Columbia, South Carolina 29172
Telephone No. (803) 791-9700 Fax No. (803) 791-9111
www.shealylab.com

Number

Client	Report to Contact	Telephone No. / E-mail	Quote No.
Pace Analytical - Columbia	Lucas Odom	803-206-9537/lodom@shealylab.com	
Address	**Sampler's Signature**	**Analysis (Attach list if more space is needed)**	**Page**
106 Vantage Point Dr.			1 of 1
City / State / Zip Code	X _____		
West Columbia / SC / 29172	Printed Name		Laboratory Lot Number
Project Name			
WPH Clemson			
Project Number	**P.O No.**		
300688.0.0.11			

Sample ID / Description (Containers for each sample may be combined on one line)	Date	Time	G=Grab C=Composite	Matrix: Aqueous	Solid	Non-Aqueous		No of Containers by Preservative Type: Unpres.	H2SO4	HNO3	HCl	NaOH	5035 Kit	TSP	Dissolved Gasses										Remarks / Cooler I.D.
RMW-13	3/12/2020	1135	G	x										3	X										VC13031
RMW-13A	3/12/2020	1145	G	x										3	X										
RMW-06A (include MS/MSD)	3/12/2020	1430	G	x										6	X										MS/MSD
RMW-06	3/12/2020	1450	G	x										3	X										
RMW-20C	3/12/2020	1700	G	x										3	X										

Turn Around Time Required (Prior lab approval required for expedited TAT)	Sample Disposal	Possible Hazard Identification (List any known hazards in the remarks)	QC Requirements
X Standard Rush	☐ Return to Client ☒ Disposal by Lab	☐ Non-Hazardous ☐ Flammable ☐ Skin Irritant ☐ SDS provided ☐ Unknown	

1. Relinquished by	Date 3-16-2020	Time 1800	1. Received by	Date	Time
2. Relinquished by	Date	Time	2. Received by	Date	Time
3. Relinquished by	Date	Time	3. Received by	Date	Time
4. Relinquished by	Date	Time	4. Laboratory Received by PAC	Date 3.17.2020	Time 1040

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on Ice (Check) ☐ Y ☐ N ☐ Ice Pack

Receipt Temp. _____ °C

Cooler Receipt Form

Client Name: Pace **Project:** WPH Clemson **Lab Work Order:** 33267

A. **Shipping/Container Information** (circle appropriate response)

Courier: (FedEx) UPS USPS Client Other:_____ **Air bill Present:** (Yes) No

Tracking Number: 166334637305

Custody Seal on Cooler/Box Present: (Yes) No **Seals Intact:** Yes No

Cooler/Box Packing Material: (Bubble Wrap) Absorbent Foam Other:_____

Type of Ice: Wet Blue None **Ice Intact:** (Yes) Melted

Cooler Temperature: -1.7°C **Radiation Screened:** Yes (No) **Chain of Custody Present:** (Yes) No

Comments:_____

B. **Laboratory Assignment/Log-in** (check appropriate response)

	YES	NO	N/A	Comment Reference non-Conformance
Chain of Custody properly filled out	✓			
Chain of Custody relinquished	✓		✓	
Sampler Name & Signature on COC			✓	
Containers intact	✓			
Were samples in separate bags	✓			
Sample container labels match COC Sample name/date and time collected	✓			
Sufficient volume provided	✓			
PAES containers used	✓			
Are containers properly preserved for the requested testing? (as labeled)	✓			
If an unknown preservation state, were containers checked? Exception: VOA's coliform			✓	If yes, see pH form.
Was volume for dissolved testing field filtered, as noted on the COC? Was volume received in a preserved container?			✓	
Headspace present?		✓		

Comments:_____

_____

Cooler contents examined/received by : LY **Date:** 3.17.2020

Project Manager Review : JW **Date:** 3.17.2020

Report of Analysis

TRC Companies, Inc.
50 International Dr.
Suite 150
Greenville, SC 29615
Attention: Lisa Clark

Project Name: WPH Clemson

Project Number: 300688.0000.0000.00011

Lot Number:**VC17034**

Date Completed:03/30/2020

04/03/2020 2:46 PM
Approved and released by:
Lab Director - Greenville: **Lucas Odom**

The electronic signature above is the equivalent of a handwritten signature.

Pace Analytical Services, LLC (*formerly Shealy Environmental Services, Inc.*)
106 Vantage Point Drive West Columbia, SC 29172
Tel: 803-791-9700 Fax: 803-791-9111 www.pacelabs.com

Laboratory Data Quality Review Notes

Project Name: WPH-Clemson, SC

Project Number: 300688.0000.0000 Phase 4

Lab Report: **VC17034** Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.); West Columbia, SC; subcontracted job: **33298**

Samples and Analyses: Two groundwater samples and one field duplicate, collected 16-Mar-2020 and analyzed for VOCs, chloride, bromide, sulfate, and nitrate; one trip blank, analyzed for VOCs only

Chain of Custody, Sample Temperature, Sample Preservation: Chain of custody was signed; sample temperature was <6 ^{o}C upon arrival at the laboratory; samples were preserved properly.

Hold Time: Sample analyses were performed within acceptable hold times.

Surrogates: VOC surrogate recoveries are within QC limits.

Method Blank: Target analytes were not detected in the laboratory method blanks.

Trip Blank: No target analytes were detected in the trip blank; analyzed for VOCs only.

Field Blank: A field blank was not collected with these samples.

Equipment Rinse Blank: A rinsate blank was not collected with these samples.

LCS/LCSD: LCS recoveries for all analyses are within QC limits. LCSD analyses were not performed.

MS/MSD: MS/MSD analyses were performed for VOCs using sample RMW-19A. MS and MSD recoveries and MS/MSD RPDs are within the QC limits.

Duplicates: A field duplicate sample (DU-20102) was collected for sample RMW-19. RPDs were calculated for analytes detected above 5× the LOQ in both samples; absolute differences (AbsDs) were used to evaluate analytes detected below 5× the LOQ in one or both samples. RPD values were ≤ 30%, and AbsDs were ≤ LOQ; therefore, results are in acceptable agreement.

Dilutions: The VOCs analysis in sample RMW-19A was performed with a 10× dilution, and the associated ND results were reported with correspondingly elevated DL and LOQ values. All other dilutions in these analyses were associated with positive detects.

No data qualifiers were assigned in this review.

Data reviewer: Amy Bass; TRC Environmental Corporation; 28-Sep-2020

Case Narrative
TRC Companies, Inc.
Lot Number: VC17034

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Pace Analytical Services, LLC ("Pace") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Pace policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Pace Project Manager listed on the cover page.

VOCs by GC/MS

The continuing calibration verification (CCV) associated with analytical batch 48194 recovered outside acceptance criteria, for (MTBE). An LOQ standard was analyzed, and the target analyte was detected. Since the associated samples were non-detect, no corrective action was taken.

Dissolved Gasses

The analysis for Dissolved Gasses has been performed by Pace Energy. This data can be found on Pace Energy report 33298.

Sample Summary
TRC Companies, Inc.
Lot Number: VC17034

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	TBLK-20105	Aqueous	03/16/2020	03/17/2020
002	RMW-19A	Aqueous	03/16/2020 1455	03/17/2020
003	RMW-19	Aqueous	03/16/2020 1530	03/17/2020
004	DU-20102	Aqueous	03/16/2020	03/17/2020

(4 samples)

Detection Summary

TRC Companies, Inc.

Lot Number: VC17034

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
002	RMW-19A	Aqueous	Bromide	300.0	0.058	J	mg/L	7
002	RMW-19A	Aqueous	Chloride	300.0	1.0		mg/L	7
002	RMW-19A	Aqueous	Nitrate - N	353.2	1.9		mg/L	7
002	RMW-19A	Aqueous	Chloroform	8260D	13		ug/L	8
002	RMW-19A	Aqueous	Tetrachloroethene	8260D	680		ug/L	8
003	RMW-19	Aqueous	Bromide	300.0	0.17	J	mg/L	10
003	RMW-19	Aqueous	Chloride	300.0	9.6		mg/L	10
003	RMW-19	Aqueous	Nitrate - N	353.2	8.1		mg/L	10
003	RMW-19	Aqueous	Sulfate	300.0	17		mg/L	10
003	RMW-19	Aqueous	Tetrachloroethene	8260D	15		ug/L	11
003	RMW-19	Aqueous	Trichlorofluoromethane	8260D	2.9		ug/L	12
004	DU-20102	Aqueous	Bromide	300.0	0.17	J	mg/L	13
004	DU-20102	Aqueous	Chloride	300.0	9.6		mg/L	13
004	DU-20102	Aqueous	Nitrate - N	353.2	7.8		mg/L	13
004	DU-20102	Aqueous	Sulfate	300.0	17		mg/L	13
004	DU-20102	Aqueous	Tetrachloroethene	8260D	15		ug/L	14
004	DU-20102	Aqueous	Trichlorofluoromethane	8260D	3.0		ug/L	15

(17 detections)

Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC17034-001
Description: TBLK-20105
Matrix: Aqueous
Date Sampled: 03/16/2020
Date Received: 03/17/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/18/2020 1101	TML		48194

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	ND		1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

Pace Analytical Services, LLC *(formerly Shealy Environmental Services, Inc.)*
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC17034-001
Description: TBLK-20105
Matrix: Aqueous
Date Sampled: 03/16/2020
Date Received: 03/17/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/18/2020 1101	TML		48194

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Trichloroethene	79-01-6	8260D	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		104	70-130
1,2-Dichloroethane-d4		99	70-130
Toluene-d8		106	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Inorganic non-metals

Client: TRC Companies, Inc.
Laboratory ID: VC17034-002
Description: RMW-19A
Matrix: Aqueous
Date Sampled: 03/16/2020 1455
Date Received: 03/17/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	03/28/2020 0058	AMR		49297
1		(Chloride) 300.0	1	03/28/2020 0058	AMR		49295
1		(Nitrate - N) 353.2	2	03/17/2020 1843	AMR		48214
1		(Sulfate) 300.0	1	03/28/2020 0058	AMR		49294

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.058	J	0.20	0.050	mg/L	1
Chloride		300.0	1.0		1.0	0.20	mg/L	1
Nitrate - N		353.2	1.9		0.040	0.020	mg/L	1
Sulfate		300.0	ND		1.0	0.20	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc. | Laboratory ID: VC17034-002
Description: RMW-19A | Matrix: Aqueous
Date Sampled: 03/16/2020 1455
Date Received: 03/17/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	10	03/18/2020 1720	TML		48194

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		200	50	ug/L	1
Benzene	71-43-2	8260D	ND		10	4.0	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		10	4.0	ug/L	1
Bromoform	75-25-2	8260D	ND		10	4.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		20	4.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		100	20	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		10	4.0	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		10	4.0	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		10	4.0	ug/L	1
Chloroethane	75-00-3	8260D	ND		20	4.0	ug/L	1
Chloroform	67-66-3	8260D	13		10	4.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		10	5.0	ug/L	1
Cyclohexane	110-82-7	8260D	ND		10	4.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		10	4.0	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		10	4.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		10	4.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		10	4.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		10	4.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		10	4.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		20	6.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		10	4.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		10	4.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		10	4.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		10	4.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		10	4.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		10	4.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		10	4.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		10	4.0	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		10	4.0	ug/L	1
2-Hexanone	591-78-6	8260D	ND		100	20	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		10	4.0	ug/L	1
Methyl acetate	79-20-9	8260D	ND		10	4.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		10	4.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		100	20	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		50	4.0	ug/L	1
Methylene chloride	75-09-2	8260D	ND		10	4.0	ug/L	1
Styrene	100-42-5	8260D	ND		10	4.1	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		10	4.0	ug/L	1
Tetrachloroethene	127-18-4	8260D	680		10	4.0	ug/L	1
Toluene	108-88-3	8260D	ND		10	4.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		10	4.2	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		10	4.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		10	4.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		10	4.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC17034-002
Description: RMW-19A
Matrix: Aqueous
Date Sampled: 03/16/2020 1455
Date Received: 03/17/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	10	03/18/2020 1720	TML		48194

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Trichloroethene	79-01-6	8260D	ND		10	4.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		10	4.0	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		10	4.0	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		10	4.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		103	70-130
1,2-Dichloroethane-d4		102	70-130
Toluene-d8		109	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Inorganic non-metals

Client: TRC Companies, Inc.
Laboratory ID: VC17034-003
Description: RMW-19
Matrix: Aqueous
Date Sampled: 03/16/2020 1530
Date Received: 03/17/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	03/28/2020 0121	AMR		49297
1		(Chloride) 300.0	1	03/28/2020 0121	AMR		49295
1		(Nitrate - N) 353.2	10	03/17/2020 1845	AMR		48214
1		(Sulfate) 300.0	1	03/28/2020 0121	AMR		49294

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.17	J	0.20	0.050	mg/L	1
Chloride		300.0	9.6		1.0	0.20	mg/L	1
Nitrate - N		353.2	8.1		0.20	0.10	mg/L	1
Sulfate		300.0	17		1.0	0.20	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC17034-003
Description: RMW-19
Matrix: Aqueous
Date Sampled: 03/16/2020 1530
Date Received: 03/17/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/18/2020 1259	TML		48194

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	15		1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC17034-003
Description: RMW-19
Matrix: Aqueous
Date Sampled: 03/16/2020 1530
Date Received: 03/17/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/18/2020 1259	TML		48194

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Trichloroethene	79-01-6	8260D	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	2.9		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		100	70-130
1,2-Dichloroethane-d4		98	70-130
Toluene-d8		106	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Inorganic non-metals

Client: TRC Companies, Inc.
Laboratory ID: VC17034-004
Description: DU-20102
Matrix: Aqueous
Date Sampled: 03/16/2020
Date Received: 03/17/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	03/28/2020 0143	AMR		49297
1		(Chloride) 300.0	1	03/28/2020 0143	AMR		49295
1		(Nitrate - N) 353.2	10	03/17/2020 1850	AMR		48214
1		(Sulfate) 300.0	1	03/28/2020 0143	AMR		49294

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.17	J	0.20	0.050	mg/L	1
Chloride		300.0	9.6		1.0	0.20	mg/L	1
Nitrate - N		353.2	7.8		0.20	0.10	mg/L	1
Sulfate		300.0	17		1.0	0.20	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc. | Laboratory ID: VC17034-004
Description: DU-20102 | Matrix: Aqueous
Date Sampled: 03/16/2020
Date Received: 03/17/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/18/2020 1323	TML		48194

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	15		1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC17034-004
Description: DU-20102
Matrix: Aqueous
Date Sampled: 03/16/2020
Date Received: 03/17/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/18/2020 1323	TML		48194

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Trichloroethene	79-01-6	8260D	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	3.0		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		100	70-130
1,2-Dichloroethane-d4		101	70-130
Toluene-d8		107	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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QC Summary

Inorganic non-metals - MB

Sample ID: VQ48214-001
Batch: 48214
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Nitrate - N	ND		1	0.020	0.010	mg/L	03/17/2020 1837

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: VQ48214-002
Batch: 48214
Analytical Method: 353.2
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	0.80	0.80		1	101	90-110	03/17/2020 1838

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: VQ49294-001
Batch: 49294
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Sulfate	ND		1	1.0	0.20	mg/L	03/27/2020 2000

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: VQ49294-002
Batch: 49294
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Sulfate	20	19		1	97	90-110	03/27/2020 2046

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: VQ49295-001
Batch: 49295
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Chloride	ND		1	1.0	0.20	mg/L	03/27/2020 2000

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: VQ49295-002
Batch: 49295
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Chloride	20	20		1	100	90-110	03/27/2020 2046

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: VQ49297-001
Batch: 49297
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Bromide	ND		1	0.20	0.050	mg/L	03/27/2020 2000

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: VQ49297-002
Batch: 49297
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Bromide	8.0	7.9		1	99	90-110	03/27/2020 2046

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: VQ48194-001
Batch: 48194
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Acetone	ND		1	20	5.0	ug/L	03/18/2020 1000
Benzene	ND		1	1.0	0.40	ug/L	03/18/2020 1000
Bromodichloromethane	ND		1	1.0	0.40	ug/L	03/18/2020 1000
Bromoform	ND		1	1.0	0.40	ug/L	03/18/2020 1000
Bromomethane (Methyl bromide)	ND		1	2.0	0.40	ug/L	03/18/2020 1000
2-Butanone (MEK)	ND		1	10	2.0	ug/L	03/18/2020 1000
Carbon disulfide	ND		1	1.0	0.40	ug/L	03/18/2020 1000
Carbon tetrachloride	ND		1	1.0	0.40	ug/L	03/18/2020 1000
Chlorobenzene	ND		1	1.0	0.40	ug/L	03/18/2020 1000
Chloroethane	ND		1	2.0	0.40	ug/L	03/18/2020 1000
Chloroform	ND		1	1.0	0.40	ug/L	03/18/2020 1000
Chloromethane (Methyl chloride)	ND		1	1.0	0.50	ug/L	03/18/2020 1000
Cyclohexane	ND		1	1.0	0.40	ug/L	03/18/2020 1000
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	0.40	ug/L	03/18/2020 1000
Dibromochloromethane	ND		1	1.0	0.40	ug/L	03/18/2020 1000
1,2-Dibromoethane (EDB)	ND		1	1.0	0.40	ug/L	03/18/2020 1000
1,2-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/18/2020 1000
1,3-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/18/2020 1000
1,4-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/18/2020 1000
Dichlorodifluoromethane	ND		1	2.0	0.60	ug/L	03/18/2020 1000
1,1-Dichloroethane	ND		1	1.0	0.40	ug/L	03/18/2020 1000
1,2-Dichloroethane	ND		1	1.0	0.40	ug/L	03/18/2020 1000
1,1-Dichloroethene	ND		1	1.0	0.40	ug/L	03/18/2020 1000
cis-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	03/18/2020 1000
trans-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	03/18/2020 1000
1,2-Dichloropropane	ND		1	1.0	0.40	ug/L	03/18/2020 1000
cis-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	03/18/2020 1000
trans-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	03/18/2020 1000
Ethylbenzene	ND		1	1.0	0.40	ug/L	03/18/2020 1000
2-Hexanone	ND		1	10	2.0	ug/L	03/18/2020 1000
Isopropylbenzene	ND		1	1.0	0.40	ug/L	03/18/2020 1000
Methyl acetate	ND		1	1.0	0.40	ug/L	03/18/2020 1000
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	0.40	ug/L	03/18/2020 1000
4-Methyl-2-pentanone	ND		1	10	2.0	ug/L	03/18/2020 1000
Methylcyclohexane	ND		1	5.0	0.40	ug/L	03/18/2020 1000
Methylene chloride	ND		1	1.0	0.40	ug/L	03/18/2020 1000
Styrene	ND		1	1.0	0.41	ug/L	03/18/2020 1000
1,1,2,2-Tetrachloroethane	ND		1	1.0	0.40	ug/L	03/18/2020 1000
Tetrachloroethene	ND		1	1.0	0.40	ug/L	03/18/2020 1000
Toluene	ND		1	1.0	0.40	ug/L	03/18/2020 1000
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	0.42	ug/L	03/18/2020 1000
1,2,4-Trichlorobenzene	ND		1	1.0	0.40	ug/L	03/18/2020 1000
1,1,1-Trichloroethane	ND		1	1.0	0.40	ug/L	03/18/2020 1000
1,1,2-Trichloroethane	ND		1	1.0	0.40	ug/L	03/18/2020 1000

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: VQ48194-001
Batch: 48194
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Trichloroethene	ND		1	1.0	0.40	ug/L	03/18/2020 1000
Trichlorofluoromethane	ND		1	1.0	0.40	ug/L	03/18/2020 1000
Vinyl chloride	ND		1	1.0	0.40	ug/L	03/18/2020 1000
Xylenes (total)	ND		1	1.0	0.40	ug/L	03/18/2020 1000

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		104	70-130
1,2-Dichloroethane-d4		102	70-130
Toluene-d8		109	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: VQ48194-002
Batch: 48194
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	88		1	88	60-140	03/18/2020 0836
Benzene	50	49		1	99	70-130	03/18/2020 0836
Bromodichloromethane	50	51		1	101	70-130	03/18/2020 0836
Bromoform	50	43		1	87	70-130	03/18/2020 0836
Bromomethane (Methyl bromide)	50	41		1	82	70-130	03/18/2020 0836
2-Butanone (MEK)	100	110		1	108	70-130	03/18/2020 0836
Carbon disulfide	50	46		1	93	70-130	03/18/2020 0836
Carbon tetrachloride	50	49		1	98	70-130	03/18/2020 0836
Chlorobenzene	50	49		1	97	70-130	03/18/2020 0836
Chloroethane	50	48		1	95	70-130	03/18/2020 0836
Chloroform	50	47		1	95	70-130	03/18/2020 0836
Chloromethane (Methyl chloride)	50	45		1	90	60-140	03/18/2020 0836
Cyclohexane	50	46		1	93	70-130	03/18/2020 0836
1,2-Dibromo-3-chloropropane (DBCP)	50	46		1	92	70-130	03/18/2020 0836
Dibromochloromethane	50	50		1	99	70-130	03/18/2020 0836
1,2-Dibromoethane (EDB)	50	49		1	99	70-130	03/18/2020 0836
1,2-Dichlorobenzene	50	50		1	101	70-130	03/18/2020 0836
1,3-Dichlorobenzene	50	49		1	98	70-130	03/18/2020 0836
1,4-Dichlorobenzene	50	49		1	98	70-130	03/18/2020 0836
Dichlorodifluoromethane	50	45		1	89	60-140	03/18/2020 0836
1,1-Dichloroethane	50	49		1	98	70-130	03/18/2020 0836
1,2-Dichloroethane	50	45		1	91	70-130	03/18/2020 0836
1,1-Dichloroethene	50	47		1	93	70-130	03/18/2020 0836
cis-1,2-Dichloroethene	50	48		1	96	70-130	03/18/2020 0836
trans-1,2-Dichloroethene	50	48		1	96	70-130	03/18/2020 0836
1,2-Dichloropropane	50	51		1	103	70-130	03/18/2020 0836
cis-1,3-Dichloropropene	50	53		1	107	70-130	03/18/2020 0836
trans-1,3-Dichloropropene	50	52		1	103	70-130	03/18/2020 0836
Ethylbenzene	50	51		1	102	70-130	03/18/2020 0836
2-Hexanone	100	110		1	111	70-130	03/18/2020 0836
Isopropylbenzene	50	52		1	104	70-130	03/18/2020 0836
Methyl acetate	50	51		1	102	70-130	03/18/2020 0836
Methyl tertiary butyl ether (MTBE)	50	38		1	76	70-130	03/18/2020 0836
4-Methyl-2-pentanone	100	110		1	109	70-130	03/18/2020 0836
Methylcyclohexane	50	51		1	102	70-130	03/18/2020 0836
Methylene chloride	50	45		1	90	70-130	03/18/2020 0836
Styrene	50	53		1	106	70-130	03/18/2020 0836
1,1,2,2-Tetrachloroethane	50	51		1	102	70-130	03/18/2020 0836
Tetrachloroethene	50	49		1	98	70-130	03/18/2020 0836
Toluene	50	50		1	99	70-130	03/18/2020 0836
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	47		1	94	70-130	03/18/2020 0836
1,2,4-Trichlorobenzene	50	52		1	104	70-130	03/18/2020 0836
1,1,1-Trichloroethane	50	48		1	96	70-130	03/18/2020 0836
1,1,2-Trichloroethane	50	50		1	100	70-130	03/18/2020 0836

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: VQ48194-002
Batch: 48194
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	49		1	97	70-130	03/18/2020 0836
Trichlorofluoromethane	50	47		1	95	70-130	03/18/2020 0836
Vinyl chloride	50	48		1	96	70-130	03/18/2020 0836
Xylenes (total)	100	100		1	104	70-130	03/18/2020 0836

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		99	70-130
1,2-Dichloroethane-d4		90	70-130
Toluene-d8		98	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: VC17034-002MS
Batch: 48194
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	ND	1000	880		10	87	60-140	03/18/2020 1830
Benzene	ND	500	550		10	109	70-130	03/18/2020 1830
Bromodichloromethane	ND	500	560		10	113	70-130	03/18/2020 1830
Bromoform	ND	500	430		10	86	70-130	03/18/2020 1830
Bromomethane (Methyl bromide)	ND	500	420		10	85	70-130	03/18/2020 1830
2-Butanone (MEK)	ND	1000	1100		10	111	70-130	03/18/2020 1830
Carbon disulfide	ND	500	500		10	99	70-130	03/18/2020 1830
Carbon tetrachloride	ND	500	560		10	111	70-130	03/18/2020 1830
Chlorobenzene	ND	500	510		10	102	70-130	03/18/2020 1830
Chloroethane	ND	500	520		10	103	70-130	03/18/2020 1830
Chloroform	13	500	540		10	106	70-130	03/18/2020 1830
Chloromethane (Methyl chloride)	ND	500	460		10	93	60-140	03/18/2020 1830
Cyclohexane	ND	500	490		10	97	70-130	03/18/2020 1830
1,2-Dibromo-3-chloropropane (DBCP)	ND	500	450		10	91	70-130	03/18/2020 1830
Dibromochloromethane	ND	500	520		10	103	70-130	03/18/2020 1830
1,2-Dibromoethane (EDB)	ND	500	530		10	106	70-130	03/18/2020 1830
1,2-Dichlorobenzene	ND	500	480		10	97	70-130	03/18/2020 1830
1,3-Dichlorobenzene	ND	500	480		10	96	70-130	03/18/2020 1830
1,4-Dichlorobenzene	ND	500	470		10	95	70-130	03/18/2020 1830
Dichlorodifluoromethane	ND	500	460		10	92	60-140	03/18/2020 1830
1,1-Dichloroethane	ND	500	540		10	108	70-130	03/18/2020 1830
1,2-Dichloroethane	ND	500	490		10	98	70-130	03/18/2020 1830
1,1-Dichloroethene	ND	500	540		10	109	70-130	03/18/2020 1830
cis-1,2-Dichloroethene	ND	500	550		10	110	70-130	03/18/2020 1830
trans-1,2-Dichloroethene	ND	500	560		10	111	70-130	03/18/2020 1830
1,2-Dichloropropane	ND	500	570		10	114	70-130	03/18/2020 1830
cis-1,3-Dichloropropene	ND	500	550		10	110	70-130	03/18/2020 1830
trans-1,3-Dichloropropene	ND	500	520		10	105	70-130	03/18/2020 1830
Ethylbenzene	ND	500	550		10	111	70-130	03/18/2020 1830
2-Hexanone	ND	1000	1100		10	112	70-130	03/18/2020 1830
Isopropylbenzene	ND	500	560		10	112	70-130	03/18/2020 1830
Methyl acetate	ND	500	540		10	107	70-130	03/18/2020 1830
Methyl tertiary butyl ether (MTBE)	ND	500	380		10	75	70-130	03/18/2020 1830
4-Methyl-2-pentanone	ND	1000	1100		10	115	70-130	03/18/2020 1830
Methylcyclohexane	ND	500	530		10	106	70-130	03/18/2020 1830
Methylene chloride	ND	500	470		10	94	70-130	03/18/2020 1830
Styrene	ND	500	580		10	116	70-130	03/18/2020 1830
1,1,2,2-Tetrachloroethane	ND	500	520		10	104	70-130	03/18/2020 1830
Tetrachloroethene	680	500	1200		10	103	70-130	03/18/2020 1830
Toluene	ND	500	540		10	108	70-130	03/18/2020 1830
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	500	500		10	100	70-130	03/18/2020 1830
1,2,4-Trichlorobenzene	ND	500	510		10	102	70-130	03/18/2020 1830
1,1,1-Trichloroethane	ND	500	520		10	105	70-130	03/18/2020 1830
1,1,2-Trichloroethane	ND	500	530		10	107	70-130	03/18/2020 1830

LOQ = Limit of Quantitation
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P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Pace Analytical Services, LLC *(formerly Shealy Environmental Services, Inc.)*
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Volatile Organic Compounds by GC/MS - MS

Sample ID: VC17034-002MS
Batch: 48194
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	ND	500	530		10	107	70-130	03/18/2020 1830
Trichlorofluoromethane	ND	500	500		10	100	70-130	03/18/2020 1830
Vinyl chloride	ND	500	480		10	96	70-130	03/18/2020 1830
Xylenes (total)	ND	1000	1200		10	116	70-130	03/18/2020 1830

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		111	70-130
1,2-Dichloroethane-d4		99	70-130
Toluene-d8		107	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MSD

Sample ID: VC17034-002MD
Batch: 48194
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	ND	1000	830		10	82	5.8	60-140	20	03/18/2020 1854
Benzene	ND	500	510		10	102	7.0	70-130	20	03/18/2020 1854
Bromodichloromethane	ND	500	530		10	106	6.1	70-130	20	03/18/2020 1854
Bromoform	ND	500	400		10	80	7.6	70-130	20	03/18/2020 1854
Bromomethane (Methyl bromide)	ND	500	400		10	80	5.9	70-130	20	03/18/2020 1854
2-Butanone (MEK)	ND	1000	1100		10	105	5.2	70-130	20	03/18/2020 1854
Carbon disulfide	ND	500	440		10	88	12	70-130	20	03/18/2020 1854
Carbon tetrachloride	ND	500	510		10	103	8.4	70-130	20	03/18/2020 1854
Chlorobenzene	ND	500	480		10	95	6.6	70-130	20	03/18/2020 1854
Chloroethane	ND	500	500		10	101	2.4	70-130	20	03/18/2020 1854
Chloroform	13	500	510		10	99	6.8	70-130	20	03/18/2020 1854
Chloromethane (Methyl chloride)	ND	500	440		10	88	5.0	60-140	20	03/18/2020 1854
Cyclohexane	ND	500	440		10	88	9.8	70-130	20	03/18/2020 1854
1,2-Dibromo-3-chloropropane (DBCP)	ND	500	430		10	86	5.9	70-130	20	03/18/2020 1854
Dibromochloromethane	ND	500	490		10	98	5.3	70-130	20	03/18/2020 1854
1,2-Dibromoethane (EDB)	ND	500	490		10	98	7.2	70-130	20	03/18/2020 1854
1,2-Dichlorobenzene	ND	500	460		10	92	5.1	70-130	20	03/18/2020 1854
1,3-Dichlorobenzene	ND	500	450		10	91	5.9	70-130	20	03/18/2020 1854
1,4-Dichlorobenzene	ND	500	450		10	89	5.5	70-130	20	03/18/2020 1854
Dichlorodifluoromethane	ND	500	450		10	89	2.8	60-140	20	03/18/2020 1854
1,1-Dichloroethane	ND	500	500		10	100	7.1	70-130	20	03/18/2020 1854
1,2-Dichloroethane	ND	500	460		10	92	5.4	70-130	20	03/18/2020 1854
1,1-Dichloroethene	ND	500	490		10	99	9.9	70-130	20	03/18/2020 1854
cis-1,2-Dichloroethene	ND	500	510		10	102	7.7	70-130	20	03/18/2020 1854
trans-1,2-Dichloroethene	ND	500	520		10	104	7.3	70-130	20	03/18/2020 1854
1,2-Dichloropropane	ND	500	530		10	107	6.5	70-130	20	03/18/2020 1854
cis-1,3-Dichloropropene	ND	500	520		10	104	6.2	70-130	20	03/18/2020 1854
trans-1,3-Dichloropropene	ND	500	490		10	98	6.0	70-130	20	03/18/2020 1854
Ethylbenzene	ND	500	520		10	103	7.4	70-130	20	03/18/2020 1854
2-Hexanone	ND	1000	1100		10	105	6.2	70-130	20	03/18/2020 1854
Isopropylbenzene	ND	500	520		10	103	8.0	70-130	20	03/18/2020 1854
Methyl acetate	ND	500	500		10	100	7.2	70-130	20	03/18/2020 1854
Methyl tertiary butyl ether (MTBE)	ND	500	350		10	71	6.0	70-130	20	03/18/2020 1854
4-Methyl-2-pentanone	ND	1000	1100		10	107	6.3	70-130	20	03/18/2020 1854
Methylcyclohexane	ND	500	500		10	99	6.9	70-130	20	03/18/2020 1854
Methylene chloride	ND	500	430		10	85	9.4	70-130	20	03/18/2020 1854
Styrene	ND	500	530		10	106	9.0	70-130	20	03/18/2020 1854
1,1,2,2-Tetrachloroethane	ND	500	510		10	101	2.5	70-130	20	03/18/2020 1854
Tetrachloroethene	680	500	1200		10	97	2.4	70-130	20	03/18/2020 1854
Toluene	ND	500	500		10	101	6.8	70-130	20	03/18/2020 1854
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	500	450		10	90	10	70-130	20	03/18/2020 1854
1,2,4-Trichlorobenzene	ND	500	480		10	96	5.4	70-130	20	03/18/2020 1854
1,1,1-Trichloroethane	ND	500	480		10	96	8.4	70-130	20	03/18/2020 1854
1,1,2-Trichloroethane	ND	500	500		10	101	5.3	70-130	20	03/18/2020 1854

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

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J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

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+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MSD

Sample ID: VC17034-002MD
Batch: 48194
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Trichloroethene	ND	500	500		10	100	6.4	70-130	20	03/18/2020 1854
Trichlorofluoromethane	ND	500	470		10	94	5.5	70-130	20	03/18/2020 1854
Vinyl chloride	ND	500	460		10	92	4.9	70-130	20	03/18/2020 1854
Xylenes (total)	ND	1000	1100		10	107	8.0	70-130	20	03/18/2020 1854

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		111	70-130
1,2-Dichloroethane-d4		100	70-130
Toluene-d8		109	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
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ND = Not detected at or above the DL

N = Recovery is out of criteria
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Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Chain of Custody

and

Miscellaneous Documents

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
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Chain of Custody Record

SHEALY ENVIRONMENTAL SERVICES, INC.
106 Vantage Point Drive • West Columbia, SC 29172
Telephone No. 803-791-9700 Fax No. 803-791-9111
www.shealylab.com

Number 103198

Client: TRC	Report to Contact: Lisa Clark	Telephone No. / E-mail:	Quote No.:
Address: 50 International Dr Suite 150	Sampler's Signature: X	Analysis (Attach list if more space is needed):	Page 1 of X
City: Greenville / State: SC / Zip Code: 29615	Printed Name: Benjamin Medlin		
Project Name: WPH Clemson			VC17034
Project No.: 300688.0.0.11	P.O. No.:		

Sample ID / Description (Containers for each sample may be combined on one line.)	Date 2020	Time	G=Grab C=Composite	Matrix: Aqueous	Matrix: Solid	Matrix: Non-Aqueous	No. of Containers by Preservative Type: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	TSP	VOCs	Cl, SO4, Br	NO3	Diss. Gasses
TBLK-20105	1	1	G	X						2			1	X			
RMW-19A	3-16	1455	G	X			2			3			3	X	X	X	X
RMW-19	3-16	1530	G	X			2			3			3	X	X	X	X
DU-20102	1	1	G	X			2			3			3	X	X	X	X

Turn Around Time Required (Prior lab approval required for expedited TAT.) ☐ Standard ☐ Rush (Specify)

Sample Disposal ☐ Return to Client ☐ Disposal by Lab

Possible Hazard Identification ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished by	3-16-20	1750	1. Received by: TRC SS	3-16-20	1750
2. Relinquished by	3-17-20	0950	2. Received by	3-17-20	0950
3. Relinquished by	3-17-20	1331	3. Received by	Date	Time
4. Relinquished by	Date	Time	4. Laboratory received by	3/17/2020	1331

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on ice (Circle) (Yes) No Ice Pack Receipt Temp. 2.9 °C

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Client Copy

Shealy Environmental Services, Inc.
Document Number: ME0018C-14

Effective Date: 8/2/2018

Sample Receipt Checklist (SRC)

Client: TRC Cooler Inspected by/date: LKH / 03/17/2020 Lot #: VC17034

Means of receipt: ☑ SESI ☐ Client ☐ UPS ☐ FedEx ☐ Other:

☐ Yes	☑ No		1. Were custody seals present on the cooler?
☐ Yes	☐ No	☑ NA	2. If custody seals were present, were they intact and unbroken?

pH Strip ID: NA Chlorine Strip ID: NA Tested by: NA

Original temperature upon receipt / Derived (Corrected) temperature upon receipt: %Solid Snap-Cup ID: NA

2.9 /2.9 °C NA /NA °C NA /NA °C NA /NA °C

Method: ☑ Temperature Blank ☐ Against Bottles IR Gun ID: 6 IR Gun Correction Factor: 0 °C

Method of coolant: ☑ Wet Ice ☐ Ice Packs ☐ Dry Ice ☐ None

☐ Yes	☐ No	☑ NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).
☐ Yes	☐ No	☑ NA	4. Is the commercial courier's packing slip attached to this form?
☐ Yes	☐ No		5. Were proper custody procedures (relinquished/received) followed?
☑ Yes	☐ No		6. Were sample IDs listed on the COC?
☑ Yes	☐ No		7. Were sample IDs listed on all sample containers?
☑ Yes	☐ No		8. Was collection date & time listed on the COC?
☑ Yes	☐ No		9. Was collection date & time listed on all sample containers?
☑ Yes	☐ No		10. Did all container label information (ID, date, time) agree with the COC?
☑ Yes	☐ No		11. Were tests to be performed listed on the COC?
☑ Yes	☐ No		12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)?
☑ Yes	☐ No		13. Was adequate sample volume available?
☑ Yes	☐ No		14. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
☐ Yes	☑ No		15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
☐ Yes	☑ No	☐ NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (¼"or 6mm in diameter) in any of the VOA vials?
☐ Yes	☐ No	☑ NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?
☐ Yes	☐ No	☑ NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
☐ Yes	☐ No	☑ NA	19. Were all applicable NH3/TKN/cyanide/phenol/625 (< 0.5mg/L) samples free of residual chlorine?
☐ Yes	☐ No	☑ NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc…) correctly transcribed from the COC into the comment section in LIMS?
☐ Yes	☑ No		21. Was the quote number listed on the container label? If yes, Quote # NA

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) NA were received incorrectly preserved and were adjusted accordingly in sample receiving with NA mL of circle one: H2SO4, HNO3, HCl, NaOH using SR # NA.

Time of preservation NA. If more than one preservative is needed, please note in the comments below.

Sample(s) NA were received with bubbles >6 mm in diameter.

Samples(s) NA were received with TRC > 0.5 mg/L (If #19 is *no*) and were adjusted accordingly in sample receiving with sodium thiosulfate ($Na_2S_2O_3$) with Shealy ID: NA.

SR barcode labels applied by: LKH Date: 03/17/2020

Comments:

Pace Analytical Energy Services LLC
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

March 31, 2020

Lucas Odom
Pace Analytical Services South Carolina
106 Vantage Point Drive
West Columbia, SC 29172

RE: **WPH Clemson / TRC**

Pace Workorder: 33298

Dear Lucas Odom:

Enclosed are the analytical results for sample(s) received by the laboratory on Thursday, March 19, 2020. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Ruth Welsh 03/31/2020
Ruth.Welsh@pacelabs.com

Customer Service Representative

Enclosures

As a valued client we would appreciate your comments on our service.
Please email PAESfeedback@pacelabs.com.

Total Number of Pages 13

CERTIFICATE OF ANALYSIS

Laboratory Data Quality Review Notes

Project Name: WPH-Clemson, SC

Project Number: 300688.0000.0000 Phase 4

Lab Report: **33298** Pace Analytical Energy Services LLC; Pittsburgh, PA
This lab report is the subcontracted job related to **VC17034**.

Samples and Analyses: Two groundwater samples and one field duplicate, collected 16-Mar-2020 and analyzed for dissolved hydrocarbon gases (methane, ethane, ethene)

Chain of Custody, Sample Temperature, Sample Preservation: Chain of custody signed (sample transfer from Pace Analytical, Columbia, to Pace Analytical, Pittsburgh); sample temperature <6 ^{o}C upon arrival at the laboratory; samples were preserved properly.

Hold Time: Sample analyses were performed within acceptable hold time.

Surrogates: Surrogate recoveries are not applicable to dissolved hydrocarbon gas analyses.

Method Blank: Target analytes were not detected in the laboratory method blanks.

Trip Blank: A trip blank was not analyzed with these samples.

Field Blank: A field blank was not collected with these samples.

Equipment Rinse Blank: A rinsate blank was not collected with these samples.

LCS/LCSD: LCS and LCSD recoveries and LCS/LCSD RPDs are within the laboratory QC limits.

MS/MSD: MS/MSD analyses were performed using sample RMW-06A and using an "external" sample, not from this data set. MS/MSD results for the external sample are not relevant to this review. The MS and MSD recoveries and RPDs are within the laboratory QC limits.

Duplicates: A field duplicate sample (DU-20102) was collected for sample RMW-19. Methane and ethane were ND in both samples. Ethene was detected at concentrations below the LOQ in both samples, and the absolute difference (AbsD) between the results was ≤ LOQ; therefore, results are in acceptable agreement.

Dilutions: No dilutions were performed with these sample analyses.

No data qualifiers were assigned in this review.

Data reviewer: Amy Bass; TRC Environmental Corporation; 28-Sep-2020

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LABORATORY ACCREDITATIONS & CERTIFICATIONS

Accreditor:	Pennsylvania Department of Environmental Protection, Bureau of Laboratories
Accreditation ID:	02-00538
Scope:	NELAP Non-Potable Water
Accreditor:	West Virginia Department of Environmental Protection, Division of Water and Waste Management
Accreditation ID:	395
Scope:	Non-Potable Water
Accreditor:	South Carolina Department of Health and Environmental Control, Office of Environmental Laboratory Certification
Accreditation ID:	89009003
Scope:	Clean Water Act (CWA); Resource Conservation and Recovery Act (RCRA)
Accreditor:	State of Virginia
Accreditation ID:	460201
Scope:	Non-Potable Water
Accreditor:	NELAP: New Jersey, Department of Environmental Protection
Accreditation ID:	PA026
Scope:	Non-Potable Water
Accreditor:	NELAP: New York, Department of Health Wadsworth Center
Accreditation ID:	11815
Scope:	Non-Potable Water
Accreditor:	State of Connecticut, Department of Public Health, Division of Environmental Health
Accreditation ID:	PH-0263
Scope:	Clean Water Act (CWA) Resource Conservation and Recovery Act (RCRA)
Accreditor:	NELAP: Texas, Commission on Environmental Quality
Accreditation ID:	T104704453-09-TX
Scope:	Non-Potable Water
Accreditor:	State of New Hampshire
Accreditation ID:	299409
Scope:	Non-potable water
Accreditor:	State of Georgia
Accreditation ID:	Chapter 391-3-26
Scope:	As per the Georgia EPD Rules and Regulations for Commercial Laboratories, PAES is accredited by the Pennsylvania Department of Environmental Protection Bureau of Laboratories under the National Environmental Laboratory Approval Program (NELAC).

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SAMPLE SUMMARY

Workorder: 33298 WPH Clemson / TRC

Lab ID	Sample ID	Matrix	Date Collected	Date Received
332980001	RMW-19A	Water	3/16/2020 14:55	3/19/2020 10:30
332980002	RMW-19	Water	3/16/2020 15:30	3/19/2020 10:30
332980003	DU-20102	Water	3/16/2020 00:00	3/19/2020 10:30

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PROJECT SUMMARY

Workorder: 33298 WPH Clemson / TRC

Workorder Comments

The container pH for samples 33298 (0001-0003) were measured as below the expected pH (< 10) for those samples preserved with trisodium phosphate, as assigned to PAES method AM20GAx.

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ANALYTICAL RESULTS

Workorder: 33298 WPH Clemson / TRC

Lab ID: **332980001** Date Received: 3/19/2020 10:30 Matrix: Water

Sample ID: **RMW-19A** Date Collected: 3/16/2020 14:55

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**0.54**	ug/l	0.50	0.094	1	3/25/2020 13:10	MM	n
Ethane	**0.015J**	ug/l	0.10	0.011	1	3/25/2020 13:10	MM	n
Ethene	**0.021J**	ug/l	0.10	0.0080	1	3/25/2020 13:10	MM	n

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ANALYTICAL RESULTS

Workorder: 33298 WPH Clemson / TRC

Lab ID: **332980002** Date Received: 3/19/2020 10:30 Matrix: Water

Sample ID: **RMW-19** Date Collected: 3/16/2020 15:30

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**0.094U**	ug/l	0.50	0.094	1	3/25/2020 13:23	MM	n
Ethane	**0.011U**	ug/l	0.10	0.011	1	3/25/2020 13:23	MM	n
Ethene	**0.033J**	ug/l	0.10	0.0080	1	3/25/2020 13:23	MM	n

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ANALYTICAL RESULTS

Workorder: 33298 WPH Clemson / TRC

Lab ID: **332980003** Date Received: 3/19/2020 10:30 Matrix: Water

Sample ID: **DU-20102** Date Collected: 3/16/2020 00:00

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**0.094U**	ug/l	0.50	0.094	1	3/25/2020 13:35	MM	n
Ethane	**0.011U**	ug/l	0.10	0.011	1	3/25/2020 13:35	MM	n
Ethene	**0.037J**	ug/l	0.10	0.0080	1	3/25/2020 13:35	MM	n

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ANALYTICAL RESULTS QUALIFIERS

Workorder: 33298 WPH Clemson / TRC

DEFINITIONS/QUALIFIERS

MDL	Method Detection Limit. Can be used synonymously with LOD; Limit Of Detection.
PQL	Practical Quanitation Limit. Can be used synonymously with LOQ; Limit Of Quantitation.
ND	Not detected at or above reporting limit.
DF	Dilution Factor.
S	Surrogate.
RPD	Relative Percent Difference.
% Rec	Percent Recovery.
U	Indicates the compound was analyzed for, but not detected at or above the noted concentration.
J	Estimated concentration greater than the set method detection limit (MDL) and less than the set reporting limit (PQL).
n	The laboratory does not hold NELAP/TNI accreditation for this method or analyte.

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QUALITY CONTROL DATA

Workorder: 33298 WPH Clemson / TRC

QC Batch: DISG/8174 Analysis Method: AM20GAX

QC Batch Method: AM20GAX

Associated Lab Samples: 332980001, 332980002, 332980003

METHOD BLANK: 66510

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
RISK				
Methane	ug/l	0.094U	0.094	n
Ethane	ug/l	0.011U	0.011	n
Ethene	ug/l	0.0080U	0.0080	n

LABORATORY CONTROL SAMPLE & LCSD: 66512 66514

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Methane	ug/l	750	850	800	114	107	80-120	5.6	20	n
Ethane	ug/l	38	43	43	113	114	80-120	0.49	20	n
Ethene	ug/l	35	40	40	114	113	80-120	0.1	20	n

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QUALITY CONTROL DATA QUALIFIERS

Workorder: 33298 WPH Clemson / TRC

QUALITY CONTROL PARAMETER QUALIFIERS

n	The laboratory does not hold NELAP/TNI accreditation for this method or analyte.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 33298 WPH Clemson / TRC

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
332980001	RMW-19A			AM20GAX	DISG/8174
332980002	RMW-19			AM20GAX	DISG/8174
332980003	DU-20102			AM20GAX	DISG/8174

SHEALY

Chain of Custody Record

33298

Shealy Environmental Services, Inc.
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www.shealylab.com

Number

Client	Report to Contact	Telephone No. / E-mail	Quote No.
Pace Analytical - Columbia	Lucas Odom	803-206-9537/lodom@shealylab.com	
Address	**Sampler's Signature**	**Analysis (Attach list if more space is needed)**	**Page**
106 Vantage Point Dr.			1 of 1
City / State / Zip Code	X _____		
West Columbia / SC / 29172	Printed Name		Laboratory Lot Number
Project Name			
WPH Clemson			
Project Number	**P.O No.**		
300688.0.0.11			

Sample ID / Description (Containers for each sample may be combined on one line)	Date	Time	G=Grab C=Composite	Matrix: Aqueous	Solid	Non-Aqueous		No of Containers by Preservative Type: Unpres.	H2SO4	HNO3	HCl	NaOH	5035 Kit	TSP	Dissolved Gasses									Remarks / Cooler I.D.
RMW-19A	3/16/2020	1455	G	x										x	x									VC17034
RMW-19	3/16/2020	1530	G	x										x	x									
DU-20102	3/16/2020		G	x										x	x									

Turn Around Time Required (Prior lab approval required for expedited TAT)	Sample Disposal	Possible Hazard Identification (List any known hazards in the remarks)	QC Requirements
X Standard Rush	☐ Return to Client ☒ Disposal by Lab	☐ Non-Hazardous ☐ Flammable ☐ Skin Irritant ☐ SDS provided ☐ Unknown	

	Date	Time		Date	Time
1. Relinquished by	3/18/20	1800	1. Received by		
2. Relinquished by			2. Received by		
3. Relinquished by			3. Received by		
4. Relinquished by			4. Laboratory Received by	3.19.2020	1030

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on Ice (Check) ☐ Y ☐ N ☐ ce Pack

Receipt Temp. -2.1 °C

Document Number: ME002OW-01

Cooler Receipt Form

Client Name: Pace **Project:** WPH Clemson **Lab Work Order:** 33298

A. **Shipping/Container Information** (circle appropriate response)

Courier: (FedEx) UPS USPS Client Other:_____ **Air bill Present:** (Yes) No

Tracking Number: 166334637452

Custody Seal on Cooler/Box Present: (Yes) No **Seals Intact:** (Yes) No

Cooler/Box Packing Material: Bubble Wrap Absorbent Foam Other:_____

Type of Ice: (Wet) Blue None **Ice Intact:** (Yes) Melted

Cooler Temperature: -2.1 °C **Radiation Screened:** Yes (No) **Chain of Custody Present:** (Yes) No

Comments:_____

B. **Laboratory Assignment/Log-in** (check appropriate response)

	YES	NO	N/A	Comment Reference non-Conformance
Chain of Custody properly filled out	✓			
Chain of Custody relinquished	✓			
Sampler Name & Signature on COC			✓	
Containers intact	✓			
Were samples in separate bags	✓			
Sample container labels match COC Sample name/date and time collected	✓			
Sufficient volume provided	✓			
PAES containers used	✓			
Are containers properly preserved for the requested testing? (as labeled)	✓			
If an unknown preservation state, were containers checked? Exception: VOA's coliform			✓	If yes, see pH form.
Was volume for dissolved testing field filtered, as noted on the COC? Was volume received in a preserved container?			✓	
Headspace present?		✓		

Comments:_____

Cooler contents examined/received by : LY **Date:** 3.19.2020

Project Manager Review : JW **Date:** 3.19.2020

Report of Analysis

TRC Companies, Inc.
50 International Dr.
Suite 150
Greenville, SC 29615
Attention: Lisa Clark

Project Name: WPH Clemson

Project Number: 300688.0000.0000.00011

Lot Number:**VC18025**

Date Completed:04/01/2020

04/03/2020 3:04 PM
Approved and released by:
Lab Director - Greenville: **Lucas Odom**

The electronic signature above is the equivalent of a handwritten signature.

Pace Analytical Services, LLC (*formerly Shealy Environmental Services, Inc.*)
106 Vantage Point Drive West Columbia, SC 29172
Tel: 803-791-9700 Fax: 803-791-9111 www.pacelabs.com

Laboratory Data Quality Review Notes

Project Name: WPH-Clemson, SC

Project Number: 300688.0000.0000 Phase 4

Lab Report: **VC18025** Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.); West Columbia, SC; subcontracted job: **33306**

Samples and Analyses: Two groundwater samples, collected 17-Mar-2020 and analyzed for VOCs, chloride, bromide, sulfate, and nitrate; one trip blank, analyzed for VOCs only

Chain of Custody, Sample Temperature, Sample Preservation: Chain of custody was signed; sample temperature was <6 ^{o}C upon arrival at the laboratory; samples were preserved properly.

Hold Time: Sample analyses were performed within acceptable hold times.

Surrogates: VOC surrogate recoveries are within QC limits.

Method Blank: Target analytes were not detected in the laboratory method blanks.

Trip Blank: No target analytes were detected in the trip blank; analyzed for VOCs only.

Field Blank: A field blank was not collected with these samples.

Equipment Rinse Blank: A rinsate blank was not collected with these samples.

LCS/LCSD: LCS recoveries for all analyses are within QC limits. LCSD analyses were not performed.

MS/MSD: No MS/MSD analyses were performed with these samples.

Duplicates: No field duplicate sample was collected with this sample set. No laboratory duplicates were included with these analyses.

Dilutions: The VOC analyses in samples RMW-21A and RMW-21 were performed with dilution (50× and 5×, respectively), and the ND results were reported with correspondingly elevated DL and LOQ values. All other dilutions in these analyses were associated with positive results (detects).

No data qualifiers are assigned based on this review.

Data reviewer: Amy Bass; TRC Environmental Corporation; 28-Sep-2020

Case Narrative
TRC Companies, Inc.
Lot Number: VC18025

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Pace Analytical Services, LLC ("Pace") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Pace policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Pace Project Manager listed on the cover page.

VOCs by GC/MS

Due to the large number of spiked analytes, there is a high probability that one or more analytes will recover outside acceptance limits. The laboratory's SOP allows for 10% of analytes to recover marginally outside criteria. The following analytes recovered marginally outside LCS criteria in batch 48343: Bromoform and Meythyl tertiary butyl ether.

The continuing calibration verification (CCV) associated with analytical batch 48343 recovered outside acceptance criteria for Bromomethane, MTBE, Bromoform, 1,2-dibromo-3-chloropropene. An LOQ standard was analyzed, and the target analyte was detected. Since the associated samples are non-detect, no corrective action was taken.

Bromide

The following sample was diluted due to the nature of the sample matrix: VC18025-002. The LOQ has been elevated to reflect the dilution.

Dissolved Gasses

The analysis for Dissolved Gasses has been performed by Pace Energy. This data can be found on Pace Energy report 33306.

Sample Summary
TRC Companies, Inc.
Lot Number: VC18025

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	TBLK-20106	Aqueous	03/17/2020	03/18/2020
002	RMW-21A	Aqueous	03/17/2020 1050	03/18/2020
003	RMW-21	Aqueous	03/17/2020 1140	03/18/2020

(3 samples)

Detection Summary

TRC Companies, Inc.

Lot Number: VC18025

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
002	RMW-21A	Aqueous	Bromide	300.0	0.29	J	mg/L	7
002	RMW-21A	Aqueous	Chloride	300.0	190		mg/L	7
002	RMW-21A	Aqueous	Nitrate - N	353.2	6.9		mg/L	7
002	RMW-21A	Aqueous	Sulfate	300.0	99		mg/L	7
002	RMW-21A	Aqueous	Tetrachloroethene	8260D	3800		ug/L	8
003	RMW-21	Aqueous	Bromide	300.0	0.19	J	mg/L	10
003	RMW-21	Aqueous	Chloride	300.0	17		mg/L	10
003	RMW-21	Aqueous	Nitrate - N	353.2	3.8		mg/L	10
003	RMW-21	Aqueous	Sulfate	300.0	21		mg/L	10
003	RMW-21	Aqueous	Benzene	8260D	2.0	J	ug/L	11
003	RMW-21	Aqueous	cis-1,2-Dichloroethene	8260D	4.2	J	ug/L	11
003	RMW-21	Aqueous	Tetrachloroethene	8260D	220		ug/L	11
003	RMW-21	Aqueous	Trichloroethene	8260D	11		ug/L	12

(13 detections)

Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc. | Laboratory ID: VC18025-001
Description: TBLK-20106 | Matrix: Aqueous
Date Sampled: 03/17/2020
Date Received: 03/18/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/19/2020 1035	TML		48343

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	ND		1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC18025-001
Description: TBLK-20106
Matrix: Aqueous
Date Sampled: 03/17/2020
Date Received: 03/18/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/19/2020 1035	TML		48343

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Trichloroethene	79-01-6	8260D	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		107	70-130
1,2-Dichloroethane-d4		101	70-130
Toluene-d8		109	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Inorganic non-metals

Client: TRC Companies, Inc.
Laboratory ID: VC18025-002
Description: RMW-21A
Matrix: Aqueous
Date Sampled: 03/17/2020 1050
Date Received: 03/18/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2		(Bromide) 300.0	5	04/01/2020 0144	HKL		49633
1		(Chloride) 300.0	1	03/28/2020 0229	AMR		49295
1		(Nitrate - N) 353.2	10	03/18/2020 1623	AMR		48271
1		(Sulfate) 300.0	1	03/28/2020 0229	AMR		49294

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.29	J	1.0	0.25	mg/L	2
Chloride		300.0	190		1.0	0.20	mg/L	1
Nitrate - N		353.2	6.9		0.20	0.10	mg/L	1
Sulfate		300.0	99		1.0	0.20	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
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W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC18025-002
Description: RMW-21A
Matrix: Aqueous
Date Sampled: 03/17/2020 1050
Date Received: 03/18/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	50	03/19/2020 1802	TML		48343

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		1000	250	ug/L	1
Benzene	71-43-2	8260D	ND		50	20	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		50	20	ug/L	1
Bromoform	75-25-2	8260D	ND		50	20	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		100	20	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		500	100	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		50	20	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		50	20	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		50	20	ug/L	1
Chloroethane	75-00-3	8260D	ND		100	20	ug/L	1
Chloroform	67-66-3	8260D	ND		50	20	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		50	25	ug/L	1
Cyclohexane	110-82-7	8260D	ND		50	20	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		50	20	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		50	20	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		50	20	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		50	20	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		50	20	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		50	20	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		100	30	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		50	20	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		50	20	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		50	20	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		50	20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		50	20	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		50	20	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		50	20	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		50	20	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		50	20	ug/L	1
2-Hexanone	591-78-6	8260D	ND		500	100	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		50	20	ug/L	1
Methyl acetate	79-20-9	8260D	ND		50	20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		50	20	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		500	100	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		250	20	ug/L	1
Methylene chloride	75-09-2	8260D	ND		50	20	ug/L	1
Styrene	100-42-5	8260D	ND		50	21	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		50	20	ug/L	1
Tetrachloroethene	127-18-4	8260D	3800		50	20	ug/L	1
Toluene	108-88-3	8260D	ND		50	20	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		50	21	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		50	20	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		50	20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		50	20	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC18025-002
Description: RMW-21A
Matrix: Aqueous
Date Sampled: 03/17/2020 1050
Date Received: 03/18/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	50	03/19/2020 1802	TML		48343

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Trichloroethene	79-01-6	8260D	ND		50	20	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		50	20	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		50	20	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		50	20	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		102	70-130
1,2-Dichloroethane-d4		100	70-130
Toluene-d8		106	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Inorganic non-metals

Client: TRC Companies, Inc.
Laboratory ID: VC18025-003
Description: RMW-21
Matrix: Aqueous
Date Sampled: 03/17/2020 1140
Date Received: 03/18/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	03/28/2020 0252	AMR		49297
1		(Chloride) 300.0	1	03/28/2020 0252	AMR		49295
1		(Nitrate - N) 353.2	10	03/18/2020 1625	AMR		48271
1		(Sulfate) 300.0	1	03/28/2020 0252	AMR		49294

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.19	J	0.20	0.050	mg/L	1
Chloride		300.0	17		1.0	0.20	mg/L	1
Nitrate - N		353.2	3.8		0.20	0.10	mg/L	1
Sulfate		300.0	21		1.0	0.20	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC18025-003
Description: RMW-21
Matrix: Aqueous
Date Sampled: 03/17/2020 1140
Date Received: 03/18/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	5	03/19/2020 1738	TML		48343

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		100	25	ug/L	1
Benzene	71-43-2	8260D	2.0	J	5.0	2.0	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		5.0	2.0	ug/L	1
Bromoform	75-25-2	8260D	ND		5.0	2.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		10	2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		50	10	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		5.0	2.0	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		5.0	2.0	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		5.0	2.0	ug/L	1
Chloroethane	75-00-3	8260D	ND		10	2.0	ug/L	1
Chloroform	67-66-3	8260D	ND		5.0	2.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		5.0	2.5	ug/L	1
Cyclohexane	110-82-7	8260D	ND		5.0	2.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		5.0	2.0	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		5.0	2.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		5.0	2.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		5.0	2.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		5.0	2.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		5.0	2.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		10	3.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		5.0	2.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		5.0	2.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		5.0	2.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	4.2	J	5.0	2.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		5.0	2.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		5.0	2.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		5.0	2.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		5.0	2.0	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		5.0	2.0	ug/L	1
2-Hexanone	591-78-6	8260D	ND		50	10	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		5.0	2.0	ug/L	1
Methyl acetate	79-20-9	8260D	ND		5.0	2.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		5.0	2.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		50	10	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		25	2.0	ug/L	1
Methylene chloride	75-09-2	8260D	ND		5.0	2.0	ug/L	1
Styrene	100-42-5	8260D	ND		5.0	2.1	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		5.0	2.0	ug/L	1
Tetrachloroethene	127-18-4	8260D	220		5.0	2.0	ug/L	1
Toluene	108-88-3	8260D	ND		5.0	2.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		5.0	2.1	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		5.0	2.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		5.0	2.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		5.0	2.0	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC18025-003
Description: RMW-21
Matrix: Aqueous
Date Sampled: 03/17/2020 1140
Date Received: 03/18/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	5	03/19/2020 1738	TML		48343

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Trichloroethene	79-01-6	8260D	11		5.0	2.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		5.0	2.0	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		5.0	2.0	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		5.0	2.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		103	70-130
1,2-Dichloroethane-d4		99	70-130
Toluene-d8		106	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
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QC Summary

Inorganic non-metals - MB

Sample ID: VQ48271-001
Batch: 48271
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Nitrate - N	ND		1	0.020	0.010	mg/L	03/18/2020 1607

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: VQ48271-002
Batch: 48271
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	0.80	0.83		1	104	90-110	03/18/2020 1609

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: VQ49294-001
Batch: 49294
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Sulfate	ND		1	1.0	0.20	mg/L	03/27/2020 2000

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: VQ49294-002
Batch: 49294
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Sulfate	20	19		1	97	90-110	03/27/2020 2046

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: VQ49295-001
Batch: 49295
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Chloride	ND		1	1.0	0.20	mg/L	03/27/2020 2000

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: VQ49295-002
Batch: 49295
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Chloride	20	20		1	100	90-110	03/27/2020 2046

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: VQ49297-001
Batch: 49297
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Bromide	ND		1	0.20	0.050	mg/L	03/27/2020 2000

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: VQ49297-002
Batch: 49297
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Bromide	8.0	7.9		1	99	90-110	03/27/2020 2046

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: VQ49633-001
Batch: 49633
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Bromide	ND		1	0.20	0.050	mg/L	04/01/2020 0244

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: VQ49633-002
Batch: 49633
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Bromide	8.0	8.3		1	104	90-110	04/01/2020 0124

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MB

Sample ID: VQ48343-001
Batch: 48343
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Acetone	ND		1	20	5.0	ug/L	03/19/2020 1011
Benzene	ND		1	1.0	0.40	ug/L	03/19/2020 1011
Bromodichloromethane	ND		1	1.0	0.40	ug/L	03/19/2020 1011
Bromoform	ND		1	1.0	0.40	ug/L	03/19/2020 1011
Bromomethane (Methyl bromide)	ND		1	2.0	0.40	ug/L	03/19/2020 1011
2-Butanone (MEK)	ND		1	10	2.0	ug/L	03/19/2020 1011
Carbon disulfide	ND		1	1.0	0.40	ug/L	03/19/2020 1011
Carbon tetrachloride	ND		1	1.0	0.40	ug/L	03/19/2020 1011
Chlorobenzene	ND		1	1.0	0.40	ug/L	03/19/2020 1011
Chloroethane	ND		1	2.0	0.40	ug/L	03/19/2020 1011
Chloroform	ND		1	1.0	0.40	ug/L	03/19/2020 1011
Chloromethane (Methyl chloride)	ND		1	1.0	0.50	ug/L	03/19/2020 1011
Cyclohexane	ND		1	1.0	0.40	ug/L	03/19/2020 1011
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	0.40	ug/L	03/19/2020 1011
Dibromochloromethane	ND		1	1.0	0.40	ug/L	03/19/2020 1011
1,2-Dibromoethane (EDB)	ND		1	1.0	0.40	ug/L	03/19/2020 1011
1,2-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/19/2020 1011
1,3-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/19/2020 1011
1,4-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/19/2020 1011
Dichlorodifluoromethane	ND		1	2.0	0.60	ug/L	03/19/2020 1011
1,1-Dichloroethane	ND		1	1.0	0.40	ug/L	03/19/2020 1011
1,2-Dichloroethane	ND		1	1.0	0.40	ug/L	03/19/2020 1011
1,1-Dichloroethene	ND		1	1.0	0.40	ug/L	03/19/2020 1011
cis-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	03/19/2020 1011
trans-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	03/19/2020 1011
1,2-Dichloropropane	ND		1	1.0	0.40	ug/L	03/19/2020 1011
cis-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	03/19/2020 1011
trans-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	03/19/2020 1011
Ethylbenzene	ND		1	1.0	0.40	ug/L	03/19/2020 1011
2-Hexanone	ND		1	10	2.0	ug/L	03/19/2020 1011
Isopropylbenzene	ND		1	1.0	0.40	ug/L	03/19/2020 1011
Methyl acetate	ND		1	1.0	0.40	ug/L	03/19/2020 1011
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	0.40	ug/L	03/19/2020 1011
4-Methyl-2-pentanone	ND		1	10	2.0	ug/L	03/19/2020 1011
Methylcyclohexane	ND		1	5.0	0.40	ug/L	03/19/2020 1011
Methylene chloride	ND		1	1.0	0.40	ug/L	03/19/2020 1011
Styrene	ND		1	1.0	0.41	ug/L	03/19/2020 1011
1,1,2,2-Tetrachloroethane	ND		1	1.0	0.40	ug/L	03/19/2020 1011
Tetrachloroethene	ND		1	1.0	0.40	ug/L	03/19/2020 1011
Toluene	ND		1	1.0	0.40	ug/L	03/19/2020 1011
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	0.42	ug/L	03/19/2020 1011
1,2,4-Trichlorobenzene	ND		1	1.0	0.40	ug/L	03/19/2020 1011
1,1,1-Trichloroethane	ND		1	1.0	0.40	ug/L	03/19/2020 1011
1,1,2-Trichloroethane	ND		1	1.0	0.40	ug/L	03/19/2020 1011

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: VQ48343-001
Batch: 48343
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Trichloroethene	ND		1	1.0	0.40	ug/L	03/19/2020 1011
Trichlorofluoromethane	ND		1	1.0	0.40	ug/L	03/19/2020 1011
Vinyl chloride	ND		1	1.0	0.40	ug/L	03/19/2020 1011
Xylenes (total)	ND		1	1.0	0.40	ug/L	03/19/2020 1011

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		102	70-130
1,2-Dichloroethane-d4		97	70-130
Toluene-d8		105	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: VQ48343-002
Batch: 48343
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	98		1	98	60-140	03/19/2020 0901
Benzene	50	48		1	95	70-130	03/19/2020 0901
Bromodichloromethane	50	47		1	94	70-130	03/19/2020 0901
Bromoform	50	34	N	1	68	70-130	03/19/2020 0901
Bromomethane (Methyl bromide)	50	40		1	79	70-130	03/19/2020 0901
2-Butanone (MEK)	100	110		1	111	70-130	03/19/2020 0901
Carbon disulfide	50	42		1	84	70-130	03/19/2020 0901
Carbon tetrachloride	50	46		1	91	70-130	03/19/2020 0901
Chlorobenzene	50	47		1	94	70-130	03/19/2020 0901
Chloroethane	50	46		1	92	70-130	03/19/2020 0901
Chloroform	50	46		1	92	70-130	03/19/2020 0901
Chloromethane (Methyl chloride)	50	43		1	87	60-140	03/19/2020 0901
Cyclohexane	50	42		1	85	70-130	03/19/2020 0901
1,2-Dibromo-3-chloropropane (DBCP)	50	38		1	76	70-130	03/19/2020 0901
Dibromochloromethane	50	44		1	88	70-130	03/19/2020 0901
1,2-Dibromoethane (EDB)	50	47		1	94	70-130	03/19/2020 0901
1,2-Dichlorobenzene	50	47		1	94	70-130	03/19/2020 0901
1,3-Dichlorobenzene	50	47		1	94	70-130	03/19/2020 0901
1,4-Dichlorobenzene	50	46		1	92	70-130	03/19/2020 0901
Dichlorodifluoromethane	50	43		1	86	60-140	03/19/2020 0901
1,1-Dichloroethane	50	47		1	94	70-130	03/19/2020 0901
1,2-Dichloroethane	50	43		1	86	70-130	03/19/2020 0901
1,1-Dichloroethene	50	44		1	87	70-130	03/19/2020 0901
cis-1,2-Dichloroethene	50	46		1	92	70-130	03/19/2020 0901
trans-1,2-Dichloroethene	50	46		1	91	70-130	03/19/2020 0901
1,2-Dichloropropane	50	50		1	99	70-130	03/19/2020 0901
cis-1,3-Dichloropropene	50	49		1	99	70-130	03/19/2020 0901
trans-1,3-Dichloropropene	50	47		1	95	70-130	03/19/2020 0901
Ethylbenzene	50	49		1	98	70-130	03/19/2020 0901
2-Hexanone	100	110		1	105	70-130	03/19/2020 0901
Isopropylbenzene	50	50		1	100	70-130	03/19/2020 0901
Methyl acetate	50	49		1	97	70-130	03/19/2020 0901
Methyl tertiary butyl ether (MTBE)	50	34	N	1	68	70-130	03/19/2020 0901
4-Methyl-2-pentanone	100	100		1	105	70-130	03/19/2020 0901
Methylcyclohexane	50	48		1	97	70-130	03/19/2020 0901
Methylene chloride	50	43		1	85	70-130	03/19/2020 0901
Styrene	50	50		1	101	70-130	03/19/2020 0901
1,1,2,2-Tetrachloroethane	50	49		1	98	70-130	03/19/2020 0901
Tetrachloroethene	50	47		1	95	70-130	03/19/2020 0901
Toluene	50	48		1	96	70-130	03/19/2020 0901
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	42		1	85	70-130	03/19/2020 0901
1,2,4-Trichlorobenzene	50	50		1	99	70-130	03/19/2020 0901
1,1,1-Trichloroethane	50	46		1	91	70-130	03/19/2020 0901
1,1,2-Trichloroethane	50	49		1	97	70-130	03/19/2020 0901

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: VQ48343-002
Batch: 48343
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	47		1	95	70-130	03/19/2020 0901
Trichlorofluoromethane	50	46		1	92	70-130	03/19/2020 0901
Vinyl chloride	50	45		1	91	70-130	03/19/2020 0901
Xylenes (total)	100	99		1	99	70-130	03/19/2020 0901

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		100	70-130
1,2-Dichloroethane-d4		92	70-130
Toluene-d8		100	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Chain of Custody

and

Miscellaneous Documents

SHEALY

Chain of Custody Record

SHEALY ENVIRONMENTAL SERVICES, INC.
106 Vantage Point Drive • West Columbia, SC 29172
Telephone No. 803-791-9700 Fax No. 803-791-9111
www.shealylab.com

Number 102612

Client: TRC	Report to Contact: Lisa Clark	Telephone No. / E-mail:	Quote No.:
Address: 50 International Dr Suite 150	Sampler's Signature: X	Analysis (Attach list if more space is needed)	Page 1 of 1
City: Greenville; State: SC; Zip Code: 29615	Printed Name: Benjamin Medlin		
Project Name: WPH Clemson			VC18025
Project No.: 30688.0.0.11	P.O. No.:		

Sample ID / Description (Containers for each sample may be combined on one line.)	Date 2020	Time	Grab / Composite	Matrix: Aqueous	Matrix: Solid	Matrix: Non-Aqueous	Unpres	H_2SO_4	HNO_3	HCl	NaOH	$Na_2S_2O_3$	TSP	VOCs	Cl, SO4, Br, NO3	Diss. Gasses
TBLK-20106	/	/	G	X						2				X		
RMW-21A	3.17	1050	G	X			2			3			3	X	X X	X
RMW-21	3.17	1140	G	X			2			3			3	X	X X	X

Turn Around Time Required (Prior lab approval required for expedited TAT.) ☐ Standard ☐ Rush (Specify)

Sample Disposal ☐ Return to Client ☐ Disposal by Lab

Possible Hazard Identification ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

QC Requirements (Specify)

Relinquished by	Date	Time	Received by	Date	Time
1. Relinquished by	3-17-20	1610	1. Received by TRC SS	3-17-20	1610
2. Relinquished by TRC SS	3-18-20	0747	2. Received by	3-18-20	0747
3. Relinquished by	3-18-20	1234	3. Received by		
4. Relinquished by			4. Laboratory received by L Hile	3/18/2020	1234

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on ice (Circle) (Yes) No Ice Pack   Receipt Temp. 2.8 °C

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Client Copy

Document Number: F-AD-133 Effective Date: 06-01-2014

Shealy Environmental Services, Inc.
Document Number: MB001.8C-14

Effective Date: 8/2/2018

Sample Receipt Checklist (SRC)

Client: TRC Cooler Inspected by/date: LKH / 03/18/2020 Lot #: VC18025

Means of receipt: ☑ SESI ☐ Client ☐ UPS ☐ FedEx ☐ Other: _____

☐ Yes	☑ No		1. Were custody seals present on the cooler?
☐ Yes	☐ No	☑ NA	2. If custody seals were present, were they intact and unbroken?

pH Strip ID: NA Chlorine Strip ID: NA Tested by: NA

Original temperature upon receipt / Derived (Corrected) temperature upon receipt %Solid Snap-Cup ID: NA

2.8 /2.8 °C NA /NA °C NA /NA °C NA /NA °C

Method: ☑ Temperature Blank ☐ Against Bottles IR Gun ID: 6 IR Gun Correction Factor: 0 °C

Method of coolant: ☑ Wet Ice ☐ Ice Packs ☐ Dry Ice ☐ None

☐ Yes	☐ No	☑ NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).
☐ Yes	☐ No	☑ NA	4. Is the commercial courier's packing slip attached to this form?
☑ Yes	☐ No		5. Were proper custody procedures (relinquished/received) followed?
☑ Yes	☐ No		6. Were sample IDs listed on the COC?
☑ Yes	☐ No		7. Were sample IDs listed on all sample containers?
☑ Yes	☐ No		8. Was collection date & time listed on the COC?
☑ Yes	☐ No		9. Was collection date & time listed on all sample containers?
☑ Yes	☐ No		10. Did all container label information (ID, date, time) agree with the COC?
☑ Yes	☐ No		11. Were tests to be performed listed on the COC?
☑ Yes	☐ No		12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)? _____
☑ Yes	☐ No		13. Was adequate sample volume available?
☐ Yes	☑ No		14. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
☐ Yes	☑ No		15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
☐ Yes	☑ No	☐ NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (¼"or 6mm in diameter) in any of the VOA vials?
☐ Yes	☐ No	☑ NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?
☐ Yes	☐ No	☑ NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
☐ Yes	☐ No	☑ NA	19. Were all applicable NH_3/TKN/cyanide/phenol/625 (< 0.5mg/L) samples free of residual chlorine?
☐ Yes	☐ No	☑ NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc…) correctly transcribed from the COC into the comment section in LIMS?
☐ Yes	☑ No		21. Was the quote number listed on the container label? If yes, Quote # NA

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) NA _____ were received incorrectly preserved and were adjusted accordingly in sample receiving with NA mL of circle one: H_2SO_4, HNO_3, HCl, NaOH using SR # NA.
Time of preservation NA. If more than one preservative is needed, please note in the comments below.

Sample(s) NA _____ were received with bubbles >6 mm in diameter.

Samples(s) NA _____ were received with TRC > 0.5 mg/L (If #19 is *no*) and were adjusted accordingly in sample receiving with sodium thiosulfate ($Na_2S_2O_3$) with Shealy ID: NA.

SR barcode labels applied by: LKH Date: 03/18/2020

Comments:

Pace Analytical Energy Services LLC
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

March 31, 2020

Lucas Odom
Pace Analytical Services South Carolina
106 Vantage Point Drive
West Columbia, SC 29172

RE: **WPH Clemson / TRC**

Pace Workorder: 33306

Dear Lucas Odom:

Enclosed are the analytical results for sample(s) received by the laboratory on Friday, March 20, 2020. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Ruth Welsh 03/31/2020
Ruth.Welsh@pacelabs.com

Customer Service Representative

Enclosures

As a valued client we would appreciate your comments on our service.
Please email PAESfeedback@pacelabs.com.

Total Number of Pages 12

CERTIFICATE OF ANALYSIS

Laboratory Data Quality Review Notes

Project Name: WPH-Clemson, SC

Project Number: 300688.0000.0000 Phase 4

Lab Report: **33306** Pace Analytical Energy Services LLC; Pittsburgh, PA
This lab report is the subcontracted job related to **VC18025**.

Samples and Analyses: Two groundwater samples, collected 17-Mar-2020 and analyzed for dissolved hydrocarbon gases (methane, ethane, ethene)

Chain of Custody, Sample Temperature, Sample Preservation: Chain of custody signed (sample transfer from Pace Analytical, Columbia, to Pace Analytical, Pittsburgh); sample temperature <6 ^{o}C upon arrival at the laboratory; samples were preserved properly.

Hold Time: Sample analyses were performed within acceptable hold time.

Surrogates: Surrogate recoveries are not applicable to dissolved hydrocarbon gas analyses.

Method Blank: Target analytes were not detected in the laboratory method blanks.

Trip Blank: A trip blank was not analyzed with these samples.

Field Blank: A field blank was not collected with these samples.

Equipment Rinse Blank: A rinsate blank was not collected with these samples.

LCS/LCSD: LCS and LCSD recoveries and LCS/LCSD RPDs are within the laboratory QC limits.

MS/MSD: No MS/MSD analyses were performed with this sample set.

Duplicates: No field duplicate sample was collected with this sample set. No laboratory duplicates were included with these analyses.

Dilutions: No dilutions were performed with these sample analyses.

No data qualifiers were assigned in this review.

Data reviewer: Amy Bass; TRC Environmental Corporation; 28-Sep-2020

Pace Analytical Energy Services LLC
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

LABORATORY ACCREDITATIONS & CERTIFICATIONS

Accreditor:	Pennsylvania Department of Environmental Protection, Bureau of Laboratories
Accreditation ID:	02-00538
Scope:	NELAP Non-Potable Water
Accreditor:	West Virginia Department of Environmental Protection, Division of Water and Waste Management
Accreditation ID:	395
Scope:	Non-Potable Water
Accreditor:	South Carolina Department of Health and Environmental Control, Office of Environmental Laboratory Certification
Accreditation ID:	89009003
Scope:	Clean Water Act (CWA); Resource Conservation and Recovery Act (RCRA)
Accreditor:	State of Virginia
Accreditation ID:	460201
Scope:	Non-Potable Water
Accreditor:	NELAP: New Jersey, Department of Environmental Protection
Accreditation ID:	PA026
Scope:	Non-Potable Water
Accreditor:	NELAP: New York, Department of Health Wadsworth Center
Accreditation ID:	11815
Scope:	Non-Potable Water
Accreditor:	State of Connecticut, Department of Public Health, Division of Environmental Health
Accreditation ID:	PH-0263
Scope:	Clean Water Act (CWA) Resource Conservation and Recovery Act (RCRA)
Accreditor:	NELAP: Texas, Commission on Environmental Quality
Accreditation ID:	T104704453-09-TX
Scope:	Non-Potable Water
Accreditor:	State of New Hampshire
Accreditation ID:	299409
Scope:	Non-potable water
Accreditor:	State of Georgia
Accreditation ID:	Chapter 391-3-26
Scope:	As per the Georgia EPD Rules and Regulations for Commercial Laboratories, PAES is accredited by the Pennsylvania Department of Environmental Protection Bureau of Laboratories under the National Environmental Laboratory Approval Program (NELAC).

Pace Analytical Energy Services LLC
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

SAMPLE SUMMARY

Workorder: 33306 WPH Clemson / TRC

Lab ID	Sample ID	Matrix	Date Collected	Date Received
333060001	RMW-21A	Water	3/17/2020 10:50	3/20/2020 10:15
333060002	RMW-21	Water	3/17/2020 11:40	3/20/2020 10:15

Pace Analytical Energy Services LLC
220 William Pitt Way
Pittsburgh, PA 15238
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PROJECT SUMMARY

Workorder: 33306 WPH Clemson / TRC

Workorder Comments

The container pH for samples 33306 (0001-0002) were measured as below the expected pH (< 10) for those samples preserved with trisodium phosphate, as assigned to PAES method AM20GAx.

Pace Analytical Energy Services LLC
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

ANALYTICAL RESULTS

Workorder: 33306 WPH Clemson / TRC

Lab ID: **333060001** Date Received: 3/20/2020 10:15 Matrix: Water

Sample ID: **RMW-21A** Date Collected: 3/17/2020 10:50

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**9.7**	ug/l	0.50	0.094	1	3/25/2020 13:50	MM	n
Ethane	**0.031J**	ug/l	0.10	0.011	1	3/25/2020 13:50	MM	n
Ethene	**0.015J**	ug/l	0.10	0.0080	1	3/25/2020 13:50	MM	n

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ANALYTICAL RESULTS

Workorder: 33306 WPH Clemson / TRC

Lab ID: **333060002** Date Received: 3/20/2020 10:15 Matrix: Water

Sample ID: **RMW-21** Date Collected: 3/17/2020 11:40

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**5.7**	ug/l	0.50	0.094	1	3/25/2020 14:03	MM	n
Ethane	**0.072J**	ug/l	0.10	0.011	1	3/25/2020 14:03	MM	n
Ethene	**0.019J**	ug/l	0.10	0.0080	1	3/25/2020 14:03	MM	n

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ANALYTICAL RESULTS QUALIFIERS

Workorder: 33306 WPH Clemson / TRC

DEFINITIONS/QUALIFIERS

MDL	Method Detection Limit. Can be used synonymously with LOD; Limit Of Detection.
PQL	Practical Quanitation Limit. Can be used synonymously with LOQ; Limit Of Quantitation.
ND	Not detected at or above reporting limit.
DF	Dilution Factor.
S	Surrogate.
RPD	Relative Percent Difference.
% Rec	Percent Recovery.
U	Indicates the compound was analyzed for, but not detected at or above the noted concentration.
J	Estimated concentration greater than the set method detection limit (MDL) and less than the set reporting limit (PQL).
n	The laboratory does not hold NELAP/TNI accreditation for this method or analyte.

Pace Analytical Energy Services LLC
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

QUALITY CONTROL DATA

Workorder: 33306 WPH Clemson / TRC

QC Batch: DISG/8174 Analysis Method: AM20GAX

QC Batch Method: AM20GAX

Associated Lab Samples: 333060001, 333060002

METHOD BLANK: 66510

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
RISK				
Methane	ug/l	0.094U	0.094	n
Ethane	ug/l	0.011U	0.011	n
Ethene	ug/l	0.0080U	0.0080	n

LABORATORY CONTROL SAMPLE & LCSD: 66512 66514

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Methane	ug/l	750	850	800	114	107	80-120	5.6	20	n
Ethane	ug/l	38	43	43	113	114	80-120	0.49	20	n
Ethene	ug/l	35	40	40	114	113	80-120	0.1	20	n

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Pittsburgh, PA 15238
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QUALITY CONTROL DATA QUALIFIERS

Workorder: 33306 WPH Clemson / TRC

QUALITY CONTROL PARAMETER QUALIFIERS

n	The laboratory does not hold NELAP/TNI accreditation for this method or analyte.

Pace Analytical Energy Services LLC
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 33306 WPH Clemson / TRC

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
333060001	RMW-21A			AM20GAX	DISG/8174
333060002	RMW-21			AM20GAX	DISG/8174

SHEALY

Chain of Custody Record 33306

Shealy Environmental Services, Inc.
106 Vantage Point Drive
West Columbia, South Carolina 29172
Telephone No. (803) 791-9700 Fax No. (803) 791-9111
www.shealylab.com

Number

Client	Report to Contact	Telephone No. / E-mail	Quote No.
Pace Analytical - Columbia	Lucas Odom	803-206-9537/lodom@shealylab.com	

Address	Sampler's Signature	Analysis (Attach list if more space is needed)	Page
106 Vantage Point Dr.			1 of 1

City	State	Zip Code	Sampler's Signature
West Columbia	SC	29172	X _____ Printed Name

Project Name	Laboratory Lot Number
WPH Clemson	

Project Number	P.O No.
300688.0.0.11	

Sample ID / Description (Containers for each sample may be combined on one line)	Date	Time	G=Grab C=Composite	Matrix: Aqueous	Matrix: Solid	Matrix: Non-Aqueous		No of Containers by Preservative Type: Unpres.	H2SO4	HNO3	HCl	NaOH	5035 Kit	TSP	Dissolved Gasses									Remarks / Cooler I.D.
RMW-21A	3/17/2020	1050	G	x										x	x									VC18025
RMW-21	3/17/2020	1140	G	x										x	x									

Turn Around Time Required (Prior lab approval required for expedited TAT)	Sample Disposal	Possible Hazard Identification (List any known hazards in the remarks)	QC Requirements
X Standard Rush	☐ Return to Client ☒ Disposal by Lab	☐ Non-Hazardous ☐ Flammable ☐ Skin Irritant ☐ SDS provided ☐ Unknown	

	Date	Time		Date	Time
1. Relinquished by: Mallory Cardo	3-19-2020	1800	1. Received by		
2. Relinquished by			2. Received by		
3. Relinquished by			3. Received by		
4. Relinquished by			4. Laboratory Received by: [signature]	3.20.2020	10.15

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on Ice (Check) ☐ Y ☐ N ☐ Ice Pack

Receipt Temp. 1.4 °C

Document Number: ME002OW-01

Cooler Receipt Form

Client Name: Pace **Project:** WPH Clemson **Lab Work Order:** 33306

A. **Shipping/Container Information** (circle appropriate response)

Courier: (FedEx) UPS USPS Client Other:_____ **Air bill Present:** (Yes) No

Tracking Number: 1663 3463 7522

Custody Seal on Cooler/Box Present: (Yes) No **Seals Intact:** (Yes) No

Cooler/Box Packing Material: (Bubble Wrap) Absorbent Foam Other:_____

Type of Ice: (Wet) Blue None **Ice Intact:** (Yes) Melted

Cooler Temperature: 1.4°C **Radiation Screened:** Yes (No) **Chain of Custody Present:** (Yes) No

Comments:_____

B. **Laboratory Assignment/Log-in** (check appropriate response)

	YES	NO	N/A	Comment Reference non-Conformance
Chain of Custody properly filled out	✓			
Chain of Custody relinquished	✓			
Sampler Name & Signature on COC			✓	
Containers intact	✓			
Were samples in separate bags	✓			
Sample container labels match COC Sample name/date and time collected	✓			
Sufficient volume provided	✓			
PAES containers used	✓			
Are containers properly preserved for the requested testing? (as labeled)	✓			
If an unknown preservation state, were containers checked? Exception: VOA's coliform			✓	If yes, see pH form.
Was volume for dissolved testing field filtered, as noted on the COC? Was volume received in a preserved container?			✓	
Headspace present?		✓		

Comments:_____

_____

Cooler contents examined/received by : LJ **Date:** 3.20.2020

Project Manager Review : JW **Date:** 3.20.2020

Report of Analysis

TRC Companies, Inc.
50 International Dr.
Suite 150
Greenville, SC 29615
Attention: Lisa Clark

Project Name: WPH Clemson

Project Number: 300688.0000.0000.00011

Lot Number:**VC19029**

Date Completed:03/31/2020

04/06/2020 2:39 PM
Approved and released by:
Lab Director - Greenville: **Lucas Odom**

The electronic signature above is the equivalent of a handwritten signature.

Pace Analytical Services, LLC (*formerly Shealy Environmental Services, Inc.*)
106 Vantage Point Drive West Columbia, SC 29172
Tel: 803-791-9700 Fax: 803-791-9111 www.pacelabs.com

Laboratory Data Quality Review Notes

Project Name: WPH-Clemson, SC

Project Number: 300688.0000.0000 Phase 4

Lab Report: **VC19029** Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.); West Columbia, SC; subcontracted job: **33327**

Samples and Analyses: Four groundwater samples, collected 18-Mar-2020 and analyzed for VOCs, chloride, bromide, sulfate, and nitrate; one trip blank, analyzed for VOCs only

Chain of Custody, Sample Temperature, Sample Preservation: Chain of custody was signed; sample temperature was <6 ^{o}C upon arrival at the laboratory; samples were preserved properly.

Hold Time: Sample analyses were performed within acceptable hold times.

Surrogates: VOC surrogate recoveries are within QC limits.

Method Blank: Target analytes were not detected in the laboratory method blanks.

Trip Blank: No target analytes were detected in the trip blank; analyzed for VOCs only.

Field Blank: A field blank was not collected with these samples.

Equipment Rinse Blank: A rinsate blank was not collected with these samples.

LCS/LCSD: LCS recoveries for all analyses are within QC limits. LCSD analyses were not performed.

MS/MSD: MS/MSD analyses were performed for VOCs, bromide, chloride, and sulfate using sample RMW-08. MS and MSD recoveries and MS/MSD RPDs are within QC limits, with the following exceptions:

- The MS recoveries for acetone, bromomethane, and 2-butanone, and the MSD recoveries for acetone and bromomethane are below the QC acceptance limits. **The ND results for acetone, bromomethane, and 2-butanone in sample RMW-08 are assigned a "uj" qualifier due to low MS/MSD recoveries.**

Duplicates: No field duplicate sample was collected with this sample set. No laboratory duplicates were included with these analyses.

Dilutions: The VOC analysis in sample RMW-08 was performed with dilution (5×), and the associated ND results are reported with correspondingly elevated DL and LOQ levels. All other dilutions in these samples were associated with positive results (detects).

Data reviewer: Amy Bass; TRC Environmental Corporation; 29-Sep-2020

Case Narrative
TRC Companies, Inc.
Lot Number: VC19029

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Pace Analytical Services, LLC ("Pace") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Pace policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Pace Project Manager listed on the cover page.

VOCs by GC/MS

The continuing calibration verification (CCV) associated with analytical batch 48465 recovered outside acceptance criteria for Bromomethane and Acetone. An LOQ standard was analyzed, and the target analyte was detected. Since the associated samples are non-detect, no corrective action was taken.

The MS associated with batch 48465 recovered three compounds marginally outside of method criteria due to suspected matrix interferences. In addition, the MSD associated with this batch recovered two compounds marginally outside of method criteria due to suspected matrix interferences.

Dissolved Gasses

The analysis for Dissolved Gasses has been performed by Pace Energy. This data can be found on Pace Energy report 33327.

Sample Summary
TRC Companies, Inc.
Lot Number: VC19029

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	TBLK-20107	Aqueous	03/18/2020	03/19/2020
002	RMW-08	Aqueous	03/18/2020 1145	03/19/2020
003	RMW-08A	Aqueous	03/18/2020 1200	03/19/2020
004	RMW-22	Aqueous	03/18/2020 1445	03/19/2020
005	RMW-22A	Aqueous	03/18/2020 1520	03/19/2020

(5 samples)

Detection Summary

TRC Companies, Inc.

Lot Number: VC19029

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
002	RMW-08	Aqueous	Bromide	300.0	0.20		mg/L	7
002	RMW-08	Aqueous	Chloride	300.0	19		mg/L	7
002	RMW-08	Aqueous	Nitrate - N	353.2	2.8		mg/L	7
002	RMW-08	Aqueous	Sulfate	300.0	7.8		mg/L	7
002	RMW-08	Aqueous	cis-1,2-Dichloroethene	8260D	12		ug/L	8
002	RMW-08	Aqueous	Tetrachloroethene	8260D	350		ug/L	8
002	RMW-08	Aqueous	Trichloroethene	8260D	2.6	J	ug/L	9
003	RMW-08A	Aqueous	Bromide	300.0	0.48		mg/L	10
003	RMW-08A	Aqueous	Chloride	300.0	230		mg/L	10
003	RMW-08A	Aqueous	Nitrate - N	353.2	2.7		mg/L	10
003	RMW-08A	Aqueous	Sulfate	300.0	1.0		mg/L	10
003	RMW-08A	Aqueous	cis-1,2-Dichloroethene	8260D	39		ug/L	11
003	RMW-08A	Aqueous	Tetrachloroethene	8260D	110		ug/L	11
003	RMW-08A	Aqueous	Trichloroethene	8260D	1.1		ug/L	12
004	RMW-22	Aqueous	Bromide	300.0	0.62		mg/L	13
004	RMW-22	Aqueous	Chloride	300.0	56		mg/L	13
004	RMW-22	Aqueous	Nitrate - N	353.2	0.43		mg/L	13
004	RMW-22	Aqueous	Sulfate	300.0	1.6		mg/L	13
004	RMW-22	Aqueous	2-Butanone (MEK)	8260D	5.8	J	ug/L	14
004	RMW-22	Aqueous	Carbon disulfide	8260D	2.2		ug/L	14
004	RMW-22	Aqueous	cis-1,2-Dichloroethene	8260D	10		ug/L	14
004	RMW-22	Aqueous	Tetrachloroethene	8260D	160		ug/L	14
004	RMW-22	Aqueous	Trichloroethene	8260D	13		ug/L	15
005	RMW-22A	Aqueous	Bromide	300.0	0.099	J	mg/L	16
005	RMW-22A	Aqueous	Chloride	300.0	4.8		mg/L	16
005	RMW-22A	Aqueous	Nitrate - N	353.2	1.2		mg/L	16
005	RMW-22A	Aqueous	Acetone	8260D	40		ug/L	17
005	RMW-22A	Aqueous	2-Butanone (MEK)	8260D	11		ug/L	17
005	RMW-22A	Aqueous	Tetrachloroethene	8260D	170		ug/L	17
005	RMW-22A	Aqueous	Trichloroethene	8260D	0.94	J	ug/L	18

(30 detections)

Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC19029-001
Description: TBLK-20107
Matrix: Aqueous
Date Sampled: 03/18/2020
Date Received: 03/19/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/20/2020 0113	ALR1		48465

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	ND		1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC19029-001
Description: TBLK-20107
Matrix: Aqueous
Date Sampled: 03/18/2020
Date Received: 03/19/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/20/2020 0113	ALR1		48465

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Trichloroethene	79-01-6	8260D	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		102	70-130
1,2-Dichloroethane-d4		106	70-130
Toluene-d8		107	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
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Inorganic non-metals

Client: TRC Companies, Inc.
Laboratory ID: VC19029-002
Description: RMW-08
Matrix: Aqueous
Date Sampled: 03/18/2020 1145
Date Received: 03/19/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	03/28/2020 0315	AMR		49297
1		(Chloride) 300.0	1	03/28/2020 0315	AMR		49295
1		(Nitrate - N) 353.2	5	03/19/2020 1642	AMR		48446
1		(Sulfate) 300.0	1	03/28/2020 0315	AMR		49294

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.20		0.20	0.050	mg/L	1
Chloride		300.0	19		1.0	0.20	mg/L	1
Nitrate - N		353.2	2.8		0.10	0.050	mg/L	1
Sulfate		300.0	7.8		1.0	0.20	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc. | Laboratory ID: VC19029-002
Description: RMW-08 | Matrix: Aqueous
Date Sampled: 03/18/2020 1145
Date Received: 03/19/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	5	03/20/2020 0516	ALR1		48465

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		100	25	ug/L	1
Benzene	71-43-2	8260D	ND		5.0	2.0	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		5.0	2.0	ug/L	1
Bromoform	75-25-2	8260D	ND		5.0	2.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		10	2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		50	10	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		5.0	2.0	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		5.0	2.0	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		5.0	2.0	ug/L	1
Chloroethane	75-00-3	8260D	ND		10	2.0	ug/L	1
Chloroform	67-66-3	8260D	ND		5.0	2.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		5.0	2.5	ug/L	1
Cyclohexane	110-82-7	8260D	ND		5.0	2.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		5.0	2.0	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		5.0	2.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		5.0	2.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		5.0	2.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		5.0	2.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		5.0	2.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		10	3.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		5.0	2.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		5.0	2.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		5.0	2.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	12		5.0	2.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		5.0	2.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		5.0	2.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		5.0	2.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		5.0	2.0	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		5.0	2.0	ug/L	1
2-Hexanone	591-78-6	8260D	ND		50	10	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		5.0	2.0	ug/L	1
Methyl acetate	79-20-9	8260D	ND		5.0	2.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		5.0	2.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		50	10	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		25	2.0	ug/L	1
Methylene chloride	75-09-2	8260D	ND		5.0	2.0	ug/L	1
Styrene	100-42-5	8260D	ND		5.0	2.1	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		5.0	2.0	ug/L	1
Tetrachloroethene	127-18-4	8260D	350		5.0	2.0	ug/L	1
Toluene	108-88-3	8260D	ND		5.0	2.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		5.0	2.1	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		5.0	2.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		5.0	2.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		5.0	2.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC19029-002
Description: RMW-08
Matrix: Aqueous
Date Sampled: 03/18/2020 1145
Date Received: 03/19/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	5	03/20/2020 0516	ALR1		48465

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Trichloroethene	79-01-6	8260D	2.6	J	5.0	2.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		5.0	2.0	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		5.0	2.0	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		5.0	2.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		104	70-130
1,2-Dichloroethane-d4		105	70-130
Toluene-d8		107	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
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Inorganic non-metals

Client: TRC Companies, Inc.
Laboratory ID: VC19029-003
Description: RMW-08A
Matrix: Aqueous
Date Sampled: 03/18/2020 1200
Date Received: 03/19/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	03/28/2020 0424	AMR		49297
2		(Chloride) 300.0	5	03/29/2020 0250	HKL		49399
1		(Nitrate - N) 353.2	5	03/19/2020 1644	AMR		48446
1		(Sulfate) 300.0	1	03/28/2020 0424	AMR		49294

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.48		0.20	0.050	mg/L	1
Chloride		300.0	230		5.0	1.0	mg/L	2
Nitrate - N		353.2	2.7		0.10	0.050	mg/L	1
Sulfate		300.0	1.0		1.0	0.20	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc. | Laboratory ID: VC19029-003
Description: RMW-08A | Matrix: Aqueous
Date Sampled: 03/18/2020 1200
Date Received: 03/19/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/20/2020 0411	ALR1		48465

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	39		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	110		1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC19029-003
Description: RMW-08A
Matrix: Aqueous
Date Sampled: 03/18/2020 1200
Date Received: 03/19/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/20/2020 0411	ALR1		48465

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Trichloroethene	79-01-6	8260D	1.1		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		100	70-130
1,2-Dichloroethane-d4		105	70-130
Toluene-d8		104	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Inorganic non-metals

Client: TRC Companies, Inc.
Laboratory ID: VC19029-004
Description: RMW-22
Matrix: Aqueous
Date Sampled: 03/18/2020 1445
Date Received: 03/19/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	03/28/2020 0532	AMR		49297
1		(Chloride) 300.0	1	03/28/2020 0532	AMR		49295
1		(Nitrate - N) 353.2	1	03/19/2020 1728	AMR		48446
1		(Sulfate) 300.0	1	03/28/2020 0532	AMR		49294

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.62		0.20	0.050	mg/L	1
Chloride		300.0	56		1.0	0.20	mg/L	1
Nitrate - N		353.2	0.43		0.020	0.010	mg/L	1
Sulfate		300.0	1.6		1.0	0.20	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc. | Laboratory ID: VC19029-004
Description: RMW-22 | Matrix: Aqueous
Date Sampled: 03/18/2020 1445
Date Received: 03/19/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/20/2020 0432	ALR1		48465

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	5.8	J	10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	2.2		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	10		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	160		1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC19029-004
Description: RMW-22
Matrix: Aqueous
Date Sampled: 03/18/2020 1445
Date Received: 03/19/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/20/2020 0432	ALR1		48465

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Trichloroethene	79-01-6	8260D	13		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		102	70-130
1,2-Dichloroethane-d4		105	70-130
Toluene-d8		104	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
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W = Reported on wet weight basis

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Inorganic non-metals

Client: TRC Companies, Inc.
Laboratory ID: VC19029-005
Description: RMW-22A
Matrix: Aqueous
Date Sampled: 03/18/2020 1520
Date Received: 03/19/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	03/28/2020 0555	AMR		49297
1		(Chloride) 300.0	1	03/28/2020 0555	AMR		49295
3		(Nitrate - N) 353.2	2	03/20/2020 1314	AMR		48549
1		(Sulfate) 300.0	1	03/28/2020 0555	AMR		49294

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.099	J	0.20	0.050	mg/L	1
Chloride		300.0	4.8		1.0	0.20	mg/L	1
Nitrate - N		353.2	1.2		0.040	0.020	mg/L	3
Sulfate		300.0	ND		1.0	0.20	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC19029-005
Description: RMW-22A
Matrix: Aqueous
Date Sampled: 03/18/2020 1520
Date Received: 03/19/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	5	03/20/2020 0538	ALR1		48465
2	5030B	8260D	1	03/24/2020 0205	ALR1		48715

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	40		20	5.0	ug/L	2
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	2
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	2
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	2
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	2
2-Butanone (MEK)	78-93-3	8260D	11		10	2.0	ug/L	2
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	2
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	2
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	2
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	2
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	2
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	2
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	2
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	2
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	2
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	2
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	2
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	2
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	2
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	2
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	2
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	2
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	2
cis-1,2-Dichloroethene	156-59-2	8260D	ND		1.0	0.40	ug/L	2
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	2
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	2
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	2
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	2
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	2
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	2
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	2
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	2
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	2
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	2
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	2
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	2
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	2
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	2
Tetrachloroethene	127-18-4	8260D	170		5.0	2.0	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	2
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	2
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	2
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	2

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC19029-005
Description: RMW-22A
Matrix: Aqueous
Date Sampled: 03/18/2020 1520
Date Received: 03/19/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	5	03/20/2020 0538	ALR1		48465
2	5030B	8260D	1	03/24/2020 0205	ALR1		48715

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	2
Trichloroethene	79-01-6	8260D	0.94	J	1.0	0.40	ug/L	2
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	2
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	2
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	2

Surrogate	Q	Run 1 % Recovery	Acceptance Limits	Q	Run 2 % Recovery	Acceptance Limits
Bromofluorobenzene		102	70-130		98	70-130
1,2-Dichloroethane-d4		104	70-130		100	70-130
Toluene-d8		105	70-130		100	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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QC Summary

Inorganic non-metals - MB

Sample ID: VQ48446-001
Batch: 48446
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Nitrate - N	ND		1	0.020	0.010	mg/L	03/19/2020 1620

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: VQ48446-002
Batch: 48446
Analytical Method: 353.2
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	0.80	0.78		1	97	90-110	03/19/2020 1621

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: VQ48549-001
Batch: 48549
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Nitrate - N	ND		1	0.020	0.010	mg/L	03/20/2020 1311

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: VQ48549-002
Batch: 48549
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	0.80	0.77		1	97	90-110	03/20/2020 1313

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: VQ49294-001
Batch: 49294
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Sulfate	ND		1	1.0	0.20	mg/L	03/27/2020 2000

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: VQ49294-002
Batch: 49294
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Sulfate	20	19		1	97	90-110	03/27/2020 2046

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MS

Sample ID: VC19029-002MS
Batch: 49294
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Sulfate	7.8	20	27		1	95	90-110	03/28/2020 0338

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: VC19029-002MD
Batch: 49294
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Sulfate	7.8	20	28		1	100	3.3	90-110	20	03/28/2020 0401

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: VQ49295-001
Batch: 49295
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Chloride	ND		1	1.0	0.20	mg/L	03/27/2020 2000

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: VQ49295-002
Batch: 49295
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Chloride	20	20		1	100	90-110	03/27/2020 2046

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MS

Sample ID: VC19029-002MS
Batch: 49295
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Chloride	19	20	39		1	97	90-110	03/28/2020 0338

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: VC19029-002MD
Batch: 49295
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Chloride	19	20	39		1	98	0.26	90-110	20	03/28/2020 0401

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MB

Sample ID: VQ49297-001
Batch: 49297
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Bromide	ND		1	0.20	0.050	mg/L	03/27/2020 2000

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: VQ49297-002
Batch: 49297
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Bromide	8.0	7.9		1	99	90-110	03/27/2020 2046

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MS

Sample ID: VC19029-002MS
Batch: 49297
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Bromide	0.20	8.0	7.8		1	95	90-110	03/28/2020 0338

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: VC19029-002MD
Batch: 49297
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Bromide	0.20	8.0	7.8		1	95	0.00	90-110	20	03/28/2020 0401

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: VQ49399-001
Batch: 49399
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Chloride	ND		1	1.0	0.20	mg/L	03/28/2020 1452

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: VQ49399-002
Batch: 49399
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Chloride	20	20		1	100	90-110	03/28/2020 1538

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: VQ48465-001
Batch: 48465
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Acetone	ND		1	20	5.0	ug/L	03/19/2020 2327
Benzene	ND		1	1.0	0.40	ug/L	03/19/2020 2327
Bromodichloromethane	ND		1	1.0	0.40	ug/L	03/19/2020 2327
Bromoform	ND		1	1.0	0.40	ug/L	03/19/2020 2327
Bromomethane (Methyl bromide)	ND		1	2.0	0.40	ug/L	03/19/2020 2327
2-Butanone (MEK)	ND		1	10	2.0	ug/L	03/19/2020 2327
Carbon disulfide	ND		1	1.0	0.40	ug/L	03/19/2020 2327
Carbon tetrachloride	ND		1	1.0	0.40	ug/L	03/19/2020 2327
Chlorobenzene	ND		1	1.0	0.40	ug/L	03/19/2020 2327
Chloroethane	ND		1	2.0	0.40	ug/L	03/19/2020 2327
Chloroform	ND		1	1.0	0.40	ug/L	03/19/2020 2327
Chloromethane (Methyl chloride)	ND		1	1.0	0.50	ug/L	03/19/2020 2327
Cyclohexane	ND		1	1.0	0.40	ug/L	03/19/2020 2327
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	0.40	ug/L	03/19/2020 2327
Dibromochloromethane	ND		1	1.0	0.40	ug/L	03/19/2020 2327
1,2-Dibromoethane (EDB)	ND		1	1.0	0.40	ug/L	03/19/2020 2327
1,2-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/19/2020 2327
1,3-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/19/2020 2327
1,4-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/19/2020 2327
Dichlorodifluoromethane	ND		1	2.0	0.60	ug/L	03/19/2020 2327
1,1-Dichloroethane	ND		1	1.0	0.40	ug/L	03/19/2020 2327
1,2-Dichloroethane	ND		1	1.0	0.40	ug/L	03/19/2020 2327
1,1-Dichloroethene	ND		1	1.0	0.40	ug/L	03/19/2020 2327
cis-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	03/19/2020 2327
trans-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	03/19/2020 2327
1,2-Dichloropropane	ND		1	1.0	0.40	ug/L	03/19/2020 2327
cis-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	03/19/2020 2327
trans-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	03/19/2020 2327
Ethylbenzene	ND		1	1.0	0.40	ug/L	03/19/2020 2327
2-Hexanone	ND		1	10	2.0	ug/L	03/19/2020 2327
Isopropylbenzene	ND		1	1.0	0.40	ug/L	03/19/2020 2327
Methyl acetate	ND		1	1.0	0.40	ug/L	03/19/2020 2327
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	0.40	ug/L	03/19/2020 2327
4-Methyl-2-pentanone	ND		1	10	2.0	ug/L	03/19/2020 2327
Methylcyclohexane	ND		1	5.0	0.40	ug/L	03/19/2020 2327
Methylene chloride	ND		1	1.0	0.40	ug/L	03/19/2020 2327
Styrene	ND		1	1.0	0.41	ug/L	03/19/2020 2327
1,1,2,2-Tetrachloroethane	ND		1	1.0	0.40	ug/L	03/19/2020 2327
Tetrachloroethene	ND		1	1.0	0.40	ug/L	03/19/2020 2327
Toluene	ND		1	1.0	0.40	ug/L	03/19/2020 2327
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	0.42	ug/L	03/19/2020 2327
1,2,4-Trichlorobenzene	ND		1	1.0	0.40	ug/L	03/19/2020 2327
1,1,1-Trichloroethane	ND		1	1.0	0.40	ug/L	03/19/2020 2327
1,1,2-Trichloroethane	ND		1	1.0	0.40	ug/L	03/19/2020 2327

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: VQ48465-001
Batch: 48465
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Trichloroethene	ND		1	1.0	0.40	ug/L	03/19/2020 2327
Trichlorofluoromethane	ND		1	1.0	0.40	ug/L	03/19/2020 2327
Vinyl chloride	ND		1	1.0	0.40	ug/L	03/19/2020 2327
Xylenes (total)	ND		1	1.0	0.40	ug/L	03/19/2020 2327

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		102	70-130
1,2-Dichloroethane-d4		108	70-130
Toluene-d8		108	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: VQ48465-002
Batch: 48465
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	67		1	67	60-140	03/19/2020 2243
Benzene	50	46		1	92	70-130	03/19/2020 2243
Bromodichloromethane	50	47		1	93	70-130	03/19/2020 2243
Bromoform	50	48		1	95	70-130	03/19/2020 2243
Bromomethane (Methyl bromide)	50	37		1	75	70-130	03/19/2020 2243
2-Butanone (MEK)	100	82		1	82	70-130	03/19/2020 2243
Carbon disulfide	50	45		1	89	70-130	03/19/2020 2243
Carbon tetrachloride	50	44		1	87	70-130	03/19/2020 2243
Chlorobenzene	50	46		1	92	70-130	03/19/2020 2243
Chloroethane	50	44		1	88	70-130	03/19/2020 2243
Chloroform	50	45		1	90	70-130	03/19/2020 2243
Chloromethane (Methyl chloride)	50	40		1	80	60-140	03/19/2020 2243
Cyclohexane	50	42		1	84	70-130	03/19/2020 2243
1,2-Dibromo-3-chloropropane (DBCP)	50	46		1	92	70-130	03/19/2020 2243
Dibromochloromethane	50	48		1	95	70-130	03/19/2020 2243
1,2-Dibromoethane (EDB)	50	49		1	97	70-130	03/19/2020 2243
1,2-Dichlorobenzene	50	47		1	94	70-130	03/19/2020 2243
1,3-Dichlorobenzene	50	47		1	94	70-130	03/19/2020 2243
1,4-Dichlorobenzene	50	47		1	94	70-130	03/19/2020 2243
Dichlorodifluoromethane	50	47		1	94	60-140	03/19/2020 2243
1,1-Dichloroethane	50	45		1	90	70-130	03/19/2020 2243
1,2-Dichloroethane	50	48		1	96	70-130	03/19/2020 2243
1,1-Dichloroethene	50	45		1	91	70-130	03/19/2020 2243
cis-1,2-Dichloroethene	50	47		1	93	70-130	03/19/2020 2243
trans-1,2-Dichloroethene	50	46		1	93	70-130	03/19/2020 2243
1,2-Dichloropropane	50	47		1	94	70-130	03/19/2020 2243
cis-1,3-Dichloropropene	50	48		1	96	70-130	03/19/2020 2243
trans-1,3-Dichloropropene	50	49		1	99	70-130	03/19/2020 2243
Ethylbenzene	50	47		1	94	70-130	03/19/2020 2243
2-Hexanone	100	97		1	97	70-130	03/19/2020 2243
Isopropylbenzene	50	46		1	91	70-130	03/19/2020 2243
Methyl acetate	50	42		1	84	70-130	03/19/2020 2243
Methyl tertiary butyl ether (MTBE)	50	45		1	90	70-130	03/19/2020 2243
4-Methyl-2-pentanone	100	92		1	92	70-130	03/19/2020 2243
Methylcyclohexane	50	46		1	92	70-130	03/19/2020 2243
Methylene chloride	50	46		1	93	70-130	03/19/2020 2243
Styrene	50	49		1	97	70-130	03/19/2020 2243
1,1,2,2-Tetrachloroethane	50	47		1	95	70-130	03/19/2020 2243
Tetrachloroethene	50	47		1	95	70-130	03/19/2020 2243
Toluene	50	48		1	96	70-130	03/19/2020 2243
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	44		1	89	70-130	03/19/2020 2243
1,2,4-Trichlorobenzene	50	47		1	95	70-130	03/19/2020 2243
1,1,1-Trichloroethane	50	43		1	86	70-130	03/19/2020 2243
1,1,2-Trichloroethane	50	49		1	98	70-130	03/19/2020 2243

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: VQ48465-002
Batch: 48465
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	47		1	93	70-130	03/19/2020 2243
Trichlorofluoromethane	50	44		1	87	70-130	03/19/2020 2243
Vinyl chloride	50	43		1	85	70-130	03/19/2020 2243
Xylenes (total)	100	92		1	92	70-130	03/19/2020 2243

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		86	70-130
1,2-Dichloroethane-d4		89	70-130
Toluene-d8		91	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: VC19029-002MS
Batch: 48465
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	ND	500	280	N	5	56	60-140	03/20/2020 0643
Benzene	ND	250	240		5	97	70-130	03/20/2020 0643
Bromodichloromethane	ND	250	240		5	98	70-130	03/20/2020 0643
Bromoform	ND	250	230		5	93	70-130	03/20/2020 0643
Bromomethane (Methyl bromide)	ND	250	170	N	5	66	70-130	03/20/2020 0643
2-Butanone (MEK)	ND	500	350	N	5	69	70-130	03/20/2020 0643
Carbon disulfide	ND	250	230		5	93	70-130	03/20/2020 0643
Carbon tetrachloride	ND	250	240		5	94	70-130	03/20/2020 0643
Chlorobenzene	ND	250	230		5	92	70-130	03/20/2020 0643
Chloroethane	ND	250	220		5	88	70-130	03/20/2020 0643
Chloroform	ND	250	230		5	93	70-130	03/20/2020 0643
Chloromethane (Methyl chloride)	ND	250	160		5	65	60-140	03/20/2020 0643
Cyclohexane	ND	250	210		5	86	70-130	03/20/2020 0643
1,2-Dibromo-3-chloropropane (DBCP)	ND	250	210		5	85	70-130	03/20/2020 0643
Dibromochloromethane	ND	250	230		5	94	70-130	03/20/2020 0643
1,2-Dibromoethane (EDB)	ND	250	240		5	95	70-130	03/20/2020 0643
1,2-Dichlorobenzene	ND	250	220		5	87	70-130	03/20/2020 0643
1,3-Dichlorobenzene	ND	250	220		5	89	70-130	03/20/2020 0643
1,4-Dichlorobenzene	ND	250	220		5	87	70-130	03/20/2020 0643
Dichlorodifluoromethane	ND	250	160		5	64	60-140	03/20/2020 0643
1,1-Dichloroethane	ND	250	230		5	92	70-130	03/20/2020 0643
1,2-Dichloroethane	ND	250	230		5	92	70-130	03/20/2020 0643
1,1-Dichloroethene	ND	250	260		5	103	70-130	03/20/2020 0643
cis-1,2-Dichloroethene	12	250	250		5	96	70-130	03/20/2020 0643
trans-1,2-Dichloroethene	ND	250	260		5	103	70-130	03/20/2020 0643
1,2-Dichloropropane	ND	250	240		5	97	70-130	03/20/2020 0643
cis-1,3-Dichloropropene	ND	250	240		5	95	70-130	03/20/2020 0643
trans-1,3-Dichloropropene	ND	250	230		5	94	70-130	03/20/2020 0643
Ethylbenzene	ND	250	250		5	98	70-130	03/20/2020 0643
2-Hexanone	ND	500	440		5	87	70-130	03/20/2020 0643
Isopropylbenzene	ND	250	240		5	98	70-130	03/20/2020 0643
Methyl acetate	ND	250	180		5	71	70-130	03/20/2020 0643
Methyl tertiary butyl ether (MTBE)	ND	250	220		5	87	70-130	03/20/2020 0643
4-Methyl-2-pentanone	ND	500	420		5	84	70-130	03/20/2020 0643
Methylcyclohexane	ND	250	250		5	98	70-130	03/20/2020 0643
Methylene chloride	ND	250	230		5	94	70-130	03/20/2020 0643
Styrene	ND	250	250		5	101	70-130	03/20/2020 0643
1,1,2,2-Tetrachloroethane	ND	250	230		5	91	70-130	03/20/2020 0643
Tetrachloroethene	350	250	590		5	95	70-130	03/20/2020 0643
Toluene	ND	250	250		5	98	70-130	03/20/2020 0643
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	250	240		5	97	70-130	03/20/2020 0643
1,2,4-Trichlorobenzene	ND	250	220		5	90	70-130	03/20/2020 0643
1,1,1-Trichloroethane	ND	250	230		5	91	70-130	03/20/2020 0643
1,1,2-Trichloroethane	ND	250	230		5	94	70-130	03/20/2020 0643

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: VC19029-002MS
Batch: 48465
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	2.6	250	250		5	99	70-130	03/20/2020 0643
Trichlorofluoromethane	ND	250	230		5	91	70-130	03/20/2020 0643
Vinyl chloride	ND	250	180		5	71	70-130	03/20/2020 0643
Xylenes (total)	ND	500	500		5	100	70-130	03/20/2020 0643

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		104	70-130
1,2-Dichloroethane-d4		102	70-130
Toluene-d8		106	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Pace Analytical Services, LLC *(formerly Shealy Environmental Services, Inc.)*
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Volatile Organic Compounds by GC/MS - MSD

Sample ID: VC19029-002MD
Batch: 48465
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	ND	500	290	N	5	58	4.6	60-140	20	03/20/2020 0705
Benzene	ND	250	240		5	97	0.0016	70-130	20	03/20/2020 0705
Bromodichloromethane	ND	250	250		5	98	0.53	70-130	20	03/20/2020 0705
Bromoform	ND	250	230		5	93	0.25	70-130	20	03/20/2020 0705
Bromomethane (Methyl bromide)	ND	250	160	N	5	64	2.6	70-130	20	03/20/2020 0705
2-Butanone (MEK)	ND	500	370		5	75	8.0	70-130	20	03/20/2020 0705
Carbon disulfide	ND	250	240		5	95	2.7	70-130	20	03/20/2020 0705
Carbon tetrachloride	ND	250	250		5	99	4.5	70-130	20	03/20/2020 0705
Chlorobenzene	ND	250	230		5	93	0.72	70-130	20	03/20/2020 0705
Chloroethane	ND	250	220		5	89	1.8	70-130	20	03/20/2020 0705
Chloroform	ND	250	240		5	95	2.4	70-130	20	03/20/2020 0705
Chloromethane (Methyl chloride)	ND	250	160		5	64	1.3	60-140	20	03/20/2020 0705
Cyclohexane	ND	250	210		5	85	0.38	70-130	20	03/20/2020 0705
1,2-Dibromo-3-chloropropane (DBCP)	ND	250	220		5	87	1.4	70-130	20	03/20/2020 0705
Dibromochloromethane	ND	250	240		5	95	1.1	70-130	20	03/20/2020 0705
1,2-Dibromoethane (EDB)	ND	250	240		5	96	1.2	70-130	20	03/20/2020 0705
1,2-Dichlorobenzene	ND	250	220		5	88	0.82	70-130	20	03/20/2020 0705
1,3-Dichlorobenzene	ND	250	220		5	90	1.4	70-130	20	03/20/2020 0705
1,4-Dichlorobenzene	ND	250	220		5	89	2.6	70-130	20	03/20/2020 0705
Dichlorodifluoromethane	ND	250	160		5	64	0.29	60-140	20	03/20/2020 0705
1,1-Dichloroethane	ND	250	240		5	95	2.6	70-130	20	03/20/2020 0705
1,2-Dichloroethane	ND	250	240		5	94	2.8	70-130	20	03/20/2020 0705
1,1-Dichloroethene	ND	250	260		5	105	1.7	70-130	20	03/20/2020 0705
cis-1,2-Dichloroethene	12	250	260		5	101	4.6	70-130	20	03/20/2020 0705
trans-1,2-Dichloroethene	ND	250	260		5	104	1.0	70-130	20	03/20/2020 0705
1,2-Dichloropropane	ND	250	250		5	99	2.0	70-130	20	03/20/2020 0705
cis-1,3-Dichloropropene	ND	250	240		5	95	0.26	70-130	20	03/20/2020 0705
trans-1,3-Dichloropropene	ND	250	230		5	94	0.21	70-130	20	03/20/2020 0705
Ethylbenzene	ND	250	250		5	99	0.51	70-130	20	03/20/2020 0705
2-Hexanone	ND	500	430		5	87	0.31	70-130	20	03/20/2020 0705
Isopropylbenzene	ND	250	250		5	100	2.1	70-130	20	03/20/2020 0705
Methyl acetate	ND	250	180		5	72	1.3	70-130	20	03/20/2020 0705
Methyl tertiary butyl ether (MTBE)	ND	250	230		5	91	3.8	70-130	20	03/20/2020 0705
4-Methyl-2-pentanone	ND	500	430		5	85	0.75	70-130	20	03/20/2020 0705
Methylcyclohexane	ND	250	250		5	99	0.39	70-130	20	03/20/2020 0705
Methylene chloride	ND	250	240		5	95	1.5	70-130	20	03/20/2020 0705
Styrene	ND	250	250		5	101	0.38	70-130	20	03/20/2020 0705
1,1,2,2-Tetrachloroethane	ND	250	230		5	92	1.2	70-130	20	03/20/2020 0705
Tetrachloroethene	350	250	600		5	98	1.3	70-130	20	03/20/2020 0705
Toluene	ND	250	250		5	100	1.5	70-130	20	03/20/2020 0705
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	250	250		5	98	1.7	70-130	20	03/20/2020 0705
1,2,4-Trichlorobenzene	ND	250	230		5	94	4.6	70-130	20	03/20/2020 0705
1,1,1-Trichloroethane	ND	250	230		5	93	1.9	70-130	20	03/20/2020 0705
1,1,2-Trichloroethane	ND	250	240		5	95	1.3	70-130	20	03/20/2020 0705

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MSD

Sample ID: VC19029-002MD
Batch: 48465
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Trichloroethene	2.6	250	250		5	100	0.54	70-130	20	03/20/2020 0705
Trichlorofluoromethane	ND	250	230		5	92	1.2	70-130	20	03/20/2020 0705
Vinyl chloride	ND	250	180		5	71	0.072	70-130	20	03/20/2020 0705
Xylenes (total)	ND	500	510		5	102	1.8	70-130	20	03/20/2020 0705

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		104	70-130
1,2-Dichloroethane-d4		103	70-130
Toluene-d8		108	70-130

LOQ = Limit of Quantitation
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LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: VQ48715-001
Batch: 48715
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Acetone	ND		1	20	5.0	ug/L	03/23/2020 1946
Benzene	ND		1	1.0	0.40	ug/L	03/23/2020 1946
Bromodichloromethane	ND		1	1.0	0.40	ug/L	03/23/2020 1946
Bromoform	ND		1	1.0	0.40	ug/L	03/23/2020 1946
Bromomethane (Methyl bromide)	ND		1	2.0	0.40	ug/L	03/23/2020 1946
2-Butanone (MEK)	ND		1	10	2.0	ug/L	03/23/2020 1946
Carbon disulfide	ND		1	1.0	0.40	ug/L	03/23/2020 1946
Carbon tetrachloride	ND		1	1.0	0.40	ug/L	03/23/2020 1946
Chlorobenzene	ND		1	1.0	0.40	ug/L	03/23/2020 1946
Chloroethane	ND		1	2.0	0.40	ug/L	03/23/2020 1946
Chloroform	ND		1	1.0	0.40	ug/L	03/23/2020 1946
Chloromethane (Methyl chloride)	ND		1	1.0	0.50	ug/L	03/23/2020 1946
Cyclohexane	ND		1	1.0	0.40	ug/L	03/23/2020 1946
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	0.40	ug/L	03/23/2020 1946
Dibromochloromethane	ND		1	1.0	0.40	ug/L	03/23/2020 1946
1,2-Dibromoethane (EDB)	ND		1	1.0	0.40	ug/L	03/23/2020 1946
1,2-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/23/2020 1946
1,3-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/23/2020 1946
1,4-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/23/2020 1946
Dichlorodifluoromethane	ND		1	2.0	0.60	ug/L	03/23/2020 1946
1,1-Dichloroethane	ND		1	1.0	0.40	ug/L	03/23/2020 1946
1,2-Dichloroethane	ND		1	1.0	0.40	ug/L	03/23/2020 1946
1,1-Dichloroethene	ND		1	1.0	0.40	ug/L	03/23/2020 1946
cis-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	03/23/2020 1946
trans-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	03/23/2020 1946
1,2-Dichloropropane	ND		1	1.0	0.40	ug/L	03/23/2020 1946
cis-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	03/23/2020 1946
trans-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	03/23/2020 1946
Ethylbenzene	ND		1	1.0	0.40	ug/L	03/23/2020 1946
2-Hexanone	ND		1	10	2.0	ug/L	03/23/2020 1946
Isopropylbenzene	ND		1	1.0	0.40	ug/L	03/23/2020 1946
Methyl acetate	ND		1	1.0	0.40	ug/L	03/23/2020 1946
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	0.40	ug/L	03/23/2020 1946
4-Methyl-2-pentanone	ND		1	10	2.0	ug/L	03/23/2020 1946
Methylcyclohexane	ND		1	5.0	0.40	ug/L	03/23/2020 1946
Methylene chloride	ND		1	1.0	0.40	ug/L	03/23/2020 1946
Styrene	ND		1	1.0	0.41	ug/L	03/23/2020 1946
1,1,2,2-Tetrachloroethane	ND		1	1.0	0.40	ug/L	03/23/2020 1946
Toluene	ND		1	1.0	0.40	ug/L	03/23/2020 1946
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	0.42	ug/L	03/23/2020 1946
1,2,4-Trichlorobenzene	ND		1	1.0	0.40	ug/L	03/23/2020 1946
1,1,1-Trichloroethane	ND		1	1.0	0.40	ug/L	03/23/2020 1946
1,1,2-Trichloroethane	ND		1	1.0	0.40	ug/L	03/23/2020 1946
Trichloroethene	ND		1	1.0	0.40	ug/L	03/23/2020 1946

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LOD = Limit of Detection

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J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: VQ48715-001
Batch: 48715
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Trichlorofluoromethane	ND		1	1.0	0.40	ug/L	03/23/2020 1946
Vinyl chloride	ND		1	1.0	0.40	ug/L	03/23/2020 1946
Xylenes (total)	ND		1	1.0	0.40	ug/L	03/23/2020 1946

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		98	70-130
1,2-Dichloroethane-d4		99	70-130
Toluene-d8		103	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: VQ48715-002
Batch: 48715
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	110		1	110	60-140	03/23/2020 1828
Benzene	50	53		1	105	70-130	03/23/2020 1828
Bromodichloromethane	50	55		1	109	70-130	03/23/2020 1828
Bromoform	50	54		1	108	70-130	03/23/2020 1828
Bromomethane (Methyl bromide)	50	54		1	108	70-130	03/23/2020 1828
2-Butanone (MEK)	100	110		1	107	70-130	03/23/2020 1828
Carbon disulfide	50	56		1	111	70-130	03/23/2020 1828
Carbon tetrachloride	50	57		1	113	70-130	03/23/2020 1828
Chlorobenzene	50	52		1	105	70-130	03/23/2020 1828
Chloroethane	50	54		1	108	70-130	03/23/2020 1828
Chloroform	50	53		1	106	70-130	03/23/2020 1828
Chloromethane (Methyl chloride)	50	52		1	103	60-140	03/23/2020 1828
Cyclohexane	50	55		1	110	70-130	03/23/2020 1828
1,2-Dibromo-3-chloropropane (DBCP)	50	50		1	100	70-130	03/23/2020 1828
Dibromochloromethane	50	54		1	108	70-130	03/23/2020 1828
1,2-Dibromoethane (EDB)	50	53		1	105	70-130	03/23/2020 1828
1,2-Dichlorobenzene	50	52		1	105	70-130	03/23/2020 1828
1,3-Dichlorobenzene	50	53		1	106	70-130	03/23/2020 1828
1,4-Dichlorobenzene	50	51		1	102	70-130	03/23/2020 1828
Dichlorodifluoromethane	50	56		1	111	60-140	03/23/2020 1828
1,1-Dichloroethane	50	53		1	106	70-130	03/23/2020 1828
1,2-Dichloroethane	50	50		1	101	70-130	03/23/2020 1828
1,1-Dichloroethene	50	55		1	109	70-130	03/23/2020 1828
cis-1,2-Dichloroethene	50	52		1	103	70-130	03/23/2020 1828
trans-1,2-Dichloroethene	50	53		1	106	70-130	03/23/2020 1828
1,2-Dichloropropane	50	53		1	106	70-130	03/23/2020 1828
cis-1,3-Dichloropropene	50	55		1	110	70-130	03/23/2020 1828
trans-1,3-Dichloropropene	50	55		1	109	70-130	03/23/2020 1828
Ethylbenzene	50	55		1	109	70-130	03/23/2020 1828
2-Hexanone	100	110		1	110	70-130	03/23/2020 1828
Isopropylbenzene	50	55		1	109	70-130	03/23/2020 1828
Methyl acetate	50	49		1	97	70-130	03/23/2020 1828
Methyl tertiary butyl ether (MTBE)	50	52		1	104	70-130	03/23/2020 1828
4-Methyl-2-pentanone	100	110		1	108	70-130	03/23/2020 1828
Methylcyclohexane	50	54		1	107	70-130	03/23/2020 1828
Methylene chloride	50	50		1	101	70-130	03/23/2020 1828
Styrene	50	55		1	111	70-130	03/23/2020 1828
1,1,2,2-Tetrachloroethane	50	52		1	103	70-130	03/23/2020 1828
Toluene	50	53		1	106	70-130	03/23/2020 1828
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	54		1	107	70-130	03/23/2020 1828
1,2,4-Trichlorobenzene	50	51		1	101	70-130	03/23/2020 1828
1,1,1-Trichloroethane	50	56		1	112	70-130	03/23/2020 1828
1,1,2-Trichloroethane	50	51		1	102	70-130	03/23/2020 1828
Trichloroethene	50	55		1	110	70-130	03/23/2020 1828

LOQ = Limit of Quantitation
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LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: VQ48715-002
Batch: 48715
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichlorofluoromethane	50	57		1	114	70-130	03/23/2020 1828
Vinyl chloride	50	55		1	110	70-130	03/23/2020 1828
Xylenes (total)	100	110		1	109	70-130	03/23/2020 1828

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		98	70-130
1,2-Dichloroethane-d4		99	70-130
Toluene-d8		99	70-130

LOQ = Limit of Quantitation
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Chain of Custody

and

Miscellaneous Documents

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

SHEALY

Chain of Custody Record

SHEALY ENVIRONMENTAL SERVICES, INC.
106 Vantage Point Drive • West Columbia, SC 29172
Telephone No. 803-791-9700 Fax No. 803-791-9111
www.shealylab.com

Number 104413

Client: TRC	Report to Contact: Lisa Clark	Telephone No. / E-mail:	Quote No.
Address: 50 International Dr Ste 150	Sampler's Signature:	Analysis (Attach list if more space is needed)	Page 1 of 1
City: Greenville State: SC Zip Code: 29615	Printed Name: Aharon Mistures		
Project Name:			
Project No.: 300688.0.0.11	P.O. No.:		

VC19029

Sample ID / Description (Containers for each sample may be combined on one line.)	Date 2020	Time	G=Grab C=Composite	Matrix: Aqueous	Solid	Non-Aqueous	No. of Containers by Preservative Type: Unpres.	HCl	HNO3	H2SO4	NaOH	NaHSO4	TSP	VOCs	Chloride, Sulfide, Bromide	Nitrate	Diss. Gasses
TBLK-20107	1	1	G	X				2					X			
RMW-08	3-18	1145	G	X			2	3			3	X	X	X	X
RMW-08A	3-18	1200	G	X			2	3			3	X	X	X	X
RMW-22	3-18	1445	G	X			2	3			3	X	X	X	X
RMW-22A	3-18	1520	G	X			2	3			3	X	X	X	X

Turn Around Time Required (Prior lab approval required for expedited TAT.) ☐ Standard ☐ Rush (Specify)

Sample Disposal ☐ Return to Client ☐ Disposal by Lab

Possible Hazard Identification ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished by:	3-18-20	1630	1. Received by: TRC SS	3-18-20	1630
2. Relinquished by: TRC SS	3/19/20	0845	2. Received by:	3/19/20	0845
3. Relinquished by:	3/19/20	1210	3. Received by:	Date	Time
4. Relinquished by:	Date	Time	4. Laboratory received by:	3/19/2020	1210

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on ice (Circle) (Yes) No Ice Pack Receipt Temp. 2.3 °C

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Client Copy

Shealy Environmental Services, Inc.
Document Number: ME0018C-14

Effective Date: 8/2/2018

Sample Receipt Checklist (SRC)

Client: TRC Cooler Inspected by/date: LKH / 03/19/2020 Lot #: VC19029

Means of receipt: ☑ SESI ☐ Client ☐ UPS ☐ FedEx ☐ Other:

☐ Yes	☑ No		1. Were custody seals present on the cooler?
☐ Yes	☐ No	☑ NA	2. If custody seals were present, were they intact and unbroken?

pH Strip ID: NA Chlorine Strip ID: NA Tested by: NA

Original temperature upon receipt / Derived (Corrected) temperature upon receipt %Solid Snap-Cup ID: NA

2.3 /2.3 °C NA /NA °C NA /NA °C NA /NA °C

Method: ☑ Temperature Blank ☐ Against Bottles IR Gun ID: 6 IR Gun Correction Factor: 0 °C

Method of coolant: ☑ Wet Ice ☐ Ice Packs ☐ Dry Ice ☐ None

☐ Yes	☐ No	☑ NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).
☐ Yes	☐ No	☑ NA	4. Is the commercial courier's packing slip attached to this form?
☑ Yes	☐ No		5. Were proper custody procedures (relinquished/received) followed?
☑ Yes	☐ No		6. Were sample IDs listed on the COC?
☑ Yes	☐ No		7. Were sample IDs listed on all sample containers?
☑ Yes	☐ No		8. Was collection date & time listed on the COC?
☑ Yes	☐ No		9. Was collection date & time listed on all sample containers?
☑ Yes	☐ No		10. Did all container label information (ID, date, time) agree with the COC?
☑ Yes	☐ No		11. Were tests to be performed listed on the COC?
☑ Yes	☐ No		12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)?
☑ Yes	☐ No		13. Was adequate sample volume available?
☐ Yes	☑ No		14. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
☐ Yes	☑ No		15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
☐ Yes	☑ No	☐ NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (¼"or 6mm in diameter) in any of the VOA vials?
☐ Yes	☐ No	☑ NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?
☐ Yes	☐ No	☑ NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
☐ Yes	☐ No	☑ NA	19. Were all applicable NH_3/TKN/cyanide/phenol/625 (< 0.5mg/L) samples free of residual chlorine?
☐ Yes	☐ No	☑ NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc…) correctly transcribed from the COC into the comment section in LIMS?
☐ Yes	☑ No		21. Was the quote number listed on the container label? If yes, Quote # NA

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) NA were received incorrectly preserved and were adjusted accordingly in sample receiving with NA mL of circle one: H_2SO_4, HNO_3, HCl, NaOH using SR # NA. Time of preservation NA. If more than one preservative is needed, please note in the comments below.

Sample(s) NA were received with bubbles >6 mm in diameter.

Samples(s) NA were received with TRC > 0.5 mg/L (If #19 is *no*) and were adjusted accordingly in sample receiving with sodium thiosulfate ($Na_2S_2O_3$) with Shealy ID: NA.

SR barcode labels applied by: LKH Date: 03/19/2020

Comments:

Pace Analytical Energy Services LLC
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

April 6, 2020

Lucas Odom
Pace Analytical Services South Carolina
106 Vantage Point Drive
West Columbia, SC 29172

RE: **WPH Clemson / TRC**

Pace Workorder: 33327

Dear Lucas Odom:

Enclosed are the analytical results for sample(s) received by the laboratory on Tuesday, March 24, 2020. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Ruth Welsh 04/06/2020
Ruth.Welsh@pacelabs.com

Customer Service Representative

Enclosures

As a valued client we would appreciate your comments on our service.
Please email PAESfeedback@pacelabs.com.

Total Number of Pages 15

CERTIFICATE OF ANALYSIS

Laboratory Data Quality Review Notes

Project Name: WPH-Clemson, SC

Project Number: 300688.0000.0000 Phase 4

Lab Report: **33327** Pace Analytical Energy Services LLC; Pittsburgh, PA
This lab report is the subcontracted job related to **VC19029.**

Samples and Analyses: Four groundwater samples collected 18-Mar-2020 and analyzed for dissolved hydrocarbon gases (methane, ethane, ethene)

Chain of Custody, Sample Temperature, Sample Preservation: Chain of custody signed (sample transfer from Pace Analytical, Columbia, to Pace Analytical, Pittsburgh); sample temperature <6 ^{o}C upon arrival at the laboratory; samples were preserved properly.

Hold Time: Sample analyses were performed within acceptable hold time.

Surrogates: Surrogate recoveries are not applicable to dissolved hydrocarbon gas analyses.

Method Blank: Target analytes were not detected in the laboratory method blanks.

Trip Blank: A trip blank was not analyzed with these samples.

Field Blank: A field blank was not collected with these samples.

Equipment Rinse Blank: A rinsate blank was not collected with these samples.

LCS/LCSD: LCS and LCSD recoveries and LCS/LCSD RPDs are within the laboratory QC limits.

MS/MSD: MS/MSD analyses were performed using an "external" sample, not from this data set, and are therefore not relevant to this review.

Duplicates: No field duplicate sample was collected with this sample set. No laboratory duplicates were included with these analyses.

Dilutions: No dilutions were performed with these sample analyses.

No data qualifiers were assigned in this review.

Data reviewer: Amy Bass; TRC Environmental Corporation; 29-Sep-2020

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LABORATORY ACCREDITATIONS & CERTIFICATIONS

Accreditor:	Pennsylvania Department of Environmental Protection, Bureau of Laboratories
Accreditation ID:	02-00538
Scope:	NELAP Non-Potable Water
Accreditor:	West Virginia Department of Environmental Protection, Division of Water and Waste Management
Accreditation ID:	395
Scope:	Non-Potable Water
Accreditor:	South Carolina Department of Health and Environmental Control, Office of Environmental Laboratory Certification
Accreditation ID:	89009003
Scope:	Clean Water Act (CWA); Resource Conservation and Recovery Act (RCRA)
Accreditor:	State of Virginia
Accreditation ID:	460201
Scope:	Non-Potable Water
Accreditor:	NELAP: New Jersey, Department of Environmental Protection
Accreditation ID:	PA026
Scope:	Non-Potable Water
Accreditor:	NELAP: New York, Department of Health Wadsworth Center
Accreditation ID:	11815
Scope:	Non-Potable Water
Accreditor:	State of Connecticut, Department of Public Health, Division of Environmental Health
Accreditation ID:	PH-0263
Scope:	Clean Water Act (CWA) Resource Conservation and Recovery Act (RCRA)
Accreditor:	NELAP: Texas, Commission on Environmental Quality
Accreditation ID:	T104704453-09-TX
Scope:	Non-Potable Water
Accreditor:	State of New Hampshire
Accreditation ID:	299409
Scope:	Non-potable water
Accreditor:	State of Georgia
Accreditation ID:	Chapter 391-3-26
Scope:	As per the Georgia EPD Rules and Regulations for Commercial Laboratories, PAES is accredited by the Pennsylvania Department of Environmental Protection Bureau of Laboratories under the National Environmental Laboratory Approval Program (NELAC).

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SAMPLE SUMMARY

Workorder: 33327 WPH Clemson / TRC

Lab ID	Sample ID	Matrix	Date Collected	Date Received
333270001	RMW-08	Water	3/18/2020 11:45	3/24/2020 10:45
333270002	RMW-08A	Water	3/18/2020 12:00	3/24/2020 10:45
333270003	RMW-22	Water	3/18/2020 14:45	3/24/2020 10:45
333270004	RMW-22A	Water	3/18/2020 15:20	3/24/2020 10:45

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PROJECT SUMMARY

Workorder: 33327 WPH Clemson / TRC

Workorder Comments

The container pH for samples 33327 (0001-0004) were measured as below the expected pH (< 10) for those samples preserved with trisodium phosphate, as assigned to PAES method AM20GAx.

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ANALYTICAL RESULTS

Workorder: 33327 WPH Clemson / TRC

Lab ID: **333270001** Date Received: 3/24/2020 10:45 Matrix: Water

Sample ID: **RMW-08** Date Collected: 3/18/2020 11:45

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**13**	ug/l	0.50	0.046	1	3/31/2020 12:25	BW	n
Ethane	**0.10**	ug/l	0.10	0.0050	1	3/31/2020 12:25	BW	n
Ethene	**0.024J**	ug/l	0.10	0.0040	1	3/31/2020 12:25	BW	n

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ANALYTICAL RESULTS

Workorder: 33327 WPH Clemson / TRC

Lab ID: **333270002** Date Received: 3/24/2020 10:45 Matrix: Water

Sample ID: **RMW-08A** Date Collected: 3/18/2020 12:00

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**0.27J**	ug/l	0.50	0.046	1	3/31/2020 12:36	BW	n
Ethane	**0.019J**	ug/l	0.10	0.0050	1	3/31/2020 12:36	BW	n
Ethene	**0.024J**	ug/l	0.10	0.0040	1	3/31/2020 12:36	BW	n

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ANALYTICAL RESULTS

Workorder: 33327 WPH Clemson / TRC

Lab ID: **333270003** Date Received: 3/24/2020 10:45 Matrix: Water

Sample ID: **RMW-22** Date Collected: 3/18/2020 14:45

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**150**	ug/l	0.50	0.046	1	4/1/2020 07:20	BW	n
Ethane	**2.5**	ug/l	0.10	0.0050	1	4/1/2020 07:20	BW	n
Ethene	**0.015J**	ug/l	0.10	0.0040	1	4/1/2020 07:20	BW	n

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ANALYTICAL RESULTS

Workorder: 33327 WPH Clemson / TRC

Lab ID: **333270004** Date Received: 3/24/2020 10:45 Matrix: Water

Sample ID: **RMW-22A** Date Collected: 3/18/2020 15:20

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**0.080J**	ug/l	0.50	0.046	1	4/1/2020 07:33	BW	n
Ethane	**0.046J**	ug/l	0.10	0.0050	1	4/1/2020 07:33	BW	n
Ethene	**0.0040U**	ug/l	0.10	0.0040	1	4/1/2020 07:33	BW	n

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ANALYTICAL RESULTS QUALIFIERS

Workorder: 33327 WPH Clemson / TRC

DEFINITIONS/QUALIFIERS

MDL	Method Detection Limit. Can be used synonymously with LOD; Limit Of Detection.
PQL	Practical Quanitation Limit. Can be used synonymously with LOQ; Limit Of Quantitation.
ND	Not detected at or above reporting limit.
DF	Dilution Factor.
S	Surrogate.
RPD	Relative Percent Difference.
% Rec	Percent Recovery.
U	Indicates the compound was analyzed for, but not detected at or above the noted concentration.
J	Estimated concentration greater than the set method detection limit (MDL) and less than the set reporting limit (PQL).
n	The laboratory does not hold NELAP/TNI accreditation for this method or analyte.

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QUALITY CONTROL DATA

Workorder: 33327 WPH Clemson / TRC

QC Batch: DISG/8180 Analysis Method: AM20GAX

QC Batch Method: AM20GAX

Associated Lab Samples: 333270001, 333270002

METHOD BLANK: 66571

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
RISK				
Methane	ug/l	0.046U	0.046	n
Ethane	ug/l	0.0050U	0.0050	n
Ethene	ug/l	0.0040U	0.0040	n

LABORATORY CONTROL SAMPLE & LCSD: 66572 66573

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Methane	ug/l	750	760	740	101	99	80-120	2.2	20	n
Ethane	ug/l	38	40	38	107	99	80-120	7.1	20	n
Ethene	ug/l	35	39	36	110	101	80-120	8.8	20	n

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QUALITY CONTROL DATA

Workorder: 33327 WPH Clemson / TRC

QC Batch: DISG/8183 Analysis Method: AM20GAX

QC Batch Method: AM20GAX

Associated Lab Samples: 333270003, 333270004

METHOD BLANK: 66591

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
RISK				
Methane	ug/l	0.046U	0.046	n
Ethane	ug/l	0.0050U	0.0050	n
Ethene	ug/l	0.0040U	0.0040	n

LABORATORY CONTROL SAMPLE & LCSD: 66592 66593

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Methane	ug/l	750	750	770	101	103	80-120	2.7	20	n
Ethane	ug/l	38	41	42	108	110	80-120	2	20	n
Ethene	ug/l	35	39	39	110	111	80-120	1.2	20	n

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 66616 66617 Original: 333330003

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
RISK											
Methane	ug/l	0.12	40	40	40	100	100	70-130	0.47	20	n
Ethane	ug/l	0.0056	76	74	74	98	98	70-130	0.13	20	n
Ethene	ug/l	0.014	71	69	69	97	98	70-130	0.82	20	n

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QUALITY CONTROL DATA QUALIFIERS

Workorder: 33327 WPH Clemson / TRC

QUALITY CONTROL PARAMETER QUALIFIERS

n	The laboratory does not hold NELAP/TNI accreditation for this method or analyte.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 33327 WPH Clemson / TRC

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
333270001	RMW-08			AM20GAX	DISG/8180
333270002	RMW-08A			AM20GAX	DISG/8180
333270003	RMW-22			AM20GAX	DISG/8183
333270004	RMW-22A			AM20GAX	DISG/8183

SHEALY

Chain of Custody Record 33327

Shealy Environmental Services, Inc.
106 Vantage Point Drive
West Columbia, South Carolina 29172
Telephone No. (803) 791-9700 Fax No. (803) 791-9111
www.shealylab.com

Number

Client	Report to Contact	Telephone No. / E-mail	Quote No.
Pace Analytical - Columbia	Lucas Odom	803-206-9537/lodom@shealylab.com	
Address	**Sampler's Signature**	**Analysis (Attach list if more space is needed)**	**Page**
106 Vantage Point Dr.			1 of 1
City / State / Zip Code	X _____		
West Columbia / SC / 29172	Printed Name		Laboratory Lot Number
Project Name			
WPH Clemson			

Project Number	P.O No.		G=Grab C=Composite	Matrix				No of Containers by Preservative Type							Dissolved Gasses									Remarks / Cooler I.D.
300688.0.0.11																								
Sample ID / Description (Containers for each sample may be combined on one line)	Date	Time		Aqueous	Solid	Non-Aqueous		Unpres.	H2SO4	HNO3	HCl	NaOH	5035 Kit	TSP										
RMW-08	3/18/2020	1145	G	x										x	x									VC19029
RMW-08A	3/18/2020	1200	G	x										x	x									
RMW-22	3/18/2020	1445	G	x										x	x									
RMW-22A	3/18/2020	1520	G	x										x	x									

Turn Around Time Required (Prior lab approval required for expedited TAT)
X Standard Rush

Sample Disposal
☐ Return to Client ☒ Disposal by Lab

Possible Hazard Identification (List any known hazards in the remarks)
☐ Non-Hazardous ☐ Flammable ☐ Skin Irritant ☐ SDS provided ☐ Unknown

QC Requirements

	Date	Time		Date	Time
1. Relinquished by Mcleesby Lewis	3-23-2020	1800	1. Received by		
2. Relinquished by			2. Received by		
3. Relinquished by			3. Received by	LJ 3.24.20	
4. Relinquished by			4. Laboratory Received by PACE	3.23.2020	1045

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on Ice (Check) ☐ Y ☐ N ☐ Ice Pack

Receipt Temp. 6.2 °C

Cooler Receipt Form

Client Name: Sheely **Project:** WPH Clemson **Lab Work Order:** 33327

A. **Shipping/Container Information** (circle appropriate response)

Courier: (FedEx) UPS USPS Client Other:_____ **Air bill Present:** (Yes) No

Tracking Number: 166334637625

Custody Seal on Cooler/Box Present: (Yes) No **Seals Intact:** (Yes) No

Cooler/Box Packing Material: (Bubble Wrap) Absorbent Foam Other:_____

Type of Ice: (Wet) Blue None **Ice Intact:** (Yes) Melted

Cooler Temperature: 0.2°C **Radiation Screened:** Yes (No) **Chain of Custody Present:** (Yes) No

Comments:_____

B. **Laboratory Assignment/Log-in** (check appropriate response)

	YES	NO	N/A	Comment Reference non-Conformance
Chain of Custody properly filled out	✓			
Chain of Custody relinquished	✓			
Sampler Name & Signature on COC			✓	
Containers intact	✓			
Were samples in separate bags	✓			
Sample container labels match COC Sample name/date and time collected		✓		
Sufficient volume provided	✓			
PAES containers used	✓			
Are containers properly preserved for the requested testing? (as labeled)	✓			
If an unknown preservation state, were containers checked? Exception: VOA's coliform			✓	If yes, see pH form.
Was volume for dissolved testing field filtered, as noted on the COC? Was volume received in a preserved container?			✓	
Headspace present?		✓		

Comments:_____

Cooler contents examined/received by : LY **Date:** 3.23.2020

Project Manager Review : ERJ **Date:** 3/24/2020

Report of Analysis

TRC Companies, Inc.
50 International Dr.
Suite 150
Greenville, SC 29615
Attention: Lisa Clark

Project Name: WPH Clemson

Project Number: 300688.0000.0000.00011

Lot Number:**VC20025**

Date Completed:04/01/2020

04/06/2020 2:56 PM
Approved and released by:
Lab Director - Greenville: **Lucas Odom**

The electronic signature above is the equivalent of a handwritten signature.

Pace Analytical Services, LLC (*formerly Shealy Environmental Services, Inc.*)
106 Vantage Point Drive West Columbia, SC 29172
Tel: 803-791-9700 Fax: 803-791-9111 www.pacelabs.com

Laboratory Data Quality Review Notes

Project Name: WPH-Clemson, SC

Project Number: 300688.0000.0000 Phase 4

Lab Report: **VC20025** Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.); West Columbia, SC; subcontracted job: **33333**

Samples and Analyses: Four groundwater samples, collected 19-Mar-2020 and analyzed for VOCs, chloride, bromide, sulfate, and nitrate; one trip blank, analyzed for VOCs only

Chain of Custody, Sample Temperature, Sample Preservation: Chain of custody was signed; sample temperature was <6 ^{o}C upon arrival at the laboratory; samples were preserved properly.

Hold Time: Sample analyses were performed within acceptable hold times.

Surrogates: VOC surrogate recoveries are within QC limits.

Method Blank: Target analytes were not detected in the laboratory method blanks.

Trip Blank: No target analytes were detected in the trip blank; analyzed for VOCs only.

Field Blank: A field blank was not collected with these samples.

Equipment Rinse Blank: A rinsate blank was not collected with these samples.

LCS/LCSD: LCS recoveries for all analyses are within QC limits. LCSD analyses were not performed.

MS/MSD: MS/MSD analyses were performed for VOCs, bromide, chloride, nitrate and sulfate using sample RMW-10A; and MS/MSD analyses were also performed for VOCs using sample RMW-10. MS/MSD recoveries and RPDs are within QC limits, with the following exceptions:

- Using sample RMW-10A, the MS recoveries for acetone, 2-butanone, and methyl acetate, and the MSD recovery for acetone are below the QC acceptance limits. **The ND results for acetone, 2-butanone, and methyl acetate in sample RMW-10A are assigned a "uj" qualifier due to low MS/MSD recoveries.**

Duplicates: No field duplicate sample was collected with this sample set. No laboratory duplicates were included with these analyses.

Dilutions: The VOC analyses in samples RMW-10 and RMW-10A were performed with dilution (5× in both), and the associated ND results are reported with correspondingly elevated DL and LOQ levels. All other dilutions in these samples were associated with positive results (detects).

Data reviewer: Amy Bass; TRC Environmental Corporation; 01-Oct-2020

Case Narrative
TRC Companies, Inc.
Lot Number: VC20025

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Pace Analytical Services, LLC ("Pace") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Pace policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Pace Project Manager listed on the cover page.

VOCs by GC/MS

The continuing calibration verification (CCV) associated with analytical batch 48604 recovered outside acceptance criteria for Bromomethane. An LOQ standard was analyzed, and the target analyte was detected. Since the associated samples were non-detect, no corrective action was taken.

Due to suspected matrix interferences, the MS associated with batch 48604 recovered three compounds marginally outside of method criteria and the MSD recovered one compound marginally outside of method criteria.

Bromide

The following sample was diluted due to the nature of the sample matrix: VC20025-002. The LOQ has been elevated to reflect the dilution.

Dissolved Gasses

The analysis for Dissolved Gasses has been performed by Pace Energy. This data can be found on Pace Energy report 33333.

Sample Summary
TRC Companies, Inc.
Lot Number: VC20025

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	TBLK-20108	Aqueous	03/19/2020	03/20/2020
002	RMW-10	Aqueous	03/19/2020 1050	03/20/2020
003	RMW-10B	Aqueous	03/19/2020 1100	03/20/2020
004	RMW-10A	Aqueous	03/19/2020 1340	03/20/2020
005	RMW-10C	Aqueous	03/19/2020 1510	03/20/2020

(5 samples)

Detection Summary

TRC Companies, Inc.

Lot Number: VC20025

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
002	RMW-10	Aqueous	Bromide	300.0	0.44	J	mg/L	7
002	RMW-10	Aqueous	Chloride	300.0	14		mg/L	7
002	RMW-10	Aqueous	Nitrate - N	353.2	0.32		mg/L	7
002	RMW-10	Aqueous	Sulfate	300.0	1300		mg/L	7
002	RMW-10	Aqueous	Acetone	8260D	190		ug/L	8
002	RMW-10	Aqueous	2-Butanone (MEK)	8260D	210		ug/L	8
002	RMW-10	Aqueous	cis-1,2-Dichloroethene	8260D	19		ug/L	8
002	RMW-10	Aqueous	Tetrachloroethene	8260D	580		ug/L	8
002	RMW-10	Aqueous	Trichloroethene	8260D	7.9		ug/L	9
003	RMW-10B	Aqueous	Chloride	300.0	0.92	J	mg/L	10
003	RMW-10B	Aqueous	Nitrate - N	353.2	1.1		mg/L	10
003	RMW-10B	Aqueous	Sulfate	300.0	0.59	J	mg/L	10
003	RMW-10B	Aqueous	cis-1,2-Dichloroethene	8260D	31		ug/L	11
003	RMW-10B	Aqueous	trans-1,2-Dichloroethene	8260D	0.41	J	ug/L	11
003	RMW-10B	Aqueous	Tetrachloroethene	8260D	44		ug/L	11
003	RMW-10B	Aqueous	Trichloroethene	8260D	2.5		ug/L	12
004	RMW-10A	Aqueous	Chloride	300.0	0.94	J	mg/L	13
004	RMW-10A	Aqueous	Nitrate - N	353.2	0.73		mg/L	13
004	RMW-10A	Aqueous	Sulfate	300.0	1.1		mg/L	13
004	RMW-10A	Aqueous	Tetrachloroethene	8260D	260		ug/L	14
005	RMW-10C	Aqueous	Chloride	300.0	0.99	J	mg/L	16
005	RMW-10C	Aqueous	Nitrate - N	353.2	1.2		mg/L	16
005	RMW-10C	Aqueous	Sulfate	300.0	1.0		mg/L	16
005	RMW-10C	Aqueous	cis-1,2-Dichloroethene	8260D	0.83	J	ug/L	17
005	RMW-10C	Aqueous	Tetrachloroethene	8260D	65		ug/L	17

(25 detections)

Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc. | Laboratory ID: VC20025-001
Description: TBLK-20108 | Matrix: Aqueous
Date Sampled: 03/19/2020
Date Received: 03/20/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/22/2020 0025	STM		48604

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	ND		1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC20025-001
Description: TBLK-20108
Matrix: Aqueous
Date Sampled: 03/19/2020
Date Received: 03/20/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/22/2020 0025	STM		48604

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Trichloroethene	79-01-6	8260D	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		102	70-130
1,2-Dichloroethane-d4		106	70-130
Toluene-d8		105	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Inorganic non-metals

Client: TRC Companies, Inc.
Laboratory ID: VC20025-002
Description: RMW-10
Matrix: Aqueous
Date Sampled: 03/19/2020 1050
Date Received: 03/20/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	5	03/29/2020 0252	HKL		49383
1		(Chloride) 300.0	5	03/29/2020 0252	HKL		49382
1		(Nitrate - N) 353.2	1	03/20/2020 1538	AMR		48561
2		(Sulfate) 300.0	10	04/01/2020 0204	HKL		49634

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.44	J	1.0	0.25	mg/L	1
Chloride		300.0	14		5.0	1.0	mg/L	1
Nitrate - N		353.2	0.32		0.020	0.010	mg/L	1
Sulfate		300.0	1300		10	2.0	mg/L	2

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC20025-002
Description: RMW-10
Matrix: Aqueous
Date Sampled: 03/19/2020 1050
Date Received: 03/20/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	5	03/24/2020 0229	ALR1		48715

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	190		100	25	ug/L	1
Benzene	71-43-2	8260D	ND		5.0	2.0	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		5.0	2.0	ug/L	1
Bromoform	75-25-2	8260D	ND		5.0	2.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		10	2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	210		50	10	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		5.0	2.0	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		5.0	2.0	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		5.0	2.0	ug/L	1
Chloroethane	75-00-3	8260D	ND		10	2.0	ug/L	1
Chloroform	67-66-3	8260D	ND		5.0	2.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		5.0	2.5	ug/L	1
Cyclohexane	110-82-7	8260D	ND		5.0	2.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		5.0	2.0	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		5.0	2.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		5.0	2.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		5.0	2.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		5.0	2.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		5.0	2.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		10	3.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		5.0	2.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		5.0	2.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		5.0	2.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	19		5.0	2.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		5.0	2.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		5.0	2.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		5.0	2.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		5.0	2.0	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		5.0	2.0	ug/L	1
2-Hexanone	591-78-6	8260D	ND		50	10	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		5.0	2.0	ug/L	1
Methyl acetate	79-20-9	8260D	ND		5.0	2.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		5.0	2.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		50	10	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		25	2.0	ug/L	1
Methylene chloride	75-09-2	8260D	ND		5.0	2.0	ug/L	1
Styrene	100-42-5	8260D	ND		5.0	2.1	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		5.0	2.0	ug/L	1
Tetrachloroethene	127-18-4	8260D	580		5.0	2.0	ug/L	1
Toluene	108-88-3	8260D	ND		5.0	2.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		5.0	2.1	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		5.0	2.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		5.0	2.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		5.0	2.0	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC20025-002
Description: RMW-10
Matrix: Aqueous
Date Sampled: 03/19/2020 1050
Date Received: 03/20/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	5	03/24/2020 0229	ALR1		48715

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Trichloroethene	79-01-6	8260D	7.9		5.0	2.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		5.0	2.0	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		5.0	2.0	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		5.0	2.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		98	70-130
1,2-Dichloroethane-d4		99	70-130
Toluene-d8		102	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Inorganic non-metals

Client: TRC Companies, Inc.
Laboratory ID: VC20025-003
Description: RMW-10B
Matrix: Aqueous
Date Sampled: 03/19/2020 1100
Date Received: 03/20/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	03/29/2020 0312	HKL		49383
1		(Chloride) 300.0	1	03/29/2020 0312	HKL		49382
1		(Nitrate - N) 353.2	1	03/20/2020 1540	AMR		48561
1		(Sulfate) 300.0	1	03/29/2020 0312	HKL		49380

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	ND		0.20	0.050	mg/L	1
Chloride		300.0	0.92	J	1.0	0.20	mg/L	1
Nitrate - N		353.2	1.1		0.020	0.010	mg/L	1
Sulfate		300.0	0.59	J	1.0	0.20	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc. | Laboratory ID: VC20025-003
Description: RMW-10B | Matrix: Aqueous
Date Sampled: 03/19/2020 1100
Date Received: 03/20/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/22/2020 0003	STM		48604

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	31		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	0.41	J	1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	44		1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
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E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC20025-003
Description: RMW-10B
Matrix: Aqueous
Date Sampled: 03/19/2020 1100
Date Received: 03/20/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/22/2020 0003	STM		48604

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Trichloroethene	79-01-6	8260D	2.5		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		101	70-130
1,2-Dichloroethane-d4		108	70-130
Toluene-d8		105	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Inorganic non-metals

Client: TRC Companies, Inc.
Laboratory ID: VC20025-004
Description: RMW-10A
Matrix: Aqueous
Date Sampled: 03/19/2020 1340
Date Received: 03/20/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	03/29/2020 0332	HKL		49383
1		(Chloride) 300.0	1	03/29/2020 0332	HKL		49382
1		(Nitrate - N) 353.2	1	03/20/2020 1541	AMR		48561
1		(Sulfate) 300.0	1	03/29/2020 0332	HKL		49380

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	ND		0.20	0.050	mg/L	1
Chloride		300.0	0.94	J	1.0	0.20	mg/L	1
Nitrate - N		353.2	0.73		0.020	0.010	mg/L	1
Sulfate		300.0	1.1		1.0	0.20	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc. | Laboratory ID: VC20025-004
Description: RMW-10A | Matrix: Aqueous
Date Sampled: 03/19/2020 1340
Date Received: 03/20/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	5	03/22/2020 0108	STM		48604

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		100	25	ug/L	1
Benzene	71-43-2	8260D	ND		5.0	2.0	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		5.0	2.0	ug/L	1
Bromoform	75-25-2	8260D	ND		5.0	2.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		10	2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		50	10	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		5.0	2.0	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		5.0	2.0	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		5.0	2.0	ug/L	1
Chloroethane	75-00-3	8260D	ND		10	2.0	ug/L	1
Chloroform	67-66-3	8260D	ND		5.0	2.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		5.0	2.5	ug/L	1
Cyclohexane	110-82-7	8260D	ND		5.0	2.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		5.0	2.0	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		5.0	2.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		5.0	2.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		5.0	2.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		5.0	2.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		5.0	2.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		10	3.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		5.0	2.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		5.0	2.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		5.0	2.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		5.0	2.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		5.0	2.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		5.0	2.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		5.0	2.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		5.0	2.0	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		5.0	2.0	ug/L	1
2-Hexanone	591-78-6	8260D	ND		50	10	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		5.0	2.0	ug/L	1
Methyl acetate	79-20-9	8260D	ND		5.0	2.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		5.0	2.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		50	10	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		25	2.0	ug/L	1
Methylene chloride	75-09-2	8260D	ND		5.0	2.0	ug/L	1
Styrene	100-42-5	8260D	ND		5.0	2.1	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		5.0	2.0	ug/L	1
Tetrachloroethene	127-18-4	8260D	260		5.0	2.0	ug/L	1
Toluene	108-88-3	8260D	ND		5.0	2.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		5.0	2.1	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		5.0	2.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		5.0	2.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		5.0	2.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC20025-004
Description: RMW-10A
Matrix: Aqueous
Date Sampled: 03/19/2020 1340
Date Received: 03/20/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	5	03/22/2020 0108	STM		48604

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Trichloroethene	79-01-6	8260D	ND		5.0	2.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		5.0	2.0	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		5.0	2.0	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		5.0	2.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		102	70-130
1,2-Dichloroethane-d4		106	70-130
Toluene-d8		106	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Inorganic non-metals

Client: TRC Companies, Inc.
Laboratory ID: VC20025-005
Description: RMW-10C
Matrix: Aqueous
Date Sampled: 03/19/2020 1510
Date Received: 03/20/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	03/29/2020 0432	HKL		49383
1		(Chloride) 300.0	1	03/29/2020 0432	HKL		49382
1		(Nitrate - N) 353.2	1	03/20/2020 1545	AMR		48561
1		(Sulfate) 300.0	1	03/29/2020 0432	HKL		49380

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	ND		0.20	0.050	mg/L	1
Chloride		300.0	0.99	J	1.0	0.20	mg/L	1
Nitrate - N		353.2	1.2		0.020	0.010	mg/L	1
Sulfate		300.0	1.0		1.0	0.20	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc. | Laboratory ID: VC20025-005
Description: RMW-10C | Matrix: Aqueous
Date Sampled: 03/19/2020 1510
Date Received: 03/20/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/22/2020 0046	STM		48604

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	0.83	J	1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	65		1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC20025-005
Description: RMW-10C
Matrix: Aqueous
Date Sampled: 03/19/2020 1510
Date Received: 03/20/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/22/2020 0046	STM		48604

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Trichloroethene	79-01-6	8260D	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		100	70-130
1,2-Dichloroethane-d4		102	70-130
Toluene-d8		105	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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QC Summary

Inorganic non-metals - MB

Sample ID: VQ48561-001
Batch: 48561
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Nitrate - N	ND		1	0.020	0.010	mg/L	03/20/2020 1458

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: VQ48561-002
Batch: 48561
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	0.80	0.78		1	97	90-110	03/20/2020 1500

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MS

Sample ID: VC20025-004MS
Batch: 48561
Analytical Method: 353.2
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	0.73	0.80	1.5		1	96	90-110	03/20/2020 1542

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: VC20025-004MD
Batch: 48561
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Nitrate - N	0.73	0.80	1.5		1	93	1.3	90-110	20	03/20/2020 1544

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: VQ49380-001
Batch: 49380
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Sulfate	ND		1	1.0	0.20	mg/L	03/28/2020 1451

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: VQ49380-002
Batch: 49380
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Sulfate	20	20		1	102	90-110	03/28/2020 1531

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Sample ID: VC20025-004MS
Batch: 49380
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Sulfate	1.1	20	21		1	100	90-110	03/29/2020 0352

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: VC20025-004MD
Batch: 49380
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Sulfate	1.1	20	21		1	101	0.47	90-110	20	03/29/2020 0412

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: VQ49382-001
Batch: 49382
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Chloride	ND		1	1.0	0.20	mg/L	03/28/2020 1451

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - LCS

Sample ID: VQ49382-002
Batch: 49382
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Chloride	20	20		1	102	90-110	03/28/2020 1531

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MS

Sample ID: VC20025-004MS
Batch: 49382
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Chloride	0.94	20	21		1	101	90-110	03/29/2020 0352

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: VC20025-004MD
Batch: 49382
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Chloride	0.94	20	21		1	102	0.47	90-110	20	03/29/2020 0412

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: VQ49383-001
Batch: 49383
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Bromide	ND		1	0.20	0.050	mg/L	03/28/2020 1451

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - LCS

Sample ID: VQ49383-002
Batch: 49383
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Bromide	8.0	8.3		1	104	90-110	03/28/2020 1531

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Sample ID: VC20025-004MS
Batch: 49383
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Bromide	ND	8.0	8.2		1	102	90-110	03/29/2020 0352

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: VC20025-004MD
Batch: 49383
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Bromide	ND	8.0	8.2		1	102	0.00	90-110	20	03/29/2020 0412

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: VQ49634-001
Batch: 49634
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Sulfate	ND		1	1.0	0.20	mg/L	04/01/2020 0244

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: VQ49634-002
Batch: 49634
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Sulfate	20	21		1	103	90-110	04/01/2020 0124

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: VQ48604-001
Batch: 48604
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Acetone	ND		1	20	5.0	ug/L	03/21/2020 1638
Benzene	ND		1	1.0	0.40	ug/L	03/21/2020 1638
Bromodichloromethane	ND		1	1.0	0.40	ug/L	03/21/2020 1638
Bromoform	ND		1	1.0	0.40	ug/L	03/21/2020 1638
Bromomethane (Methyl bromide)	ND		1	2.0	0.40	ug/L	03/21/2020 1638
2-Butanone (MEK)	ND		1	10	2.0	ug/L	03/21/2020 1638
Carbon disulfide	ND		1	1.0	0.40	ug/L	03/21/2020 1638
Carbon tetrachloride	ND		1	1.0	0.40	ug/L	03/21/2020 1638
Chlorobenzene	ND		1	1.0	0.40	ug/L	03/21/2020 1638
Chloroethane	ND		1	2.0	0.40	ug/L	03/21/2020 1638
Chloroform	ND		1	1.0	0.40	ug/L	03/21/2020 1638
Chloromethane (Methyl chloride)	ND		1	1.0	0.50	ug/L	03/21/2020 1638
Cyclohexane	ND		1	1.0	0.40	ug/L	03/21/2020 1638
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	0.40	ug/L	03/21/2020 1638
Dibromochloromethane	ND		1	1.0	0.40	ug/L	03/21/2020 1638
1,2-Dibromoethane (EDB)	ND		1	1.0	0.40	ug/L	03/21/2020 1638
1,2-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/21/2020 1638
1,3-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/21/2020 1638
1,4-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/21/2020 1638
Dichlorodifluoromethane	ND		1	2.0	0.60	ug/L	03/21/2020 1638
1,1-Dichloroethane	ND		1	1.0	0.40	ug/L	03/21/2020 1638
1,2-Dichloroethane	ND		1	1.0	0.40	ug/L	03/21/2020 1638
1,1-Dichloroethene	ND		1	1.0	0.40	ug/L	03/21/2020 1638
cis-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	03/21/2020 1638
trans-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	03/21/2020 1638
1,2-Dichloropropane	ND		1	1.0	0.40	ug/L	03/21/2020 1638
cis-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	03/21/2020 1638
trans-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	03/21/2020 1638
Ethylbenzene	ND		1	1.0	0.40	ug/L	03/21/2020 1638
2-Hexanone	ND		1	10	2.0	ug/L	03/21/2020 1638
Isopropylbenzene	ND		1	1.0	0.40	ug/L	03/21/2020 1638
Methyl acetate	ND		1	1.0	0.40	ug/L	03/21/2020 1638
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	0.40	ug/L	03/21/2020 1638
4-Methyl-2-pentanone	ND		1	10	2.0	ug/L	03/21/2020 1638
Methylcyclohexane	ND		1	5.0	0.40	ug/L	03/21/2020 1638
Methylene chloride	ND		1	1.0	0.40	ug/L	03/21/2020 1638
Styrene	ND		1	1.0	0.41	ug/L	03/21/2020 1638
1,1,2,2-Tetrachloroethane	ND		1	1.0	0.40	ug/L	03/21/2020 1638
Tetrachloroethene	ND		1	1.0	0.40	ug/L	03/21/2020 1638
Toluene	ND		1	1.0	0.40	ug/L	03/21/2020 1638
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	0.42	ug/L	03/21/2020 1638
1,2,4-Trichlorobenzene	ND		1	1.0	0.40	ug/L	03/21/2020 1638
1,1,1-Trichloroethane	ND		1	1.0	0.40	ug/L	03/21/2020 1638
1,1,2-Trichloroethane	ND		1	1.0	0.40	ug/L	03/21/2020 1638

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: VQ48604-001
Batch: 48604
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Trichloroethene	ND		1	1.0	0.40	ug/L	03/21/2020 1638
Trichlorofluoromethane	ND		1	1.0	0.40	ug/L	03/21/2020 1638
Vinyl chloride	ND		1	1.0	0.40	ug/L	03/21/2020 1638
Xylenes (total)	ND		1	1.0	0.40	ug/L	03/21/2020 1638

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		101	70-130
1,2-Dichloroethane-d4		105	70-130
Toluene-d8		105	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: VQ48604-002
Batch: 48604
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	86		1	86	60-140	03/21/2020 1534
Benzene	50	47		1	95	70-130	03/21/2020 1534
Bromodichloromethane	50	48		1	96	70-130	03/21/2020 1534
Bromoform	50	48		1	96	70-130	03/21/2020 1534
Bromomethane (Methyl bromide)	50	37		1	75	70-130	03/21/2020 1534
2-Butanone (MEK)	100	89		1	89	70-130	03/21/2020 1534
Carbon disulfide	50	51		1	101	70-130	03/21/2020 1534
Carbon tetrachloride	50	46		1	93	70-130	03/21/2020 1534
Chlorobenzene	50	47		1	93	70-130	03/21/2020 1534
Chloroethane	50	45		1	90	70-130	03/21/2020 1534
Chloroform	50	45		1	91	70-130	03/21/2020 1534
Chloromethane (Methyl chloride)	50	40		1	80	60-140	03/21/2020 1534
Cyclohexane	50	45		1	90	70-130	03/21/2020 1534
1,2-Dibromo-3-chloropropane (DBCP)	50	46		1	91	70-130	03/21/2020 1534
Dibromochloromethane	50	48		1	96	70-130	03/21/2020 1534
1,2-Dibromoethane (EDB)	50	48		1	96	70-130	03/21/2020 1534
1,2-Dichlorobenzene	50	46		1	93	70-130	03/21/2020 1534
1,3-Dichlorobenzene	50	48		1	96	70-130	03/21/2020 1534
1,4-Dichlorobenzene	50	48		1	95	70-130	03/21/2020 1534
Dichlorodifluoromethane	50	48		1	96	60-140	03/21/2020 1534
1,1-Dichloroethane	50	47		1	93	70-130	03/21/2020 1534
1,2-Dichloroethane	50	46		1	92	70-130	03/21/2020 1534
1,1-Dichloroethene	50	50		1	99	70-130	03/21/2020 1534
cis-1,2-Dichloroethene	50	47		1	94	70-130	03/21/2020 1534
trans-1,2-Dichloroethene	50	48		1	97	70-130	03/21/2020 1534
1,2-Dichloropropane	50	48		1	97	70-130	03/21/2020 1534
cis-1,3-Dichloropropene	50	49		1	97	70-130	03/21/2020 1534
trans-1,3-Dichloropropene	50	49		1	99	70-130	03/21/2020 1534
Ethylbenzene	50	48		1	95	70-130	03/21/2020 1534
2-Hexanone	100	98		1	98	70-130	03/21/2020 1534
Isopropylbenzene	50	48		1	97	70-130	03/21/2020 1534
Methyl acetate	50	40		1	80	70-130	03/21/2020 1534
Methyl tertiary butyl ether (MTBE)	50	46		1	92	70-130	03/21/2020 1534
4-Methyl-2-pentanone	100	93		1	93	70-130	03/21/2020 1534
Methylcyclohexane	50	50		1	100	70-130	03/21/2020 1534
Methylene chloride	50	47		1	93	70-130	03/21/2020 1534
Styrene	50	49		1	98	70-130	03/21/2020 1534
1,1,2,2-Tetrachloroethane	50	47		1	93	70-130	03/21/2020 1534
Tetrachloroethene	50	49		1	98	70-130	03/21/2020 1534
Toluene	50	48		1	97	70-130	03/21/2020 1534
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	49		1	98	70-130	03/21/2020 1534
1,2,4-Trichlorobenzene	50	48		1	95	70-130	03/21/2020 1534
1,1,1-Trichloroethane	50	46		1	91	70-130	03/21/2020 1534
1,1,2-Trichloroethane	50	48		1	96	70-130	03/21/2020 1534

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: VQ48604-002
Batch: 48604
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	48		1	96	70-130	03/21/2020 1534
Trichlorofluoromethane	50	47		1	94	70-130	03/21/2020 1534
Vinyl chloride	50	43		1	86	70-130	03/21/2020 1534
Xylenes (total)	100	95		1	95	70-130	03/21/2020 1534

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		89	70-130
1,2-Dichloroethane-d4		91	70-130
Toluene-d8		94	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: VC20025-004MS
Batch: 48604
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	ND	500	250	N	5	50	60-140	03/22/2020 0130
Benzene	ND	250	220		5	90	70-130	03/22/2020 0130
Bromodichloromethane	ND	250	230		5	92	70-130	03/22/2020 0130
Bromoform	ND	250	210		5	86	70-130	03/22/2020 0130
Bromomethane (Methyl bromide)	ND	250	180		5	74	70-130	03/22/2020 0130
2-Butanone (MEK)	ND	500	330	N	5	65	70-130	03/22/2020 0130
Carbon disulfide	ND	250	220		5	88	70-130	03/22/2020 0130
Carbon tetrachloride	ND	250	230		5	91	70-130	03/22/2020 0130
Chlorobenzene	ND	250	220		5	86	70-130	03/22/2020 0130
Chloroethane	ND	250	240		5	96	70-130	03/22/2020 0130
Chloroform	ND	250	220		5	88	70-130	03/22/2020 0130
Chloromethane (Methyl chloride)	ND	250	200		5	81	60-140	03/22/2020 0130
Cyclohexane	ND	250	200		5	79	70-130	03/22/2020 0130
1,2-Dibromo-3-chloropropane (DBCP)	ND	250	200		5	80	70-130	03/22/2020 0130
Dibromochloromethane	ND	250	220		5	88	70-130	03/22/2020 0130
1,2-Dibromoethane (EDB)	ND	250	220		5	89	70-130	03/22/2020 0130
1,2-Dichlorobenzene	ND	250	200		5	82	70-130	03/22/2020 0130
1,3-Dichlorobenzene	ND	250	210		5	82	70-130	03/22/2020 0130
1,4-Dichlorobenzene	ND	250	210		5	82	70-130	03/22/2020 0130
Dichlorodifluoromethane	ND	250	260		5	105	60-140	03/22/2020 0130
1,1-Dichloroethane	ND	250	220		5	87	70-130	03/22/2020 0130
1,2-Dichloroethane	ND	250	220		5	89	70-130	03/22/2020 0130
1,1-Dichloroethene	ND	250	250		5	101	70-130	03/22/2020 0130
cis-1,2-Dichloroethene	ND	250	230		5	93	70-130	03/22/2020 0130
trans-1,2-Dichloroethene	ND	250	240		5	98	70-130	03/22/2020 0130
1,2-Dichloropropane	ND	250	230		5	92	70-130	03/22/2020 0130
cis-1,3-Dichloropropene	ND	250	220		5	88	70-130	03/22/2020 0130
trans-1,3-Dichloropropene	ND	250	220		5	87	70-130	03/22/2020 0130
Ethylbenzene	ND	250	220		5	90	70-130	03/22/2020 0130
2-Hexanone	ND	500	400		5	80	70-130	03/22/2020 0130
Isopropylbenzene	ND	250	230		5	91	70-130	03/22/2020 0130
Methyl acetate	ND	250	170	N	5	67	70-130	03/22/2020 0130
Methyl tertiary butyl ether (MTBE)	ND	250	210		5	85	70-130	03/22/2020 0130
4-Methyl-2-pentanone	ND	500	390		5	78	70-130	03/22/2020 0130
Methylcyclohexane	ND	250	230		5	90	70-130	03/22/2020 0130
Methylene chloride	ND	250	220		5	90	70-130	03/22/2020 0130
Styrene	ND	250	230		5	92	70-130	03/22/2020 0130
1,1,2,2-Tetrachloroethane	ND	250	210		5	86	70-130	03/22/2020 0130
Tetrachloroethene	260	250	480		5	88	70-130	03/22/2020 0130
Toluene	ND	250	230		5	91	70-130	03/22/2020 0130
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	250	230		5	91	70-130	03/22/2020 0130
1,2,4-Trichlorobenzene	ND	250	210		5	83	70-130	03/22/2020 0130
1,1,1-Trichloroethane	ND	250	220		5	86	70-130	03/22/2020 0130
1,1,2-Trichloroethane	ND	250	220		5	89	70-130	03/22/2020 0130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: VC20025-004MS
Batch: 48604
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	ND	250	230		5	93	70-130	03/22/2020 0130
Trichlorofluoromethane	ND	250	240		5	98	70-130	03/22/2020 0130
Vinyl chloride	ND	250	210		5	85	70-130	03/22/2020 0130
Xylenes (total)	ND	500	470		5	93	70-130	03/22/2020 0130

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		101	70-130
1,2-Dichloroethane-d4		101	70-130
Toluene-d8		105	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MSD

Sample ID: VC20025-004MD
Batch: 48604
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	ND	500	300	N	5	59	16	60-140	20	03/22/2020 0153
Benzene	ND	250	220		5	89	1.3	70-130	20	03/22/2020 0153
Bromodichloromethane	ND	250	230		5	92	0.017	70-130	20	03/22/2020 0153
Bromoform	ND	250	220		5	87	1.9	70-130	20	03/22/2020 0153
Bromomethane (Methyl bromide)	ND	250	200		5	78	6.3	70-130	20	03/22/2020 0153
2-Butanone (MEK)	ND	500	380		5	75	14	70-130	20	03/22/2020 0153
Carbon disulfide	ND	250	220		5	90	2.5	70-130	20	03/22/2020 0153
Carbon tetrachloride	ND	250	230		5	92	1.3	70-130	20	03/22/2020 0153
Chlorobenzene	ND	250	210		5	85	1.4	70-130	20	03/22/2020 0153
Chloroethane	ND	250	260		5	105	9.5	70-130	20	03/22/2020 0153
Chloroform	ND	250	240		5	98	11	70-130	20	03/22/2020 0153
Chloromethane (Methyl chloride)	ND	250	230		5	91	11	60-140	20	03/22/2020 0153
Cyclohexane	ND	250	190		5	75	5.0	70-130	20	03/22/2020 0153
1,2-Dibromo-3-chloropropane (DBCP)	ND	250	200		5	81	0.71	70-130	20	03/22/2020 0153
Dibromochloromethane	ND	250	220		5	89	0.99	70-130	20	03/22/2020 0153
1,2-Dibromoethane (EDB)	ND	250	230		5	92	3.5	70-130	20	03/22/2020 0153
1,2-Dichlorobenzene	ND	250	200		5	80	2.1	70-130	20	03/22/2020 0153
1,3-Dichlorobenzene	ND	250	200		5	81	1.7	70-130	20	03/22/2020 0153
1,4-Dichlorobenzene	ND	250	200		5	80	2.0	70-130	20	03/22/2020 0153
Dichlorodifluoromethane	ND	250	290		5	117	11	60-140	20	03/22/2020 0153
1,1-Dichloroethane	ND	250	240		5	95	8.6	70-130	20	03/22/2020 0153
1,2-Dichloroethane	ND	250	220		5	88	0.52	70-130	20	03/22/2020 0153
1,1-Dichloroethene	ND	250	240		5	98	2.6	70-130	20	03/22/2020 0153
cis-1,2-Dichloroethene	ND	250	260		5	103	11	70-130	20	03/22/2020 0153
trans-1,2-Dichloroethene	ND	250	260		5	106	7.9	70-130	20	03/22/2020 0153
1,2-Dichloropropane	ND	250	230		5	92	0.55	70-130	20	03/22/2020 0153
cis-1,3-Dichloropropene	ND	250	220		5	89	2.0	70-130	20	03/22/2020 0153
trans-1,3-Dichloropropene	ND	250	220		5	88	1.5	70-130	20	03/22/2020 0153
Ethylbenzene	ND	250	220		5	88	1.9	70-130	20	03/22/2020 0153
2-Hexanone	ND	500	420		5	84	5.8	70-130	20	03/22/2020 0153
Isopropylbenzene	ND	250	220		5	87	4.5	70-130	20	03/22/2020 0153
Methyl acetate	ND	250	200		5	80	17	70-130	20	03/22/2020 0153
Methyl tertiary butyl ether (MTBE)	ND	250	240		5	95	12	70-130	20	03/22/2020 0153
4-Methyl-2-pentanone	ND	500	420		5	85	7.9	70-130	20	03/22/2020 0153
Methylcyclohexane	ND	250	190		5	76	17	70-130	20	03/22/2020 0153
Methylene chloride	ND	250	250		5	99	9.9	70-130	20	03/22/2020 0153
Styrene	ND	250	230		5	92	0.41	70-130	20	03/22/2020 0153
1,1,2,2-Tetrachloroethane	ND	250	220		5	89	3.9	70-130	20	03/22/2020 0153
Tetrachloroethene	260	250	480		5	86	1.2	70-130	20	03/22/2020 0153
Toluene	ND	250	230		5	91	0.47	70-130	20	03/22/2020 0153
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	250	240		5	95	4.4	70-130	20	03/22/2020 0153
1,2,4-Trichlorobenzene	ND	250	210		5	85	1.7	70-130	20	03/22/2020 0153
1,1,1-Trichloroethane	ND	250	230		5	94	8.1	70-130	20	03/22/2020 0153
1,1,2-Trichloroethane	ND	250	230		5	90	1.5	70-130	20	03/22/2020 0153

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MSD

Sample ID: VC20025-004MD
Batch: 48604
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Trichloroethene	ND	250	230		5	90	2.5	70-130	20	03/22/2020 0153
Trichlorofluoromethane	ND	250	260		5	104	5.6	70-130	20	03/22/2020 0153
Vinyl chloride	ND	250	230		5	93	9.9	70-130	20	03/22/2020 0153
Xylenes (total)	ND	500	460		5	91	1.9	70-130	20	03/22/2020 0153

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		100	70-130
1,2-Dichloroethane-d4		102	70-130
Toluene-d8		105	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: VQ48715-001
Batch: 48715
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Acetone	ND		1	20	5.0	ug/L	03/23/2020 1946
Benzene	ND		1	1.0	0.40	ug/L	03/23/2020 1946
Bromodichloromethane	ND		1	1.0	0.40	ug/L	03/23/2020 1946
Bromoform	ND		1	1.0	0.40	ug/L	03/23/2020 1946
Bromomethane (Methyl bromide)	ND		1	2.0	0.40	ug/L	03/23/2020 1946
2-Butanone (MEK)	ND		1	10	2.0	ug/L	03/23/2020 1946
Carbon disulfide	ND		1	1.0	0.40	ug/L	03/23/2020 1946
Carbon tetrachloride	ND		1	1.0	0.40	ug/L	03/23/2020 1946
Chlorobenzene	ND		1	1.0	0.40	ug/L	03/23/2020 1946
Chloroethane	ND		1	2.0	0.40	ug/L	03/23/2020 1946
Chloroform	ND		1	1.0	0.40	ug/L	03/23/2020 1946
Chloromethane (Methyl chloride)	ND		1	1.0	0.50	ug/L	03/23/2020 1946
Cyclohexane	ND		1	1.0	0.40	ug/L	03/23/2020 1946
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	0.40	ug/L	03/23/2020 1946
Dibromochloromethane	ND		1	1.0	0.40	ug/L	03/23/2020 1946
1,2-Dibromoethane (EDB)	ND		1	1.0	0.40	ug/L	03/23/2020 1946
1,2-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/23/2020 1946
1,3-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/23/2020 1946
1,4-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/23/2020 1946
Dichlorodifluoromethane	ND		1	2.0	0.60	ug/L	03/23/2020 1946
1,1-Dichloroethane	ND		1	1.0	0.40	ug/L	03/23/2020 1946
1,2-Dichloroethane	ND		1	1.0	0.40	ug/L	03/23/2020 1946
1,1-Dichloroethene	ND		1	1.0	0.40	ug/L	03/23/2020 1946
cis-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	03/23/2020 1946
trans-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	03/23/2020 1946
1,2-Dichloropropane	ND		1	1.0	0.40	ug/L	03/23/2020 1946
cis-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	03/23/2020 1946
trans-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	03/23/2020 1946
Ethylbenzene	ND		1	1.0	0.40	ug/L	03/23/2020 1946
2-Hexanone	ND		1	10	2.0	ug/L	03/23/2020 1946
Isopropylbenzene	ND		1	1.0	0.40	ug/L	03/23/2020 1946
Methyl acetate	ND		1	1.0	0.40	ug/L	03/23/2020 1946
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	0.40	ug/L	03/23/2020 1946
4-Methyl-2-pentanone	ND		1	10	2.0	ug/L	03/23/2020 1946
Methylcyclohexane	ND		1	5.0	0.40	ug/L	03/23/2020 1946
Methylene chloride	ND		1	1.0	0.40	ug/L	03/23/2020 1946
Styrene	ND		1	1.0	0.41	ug/L	03/23/2020 1946
1,1,2,2-Tetrachloroethane	ND		1	1.0	0.40	ug/L	03/23/2020 1946
Tetrachloroethene	ND		1	1.0	0.40	ug/L	03/23/2020 1946
Toluene	ND		1	1.0	0.40	ug/L	03/23/2020 1946
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	0.42	ug/L	03/23/2020 1946
1,2,4-Trichlorobenzene	ND		1	1.0	0.40	ug/L	03/23/2020 1946
1,1,1-Trichloroethane	ND		1	1.0	0.40	ug/L	03/23/2020 1946
1,1,2-Trichloroethane	ND		1	1.0	0.40	ug/L	03/23/2020 1946

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: VQ48715-001
Batch: 48715
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Trichloroethene	ND		1	1.0	0.40	ug/L	03/23/2020 1946
Trichlorofluoromethane	ND		1	1.0	0.40	ug/L	03/23/2020 1946
Vinyl chloride	ND		1	1.0	0.40	ug/L	03/23/2020 1946
Xylenes (total)	ND		1	1.0	0.40	ug/L	03/23/2020 1946

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		98	70-130
1,2-Dichloroethane-d4		99	70-130
Toluene-d8		103	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: VQ48715-002
Batch: 48715
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	110		1	110	60-140	03/23/2020 1828
Benzene	50	53		1	105	70-130	03/23/2020 1828
Bromodichloromethane	50	55		1	109	70-130	03/23/2020 1828
Bromoform	50	54		1	108	70-130	03/23/2020 1828
Bromomethane (Methyl bromide)	50	54		1	108	70-130	03/23/2020 1828
2-Butanone (MEK)	100	110		1	107	70-130	03/23/2020 1828
Carbon disulfide	50	56		1	111	70-130	03/23/2020 1828
Carbon tetrachloride	50	57		1	113	70-130	03/23/2020 1828
Chlorobenzene	50	52		1	105	70-130	03/23/2020 1828
Chloroethane	50	54		1	108	70-130	03/23/2020 1828
Chloroform	50	53		1	106	70-130	03/23/2020 1828
Chloromethane (Methyl chloride)	50	52		1	103	60-140	03/23/2020 1828
Cyclohexane	50	55		1	110	70-130	03/23/2020 1828
1,2-Dibromo-3-chloropropane (DBCP)	50	50		1	100	70-130	03/23/2020 1828
Dibromochloromethane	50	54		1	108	70-130	03/23/2020 1828
1,2-Dibromoethane (EDB)	50	53		1	105	70-130	03/23/2020 1828
1,2-Dichlorobenzene	50	52		1	105	70-130	03/23/2020 1828
1,3-Dichlorobenzene	50	53		1	106	70-130	03/23/2020 1828
1,4-Dichlorobenzene	50	51		1	102	70-130	03/23/2020 1828
Dichlorodifluoromethane	50	56		1	111	60-140	03/23/2020 1828
1,1-Dichloroethane	50	53		1	106	70-130	03/23/2020 1828
1,2-Dichloroethane	50	50		1	101	70-130	03/23/2020 1828
1,1-Dichloroethene	50	55		1	109	70-130	03/23/2020 1828
cis-1,2-Dichloroethene	50	52		1	103	70-130	03/23/2020 1828
trans-1,2-Dichloroethene	50	53		1	106	70-130	03/23/2020 1828
1,2-Dichloropropane	50	53		1	106	70-130	03/23/2020 1828
cis-1,3-Dichloropropene	50	55		1	110	70-130	03/23/2020 1828
trans-1,3-Dichloropropene	50	55		1	109	70-130	03/23/2020 1828
Ethylbenzene	50	55		1	109	70-130	03/23/2020 1828
2-Hexanone	100	110		1	110	70-130	03/23/2020 1828
Isopropylbenzene	50	55		1	109	70-130	03/23/2020 1828
Methyl acetate	50	49		1	97	70-130	03/23/2020 1828
Methyl tertiary butyl ether (MTBE)	50	52		1	104	70-130	03/23/2020 1828
4-Methyl-2-pentanone	100	110		1	108	70-130	03/23/2020 1828
Methylcyclohexane	50	54		1	107	70-130	03/23/2020 1828
Methylene chloride	50	50		1	101	70-130	03/23/2020 1828
Styrene	50	55		1	111	70-130	03/23/2020 1828
1,1,2,2-Tetrachloroethane	50	52		1	103	70-130	03/23/2020 1828
Tetrachloroethene	50	56		1	111	70-130	03/23/2020 1828
Toluene	50	53		1	106	70-130	03/23/2020 1828
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	54		1	107	70-130	03/23/2020 1828
1,2,4-Trichlorobenzene	50	51		1	101	70-130	03/23/2020 1828
1,1,1-Trichloroethane	50	56		1	112	70-130	03/23/2020 1828
1,1,2-Trichloroethane	50	51		1	102	70-130	03/23/2020 1828

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: VQ48715-002
Batch: 48715
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	55		1	110	70-130	03/23/2020 1828
Trichlorofluoromethane	50	57		1	114	70-130	03/23/2020 1828
Vinyl chloride	50	55		1	110	70-130	03/23/2020 1828
Xylenes (total)	100	110		1	109	70-130	03/23/2020 1828

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		98	70-130
1,2-Dichloroethane-d4		99	70-130
Toluene-d8		99	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: VC20025-002MS
Batch: 48715
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	190	500	680		5	99	60-140	03/24/2020 0401
Benzene	ND	250	290		5	116	70-130	03/24/2020 0401
Bromodichloromethane	ND	250	280		5	111	70-130	03/24/2020 0401
Bromoform	ND	250	230		5	92	70-130	03/24/2020 0401
Bromomethane (Methyl bromide)	ND	250	260		5	102	70-130	03/24/2020 0401
2-Butanone (MEK)	210	500	740		5	105	70-130	03/24/2020 0401
Carbon disulfide	ND	250	250		5	99	70-130	03/24/2020 0401
Carbon tetrachloride	ND	250	310		5	124	70-130	03/24/2020 0401
Chlorobenzene	ND	250	270		5	109	70-130	03/24/2020 0401
Chloroethane	ND	250	310		5	123	70-130	03/24/2020 0401
Chloroform	ND	250	290		5	115	70-130	03/24/2020 0401
Chloromethane (Methyl chloride)	ND	250	260		5	104	60-140	03/24/2020 0401
Cyclohexane	ND	250	250		5	99	70-130	03/24/2020 0401
1,2-Dibromo-3-chloropropane (DBCP)	ND	250	280		5	111	70-130	03/24/2020 0401
Dibromochloromethane	ND	250	260		5	103	70-130	03/24/2020 0401
1,2-Dibromoethane (EDB)	ND	250	280		5	112	70-130	03/24/2020 0401
1,2-Dichlorobenzene	ND	250	260		5	102	70-130	03/24/2020 0401
1,3-Dichlorobenzene	ND	250	260		5	103	70-130	03/24/2020 0401
1,4-Dichlorobenzene	ND	250	250		5	100	70-130	03/24/2020 0401
Dichlorodifluoromethane	ND	250	290		5	117	60-140	03/24/2020 0401
1,1-Dichloroethane	ND	250	280		5	113	70-130	03/24/2020 0401
1,2-Dichloroethane	ND	250	280		5	111	70-130	03/24/2020 0401
1,1-Dichloroethene	ND	250	310		5	124	70-130	03/24/2020 0401
cis-1,2-Dichloroethene	19	250	300		5	113	70-130	03/24/2020 0401
trans-1,2-Dichloroethene	ND	250	290		5	118	70-130	03/24/2020 0401
1,2-Dichloropropane	ND	250	280		5	112	70-130	03/24/2020 0401
cis-1,3-Dichloropropene	ND	250	270		5	108	70-130	03/24/2020 0401
trans-1,3-Dichloropropene	ND	250	270		5	107	70-130	03/24/2020 0401
Ethylbenzene	ND	250	290		5	117	70-130	03/24/2020 0401
2-Hexanone	ND	500	550		5	111	70-130	03/24/2020 0401
Isopropylbenzene	ND	250	300		5	118	70-130	03/24/2020 0401
Methyl acetate	ND	250	270		5	108	70-130	03/24/2020 0401
Methyl tertiary butyl ether (MTBE)	ND	250	280		5	111	70-130	03/24/2020 0401
4-Methyl-2-pentanone	ND	500	550		5	109	70-130	03/24/2020 0401
Methylcyclohexane	ND	250	260		5	105	70-130	03/24/2020 0401
Methylene chloride	ND	250	270		5	106	70-130	03/24/2020 0401
Styrene	ND	250	290		5	116	70-130	03/24/2020 0401
1,1,2,2-Tetrachloroethane	ND	250	280		5	110	70-130	03/24/2020 0401
Tetrachloroethene	580	250	860		5	115	70-130	03/24/2020 0401
Toluene	ND	250	290		5	117	70-130	03/24/2020 0401
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	250	270		5	107	70-130	03/24/2020 0401
1,2,4-Trichlorobenzene	ND	250	250		5	100	70-130	03/24/2020 0401
1,1,1-Trichloroethane	ND	250	300		5	119	70-130	03/24/2020 0401
1,1,2-Trichloroethane	ND	250	280		5	112	70-130	03/24/2020 0401

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: VC20025-002MS
Batch: 48715
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	7.9	250	310		5	119	70-130	03/24/2020 0401
Trichlorofluoromethane	ND	250	290		5	118	70-130	03/24/2020 0401
Vinyl chloride	ND	250	280		5	111	70-130	03/24/2020 0401
Xylenes (total)	ND	500	600		5	120	70-130	03/24/2020 0401

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		103	70-130
1,2-Dichloroethane-d4		97	70-130
Toluene-d8		102	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MSD

Sample ID: VC20025-002MD
Batch: 48715
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	190	500	660		5	94	3.9	60-140	20	03/24/2020 0424
Benzene	ND	250	280		5	113	2.3	70-130	20	03/24/2020 0424
Bromodichloromethane	ND	250	270		5	110	1.2	70-130	20	03/24/2020 0424
Bromoform	ND	250	230		5	90	2.5	70-130	20	03/24/2020 0424
Bromomethane (Methyl bromide)	ND	250	260		5	105	2.1	70-130	20	03/24/2020 0424
2-Butanone (MEK)	210	500	740		5	106	0.068	70-130	20	03/24/2020 0424
Carbon disulfide	ND	250	240		5	97	1.3	70-130	20	03/24/2020 0424
Carbon tetrachloride	ND	250	300		5	122	2.0	70-130	20	03/24/2020 0424
Chlorobenzene	ND	250	270		5	107	2.1	70-130	20	03/24/2020 0424
Chloroethane	ND	250	310		5	123	0.17	70-130	20	03/24/2020 0424
Chloroform	ND	250	280		5	111	3.4	70-130	20	03/24/2020 0424
Chloromethane (Methyl chloride)	ND	250	260		5	105	0.12	60-140	20	03/24/2020 0424
Cyclohexane	ND	250	250		5	100	1.2	70-130	20	03/24/2020 0424
1,2-Dibromo-3-chloropropane (DBCP)	ND	250	270		5	108	2.9	70-130	20	03/24/2020 0424
Dibromochloromethane	ND	250	250		5	101	1.5	70-130	20	03/24/2020 0424
1,2-Dibromoethane (EDB)	ND	250	270		5	110	2.4	70-130	20	03/24/2020 0424
1,2-Dichlorobenzene	ND	250	250		5	100	1.9	70-130	20	03/24/2020 0424
1,3-Dichlorobenzene	ND	250	260		5	103	0.67	70-130	20	03/24/2020 0424
1,4-Dichlorobenzene	ND	250	250		5	100	0.56	70-130	20	03/24/2020 0424
Dichlorodifluoromethane	ND	250	290		5	118	0.40	60-140	20	03/24/2020 0424
1,1-Dichloroethane	ND	250	280		5	111	2.4	70-130	20	03/24/2020 0424
1,2-Dichloroethane	ND	250	270		5	108	2.8	70-130	20	03/24/2020 0424
1,1-Dichloroethene	ND	250	300		5	120	3.1	70-130	20	03/24/2020 0424
cis-1,2-Dichloroethene	19	250	300		5	112	1.0	70-130	20	03/24/2020 0424
trans-1,2-Dichloroethene	ND	250	290		5	117	0.43	70-130	20	03/24/2020 0424
1,2-Dichloropropane	ND	250	270		5	109	2.8	70-130	20	03/24/2020 0424
cis-1,3-Dichloropropene	ND	250	270		5	108	0.77	70-130	20	03/24/2020 0424
trans-1,3-Dichloropropene	ND	250	260		5	106	0.97	70-130	20	03/24/2020 0424
Ethylbenzene	ND	250	290		5	115	1.2	70-130	20	03/24/2020 0424
2-Hexanone	ND	500	530		5	106	4.2	70-130	20	03/24/2020 0424
Isopropylbenzene	ND	250	290		5	116	1.7	70-130	20	03/24/2020 0424
Methyl acetate	ND	250	260		5	104	4.0	70-130	20	03/24/2020 0424
Methyl tertiary butyl ether (MTBE)	ND	250	260		5	105	5.3	70-130	20	03/24/2020 0424
4-Methyl-2-pentanone	ND	500	530		5	106	3.6	70-130	20	03/24/2020 0424
Methylcyclohexane	ND	250	270		5	108	2.6	70-130	20	03/24/2020 0424
Methylene chloride	ND	250	260		5	104	2.4	70-130	20	03/24/2020 0424
Styrene	ND	250	290		5	114	0.99	70-130	20	03/24/2020 0424
1,1,2,2-Tetrachloroethane	ND	250	270		5	107	2.8	70-130	20	03/24/2020 0424
Tetrachloroethene	580	250	870		5	115	0.16	70-130	20	03/24/2020 0424
Toluene	ND	250	290		5	115	2.2	70-130	20	03/24/2020 0424
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	250	270		5	109	1.2	70-130	20	03/24/2020 0424
1,2,4-Trichlorobenzene	ND	250	250		5	101	0.23	70-130	20	03/24/2020 0424
1,1,1-Trichloroethane	ND	250	290		5	116	2.1	70-130	20	03/24/2020 0424
1,1,2-Trichloroethane	ND	250	270		5	109	2.8	70-130	20	03/24/2020 0424

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MSD

Sample ID: VC20025-002MD
Batch: 48715
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Trichloroethene	7.9	250	300		5	118	0.77	70-130	20	03/24/2020 0424
Trichlorofluoromethane	ND	250	290		5	118	0.21	70-130	20	03/24/2020 0424
Vinyl chloride	ND	250	270		5	109	1.5	70-130	20	03/24/2020 0424
Xylenes (total)	ND	500	590		5	118	1.5	70-130	20	03/24/2020 0424

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		99	70-130
1,2-Dichloroethane-d4		95	70-130
Toluene-d8		100	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Chain of Custody

and

Miscellaneous Documents

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

SHEALY ENVIRONMENTAL SERVICES, INC.
106 Vantage Point Drive • West Columbia, SC 29172
Telephone No. 803-791-9700 Fax No. 803-791-9111
www.shealylab.com

Chain of Custody Record

Number 104449

Client	Report to Contact	Telephone No. / E-mail	Quote No.
TRC	Lisa Clark		

Address: 50 International Dr Ste 150
City: Greenville | State: SC | Zip Code: 29615
Project Name: WPH Clemson
Project No.: 300688.0.0.11
P.O. No.:
Sampler's Signature: x
Printed Name: Aharon Mishnas
Analysis (Attach list if more space is needed)
Page 1 of 1

VC20025

Sample ID / Description (Containers for each sample may be combined on one line.)	Date 2020	Time	Grab/Composite	Matrix: Aqueous	Matrix: Solid	Matrix: Non-Aqueous	No of Containers by Preservative Type: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/ NaOH	Tbp	VOCs	Chloride, Sulfate, Bromide	Nitrate	Diss. Gasses	Remarks / Cooler I.D.
TBLK-20108	/	/	G	x						2				x				
RMW-10	3.19.20	1050	G	x			2		x	3			3	x	x	x	x	
RMW-10B	3.19	1100	G	x			2			3			3	x	x	x	x	
RMW-10A/RMW-10A/MS/MSD	3.19	1340	G	x			4			6			6	x	x	x	x	
RMW-10C	3.19	1510	G	x			2			3			3	x	x	x	x	

Turn Around Time Required (Prior lab approval required for expedited TAT.): ☐ Standard ☐ Rush (Specify)
Sample Disposal: ☐ Return to Client ☐ Disposal by Lab
Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown
QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished by	3.19.20	1645	1. Received by: TRC SS	3.19.20	1645
2. Relinquished by: TRC SS	3/20/20	0815	2. Received by:	3/20/20	0815
3. Relinquished by:	3/20/20	1240	3. Received by	Date	Time
4. Relinquished by	Date	Time	4. Laboratory received by	3/20/20	1240

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on ice (Circle) Yes No Ice Pack
Receipt Temp. 3.3 °C

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Client Copy

Shealy Environmental Services, Inc.
Document Number: ME0018C-14

Page 1 of 1
Effective Date: 8/2/2018

Sample Receipt Checklist (SRC)

Client: TRC Cooler Inspected by/date: BMG / 03/20/2020 Lot #: VC20025

Means of receipt: ☑ SESI ☐ Client ☐ UPS ☐ FedEx ☐ Other: _____

☐ Yes	☑ No		1. Were custody seals present on the cooler?
☐ Yes	☐ No	☑ NA	2. If custody seals were present, were they intact and unbroken?

pH Strip ID: NA Chlorine Strip ID: NA Tested by: NA

Original temperature upon receipt / Derived (Corrected) temperature upon receipt %Solid Snap-Cup ID: NA

3.3 /3.3 °C NA /NA °C NA /NA °C NA /NA °C

Method: ☑ Temperature Blank ☐ Against Bottles IR Gun ID: 6 IR Gun Correction Factor: 0 °C

Method of coolant: ☑ Wet Ice ☐ Ice Packs ☐ Dry Ice ☐ None

☐ Yes	☐ No	☑ NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).
☐ Yes	☐ No	☑ NA	4. Is the commercial courier's packing slip attached to this form?
☑ Yes	☐ No		5. Were proper custody procedures (relinquished/received) followed?
☑ Yes	☐ No		6. Were sample IDs listed on the COC?
☑ Yes	☐ No		7. Were sample IDs listed on all sample containers?
☑ Yes	☐ No		8. Was collection date & time listed on the COC?
☑ Yes	☐ No		9. Was collection date & time listed on all sample containers?
☑ Yes	☐ No		10. Did all container label information (ID, date, time) agree with the COC?
☑ Yes	☐ No		11. Were tests to be performed listed on the COC?
☑ Yes	☐ No		12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)?
☑ Yes	☐ No		13. Was adequate sample volume available?
☐ Yes	☑ No		14. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
☐ Yes	☑ No		15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
☐ Yes	☑ No	☐ NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (¼"or 6mm in diameter) in any of the VOA vials?
☐ Yes	☐ No	☑ NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?
☐ Yes	☐ No	☑ NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
☐ Yes	☐ No	☑ NA	19. Were all applicable NH_3/TKN/cyanide/phenol/625 (< 0.5mg/L) samples free of residual chlorine?
☐ Yes	☐ No	☑ NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc…) correctly transcribed from the COC into the comment section in LIMS?
☐ Yes	☑ No		21. Was the quote number listed on the container label? If yes, Quote # NA

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) NA _____ were received incorrectly preserved and were adjusted accordingly in sample receiving with NA mL of circle one: H2SO4, HNO3, HCl, NaOH using SR # NA.
Time of preservation NA. If more than one preservative is needed, please note in the comments below.

Sample(s) NA _____ were received with bubbles >6 mm in diameter.

Samples(s) NA _____ were received with TRC > 0.5 mg/L (If #19 is *no*) and were adjusted accordingly in sample receiving with sodium thiosulfate ($Na_2S_2O_3$) with Shealy ID: NA.

SR barcode labels applied by: BMG Date: ~~03/19/2020~~ 03/20/20

Comments:

BMG 3/20/20

Pace Analytical Energy Services LLC
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April 6, 2020

Lucas Odom
Pace Analytical Services South Carolina
106 Vantage Point Drive
West Columbia, SC 29172

RE: **WPH CLEMSON / TRC**

Pace Workorder: 33333

Dear Lucas Odom:

Enclosed are the analytical results for sample(s) received by the laboratory on Tuesday, March 24, 2020. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Ruth Welsh 04/06/2020
Ruth.Welsh@pacelabs.com

Customer Service Representative

Enclosures

As a valued client we would appreciate your comments on our service.
Please email PAESfeedback@pacelabs.com.

Total Number of Pages 17

CERTIFICATE OF ANALYSIS

Laboratory Data Quality Review Notes

Project Name: WPH-Clemson, SC

Project Number: 300688.0000.0000 Phase 4

Lab Report: **33333** Pace Analytical Energy Services LLC; Pittsburgh, PA
This lab report is the subcontracted job related to **VC20025**.

Samples and Analyses: Four groundwater samples collected 19-Mar-2020 and analyzed for dissolved hydrocarbon gases (methane, ethane, ethene)

Chain of Custody, Sample Temperature, Sample Preservation: Chain of custody signed (sample transfer from Pace Analytical, Columbia, to Pace Analytical, Pittsburgh); sample temperature <6 ^{o}C upon arrival at the laboratory; samples were preserved properly.

Hold Time: Sample analyses were performed within acceptable hold time.

Surrogates: Surrogate recoveries are not applicable to dissolved hydrocarbon gas analyses.

Method Blank: Target analytes were not detected in the laboratory method blanks.

Trip Blank: A trip blank was not analyzed with these samples.

Field Blank: A field blank was not collected with these samples.

Equipment Rinse Blank: A rinsate blank was not collected with these samples.

LCS/LCSD: LCS and LCSD recoveries and LCS/LCSD RPDs are within the laboratory QC limits.

MS/MSD: MS/MSD analyses were performed using sample RMW-10A. MS and MSD recoveries and MS/MSD RPDs are within the laboratory QC limits

Duplicates: No field duplicate sample was collected with this sample set. No laboratory duplicates were included with these analyses.

Dilutions: No dilutions were performed with these sample analyses.

No data qualifiers were assigned in this review.

Data reviewer: Amy Bass; TRC Environmental Corporation; 01-Oct-2020

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LABORATORY ACCREDITATIONS & CERTIFICATIONS

Accreditor:	Pennsylvania Department of Environmental Protection, Bureau of Laboratories
Accreditation ID:	02-00538
Scope:	NELAP Non-Potable Water
Accreditor:	West Virginia Department of Environmental Protection, Division of Water and Waste Management
Accreditation ID:	395
Scope:	Non-Potable Water
Accreditor:	South Carolina Department of Health and Environmental Control, Office of Environmental Laboratory Certification
Accreditation ID:	89009003
Scope:	Clean Water Act (CWA); Resource Conservation and Recovery Act (RCRA)
Accreditor:	State of Virginia
Accreditation ID:	460201
Scope:	Non-Potable Water
Accreditor:	NELAP: New Jersey, Department of Environmental Protection
Accreditation ID:	PA026
Scope:	Non-Potable Water
Accreditor:	NELAP: New York, Department of Health Wadsworth Center
Accreditation ID:	11815
Scope:	Non-Potable Water
Accreditor:	State of Connecticut, Department of Public Health, Division of Environmental Health
Accreditation ID:	PH-0263
Scope:	Clean Water Act (CWA) Resource Conservation and Recovery Act (RCRA)
Accreditor:	NELAP: Texas, Commission on Environmental Quality
Accreditation ID:	T104704453-09-TX
Scope:	Non-Potable Water
Accreditor:	State of New Hampshire
Accreditation ID:	299409
Scope:	Non-potable water
Accreditor:	State of Georgia
Accreditation ID:	Chapter 391-3-26
Scope:	As per the Georgia EPD Rules and Regulations for Commercial Laboratories, PAES is accredited by the Pennsylvania Department of Environmental Protection Bureau of Laboratories under the National Environmental Laboratory Approval Program (NELAC).

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SAMPLE SUMMARY

Workorder: 33333 WPH CLEMSON / TRC

Lab ID	Sample ID	Matrix	Date Collected	Date Received
333330001	RMW-10	Water	3/19/2020 10:50	3/24/2020 10:45
333330002	RMW-10B	Water	3/19/2020 11:00	3/24/2020 10:45
333330003	RMW-10A	Water	3/19/2020 13:40	3/24/2020 10:45
333330004	RMW-10A MS	Water	3/19/2020 13:40	3/24/2020 10:45
333330005	RMW-10A MSD	Water	3/19/2020 13:40	3/24/2020 10:45
333330006	RMW-10C	Water	3/19/2020 15:10	3/24/2020 10:45

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PROJECT SUMMARY

Workorder: 33333 WPH CLEMSON / TRC

Workorder Comments

The container pH for samples 33333 (0001-0002) were measured as below the expected pH (< 10) for those samples preserved with trisodium phosphate, as assigned to PAES method AM20GAx.

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ANALYTICAL RESULTS

Workorder: 33333 WPH CLEMSON / TRC

Lab ID: **333330001** Date Received: 3/24/2020 10:45 Matrix: Water

Sample ID: **RMW-10** Date Collected: 3/19/2020 10:50

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**4.8**	ug/l	0.50	0.046	1	4/1/2020 07:42	BW	n
Ethane	**0.75**	ug/l	0.10	0.0050	1	4/1/2020 07:42	BW	n
Ethene	**0.65**	ug/l	0.10	0.0040	1	4/1/2020 07:42	BW	n

CERTIFICATE OF ANALYSIS

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ANALYTICAL RESULTS

Workorder: 33333 WPH CLEMSON / TRC

Lab ID: **333330002** Date Received: 3/24/2020 10:45 Matrix: Water

Sample ID: **RMW-10B** Date Collected: 3/19/2020 11:00

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**1.5**	ug/l	0.50	0.046	1	4/1/2020 07:52	BW	n
Ethane	**0.0079J**	ug/l	0.10	0.0050	1	4/1/2020 07:52	BW	n
Ethene	**0.032J**	ug/l	0.10	0.0040	1	4/1/2020 07:52	BW	n

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ANALYTICAL RESULTS

Workorder: 33333 WPH CLEMSON / TRC

Lab ID: **333330003** Date Received: 3/24/2020 10:45 Matrix: Water

Sample ID: **RMW-10A** Date Collected: 3/19/2020 13:40

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**0.12J**	ug/l	0.50	0.046	1	4/1/2020 08:01	BW	n
Ethane	**0.0056J**	ug/l	0.10	0.0050	1	4/1/2020 08:01	BW	n
Ethene	**0.014J**	ug/l	0.10	0.0040	1	4/1/2020 08:01	BW	n

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ANALYTICAL RESULTS

Workorder: 33333 WPH CLEMSON / TRC

Lab ID: **333330004** Date Received: 3/24/2020 10:45 Matrix: Water

Sample ID: **RMW-10A MS** Date Collected: 3/19/2020 13:40

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**40**	ug/l	0.50	0.046	1	4/1/2020 08:11	BW	n
Ethane	**74**	ug/l	0.10	0.0050	1	4/1/2020 08:11	BW	n
Ethene	**69**	ug/l	0.10	0.0040	1	4/1/2020 08:11	BW	n

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ANALYTICAL RESULTS

Workorder: 33333 WPH CLEMSON / TRC

Lab ID: **333330005** Date Received: 3/24/2020 10:45 Matrix: Water

Sample ID: **RMW-10A MSD** Date Collected: 3/19/2020 13:40

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**40**	ug/l	0.50	0.046	1	4/1/2020 08:20	BW	n
Ethane	**74**	ug/l	0.10	0.0050	1	4/1/2020 08:20	BW	n
Ethene	**69**	ug/l	0.10	0.0040	1	4/1/2020 08:20	BW	n

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ANALYTICAL RESULTS

Workorder: 33333 WPH CLEMSON / TRC

Lab ID: **333330006** Date Received: 3/24/2020 10:45 Matrix: Water

Sample ID: **RMW-10C** Date Collected: 3/19/2020 15:10

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**0.082J**	ug/l	0.50	0.046	1	4/1/2020 08:30	BW	n
Ethane	**0.0050U**	ug/l	0.10	0.0050	1	4/1/2020 08:30	BW	n
Ethene	**0.031J**	ug/l	0.10	0.0040	1	4/1/2020 08:30	BW	n

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ANALYTICAL RESULTS QUALIFIERS

Workorder: 33333 WPH CLEMSON / TRC

DEFINITIONS/QUALIFIERS

MDL	Method Detection Limit. Can be used synonymously with LOD; Limit Of Detection.
PQL	Practical Quanitation Limit. Can be used synonymously with LOQ; Limit Of Quantitation.
ND	Not detected at or above reporting limit.
DF	Dilution Factor.
S	Surrogate.
RPD	Relative Percent Difference.
% Rec	Percent Recovery.
U	Indicates the compound was analyzed for, but not detected at or above the noted concentration.
J	Estimated concentration greater than the set method detection limit (MDL) and less than the set reporting limit (PQL).
n	The laboratory does not hold NELAP/TNI accreditation for this method or analyte.

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QUALITY CONTROL DATA

Workorder: 33333 WPH CLEMSON / TRC

QC Batch: DISG/8183 Analysis Method: AM20GAX

QC Batch Method: AM20GAX

Associated Lab Samples: 333330001, 333330002, 333330003, 333330004, 333330005, 333330006

METHOD BLANK: 66591

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
RISK				
Methane	ug/l	0.046U	0.046	n
Ethane	ug/l	0.0050U	0.0050	n
Ethene	ug/l	0.0040U	0.0040	n

LABORATORY CONTROL SAMPLE & LCSD: 66592 66593

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Methane	ug/l	750	750	770	101	103	80-120	2.7	20	n
Ethane	ug/l	38	41	42	108	110	80-120	2	20	n
Ethene	ug/l	35	39	39	110	111	80-120	1.2	20	n

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 66616 66617 Original: 333330003

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
RISK											
Methane	ug/l	0.12	40	40	40	100	100	70-130	0.47	20	n
Ethane	ug/l	0.0056	76	74	74	98	98	70-130	0.13	20	n
Ethene	ug/l	0.014	71	69	69	97	98	70-130	0.82	20	n

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QUALITY CONTROL DATA QUALIFIERS

Workorder: 33333 WPH CLEMSON / TRC

QUALITY CONTROL PARAMETER QUALIFIERS

n	The laboratory does not hold NELAP/TNI accreditation for this method or analyte.

Pace Analytical Energy Services LLC
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 33333 WPH CLEMSON / TRC

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
333330001	RMW-10			AM20GAX	DISG/8183
333330002	RMW-10B			AM20GAX	DISG/8183
333330003	RMW-10A			AM20GAX	DISG/8183
333330004	RMW-10A MS			AM20GAX	DISG/8183
333330005	RMW-10A MSD			AM20GAX	DISG/8183
333330006	RMW-10C			AM20GAX	DISG/8183

33327733

SHEALY

Chain of Custody Record

Shealy Environmental Services, Inc.
106 Vantage Point Drive
West Columbia, South Carolina 29172
Telephone No. (803) 791-9700 Fax No. (803) 791-9111
www.shealylab.com

Number

Client	Report to Contact	Telephone No. / E-mail	Quote No.
Pace Analytical - Columbia	Lucas Odom	803-206-9537/lodom@shealylab.com	

Address	City	State	Zip Code	Sampler's Signature	Analysis (Attach list if more space is needed)	Page
106 Vantage Point Dr.	West Columbia	SC	29172	X _____ Printed Name		1 of 1

Project Name	Project Number	P.O No.
WPH Clemson	300688.0.0.11	

Sample ID / Description (Containers for each sample may be combined on one line)	Date	Time	G=Grab C=Composite	Matrix: Aqueous	Matrix: Solid	Matrix: Non-Aqueous	Matrix:	No of Containers by Preservative Type: Unpres.	H2SO4	HNO3	HCl	NaOH	5035 Kit	TSP	Dissolved Gasses									Laboratory Lot Number / Remarks / Cooler I.D.
RMW-10	3/19/2020	1145	G	x										x	x									VC20025
RMW-10B	3/19/2020	1200	G	x										x	x									
RMW-10A	3/19/2020	1445	G	x										x	x									**MS/MSD**
RMW-10C	3/19/2020	1520	G	x										x	x									

Turn Around Time Required (Prior lab approval required for expedited TAT)	Sample Disposal	Possible Hazard Identification (List any known hazards in the remarks)	QC Requirements
X Standard Rush	☐ Return to Client ☒ Disposal by Lab	☐ Non-Hazardous ☐ Flammable ☐ Skin Irritant ☐ SDS provided ☐ Unknown	

	Date	Time		Date	Time
1. Relinquished by: Mallory Lentz	3-23-2020	1800	1. Received by		
2. Relinquished by			2. Received by		
3. Relinquished by			3. Received by	LY 3.24.2020	
4. Relinquished by			4. Laboratory Received by: Kasi PACE	3.23.2020	1045

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on Ice (Check) ☐ Y ☐ N ☐ ce Pack

Receipt Temp. 0.2 °C

NON-CONFORMANCE FORM (4) 3.24.2020

PAES Work Order #: 3332733

Date: 3.23.2020 Time of Receipt: 10:45 Receiver: LY

Client: Shealy

REASON FOR NON-CONFORMANCE:

RMW-10: Vials time was 10:30

RMW-10B: " 11:00

RMW-10A: " 13:40

RMW-10C: " 15:10.

ACTION TAKEN:

Client name: Pace SC Date: 3/24/2020 Time: 10:12

Emailed client to notify and confirm correct time of collection.

Customer Service Initials: SRJ Date: 3/24/2020

Emma Louis - RE: WPH Clemson Samples

From: Lucas Odom <lodom@shealylab.com>
To: Emma Louis <Emma.Louis@pacelabs.com>
Date: 3/24/2020 4:18 PM
Subject: RE: WPH Clemson Samples

Sorry about that.
Here are the correct times:
RMW-10: 03/19 @ 1050 (I bet the "5" just looks like a "3" on the vial)
RMW-10B: 03/19 @ 1100
RMW-10A: 03/19 @ 1340
RMW-10C: 03/19 @ 1510

Thanks,

Lucas Odom
Project Manager
Pace Analytical Services, LLC
Phone: 803-206-9537

From: Emma Louis <Emma.Louis@pacelabs.com>
Sent: Tuesday, March 24, 2020 4:12 PM
To: Lucas Odom <lodom@shealylab.com>
Subject: RE: WPH Clemson Samples

Another thing-

Sample receiving noted the vial times were different than what was listed on the COC.

RMW-10: vials time was 10:30, while COC states 11:45
RMW-10B: vials time was 11:00, while COC states 12:00
RMW-10A: vials time was 13:40, while the COC states 14:45
RMW-10C: vials time was 15:10, while the COC states 15:20

Please confirm the correct times of collection.

Thank you

Report of Analysis

TRC Companies, Inc.
50 International Dr.
Suite 150
Greenville, SC 29615
Attention: Lisa Clark

Project Name: WPH Clemson

Project Number: 300688.0000.0000.00011

Lot Number:**VC24028**

Date Completed:10/05/2020
Revision Date: 10/05/2020

10/07/2020 9:18 AM
Approved and released by:
Project Manager II: **Lucas Odom**

Pace Analytical Services, LLC (*formerly Shealy Environmental Services, Inc.*)
106 Vantage Point Drive West Columbia, SC 29172
Tel: 803-791-9700 Fax: 803-791-9111 www.pacelabs.com

Laboratory Data Quality Review Notes

Project Name: WPH-Clemson, SC

Project Number: 300688.0000.0000 Phase 4

Lab Report: **VC24028** Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.); West Columbia, SC; subcontracted report: **33353**

Samples and Analyses: Six groundwater samples, collected 23-Mar-2020 and analyzed for VOCs, chloride, bromide, sulfate, and nitrate; one trip blank, analyzed for VOCs only

Chain of Custody, Sample Temperature, Sample Preservation: Chain of custody was signed; sample temperature was <6 ^{o}C upon arrival at the laboratory; samples were preserved properly.

Hold Time: Sample analyses were performed within acceptable hold times.

Surrogates: VOC surrogate recoveries are within QC limits.

Method Blank: Target analytes were not detected in the laboratory method blanks.

Trip Blank: No target analytes were detected in the trip blank; analyzed for VOCs only.

Field Blank: A field blank was not collected with these samples.

Equipment Rinse Blank: A rinsate blank was not collected with these samples.

LCS/LCSD: LCS recoveries for all analyses are within QC limits. LCSD analyses were not performed.

MS/MSD: MS/MSD analyses were performed for nitrate using sample DP-27A, and for VOCs using sample DP-27. MS/MSD recoveries and RPDs are within QC limits, with the following exceptions:

- Using sample DP-27, the MSD recoveries for acetone and 2-butanone are below the QC acceptance limits. **The ND results for acetone and 2-butanone in sample DP-27 are assigned a "uj" qualifier due to low MS/MSD recoveries.**

Duplicates: No field duplicate sample was collected with this sample set. No laboratory duplicates were included with these analyses.

Dilutions: The following VOC analyses were performed with dilution (as indicated): DP-27 (10×), DP-27A (5×), DP-27B (5×), DP-26 (5×), DP-26A (5×), and DP-26B (50×). The ND results in these samples are reported with correspondingly elevated DL and LOQ levels. All other dilutions in these samples were associated with positive results (detects).

Data reviewer: Amy Bass; TRC Environmental Corporation; 01-Oct-2020

Case Narrative
TRC Companies, Inc.
Lot Number: VC24028

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Pace Analytical Services, LLC ("Pace") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Pace policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Pace Project Manager listed on the cover page.

VOCs by GC/MS

Due to suspected matrix interferences, the MSD associated with batch 48900 recovered two compounds marginally outside of method criteria. These compounds were recovered marginally within criteria for the MS.

Dissolved Gasses

The analysis for Dissolved Gasses has been performed by Pace Energy. This data is located on Pace Energy report 33353.

Report Revision 10/07/20

Due to an import error, the Nitrate analysis times that were performed prior to 10:00 were not originally documented. These times have now been included.

Sample Summary
TRC Companies, Inc.
Lot Number: VC24028

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	TBLK-20120	Aqueous	03/23/2020	03/24/2020
002	DP-27	Aqueous	03/23/2020 0830	03/24/2020
003	DP-27A	Aqueous	03/23/2020 0900	03/24/2020
004	DP-27B	Aqueous	03/23/2020 1030	03/24/2020
005	DP-26	Aqueous	03/23/2020 1230	03/24/2020
006	DP-26A	Aqueous	03/23/2020 1300	03/24/2020
007	DP-26B	Aqueous	03/23/2020 1400	03/24/2020

(7 samples)

Detection Summary

TRC Companies, Inc.

Lot Number: VC24028

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
002	DP-27	Aqueous	Bromide	300.0	0.12	J	mg/L	7
002	DP-27	Aqueous	Chloride	300.0	8.9		mg/L	7
002	DP-27	Aqueous	Nitrate - N	353.2	2.6		mg/L	7
002	DP-27	Aqueous	Sulfate	300.0	160		mg/L	7
002	DP-27	Aqueous	Tetrachloroethene	8260D	520		ug/L	8
003	DP-27A	Aqueous	Chloride	300.0	0.66	J	mg/L	10
003	DP-27A	Aqueous	Nitrate - N	353.2	0.46		mg/L	10
003	DP-27A	Aqueous	Sulfate	300.0	37		mg/L	10
003	DP-27A	Aqueous	Chloroform	8260D	4.8	J	ug/L	11
003	DP-27A	Aqueous	Tetrachloroethene	8260D	530		ug/L	11
003	DP-27A	Aqueous	1,1,2-Trichloro-1,2,2-	8260D	3.2	J	ug/L	11
004	DP-27B	Aqueous	Chloride	300.0	1.9		mg/L	13
004	DP-27B	Aqueous	Nitrate - N	353.2	0.63		mg/L	13
004	DP-27B	Aqueous	Sulfate	300.0	12		mg/L	13
004	DP-27B	Aqueous	Chloroform	8260D	4.0	J	ug/L	14
004	DP-27B	Aqueous	Tetrachloroethene	8260D	280		ug/L	14
004	DP-27B	Aqueous	1,1,2-Trichloro-1,2,2-	8260D	2.5	J	ug/L	14
005	DP-26	Aqueous	Bromide	300.0	0.32		mg/L	16
005	DP-26	Aqueous	Chloride	300.0	44		mg/L	16
005	DP-26	Aqueous	Nitrate - N	353.2	0.019	J	mg/L	16
005	DP-26	Aqueous	Sulfate	300.0	10		mg/L	16
005	DP-26	Aqueous	cis-1,2-Dichloroethene	8260D	19		ug/L	17
005	DP-26	Aqueous	Tetrachloroethene	8260D	270		ug/L	17
005	DP-26	Aqueous	Trichloroethene	8260D	24		ug/L	18
006	DP-26A	Aqueous	Chloride	300.0	1.0		mg/L	19
006	DP-26A	Aqueous	Nitrate - N	353.2	0.17		mg/L	19
006	DP-26A	Aqueous	Sulfate	300.0	1.2		mg/L	19
006	DP-26A	Aqueous	Tetrachloroethene	8260D	600		ug/L	20
007	DP-26B	Aqueous	Chloride	300.0	1.6		mg/L	22
007	DP-26B	Aqueous	Nitrate - N	353.2	1.1		mg/L	22
007	DP-26B	Aqueous	Sulfate	300.0	6.8		mg/L	22
007	DP-26B	Aqueous	Tetrachloroethene	8260D	3800		ug/L	23

(32 detections)

Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC24028-001
Description: TBLK-20120
Matrix: Aqueous
Date Sampled: 03/23/2020
Date Received: 03/24/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/25/2020 1049	TML		48900

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	ND		1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

Pace Analytical Services, LLC *(formerly Shealy Environmental Services, Inc.)*
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC24028-001
Description: TBLK-20120
Matrix: Aqueous
Date Sampled: 03/23/2020
Date Received: 03/24/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/25/2020 1049	TML		48900

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Trichloroethene	79-01-6	8260D	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		85	70-130
1,2-Dichloroethane-d4		94	70-130
Toluene-d8		88	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Inorganic non-metals

Client: TRC Companies, Inc.
Laboratory ID: VC24028-002
Description: DP-27
Matrix: Aqueous
Date Sampled: 03/23/2020 0830
Date Received: 03/24/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	03/29/2020 0312	HKL		49400
1		(Chloride) 300.0	1	03/29/2020 0312	HKL		49399
1		(Nitrate - N) 353.2	2	03/25/2020 0739	AMR		48886
1		(Sulfate) 300.0	1	03/29/2020 0312	HKL		49398

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.12	J	0.20	0.050	mg/L	1
Chloride		300.0	8.9		1.0	0.20	mg/L	1
Nitrate - N		353.2	2.6		0.040	0.020	mg/L	1
Sulfate		300.0	160		1.0	0.20	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

Pace Analytical Services, LLC *(formerly Shealy Environmental Services, Inc.)*
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC24028-002
Description: DP-27
Matrix: Aqueous
Date Sampled: 03/23/2020 0830
Date Received: 03/24/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	10	03/25/2020 1704	TML		48900

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		200	50	ug/L	1
Benzene	71-43-2	8260D	ND		10	4.0	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		10	4.0	ug/L	1
Bromoform	75-25-2	8260D	ND		10	4.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		20	4.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		100	20	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		10	4.0	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		10	4.0	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		10	4.0	ug/L	1
Chloroethane	75-00-3	8260D	ND		20	4.0	ug/L	1
Chloroform	67-66-3	8260D	ND		10	4.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		10	5.0	ug/L	1
Cyclohexane	110-82-7	8260D	ND		10	4.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		10	4.0	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		10	4.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		10	4.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		10	4.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		10	4.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		10	4.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		20	6.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		10	4.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		10	4.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		10	4.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		10	4.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		10	4.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		10	4.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		10	4.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		10	4.0	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		10	4.0	ug/L	1
2-Hexanone	591-78-6	8260D	ND		100	20	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		10	4.0	ug/L	1
Methyl acetate	79-20-9	8260D	ND		10	4.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		10	4.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		100	20	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		50	4.0	ug/L	1
Methylene chloride	75-09-2	8260D	ND		10	4.0	ug/L	1
Styrene	100-42-5	8260D	ND		10	4.1	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		10	4.0	ug/L	1
Tetrachloroethene	127-18-4	8260D	520		10	4.0	ug/L	1
Toluene	108-88-3	8260D	ND		10	4.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		10	4.2	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		10	4.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		10	4.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		10	4.0	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC24028-002
Description: DP-27
Matrix: Aqueous
Date Sampled: 03/23/2020 0830
Date Received: 03/24/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	10	03/25/2020 1704	TML		48900

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Trichloroethene	79-01-6	8260D	ND		10	4.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		10	4.0	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		10	4.0	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		10	4.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		89	70-130
1,2-Dichloroethane-d4		92	70-130
Toluene-d8		94	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Inorganic non-metals

Client: TRC Companies, Inc.
Laboratory ID: VC24028-003
Description: DP-27A
Matrix: Aqueous
Date Sampled: 03/23/2020 0900
Date Received: 03/24/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	03/29/2020 0335	HKL		49400
1		(Chloride) 300.0	1	03/29/2020 0335	HKL		49399
1		(Nitrate - N) 353.2	1	03/25/2020 0744	AMR		48886
1		(Sulfate) 300.0	1	03/29/2020 0335	HKL		49398

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	ND		0.20	0.050	mg/L	1
Chloride		300.0	0.66	J	1.0	0.20	mg/L	1
Nitrate - N		353.2	0.46		0.020	0.010	mg/L	1
Sulfate		300.0	37		1.0	0.20	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc. | Laboratory ID: VC24028-003
Description: DP-27A | Matrix: Aqueous
Date Sampled: 03/23/2020 0900
Date Received: 03/24/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	5	03/25/2020 1517	TML		48900

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		100	25	ug/L	1
Benzene	71-43-2	8260D	ND		5.0	2.0	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		5.0	2.0	ug/L	1
Bromoform	75-25-2	8260D	ND		5.0	2.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		10	2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		50	10	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		5.0	2.0	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		5.0	2.0	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		5.0	2.0	ug/L	1
Chloroethane	75-00-3	8260D	ND		10	2.0	ug/L	1
Chloroform	67-66-3	8260D	4.8	J	5.0	2.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		5.0	2.5	ug/L	1
Cyclohexane	110-82-7	8260D	ND		5.0	2.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		5.0	2.0	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		5.0	2.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		5.0	2.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		5.0	2.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		5.0	2.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		5.0	2.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		10	3.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		5.0	2.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		5.0	2.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		5.0	2.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		5.0	2.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		5.0	2.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		5.0	2.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		5.0	2.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		5.0	2.0	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		5.0	2.0	ug/L	1
2-Hexanone	591-78-6	8260D	ND		50	10	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		5.0	2.0	ug/L	1
Methyl acetate	79-20-9	8260D	ND		5.0	2.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		5.0	2.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		50	10	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		25	2.0	ug/L	1
Methylene chloride	75-09-2	8260D	ND		5.0	2.0	ug/L	1
Styrene	100-42-5	8260D	ND		5.0	2.1	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		5.0	2.0	ug/L	1
Tetrachloroethene	127-18-4	8260D	530		5.0	2.0	ug/L	1
Toluene	108-88-3	8260D	ND		5.0	2.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	3.2	J	5.0	2.1	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		5.0	2.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		5.0	2.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		5.0	2.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC24028-003
Description: DP-27A
Matrix: Aqueous
Date Sampled: 03/23/2020 0900
Date Received: 03/24/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	5	03/25/2020 1517	TML		48900

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Trichloroethene	79-01-6	8260D	ND		5.0	2.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		5.0	2.0	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		5.0	2.0	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		5.0	2.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		86	70-130
1,2-Dichloroethane-d4		94	70-130
Toluene-d8		90	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Inorganic non-metals

Client: TRC Companies, Inc.
Laboratory ID: VC24028-004
Description: DP-27B
Matrix: Aqueous
Date Sampled: 03/23/2020 1030
Date Received: 03/24/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	03/29/2020 0358	HKL		49400
1		(Chloride) 300.0	1	03/29/2020 0358	HKL		49399
1		(Nitrate - N) 353.2	1	03/25/2020 0748	AMR		48886
1		(Sulfate) 300.0	1	03/29/2020 0358	HKL		49398

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	ND		0.20	0.050	mg/L	1
Chloride		300.0	1.9		1.0	0.20	mg/L	1
Nitrate - N		353.2	0.63		0.020	0.010	mg/L	1
Sulfate		300.0	12		1.0	0.20	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc. | Laboratory ID: VC24028-004
Description: DP-27B | Matrix: Aqueous
Date Sampled: 03/23/2020 1030
Date Received: 03/24/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	5	03/25/2020 1543	TML		48900

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		100	25	ug/L	1
Benzene	71-43-2	8260D	ND		5.0	2.0	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		5.0	2.0	ug/L	1
Bromoform	75-25-2	8260D	ND		5.0	2.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		10	2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		50	10	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		5.0	2.0	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		5.0	2.0	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		5.0	2.0	ug/L	1
Chloroethane	75-00-3	8260D	ND		10	2.0	ug/L	1
Chloroform	67-66-3	8260D	4.0	J	5.0	2.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		5.0	2.5	ug/L	1
Cyclohexane	110-82-7	8260D	ND		5.0	2.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		5.0	2.0	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		5.0	2.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		5.0	2.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		5.0	2.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		5.0	2.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		5.0	2.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		10	3.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		5.0	2.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		5.0	2.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		5.0	2.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		5.0	2.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		5.0	2.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		5.0	2.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		5.0	2.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		5.0	2.0	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		5.0	2.0	ug/L	1
2-Hexanone	591-78-6	8260D	ND		50	10	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		5.0	2.0	ug/L	1
Methyl acetate	79-20-9	8260D	ND		5.0	2.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		5.0	2.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		50	10	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		25	2.0	ug/L	1
Methylene chloride	75-09-2	8260D	ND		5.0	2.0	ug/L	1
Styrene	100-42-5	8260D	ND		5.0	2.1	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		5.0	2.0	ug/L	1
Tetrachloroethene	127-18-4	8260D	280		5.0	2.0	ug/L	1
Toluene	108-88-3	8260D	ND		5.0	2.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	2.5	J	5.0	2.1	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		5.0	2.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		5.0	2.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		5.0	2.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC24028-004
Description: DP-27B
Matrix: Aqueous
Date Sampled: 03/23/2020 1030
Date Received: 03/24/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	5	03/25/2020 1543	TML		48900

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Trichloroethene	79-01-6	8260D	ND		5.0	2.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		5.0	2.0	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		5.0	2.0	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		5.0	2.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		85	70-130
1,2-Dichloroethane-d4		92	70-130
Toluene-d8		89	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Inorganic non-metals

Client: TRC Companies, Inc.
Laboratory ID: VC24028-005
Description: DP-26
Matrix: Aqueous
Date Sampled: 03/23/2020 1230
Date Received: 03/24/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	03/29/2020 0421	HKL		49400
1		(Chloride) 300.0	1	03/29/2020 0421	HKL		49399
1		(Nitrate - N) 353.2	1	03/25/2020 0818	AMR		48886
1		(Sulfate) 300.0	1	03/29/2020 0421	HKL		49398

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.32		0.20	0.050	mg/L	1
Chloride		300.0	44		1.0	0.20	mg/L	1
Nitrate - N		353.2	0.019	J	0.020	0.010	mg/L	1
Sulfate		300.0	10		1.0	0.20	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC24028-005
Description: DP-26
Matrix: Aqueous
Date Sampled: 03/23/2020 1230
Date Received: 03/24/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	5	03/25/2020 1610	TML		48900

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		100	25	ug/L	1
Benzene	71-43-2	8260D	ND		5.0	2.0	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		5.0	2.0	ug/L	1
Bromoform	75-25-2	8260D	ND		5.0	2.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		10	2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		50	10	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		5.0	2.0	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		5.0	2.0	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		5.0	2.0	ug/L	1
Chloroethane	75-00-3	8260D	ND		10	2.0	ug/L	1
Chloroform	67-66-3	8260D	ND		5.0	2.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		5.0	2.5	ug/L	1
Cyclohexane	110-82-7	8260D	ND		5.0	2.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		5.0	2.0	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		5.0	2.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		5.0	2.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		5.0	2.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		5.0	2.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		5.0	2.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		10	3.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		5.0	2.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		5.0	2.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		5.0	2.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	19		5.0	2.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		5.0	2.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		5.0	2.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		5.0	2.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		5.0	2.0	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		5.0	2.0	ug/L	1
2-Hexanone	591-78-6	8260D	ND		50	10	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		5.0	2.0	ug/L	1
Methyl acetate	79-20-9	8260D	ND		5.0	2.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		5.0	2.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		50	10	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		25	2.0	ug/L	1
Methylene chloride	75-09-2	8260D	ND		5.0	2.0	ug/L	1
Styrene	100-42-5	8260D	ND		5.0	2.1	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		5.0	2.0	ug/L	1
Tetrachloroethene	127-18-4	8260D	270		5.0	2.0	ug/L	1
Toluene	108-88-3	8260D	ND		5.0	2.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		5.0	2.1	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		5.0	2.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		5.0	2.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		5.0	2.0	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC24028-005
Description: DP-26
Matrix: Aqueous
Date Sampled: 03/23/2020 1230
Date Received: 03/24/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	5	03/25/2020 1610	TML		48900

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Trichloroethene	79-01-6	8260D	24		5.0	2.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		5.0	2.0	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		5.0	2.0	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		5.0	2.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		86	70-130
1,2-Dichloroethane-d4		92	70-130
Toluene-d8		89	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Inorganic non-metals

Client: TRC Companies, Inc.
Laboratory ID: VC24028-006
Description: DP-26A
Matrix: Aqueous
Date Sampled: 03/23/2020 1300
Date Received: 03/24/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	03/29/2020 0444	HKL		49400
1		(Chloride) 300.0	1	03/29/2020 0444	HKL		49399
1		(Nitrate - N) 353.2	1	03/25/2020 0751	AMR		48886
1		(Sulfate) 300.0	1	03/29/2020 0444	HKL		49398

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	ND		0.20	0.050	mg/L	1
Chloride		300.0	1.0		1.0	0.20	mg/L	1
Nitrate - N		353.2	0.17		0.020	0.010	mg/L	1
Sulfate		300.0	1.2		1.0	0.20	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC24028-006
Description: DP-26A
Matrix: Aqueous
Date Sampled: 03/23/2020 1300
Date Received: 03/24/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	5	03/25/2020 1637	TML		48900

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		100	25	ug/L	1
Benzene	71-43-2	8260D	ND		5.0	2.0	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		5.0	2.0	ug/L	1
Bromoform	75-25-2	8260D	ND		5.0	2.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		10	2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		50	10	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		5.0	2.0	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		5.0	2.0	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		5.0	2.0	ug/L	1
Chloroethane	75-00-3	8260D	ND		10	2.0	ug/L	1
Chloroform	67-66-3	8260D	ND		5.0	2.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		5.0	2.5	ug/L	1
Cyclohexane	110-82-7	8260D	ND		5.0	2.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		5.0	2.0	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		5.0	2.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		5.0	2.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		5.0	2.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		5.0	2.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		5.0	2.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		10	3.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		5.0	2.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		5.0	2.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		5.0	2.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		5.0	2.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		5.0	2.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		5.0	2.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		5.0	2.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		5.0	2.0	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		5.0	2.0	ug/L	1
2-Hexanone	591-78-6	8260D	ND		50	10	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		5.0	2.0	ug/L	1
Methyl acetate	79-20-9	8260D	ND		5.0	2.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		5.0	2.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		50	10	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		25	2.0	ug/L	1
Methylene chloride	75-09-2	8260D	ND		5.0	2.0	ug/L	1
Styrene	100-42-5	8260D	ND		5.0	2.1	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		5.0	2.0	ug/L	1
Tetrachloroethene	127-18-4	8260D	600		5.0	2.0	ug/L	1
Toluene	108-88-3	8260D	ND		5.0	2.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		5.0	2.1	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		5.0	2.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		5.0	2.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		5.0	2.0	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC24028-006
Description: DP-26A
Matrix: Aqueous
Date Sampled: 03/23/2020 1300
Date Received: 03/24/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	5	03/25/2020 1637	TML		48900

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Trichloroethene	79-01-6	8260D	ND		5.0	2.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		5.0	2.0	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		5.0	2.0	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		5.0	2.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		84	70-130
1,2-Dichloroethane-d4		90	70-130
Toluene-d8		89	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
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W = Reported on wet weight basis

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Inorganic non-metals

Client: TRC Companies, Inc.
Laboratory ID: VC24028-007
Description: DP-26B
Matrix: Aqueous
Date Sampled: 03/23/2020 1400
Date Received: 03/24/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	03/29/2020 0507	HKL		49400
1		(Chloride) 300.0	1	03/29/2020 0507	HKL		49399
1		(Nitrate - N) 353.2	2	03/25/2020 0752	AMR		48886
1		(Sulfate) 300.0	1	03/29/2020 0507	HKL		49398

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	ND		0.20	0.050	mg/L	1
Chloride		300.0	1.6		1.0	0.20	mg/L	1
Nitrate - N		353.2	1.1		0.040	0.020	mg/L	1
Sulfate		300.0	6.8		1.0	0.20	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc. | Laboratory ID: VC24028-007
Description: DP-26B | Matrix: Aqueous
Date Sampled: 03/23/2020 1400
Date Received: 03/24/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	50	03/25/2020 1731	TML		48900

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		1000	250	ug/L	1
Benzene	71-43-2	8260D	ND		50	20	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		50	20	ug/L	1
Bromoform	75-25-2	8260D	ND		50	20	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		100	20	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		500	100	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		50	20	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		50	20	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		50	20	ug/L	1
Chloroethane	75-00-3	8260D	ND		100	20	ug/L	1
Chloroform	67-66-3	8260D	ND		50	20	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		50	25	ug/L	1
Cyclohexane	110-82-7	8260D	ND		50	20	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		50	20	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		50	20	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		50	20	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		50	20	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		50	20	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		50	20	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		100	30	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		50	20	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		50	20	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		50	20	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		50	20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		50	20	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		50	20	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		50	20	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		50	20	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		50	20	ug/L	1
2-Hexanone	591-78-6	8260D	ND		500	100	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		50	20	ug/L	1
Methyl acetate	79-20-9	8260D	ND		50	20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		50	20	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		500	100	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		250	20	ug/L	1
Methylene chloride	75-09-2	8260D	ND		50	20	ug/L	1
Styrene	100-42-5	8260D	ND		50	21	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		50	20	ug/L	1
Tetrachloroethene	127-18-4	8260D	3800		50	20	ug/L	1
Toluene	108-88-3	8260D	ND		50	20	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		50	21	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		50	20	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		50	20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		50	20	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC24028-007
Description: DP-26B
Matrix: Aqueous
Date Sampled: 03/23/2020 1400
Date Received: 03/24/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	50	03/25/2020 1731	TML		48900

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Trichloroethene	79-01-6	8260D	ND		50	20	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		50	20	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		50	20	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		50	20	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		85	70-130
1,2-Dichloroethane-d4		92	70-130
Toluene-d8		90	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

QC Summary

Inorganic non-metals - MB

Sample ID: VQ48886-001
Batch: 48886
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Nitrate - N	ND		1	0.020	0.010	mg/L	03/25/2020 0731

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: VQ48886-002
Batch: 48886
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	0.80	0.78		1	98	90-110	03/25/2020 0732

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MS

Sample ID: VC24028-003MS
Batch: 48886
Analytical Method: 353.2
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	0.46	0.80	1.2		1	95	90-110	03/25/2020 0746

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: VC24028-003MD
Batch: 48886
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Nitrate - N	0.46	0.80	1.2		1	98	2.0	90-110	20	03/25/2020 0747

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MB

Sample ID: VQ49398-001
Batch: 49398
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Sulfate	ND		1	1.0	0.20	mg/L	03/28/2020 1452

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: VQ49398-002
Batch: 49398
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Sulfate	20	20		1	98	90-110	03/28/2020 1538

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: VQ49399-001
Batch: 49399
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Chloride	ND		1	1.0	0.20	mg/L	03/28/2020 1452

LOQ = Limit of Quantitation
DL = Detection Limit

ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria

N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: VQ49399-002
Batch: 49399
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Chloride	20	20		1	100	90-110	03/28/2020 1538

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: VQ49400-001
Batch: 49400
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Bromide	ND		1	0.20	0.050	mg/L	03/28/2020 1452

LOQ = Limit of Quantitation
DL = Detection Limit

ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria

N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: VQ49400-002
Batch: 49400
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Bromide	8.0	7.8		1	98	90-110	03/28/2020 1538

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: VQ48900-001
Batch: 48900
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Acetone	ND		1	20	5.0	ug/L	03/25/2020 0923
Benzene	ND		1	1.0	0.40	ug/L	03/25/2020 0923
Bromodichloromethane	ND		1	1.0	0.40	ug/L	03/25/2020 0923
Bromoform	ND		1	1.0	0.40	ug/L	03/25/2020 0923
Bromomethane (Methyl bromide)	ND		1	2.0	0.40	ug/L	03/25/2020 0923
2-Butanone (MEK)	ND		1	10	2.0	ug/L	03/25/2020 0923
Carbon disulfide	ND		1	1.0	0.40	ug/L	03/25/2020 0923
Carbon tetrachloride	ND		1	1.0	0.40	ug/L	03/25/2020 0923
Chlorobenzene	ND		1	1.0	0.40	ug/L	03/25/2020 0923
Chloroethane	ND		1	2.0	0.40	ug/L	03/25/2020 0923
Chloroform	ND		1	1.0	0.40	ug/L	03/25/2020 0923
Chloromethane (Methyl chloride)	ND		1	1.0	0.50	ug/L	03/25/2020 0923
Cyclohexane	ND		1	1.0	0.40	ug/L	03/25/2020 0923
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	0.40	ug/L	03/25/2020 0923
Dibromochloromethane	ND		1	1.0	0.40	ug/L	03/25/2020 0923
1,2-Dibromoethane (EDB)	ND		1	1.0	0.40	ug/L	03/25/2020 0923
1,2-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/25/2020 0923
1,3-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/25/2020 0923
1,4-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/25/2020 0923
Dichlorodifluoromethane	ND		1	2.0	0.60	ug/L	03/25/2020 0923
1,1-Dichloroethane	ND		1	1.0	0.40	ug/L	03/25/2020 0923
1,2-Dichloroethane	ND		1	1.0	0.40	ug/L	03/25/2020 0923
1,1-Dichloroethene	ND		1	1.0	0.40	ug/L	03/25/2020 0923
cis-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	03/25/2020 0923
trans-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	03/25/2020 0923
1,2-Dichloropropane	ND		1	1.0	0.40	ug/L	03/25/2020 0923
cis-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	03/25/2020 0923
trans-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	03/25/2020 0923
Ethylbenzene	ND		1	1.0	0.40	ug/L	03/25/2020 0923
2-Hexanone	ND		1	10	2.0	ug/L	03/25/2020 0923
Isopropylbenzene	ND		1	1.0	0.40	ug/L	03/25/2020 0923
Methyl acetate	ND		1	1.0	0.40	ug/L	03/25/2020 0923
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	0.40	ug/L	03/25/2020 0923
4-Methyl-2-pentanone	ND		1	10	2.0	ug/L	03/25/2020 0923
Methylcyclohexane	ND		1	5.0	0.40	ug/L	03/25/2020 0923
Methylene chloride	ND		1	1.0	0.40	ug/L	03/25/2020 0923
Styrene	ND		1	1.0	0.41	ug/L	03/25/2020 0923
1,1,2,2-Tetrachloroethane	ND		1	1.0	0.40	ug/L	03/25/2020 0923
Tetrachloroethene	ND		1	1.0	0.40	ug/L	03/25/2020 0923
Toluene	ND		1	1.0	0.40	ug/L	03/25/2020 0923
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	0.42	ug/L	03/25/2020 0923
1,2,4-Trichlorobenzene	ND		1	1.0	0.40	ug/L	03/25/2020 0923
1,1,1-Trichloroethane	ND		1	1.0	0.40	ug/L	03/25/2020 0923
1,1,2-Trichloroethane	ND		1	1.0	0.40	ug/L	03/25/2020 0923

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: VQ48900-001
Batch: 48900
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Trichloroethene	ND		1	1.0	0.40	ug/L	03/25/2020 0923
Trichlorofluoromethane	ND		1	1.0	0.40	ug/L	03/25/2020 0923
Vinyl chloride	ND		1	1.0	0.40	ug/L	03/25/2020 0923
Xylenes (total)	ND		1	1.0	0.40	ug/L	03/25/2020 0923

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		86	70-130
1,2-Dichloroethane-d4		94	70-130
Toluene-d8		87	70-130

LOQ = Limit of Quantitation
DL = Detection Limit

ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria

N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: VQ48900-002
Batch: 48900
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	93		1	93	60-140	03/25/2020 0830
Benzene	50	48		1	97	70-130	03/25/2020 0830
Bromodichloromethane	50	51		1	103	70-130	03/25/2020 0830
Bromoform	50	51		1	103	70-130	03/25/2020 0830
Bromomethane (Methyl bromide)	50	42		1	85	70-130	03/25/2020 0830
2-Butanone (MEK)	100	85		1	85	70-130	03/25/2020 0830
Carbon disulfide	50	43		1	87	70-130	03/25/2020 0830
Carbon tetrachloride	50	48		1	96	70-130	03/25/2020 0830
Chlorobenzene	50	49		1	98	70-130	03/25/2020 0830
Chloroethane	50	43		1	85	70-130	03/25/2020 0830
Chloroform	50	49		1	98	70-130	03/25/2020 0830
Chloromethane (Methyl chloride)	50	49		1	97	60-140	03/25/2020 0830
Cyclohexane	50	49		1	97	70-130	03/25/2020 0830
1,2-Dibromo-3-chloropropane (DBCP)	50	45		1	91	70-130	03/25/2020 0830
Dibromochloromethane	50	52		1	104	70-130	03/25/2020 0830
1,2-Dibromoethane (EDB)	50	51		1	102	70-130	03/25/2020 0830
1,2-Dichlorobenzene	50	50		1	100	70-130	03/25/2020 0830
1,3-Dichlorobenzene	50	50		1	99	70-130	03/25/2020 0830
1,4-Dichlorobenzene	50	50		1	99	70-130	03/25/2020 0830
Dichlorodifluoromethane	50	58		1	116	60-140	03/25/2020 0830
1,1-Dichloroethane	50	48		1	96	70-130	03/25/2020 0830
1,2-Dichloroethane	50	53		1	106	70-130	03/25/2020 0830
1,1-Dichloroethene	50	45		1	90	70-130	03/25/2020 0830
cis-1,2-Dichloroethene	50	50		1	99	70-130	03/25/2020 0830
trans-1,2-Dichloroethene	50	49		1	99	70-130	03/25/2020 0830
1,2-Dichloropropane	50	50		1	101	70-130	03/25/2020 0830
cis-1,3-Dichloropropene	50	52		1	103	70-130	03/25/2020 0830
trans-1,3-Dichloropropene	50	52		1	103	70-130	03/25/2020 0830
Ethylbenzene	50	50		1	100	70-130	03/25/2020 0830
2-Hexanone	100	87		1	87	70-130	03/25/2020 0830
Isopropylbenzene	50	50		1	100	70-130	03/25/2020 0830
Methyl acetate	50	45		1	90	70-130	03/25/2020 0830
Methyl tertiary butyl ether (MTBE)	50	50		1	100	70-130	03/25/2020 0830
4-Methyl-2-pentanone	100	92		1	92	70-130	03/25/2020 0830
Methylcyclohexane	50	48		1	96	70-130	03/25/2020 0830
Methylene chloride	50	49		1	97	70-130	03/25/2020 0830
Styrene	50	51		1	103	70-130	03/25/2020 0830
1,1,2,2-Tetrachloroethane	50	48		1	96	70-130	03/25/2020 0830
Tetrachloroethene	50	49		1	99	70-130	03/25/2020 0830
Toluene	50	49		1	99	70-130	03/25/2020 0830
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	46		1	92	70-130	03/25/2020 0830
1,2,4-Trichlorobenzene	50	52		1	104	70-130	03/25/2020 0830
1,1,1-Trichloroethane	50	48		1	96	70-130	03/25/2020 0830
1,1,2-Trichloroethane	50	51		1	101	70-130	03/25/2020 0830

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: VQ48900-002
Batch: 48900
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	50		1	100	70-130	03/25/2020 0830
Trichlorofluoromethane	50	44		1	88	70-130	03/25/2020 0830
Vinyl chloride	50	50		1	101	70-130	03/25/2020 0830
Xylenes (total)	100	99		1	99	70-130	03/25/2020 0830

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		89	70-130
1,2-Dichloroethane-d4		98	70-130
Toluene-d8		90	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: VC24028-002MS
Batch: 48900
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	ND	1000	640		10	64	60-140	03/25/2020 1825
Benzene	ND	500	520		10	104	70-130	03/25/2020 1825
Bromodichloromethane	ND	500	510		10	102	70-130	03/25/2020 1825
Bromoform	ND	500	500		10	99	70-130	03/25/2020 1825
Bromomethane (Methyl bromide)	ND	500	390		10	79	70-130	03/25/2020 1825
2-Butanone (MEK)	ND	1000	750		10	75	70-130	03/25/2020 1825
Carbon disulfide	ND	500	470		10	94	70-130	03/25/2020 1825
Carbon tetrachloride	ND	500	510		10	103	70-130	03/25/2020 1825
Chlorobenzene	ND	500	500		10	99	70-130	03/25/2020 1825
Chloroethane	ND	500	420		10	84	70-130	03/25/2020 1825
Chloroform	ND	500	500		10	100	70-130	03/25/2020 1825
Chloromethane (Methyl chloride)	ND	500	450		10	90	60-140	03/25/2020 1825
Cyclohexane	ND	500	460		10	92	70-130	03/25/2020 1825
1,2-Dibromo-3-chloropropane (DBCP)	ND	500	410		10	82	70-130	03/25/2020 1825
Dibromochloromethane	ND	500	510		10	102	70-130	03/25/2020 1825
1,2-Dibromoethane (EDB)	ND	500	520		10	104	70-130	03/25/2020 1825
1,2-Dichlorobenzene	ND	500	470		10	95	70-130	03/25/2020 1825
1,3-Dichlorobenzene	ND	500	480		10	96	70-130	03/25/2020 1825
1,4-Dichlorobenzene	ND	500	470		10	94	70-130	03/25/2020 1825
Dichlorodifluoromethane	ND	500	610		10	122	60-140	03/25/2020 1825
1,1-Dichloroethane	ND	500	510		10	101	70-130	03/25/2020 1825
1,2-Dichloroethane	ND	500	500		10	100	70-130	03/25/2020 1825
1,1-Dichloroethene	ND	500	560		10	112	70-130	03/25/2020 1825
cis-1,2-Dichloroethene	ND	500	520		10	105	70-130	03/25/2020 1825
trans-1,2-Dichloroethene	ND	500	540		10	109	70-130	03/25/2020 1825
1,2-Dichloropropane	ND	500	520		10	105	70-130	03/25/2020 1825
cis-1,3-Dichloropropene	ND	500	510		10	102	70-130	03/25/2020 1825
trans-1,3-Dichloropropene	ND	500	510		10	101	70-130	03/25/2020 1825
Ethylbenzene	ND	500	520		10	104	70-130	03/25/2020 1825
2-Hexanone	ND	1000	840		10	84	70-130	03/25/2020 1825
Isopropylbenzene	ND	500	520		10	104	70-130	03/25/2020 1825
Methyl acetate	ND	500	420		10	84	70-130	03/25/2020 1825
Methyl tertiary butyl ether (MTBE)	ND	500	480		10	97	70-130	03/25/2020 1825
4-Methyl-2-pentanone	ND	1000	900		10	90	70-130	03/25/2020 1825
Methylcyclohexane	ND	500	490		10	98	70-130	03/25/2020 1825
Methylene chloride	ND	500	510		10	102	70-130	03/25/2020 1825
Styrene	ND	500	530		10	107	70-130	03/25/2020 1825
1,1,2,2-Tetrachloroethane	ND	500	510		10	101	70-130	03/25/2020 1825
Tetrachloroethene	520	500	1100		10	108	70-130	03/25/2020 1825
Toluene	ND	500	530		10	106	70-130	03/25/2020 1825
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	500	500		10	100	70-130	03/25/2020 1825
1,2,4-Trichlorobenzene	ND	500	490		10	99	70-130	03/25/2020 1825
1,1,1-Trichloroethane	ND	500	500		10	99	70-130	03/25/2020 1825
1,1,2-Trichloroethane	ND	500	530		10	106	70-130	03/25/2020 1825

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: VC24028-002MS
Batch: 48900
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	ND	500	530		10	105	70-130	03/25/2020 1825
Trichlorofluoromethane	ND	500	430		10	87	70-130	03/25/2020 1825
Vinyl chloride	ND	500	470		10	94	70-130	03/25/2020 1825
Xylenes (total)	ND	1000	1100		10	106	70-130	03/25/2020 1825

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		87	70-130
1,2-Dichloroethane-d4		87	70-130
Toluene-d8		90	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MSD

Sample ID: VC24028-002MD
Batch: 48900
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	ND	1000	580	N	10	58	9.5	60-140	20	03/25/2020 1851
Benzene	ND	500	510		10	102	2.0	70-130	20	03/25/2020 1851
Bromodichloromethane	ND	500	490		10	98	3.2	70-130	20	03/25/2020 1851
Bromoform	ND	500	470		10	94	5.8	70-130	20	03/25/2020 1851
Bromomethane (Methyl bromide)	ND	500	350		10	70	11	70-130	20	03/25/2020 1851
2-Butanone (MEK)	ND	1000	680	N	10	68	8.9	70-130	20	03/25/2020 1851
Carbon disulfide	ND	500	460		10	91	2.4	70-130	20	03/25/2020 1851
Carbon tetrachloride	ND	500	490		10	99	4.1	70-130	20	03/25/2020 1851
Chlorobenzene	ND	500	470		10	93	6.0	70-130	20	03/25/2020 1851
Chloroethane	ND	500	380		10	75	12	70-130	20	03/25/2020 1851
Chloroform	ND	500	480		10	96	4.0	70-130	20	03/25/2020 1851
Chloromethane (Methyl chloride)	ND	500	400		10	80	12	60-140	20	03/25/2020 1851
Cyclohexane	ND	500	440		10	88	4.4	70-130	20	03/25/2020 1851
1,2-Dibromo-3-chloropropane (DBCP)	ND	500	390		10	79	4.3	70-130	20	03/25/2020 1851
Dibromochloromethane	ND	500	480		10	96	6.0	70-130	20	03/25/2020 1851
1,2-Dibromoethane (EDB)	ND	500	480		10	96	7.9	70-130	20	03/25/2020 1851
1,2-Dichlorobenzene	ND	500	450		10	90	4.9	70-130	20	03/25/2020 1851
1,3-Dichlorobenzene	ND	500	470		10	93	2.3	70-130	20	03/25/2020 1851
1,4-Dichlorobenzene	ND	500	460		10	92	2.6	70-130	20	03/25/2020 1851
Dichlorodifluoromethane	ND	500	550		10	111	9.9	60-140	20	03/25/2020 1851
1,1-Dichloroethane	ND	500	480		10	97	4.4	70-130	20	03/25/2020 1851
1,2-Dichloroethane	ND	500	490		10	97	3.1	70-130	20	03/25/2020 1851
1,1-Dichloroethene	ND	500	530		10	105	5.8	70-130	20	03/25/2020 1851
cis-1,2-Dichloroethene	ND	500	500		10	101	3.6	70-130	20	03/25/2020 1851
trans-1,2-Dichloroethene	ND	500	530		10	105	2.9	70-130	20	03/25/2020 1851
1,2-Dichloropropane	ND	500	500		10	101	3.9	70-130	20	03/25/2020 1851
cis-1,3-Dichloropropene	ND	500	480		10	97	5.4	70-130	20	03/25/2020 1851
trans-1,3-Dichloropropene	ND	500	480		10	96	5.8	70-130	20	03/25/2020 1851
Ethylbenzene	ND	500	490		10	98	6.0	70-130	20	03/25/2020 1851
2-Hexanone	ND	1000	760		10	76	10	70-130	20	03/25/2020 1851
Isopropylbenzene	ND	500	500		10	100	4.0	70-130	20	03/25/2020 1851
Methyl acetate	ND	500	370		10	74	12	70-130	20	03/25/2020 1851
Methyl tertiary butyl ether (MTBE)	ND	500	460		10	92	4.4	70-130	20	03/25/2020 1851
4-Methyl-2-pentanone	ND	1000	800		10	80	11	70-130	20	03/25/2020 1851
Methylcyclohexane	ND	500	490		10	98	0.016	70-130	20	03/25/2020 1851
Methylene chloride	ND	500	500		10	100	2.2	70-130	20	03/25/2020 1851
Styrene	ND	500	500		10	101	5.8	70-130	20	03/25/2020 1851
1,1,2,2-Tetrachloroethane	ND	500	480		10	96	5.7	70-130	20	03/25/2020 1851
Tetrachloroethene	520	500	1000		10	98	4.7	70-130	20	03/25/2020 1851
Toluene	ND	500	500		10	99	7.1	70-130	20	03/25/2020 1851
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	500	490		10	97	2.9	70-130	20	03/25/2020 1851
1,2,4-Trichlorobenzene	ND	500	480		10	96	2.6	70-130	20	03/25/2020 1851
1,1,1-Trichloroethane	ND	500	480		10	96	3.2	70-130	20	03/25/2020 1851
1,1,2-Trichloroethane	ND	500	490		10	99	7.1	70-130	20	03/25/2020 1851

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MSD

Sample ID: VC24028-002MD
Batch: 48900
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Trichloroethene	ND	500	520		10	103	1.9	70-130	20	03/25/2020 1851
Trichlorofluoromethane	ND	500	400		10	80	8.1	70-130	20	03/25/2020 1851
Vinyl chloride	ND	500	420		10	83	12	70-130	20	03/25/2020 1851
Xylenes (total)	ND	1000	1000		10	101	4.7	70-130	20	03/25/2020 1851

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		85	70-130
1,2-Dichloroethane-d4		88	70-130
Toluene-d8		88	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Chain of Custody

and

Miscellaneous Documents

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

SHEALY **Chain of Custody Record**

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106 Vantage Point Drive • West Columbia, SC 29172
Telephone No. 803-791-9700 Fax No. 803-791-9111
www.shealylab.com

Number 92122

Client: TRC	Report to Contact: Lisa Clark	Telephone No. / E-mail:	Quote No.
Address: 50 International Dr Ste 150	Sampler's Signature:	Analysis (Attach list if more space is needed):	Page 1 of 1
City: Greenville	State: SC	Zip Code: 29615	Printed Name: Aharon Mirsiyanes
Project Name: WPH Clemson			VC24028 LIO
Project No.: 300688.0.0.12	P.O. No.		Remarks / Cooler I.D.

Sample ID / Description (Containers for each sample may be combined on one line.)	Date 2020	Time	Grab/Composite	Matrix: Aqueous	Soil	Non-Aqueous	No. of Containers by Preservative Type: Unpres.	H2SO4	HNO3	HCl	NaOH	Na2S2O3	TSP	VOCs	Chloride, Sulfate, Bromide	Nitrate	Diss. Gases
TBLK-20120	1	1	G	X						2				X			
DP-27	3-23	0830	G	X			2			3			3	X	X	X	X
DP-27A	3-23	0906	G	X			2			3			3	X	X	X	X
DP-27B	3-23	1030	G	X			2			3			3	X	X	X	X
DP-26	3-23	1230	G	X			2			3			3	X	X	X	X
DP-26A	3-23	1300	G	X			2			3			3	X	X	X	X
DP-26B	3-23	1400	G	X			2			3			3	X	X	X	X

Turn Around Time Required (Prior lab approval required for expedited TAT.): ☐ Standard ☐ Rush (Specify)

Sample Disposal: ☐ Return to Client ☐ Disposal by Lab

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished by	3.23.20	1725	1. Received by: TRC SS	3.23.20	1725
2. Relinquished by: TRC SS	3.24.20	0930	2. Received by	3.24.20	0930
3. Relinquished by	3.24.20	1329	3. Received by	Date	Time
4. Relinquished by	Date	Time	4. Laboratory received by	Date	Time

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY — Received on ice (Circle): Yes / No — Ice Pack — Receipt Temp: 3.1 °C

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Client Copy

Document Number: F-MS-C-003-Rev.04 Effective Date: 08-01-2014

Shealy Environmental Services, Inc.
Document Number: MF0018C-14

Page 1 of 1
Effective Date: 8/2/2018

Sample Receipt Checklist (SRC)

Client: TRC Cooler Inspected by/date: MEC / 03/24/2020 Lot #: VC24028

Means of receipt: ☑ SESI ☐ Client ☐ UPS ☐ FedEx ☐ Other: _____

☐ Yes	☑ No		1. Were custody seals present on the cooler?
☐ Yes	☐ No	☑ NA	2. If custody seals were present, were they intact and unbroken?

pH Strip ID: NA Chlorine Strip ID: NA Tested by: NA

Original temperature upon receipt / Derived (Corrected) temperature upon receipt: %Solid Snap-Cup ID: NA

2.4 / 2.4 °C NA / NA °C NA / NA °C NA / NA °C

Method: ☑ Temperature Blank ☐ Against Bottles IR Gun ID: 6 IR Gun Correction Factor: 0 °C

Method of coolant: ☑ Wet Ice ☐ Ice Packs ☐ Dry Ice ☐ None

☐ Yes	☐ No	☑ NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).
☐ Yes	☐ No	☑ NA	4. Is the commercial courier's packing slip attached to this form?
☑ Yes	☐ No		5. Were proper custody procedures (relinquished/received) followed?
☑ Yes	☐ No		6. Were sample IDs listed on the COC?
☑ Yes	☐ No		7. Were sample IDs listed on all sample containers?
☑ Yes	☐ No		8. Was collection date & time listed on the COC?
☑ Yes	☐ No		9. Was collection date & time listed on all sample containers?
☑ Yes	☐ No		10. Did all container label information (ID, date, time) agree with the COC?
☑ Yes	☐ No		11. Were tests to be performed listed on the COC?
☑ Yes	☐ No		12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)? _____
☑ Yes	☐ No		13. Was adequate sample volume available?
☐ Yes	☑ No		14. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
☐ Yes	☑ No		15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
☐ Yes	☑ No	☐ NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (¼"or 6mm in diameter) in any of the VOA vials?
☑ Yes	☐ No	☐ NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?
☐ Yes	☐ No	☑ NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
☐ Yes	☐ No	☑ NA	19. Were all applicable NH_3/TKN/cyanide/phenol/625 (< 0.5mg/L) samples free of residual chlorine?
☐ Yes	☐ No	☑ NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc…) correctly transcribed from the COC into the comment section in LIMS?
☐ Yes	☑ No		21. Was the quote number listed on the container label? If yes, Quote # NA

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) NA _____ were received incorrectly preserved and were adjusted accordingly in sample receiving with NA mL of circle one: H2SO4, HNO3, HCl, NaOH using SR # NA.
Time of preservation NA. If more than one preservative is needed, please note in the comments below.

Sample(s) NA _____ were received with bubbles >6 mm in diameter.

Samples(s) NA _____ were received with TRC > 0.5 mg/L (If #19 is ***no***) and were adjusted accordingly in sample receiving with sodium thiosulfate ($Na_2S_2O_3$) with Shealy ID: NA.

SR barcode labels applied by: JSH/BMG Date: 03/24/2020

Comments:

Pace Analytical Energy Services LLC
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

April 8, 2020

Lucas Odom
Pace Analytical Services South Carolina
106 Vantage Point Drive
West Columbia, SC 29172

RE: **WPH Clemson / TRC**

Pace Workorder: 33353

Dear Lucas Odom:

Enclosed are the analytical results for sample(s) received by the laboratory on Thursday, March 26, 2020. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Ruth Welsh 04/08/2020
Ruth.Welsh@pacelabs.com

Customer Service Representative

Enclosures

As a valued client we would appreciate your comments on our service.
Please email PAESfeedback@pacelabs.com.

Total Number of Pages 16

CERTIFICATE OF ANALYSIS

Laboratory Data Quality Review Notes

Project Name: WPH-Clemson, SC

Project Number: 300688.0000.0000 Phase 4

Lab Report: **33353** Pace Analytical Energy Services LLC; Pittsburgh, PA
This lab report is the subcontracted job related to **VC24028**.

Samples and Analyses: Four groundwater samples collected 23-Mar-2020 and analyzed for dissolved hydrocarbon gases (methane, ethane, ethene)

Chain of Custody, Sample Temperature, Sample Preservation: Chain of custody was signed (sample transfer from Pace Analytical, Columbia, to Pace Analytical, Pittsburgh); sample temperature was <6 ^{o}C upon arrival at the laboratory; samples were preserved properly.

Hold Time: Sample analyses were performed within acceptable hold time.

Surrogates: Surrogate recoveries are not applicable to dissolved hydrocarbon gas analyses.

Method Blank: Target analytes were not detected in the laboratory method blanks.

Trip Blank: A trip blank was not analyzed with these samples.

Field Blank: A field blank was not collected with these samples.

Equipment Rinse Blank: A rinsate blank was not collected with these samples.

LCS/LCSD: LCS and LCSD recoveries and LCS/LCSD RPDs are within the laboratory QC limits.

MS/MSD: MS/MSD analyses were performed using a sample from another dataset; the results are not relevant to this review.

Duplicates: No field duplicate sample was collected with this sample set. No laboratory duplicates were included with these analyses.

Dilutions: No dilutions were performed with these sample analyses.

No data qualifiers were assigned in this review.

Data reviewer: Amy Bass; TRC Environmental Corporation; 01-Oct-2020

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LABORATORY ACCREDITATIONS & CERTIFICATIONS

Accreditor:	Pennsylvania Department of Environmental Protection, Bureau of Laboratories
Accreditation ID:	02-00538
Scope:	NELAP Non-Potable Water
Accreditor:	West Virginia Department of Environmental Protection, Division of Water and Waste Management
Accreditation ID:	395
Scope:	Non-Potable Water
Accreditor:	South Carolina Department of Health and Environmental Control, Office of Environmental Laboratory Certification
Accreditation ID:	89009003
Scope:	Clean Water Act (CWA); Resource Conservation and Recovery Act (RCRA)
Accreditor:	State of Virginia
Accreditation ID:	460201
Scope:	Non-Potable Water
Accreditor:	NELAP: New Jersey, Department of Environmental Protection
Accreditation ID:	PA026
Scope:	Non-Potable Water
Accreditor:	NELAP: New York, Department of Health Wadsworth Center
Accreditation ID:	11815
Scope:	Non-Potable Water
Accreditor:	State of Connecticut, Department of Public Health, Division of Environmental Health
Accreditation ID:	PH-0263
Scope:	Clean Water Act (CWA) Resource Conservation and Recovery Act (RCRA)
Accreditor:	NELAP: Texas, Commission on Environmental Quality
Accreditation ID:	T104704453-09-TX
Scope:	Non-Potable Water
Accreditor:	State of New Hampshire
Accreditation ID:	299409
Scope:	Non-potable water
Accreditor:	State of Georgia
Accreditation ID:	Chapter 391-3-26
Scope:	As per the Georgia EPD Rules and Regulations for Commercial Laboratories, PAES is accredited by the Pennsylvania Department of Environmental Protection Bureau of Laboratories under the National Environmental Laboratory Approval Program (NELAC).

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SAMPLE SUMMARY

Workorder: 33353 WPH Clemson / TRC

Lab ID	Sample ID	Matrix	Date Collected	Date Received
333530001	DP-27	Water	3/23/2020 08:30	3/26/2020 10:15
333530002	DP-27A	Water	3/23/2020 09:00	3/26/2020 10:15
333530003	DP-27B	Water	3/23/2020 10:30	3/26/2020 10:15
333530004	DP-26	Water	3/23/2020 12:30	3/26/2020 10:15
333530005	DP-26A	Water	3/23/2020 13:00	3/26/2020 10:15
333530006	DP-26B	Water	3/23/2020 14:00	3/26/2020 10:15

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PROJECT SUMMARY

Workorder: 33353 WPH Clemson / TRC

Workorder Comments

The container pH for samples 33353 (0001, 0004) were measured as below the expected pH (< 10) for those samples preserved with trisodium phosphate, as assigned to PAES method AM20GAx.

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ANALYTICAL RESULTS

Workorder: 33353 WPH Clemson / TRC

Lab ID: **333530001** Date Received: 3/26/2020 10:15 Matrix: Water

Sample ID: **DP-27** Date Collected: 3/23/2020 08:30

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**0.69**	ug/l	0.50	0.046	1	4/3/2020 08:14	BW	n
Ethane	**0.13**	ug/l	0.10	0.0050	1	4/3/2020 08:14	BW	n
Ethene	**0.14**	ug/l	0.10	0.0040	1	4/3/2020 08:14	BW	n

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ANALYTICAL RESULTS

Workorder: 33353 WPH Clemson / TRC

Lab ID: **333530002** Date Received: 3/26/2020 10:15 Matrix: Water

Sample ID: **DP-27A** Date Collected: 3/23/2020 09:00

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**0.85**	ug/l	0.50	0.046	1	4/3/2020 08:25	BW	n
Ethane	**0.28**	ug/l	0.10	0.0050	1	4/3/2020 08:25	BW	n
Ethene	**0.19**	ug/l	0.10	0.0040	1	4/3/2020 08:25	BW	n

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ANALYTICAL RESULTS

Workorder: 33353 WPH Clemson / TRC

Lab ID: **333530003** Date Received: 3/26/2020 10:15 Matrix: Water

Sample ID: **DP-27B** Date Collected: 3/23/2020 10:30

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**1.9**	ug/l	0.50	0.046	1	4/3/2020 08:35	BW	n
Ethane	**0.90**	ug/l	0.10	0.0050	1	4/3/2020 08:35	BW	n
Ethene	**0.52**	ug/l	0.10	0.0040	1	4/3/2020 08:35	BW	n

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ANALYTICAL RESULTS

Workorder: 33353 WPH Clemson / TRC

Lab ID: **333530004** Date Received: 3/26/2020 10:15 Matrix: Water

Sample ID: **DP-26** Date Collected: 3/23/2020 12:30

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**8.5**	ug/l	0.50	0.046	1	4/3/2020 08:45	BW	n
Ethane	**2.1**	ug/l	0.10	0.0050	1	4/3/2020 08:45	BW	n
Ethene	**0.46**	ug/l	0.10	0.0040	1	4/3/2020 08:45	BW	n

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ANALYTICAL RESULTS

Workorder: 33353 WPH Clemson / TRC

Lab ID: **333530005** Date Received: 3/26/2020 10:15 Matrix: Water

Sample ID: **DP-26A** Date Collected: 3/23/2020 13:00

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**1.8**	ug/l	0.50	0.046	1	4/3/2020 08:58	BW	n
Ethane	**0.77**	ug/l	0.10	0.0050	1	4/3/2020 08:58	BW	n
Ethene	**0.26**	ug/l	0.10	0.0040	1	4/3/2020 08:58	BW	n

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ANALYTICAL RESULTS

Workorder: 33353 WPH Clemson / TRC

Lab ID: **333530006** Date Received: 3/26/2020 10:15 Matrix: Water

Sample ID: **DP-26B** Date Collected: 3/23/2020 14:00

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**4.6**	ug/l	0.50	0.046	1	4/3/2020 09:08	BW	n
Ethane	**1.7**	ug/l	0.10	0.0050	1	4/3/2020 09:08	BW	n
Ethene	**1.1**	ug/l	0.10	0.0040	1	4/3/2020 09:08	BW	n

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ANALYTICAL RESULTS QUALIFIERS

Workorder: 33353 WPH Clemson / TRC

DEFINITIONS/QUALIFIERS

MDL	Method Detection Limit. Can be used synonymously with LOD; Limit Of Detection.
PQL	Practical Quanitation Limit. Can be used synonymously with LOQ; Limit Of Quantitation.
ND	Not detected at or above reporting limit.
DF	Dilution Factor.
S	Surrogate.
RPD	Relative Percent Difference.
% Rec	Percent Recovery.
U	Indicates the compound was analyzed for, but not detected at or above the noted concentration.
J	Estimated concentration greater than the set method detection limit (MDL) and less than the set reporting limit (PQL).
n	The laboratory does not hold NELAP/TNI accreditation for this method or analyte.

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QUALITY CONTROL DATA

Workorder: 33353 WPH Clemson / TRC

QC Batch: DISG/8188 Analysis Method: AM20GAX

QC Batch Method: AM20GAX

Associated Lab Samples: 333530001, 333530002, 333530003, 333530004, 333530005, 333530006

METHOD BLANK: 66631

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
RISK				
Methane	ug/l	0.046U	0.046	n
Ethane	ug/l	0.0050U	0.0050	n
Ethene	ug/l	0.0040U	0.0040	n

LABORATORY CONTROL SAMPLE & LCSD: 66632 66633

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Methane	ug/l	750	740	730	99	97	80-120	2.2	20	n
Ethane	ug/l	38	38	39	100	102	80-120	2.1	20	n
Ethene	ug/l	35	36	37	102	105	80-120	3.1	20	n

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 66657 66658 Original: 333560007

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
RISK											
Methane	ug/l	2800	1500	4100	4100	85	86	70-130	0.39	20	d,n
Ethane	ug/l	62	76	140	130	98	87	70-130	6.3	20	d,n
Ethene	ug/l	0	71	70	66	99	93	70-130	6.7	20	d,n

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QUALITY CONTROL DATA QUALIFIERS

Workorder: 33353 WPH Clemson / TRC

QUALITY CONTROL PARAMETER QUALIFIERS

d	The analyte concentration was determined from a dilution.
n	The laboratory does not hold NELAP/TNI accreditation for this method or analyte.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 33353 WPH Clemson / TRC

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
333530001	DP-27			AM20GAX	DISG/8188
333530002	DP-27A			AM20GAX	DISG/8188
333530003	DP-27B			AM20GAX	DISG/8188
333530004	DP-26			AM20GAX	DISG/8188
333530005	DP-26A			AM20GAX	DISG/8188
333530006	DP-26B			AM20GAX	DISG/8188

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33853

SHEALY

Chain of Custody Record

Shealy Environmental Services, Inc.
106 Vantage Point Drive
West Columbia, South Carolina 29172
Telephone No. (803) 791-9700 Fax No. (803) 791-9111
www.shealylab.com

Number

Client	Report to Contact	Telephone No. / E-mail	Quote No.
Pace Analytical - Columbia	Lucas Odom	803-206-9537/lodom@shealylab.com	
Address	**Sampler's Signature**	**Analysis (Attach list if more space is needed)**	**Page**
106 Vantage Point Dr.			1 of 1
City / State / Zip Code	X _____		
West Columbia / SC / 29172	Printed Name		Laboratory Lot Number
Project Name			
WPH Clemson			

Project Number	P.O No.		G=Grab C=Composite	Matrix				No of Containers by Preservative Type							Dissolved Gasses									Remarks / Cooler I.D.
Sample ID / Description (Containers for each sample may be combined on one line)	Date	Time		Aqueous	Solid	Non-Aqueous		Unpres.	H2SO4	HNO3	HCl	NaOH	5035 Kit	TSP										
DP-27	3/23/2020	830	G	X										X	X									VC24028
DP-27A	3/23/2020	900	G	X										X	X									
DP-27B	3/23/2020	1030	G	X										X	X									
DP-26	3/23/2020	1230	G	X										X	X									
DP-26A	3/23/2020	1300	G	X										X	X									
DP-26B	3/23/2020	1400	G	X										X	X									

Turn Around Time Required (Prior lab approval required for expedited TAT)	Sample Disposal	Possible Hazard Identification (List any known hazards in the remarks)	QC Requirements
X Standard Rush	☐ Return to Client ☒ Disposal by Lab	☐ Non-Hazardous ☐ Flammable ☐ Skin Irritant ☐ SDS provided ☐ Unknown	

	Date	Time		Date	Time
1. Relinquished by Lindsay Hale	3/25/2020	1800	1. Received by		
2. Relinquished by			2. Received by		
3. Relinquished by			3. Received by		
4. Relinquished by			4. Laboratory Received by PAS	3.26.2020	1015

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on Ice (Check) ☐ Y ☐ N ☐ ce Pack

Receipt Temp. 0.3 °C

Cooler Receipt Form

Client Name: Pace Project: VC24028 Lab Work Order: 33353

A. **Shipping/Container Information** (circle appropriate response)

Courier: (FedEx) UPS USPS Client Other:_____ Air bill Present: (Yes) No

Tracking Number: 166334637691

Custody Seal on Cooler/Box Present: (Yes) No Seals Intact: (Yes) No

Cooler/Box Packing Material: (Bubble Wrap) Absorbent Foam Other:_____

Type of Ice: (Wet) Blue None Ice Intact: (Yes) Melted

Cooler Temperature: 0.3°C Radiation Screened: Yes (No) Chain of Custody Present: (Yes) No

Comments:_____

B. **Laboratory Assignment/Log-in** (check appropriate response)

	YES	NO	N/A	Comment Reference non-Conformance
Chain of Custody properly filled out	✓			
Chain of Custody relinquished	✓			
Sampler Name & Signature on COC			✓	
Containers intact	✓			
Were samples in separate bags	✓			
Sample container labels match COC Sample name/date and time collected	✓			
Sufficient volume provided	✓			
PAES containers used	✓			
Are containers properly preserved for the requested testing? (as labeled)	✓			
If an unknown preservation state, were containers checked? Exception: VOA's coliform			✓	If yes, see pH form.
Was volume for dissolved testing field filtered, as noted on the COC? Was volume received in a preserved container?			✓	
Headspace present?		✓		

Comments:_____

Cooler contents examined/received by: CJ Date: 3.26.2020

Project Manager Review: RW Date: 3-26-2020

Report of Analysis

TRC Companies, Inc.
50 International Dr.
Suite 150
Greenville, SC 29615
Attention: Lisa Clark

Project Name: WPH Clemson

Project Number: 300688.0000.0000.00011

Lot Number:**VC24033**

Date Completed:10/05/2020
Revision Date: 10/05/2020

10/07/2020 9:30 AM
Approved and released by:
Project Manager II: **Lucas Odom**

The electronic signature above is the equivalent of a handwritten signature.

Laboratory Data Quality Review Notes

Project Name: WPH-Clemson, SC

Project Number: 300688.0000.0000 Phase 4

Lab Report: **VC24033** Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.); West Columbia, SC; subcontracted report: **33354**

Samples and Analyses: Six groundwater samples, collected 23-Mar-2020 and analyzed for VOCs, chloride, bromide, sulfate, and nitrate; one trip blank, analyzed for VOCs only

Chain of Custody, Sample Temperature, Sample Preservation: Chain of custody was signed; sample temperature was <6 ^{o}C upon arrival at the laboratory; samples were preserved properly.

Hold Time: Sample analyses were performed within acceptable hold times.

Surrogates: VOC surrogate recoveries are within QC limits.

Method Blank: Target analytes were not detected in the laboratory method blanks.

Trip Blank: No target analytes were detected in the trip blank; analyzed for VOCs only.

Field Blank: A field blank was not collected with these samples.

Equipment Rinse Blank: A rinsate blank was not collected with these samples.

LCS/LCSD: LCS recoveries for all analyses are within QC limits. LCSD analyses were not performed.

MS/MSD: MS/MSD analyses were performed for bromide, chloride, and sulfate using sample RMW-05A. MS/MSD recoveries and RPDs are within QC limits.

Duplicates: No field duplicate sample was collected with this sample set. No laboratory duplicates were included with these analyses.

Dilutions: All dilutions performed in these sample analyses were associated with positive results (detects); no ND results are associated with elevated DLs and LOQs due to dilution.

No data qualifiers were assigned in this review.

Data reviewer: Amy Bass; TRC Environmental Corporation; 01-Oct-2020

Case Narrative
TRC Companies, Inc.
Lot Number: VC24033

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Pace Analytical Services, LLC ("Pace") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Pace policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Pace Project Manager listed on the cover page.

Dissolved Gasses

The analysis for Dissolved Gasses has been performed by Pace Energy. This data can be found on Pace Energy report 33354.

Report Revision 10/07/20

Due to an import error, the Nitrate analysis times that were performed prior to 10:00 were not originally documented. These times have now been included.

Sample Summary
TRC Companies, Inc.
Lot Number: VC24033

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	TBLK-20109	Aqueous	03/23/2020	03/24/2020
002	RMW-05B	Aqueous	03/23/2020 1300	03/24/2020
003	RMW-05A	Aqueous	03/23/2020 1350	03/24/2020
004	RMW-01	Aqueous	03/23/2020 1500	03/24/2020
005	RMW-09	Aqueous	03/23/2020 1605	03/24/2020

(5 samples)

Detection Summary

TRC Companies, Inc.

Lot Number: VC24033

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
002	RMW-05B	Aqueous	Chloride	300.0	0.93	J	mg/L	7
002	RMW-05B	Aqueous	Nitrate - N	353.2	0.94		mg/L	7
002	RMW-05B	Aqueous	Chloroform	8260D	8.1		ug/L	8
003	RMW-05A	Aqueous	Chloride	300.0	1.8		mg/L	10
003	RMW-05A	Aqueous	Nitrate - N	353.2	0.54		mg/L	10
003	RMW-05A	Aqueous	Sulfate	300.0	0.76	J	mg/L	10
003	RMW-05A	Aqueous	Chloroform	8260D	11		ug/L	11
004	RMW-01	Aqueous	Bromide	300.0	0.16	J	mg/L	13
004	RMW-01	Aqueous	Chloride	300.0	16		mg/L	13
004	RMW-01	Aqueous	Nitrate - N	353.2	4.7		mg/L	13
004	RMW-01	Aqueous	Sulfate	300.0	68		mg/L	13
004	RMW-01	Aqueous	1,2-Dichloroethane	8260D	0.47	J	ug/L	14
004	RMW-01	Aqueous	Tetrachloroethene	8260D	2.2		ug/L	14
004	RMW-01	Aqueous	Trichlorofluoromethane	8260D	0.60	J	ug/L	15
005	RMW-09	Aqueous	Bromide	300.0	0.31		mg/L	16
005	RMW-09	Aqueous	Chloride	300.0	27		mg/L	16
005	RMW-09	Aqueous	Nitrate - N	353.2	1.7		mg/L	16
005	RMW-09	Aqueous	Sulfate	300.0	7.7		mg/L	16
005	RMW-09	Aqueous	Carbon disulfide	8260D	0.42	J	ug/L	17
005	RMW-09	Aqueous	cis-1,2-Dichloroethene	8260D	2.7		ug/L	17
005	RMW-09	Aqueous	Tetrachloroethene	8260D	200		ug/L	17
005	RMW-09	Aqueous	Trichloroethene	8260D	0.90	J	ug/L	18

(22 detections)

Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC24033-001
Description: TBLK-20109
Matrix: Aqueous
Date Sampled: 03/23/2020
Date Received: 03/24/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/26/2020 2233	JTH		49129

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	ND		1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

Pace Analytical Services, LLC *(formerly Shealy Environmental Services, Inc.)*
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC24033-001
Description: TBLK-20109
Matrix: Aqueous
Date Sampled: 03/23/2020
Date Received: 03/24/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/26/2020 2233	JTH		49129

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Trichloroethene	79-01-6	8260D	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		99	70-130
1,2-Dichloroethane-d4		107	70-130
Toluene-d8		108	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Inorganic non-metals

Client: TRC Companies, Inc.
Laboratory ID: VC24033-002
Description: RMW-05B
Matrix: Aqueous
Date Sampled: 03/23/2020 1300
Date Received: 03/24/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	03/29/2020 0530	HKL		49400
1		(Chloride) 300.0	1	03/29/2020 0530	HKL		49399
1		(Nitrate - N) 353.2	1	03/25/2020 0754	AMR		48886
1		(Sulfate) 300.0	1	03/29/2020 0530	HKL		49398

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	ND		0.20	0.050	mg/L	1
Chloride		300.0	0.93	J	1.0	0.20	mg/L	1
Nitrate - N		353.2	0.94		0.020	0.010	mg/L	1
Sulfate		300.0	ND		1.0	0.20	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
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W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC24033-002
Description: RMW-05B
Matrix: Aqueous
Date Sampled: 03/23/2020 1300
Date Received: 03/24/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/27/2020 0009	JTH		49129

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	8.1		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	ND		1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC24033-002
Description: RMW-05B
Matrix: Aqueous
Date Sampled: 03/23/2020 1300
Date Received: 03/24/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/27/2020 0009	JTH		49129

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Trichloroethene	79-01-6	8260D	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		101	70-130
1,2-Dichloroethane-d4		108	70-130
Toluene-d8		106	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
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Inorganic non-metals

Client: TRC Companies, Inc.
Laboratory ID: VC24033-003
Description: RMW-05A
Matrix: Aqueous
Date Sampled: 03/23/2020 1350
Date Received: 03/24/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	03/29/2020 0552	HKL		49400
1		(Chloride) 300.0	1	03/29/2020 0552	HKL		49399
1		(Nitrate - N) 353.2	1	03/25/2020 0755	AMR		48886
1		(Sulfate) 300.0	1	03/29/2020 0552	HKL		49398

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	ND		0.20	0.050	mg/L	1
Chloride		300.0	1.8		1.0	0.20	mg/L	1
Nitrate - N		353.2	0.54		0.020	0.010	mg/L	1
Sulfate		300.0	0.76	J	1.0	0.20	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC24033-003
Description: RMW-05A
Matrix: Aqueous
Date Sampled: 03/23/2020 1350
Date Received: 03/24/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/27/2020 0033	JTH		49129

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	11		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	ND		1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC24033-003
Description: RMW-05A
Matrix: Aqueous
Date Sampled: 03/23/2020 1350
Date Received: 03/24/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/27/2020 0033	JTH		49129

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Trichloroethene	79-01-6	8260D	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		100	70-130
1,2-Dichloroethane-d4		105	70-130
Toluene-d8		106	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Inorganic non-metals

Client: TRC Companies, Inc.
Laboratory ID: VC24033-004
Description: RMW-01
Matrix: Aqueous
Date Sampled: 03/23/2020 1500
Date Received: 03/24/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	03/29/2020 0747	HKL		49400
1		(Chloride) 300.0	1	03/29/2020 0747	HKL		49399
1		(Nitrate - N) 353.2	5	03/25/2020 0800	AMR		48886
1		(Sulfate) 300.0	1	03/29/2020 0747	HKL		49398

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.16	J	0.20	0.050	mg/L	1
Chloride		300.0	16		1.0	0.20	mg/L	1
Nitrate - N		353.2	4.7		0.10	0.050	mg/L	1
Sulfate		300.0	68		1.0	0.20	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC24033-004
Description: RMW-01
Matrix: Aqueous
Date Sampled: 03/23/2020 1500
Date Received: 03/24/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/27/2020 0057	JTH		49129

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	0.47	J	1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	2.2		1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
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W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC24033-004
Description: RMW-01
Matrix: Aqueous
Date Sampled: 03/23/2020 1500
Date Received: 03/24/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/27/2020 0057	JTH		49129

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Trichloroethene	79-01-6	8260D	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	0.60	J	1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		100	70-130
1,2-Dichloroethane-d4		105	70-130
Toluene-d8		108	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Inorganic non-metals

Client: TRC Companies, Inc.
Laboratory ID: VC24033-005
Description: RMW-09
Matrix: Aqueous
Date Sampled: 03/23/2020 1605
Date Received: 03/24/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	03/29/2020 0810	HKL		49400
1		(Chloride) 300.0	1	03/29/2020 0810	HKL		49399
1		(Nitrate - N) 353.2	5	03/25/2020 0802	AMR		48886
1		(Sulfate) 300.0	1	03/29/2020 0810	HKL		49398

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.31		0.20	0.050	mg/L	1
Chloride		300.0	27		1.0	0.20	mg/L	1
Nitrate - N		353.2	1.7		0.10	0.050	mg/L	1
Sulfate		300.0	7.7		1.0	0.20	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC24033-005
Description: RMW-09
Matrix: Aqueous
Date Sampled: 03/23/2020 1605
Date Received: 03/24/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/27/2020 0121	JTH		49129
2	5030B	8260D	5	03/28/2020 2302	STM		49290

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	0.42	J	1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	2.7		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	200		5.0	2.0	ug/L	2
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
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ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

Pace Analytical Services, LLC *(formerly Shealy Environmental Services, Inc.)*
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC24033-005
Description: RMW-09
Matrix: Aqueous
Date Sampled: 03/23/2020 1605
Date Received: 03/24/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/27/2020 0121	JTH		49129
2	5030B	8260D	5	03/28/2020 2302	STM		49290

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260D	0.90	J	1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits	Q	Run 2 % Recovery	Acceptance Limits
Bromofluorobenzene		103	70-130		100	70-130
1,2-Dichloroethane-d4		109	70-130		120	70-130
Toluene-d8		111	70-130		109	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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QC Summary

Inorganic non-metals - MB

Sample ID: VQ48886-001
Batch: 48886
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Nitrate - N	ND		1	0.020	0.010	mg/L	03/25/2020 0731

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: VQ48886-002
Batch: 48886
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	0.80	0.78		1	98	90-110	03/25/2020 0732

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: VQ49398-001
Batch: 49398
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Sulfate	ND		1	1.0	0.20	mg/L	03/28/2020 1452

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: VQ49398-002
Batch: 49398
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Sulfate	20	20		1	98	90-110	03/28/2020 1538

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Sample ID: VC24033-003MS
Batch: 49398
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Sulfate	0.76	20	20		1	96	90-110	03/29/2020 0615

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: VC24033-003MD
Batch: 49398
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Sulfate	0.76	20	21		1	100	4.4	90-110	20	03/29/2020 0724

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: VQ49399-001
Batch: 49399
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Chloride	ND		1	1.0	0.20	mg/L	03/28/2020 1452

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: VQ49399-002
Batch: 49399
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Chloride	20	20		1	100	90-110	03/28/2020 1538

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Sample ID: VC24033-003MS
Batch: 49399
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Chloride	1.8	20	21		1	97	90-110	03/29/2020 0615

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: VC24033-003MD
Batch: 49399
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Chloride	1.8	20	22		1	102	4.6	90-110	20	03/29/2020 0724

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: VQ49400-001
Batch: 49400
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Bromide	ND		1	0.20	0.050	mg/L	03/28/2020 1452

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: VQ49400-002
Batch: 49400
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Bromide	8.0	7.8		1	98	90-110	03/28/2020 1538

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Sample ID: VC24033-003MS
Batch: 49400
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Bromide	ND	8.0	7.5		1	94	90-110	03/29/2020 0615

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: VC24033-003MD
Batch: 49400
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Bromide	ND	8.0	7.9		1	99	5.2	90-110	20	03/29/2020 0724

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: VQ49129-001
Batch: 49129
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Acetone	ND		1	20	5.0	ug/L	03/26/2020 2148
Benzene	ND		1	1.0	0.40	ug/L	03/26/2020 2148
Bromodichloromethane	ND		1	1.0	0.40	ug/L	03/26/2020 2148
Bromoform	ND		1	1.0	0.40	ug/L	03/26/2020 2148
Bromomethane (Methyl bromide)	ND		1	2.0	0.40	ug/L	03/26/2020 2148
2-Butanone (MEK)	ND		1	10	2.0	ug/L	03/26/2020 2148
Carbon disulfide	ND		1	1.0	0.40	ug/L	03/26/2020 2148
Carbon tetrachloride	ND		1	1.0	0.40	ug/L	03/26/2020 2148
Chlorobenzene	ND		1	1.0	0.40	ug/L	03/26/2020 2148
Chloroethane	ND		1	2.0	0.40	ug/L	03/26/2020 2148
Chloroform	ND		1	1.0	0.40	ug/L	03/26/2020 2148
Chloromethane (Methyl chloride)	ND		1	1.0	0.50	ug/L	03/26/2020 2148
Cyclohexane	ND		1	1.0	0.40	ug/L	03/26/2020 2148
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	0.40	ug/L	03/26/2020 2148
Dibromochloromethane	ND		1	1.0	0.40	ug/L	03/26/2020 2148
1,2-Dibromoethane (EDB)	ND		1	1.0	0.40	ug/L	03/26/2020 2148
1,2-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/26/2020 2148
1,3-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/26/2020 2148
1,4-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/26/2020 2148
Dichlorodifluoromethane	ND		1	2.0	0.60	ug/L	03/26/2020 2148
1,1-Dichloroethane	ND		1	1.0	0.40	ug/L	03/26/2020 2148
1,2-Dichloroethane	ND		1	1.0	0.40	ug/L	03/26/2020 2148
1,1-Dichloroethene	ND		1	1.0	0.40	ug/L	03/26/2020 2148
cis-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	03/26/2020 2148
trans-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	03/26/2020 2148
1,2-Dichloropropane	ND		1	1.0	0.40	ug/L	03/26/2020 2148
cis-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	03/26/2020 2148
trans-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	03/26/2020 2148
Ethylbenzene	ND		1	1.0	0.40	ug/L	03/26/2020 2148
2-Hexanone	ND		1	10	2.0	ug/L	03/26/2020 2148
Isopropylbenzene	ND		1	1.0	0.40	ug/L	03/26/2020 2148
Methyl acetate	ND		1	1.0	0.40	ug/L	03/26/2020 2148
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	0.40	ug/L	03/26/2020 2148
4-Methyl-2-pentanone	ND		1	10	2.0	ug/L	03/26/2020 2148
Methylcyclohexane	ND		1	5.0	0.40	ug/L	03/26/2020 2148
Methylene chloride	ND		1	1.0	0.40	ug/L	03/26/2020 2148
Styrene	ND		1	1.0	0.41	ug/L	03/26/2020 2148
1,1,2,2-Tetrachloroethane	ND		1	1.0	0.40	ug/L	03/26/2020 2148
Tetrachloroethene	ND		1	1.0	0.40	ug/L	03/26/2020 2148
Toluene	ND		1	1.0	0.40	ug/L	03/26/2020 2148
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	0.42	ug/L	03/26/2020 2148
1,2,4-Trichlorobenzene	ND		1	1.0	0.40	ug/L	03/26/2020 2148
1,1,1-Trichloroethane	ND		1	1.0	0.40	ug/L	03/26/2020 2148
1,1,2-Trichloroethane	ND		1	1.0	0.40	ug/L	03/26/2020 2148

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: VQ49129-001
Batch: 49129
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Trichloroethene	ND		1	1.0	0.40	ug/L	03/26/2020 2148
Trichlorofluoromethane	ND		1	1.0	0.40	ug/L	03/26/2020 2148
Vinyl chloride	ND		1	1.0	0.40	ug/L	03/26/2020 2148
Xylenes (total)	ND		1	1.0	0.40	ug/L	03/26/2020 2148

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		102	70-130
1,2-Dichloroethane-d4		108	70-130
Toluene-d8		109	70-130

LOQ = Limit of Quantitation
DL = Detection Limit

ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria

N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: VQ49129-002
Batch: 49129
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	110		1	111	60-140	03/26/2020 2044
Benzene	50	52		1	104	70-130	03/26/2020 2044
Bromodichloromethane	50	55		1	110	70-130	03/26/2020 2044
Bromoform	50	50		1	99	70-130	03/26/2020 2044
Bromomethane (Methyl bromide)	50	51		1	102	70-130	03/26/2020 2044
2-Butanone (MEK)	100	110		1	107	70-130	03/26/2020 2044
Carbon disulfide	50	56		1	112	70-130	03/26/2020 2044
Carbon tetrachloride	50	51		1	102	70-130	03/26/2020 2044
Chlorobenzene	50	52		1	104	70-130	03/26/2020 2044
Chloroethane	50	53		1	107	70-130	03/26/2020 2044
Chloroform	50	53		1	105	70-130	03/26/2020 2044
Chloromethane (Methyl chloride)	50	51		1	103	60-140	03/26/2020 2044
Cyclohexane	50	61		1	122	70-130	03/26/2020 2044
1,2-Dibromo-3-chloropropane (DBCP)	50	56		1	113	70-130	03/26/2020 2044
Dibromochloromethane	50	50		1	100	70-130	03/26/2020 2044
1,2-Dibromoethane (EDB)	50	52		1	105	70-130	03/26/2020 2044
1,2-Dichlorobenzene	50	52		1	105	70-130	03/26/2020 2044
1,3-Dichlorobenzene	50	52		1	104	70-130	03/26/2020 2044
1,4-Dichlorobenzene	50	51		1	102	70-130	03/26/2020 2044
Dichlorodifluoromethane	50	52		1	103	60-140	03/26/2020 2044
1,1-Dichloroethane	50	54		1	107	70-130	03/26/2020 2044
1,2-Dichloroethane	50	51		1	103	70-130	03/26/2020 2044
1,1-Dichloroethene	50	55		1	111	70-130	03/26/2020 2044
cis-1,2-Dichloroethene	50	54		1	108	70-130	03/26/2020 2044
trans-1,2-Dichloroethene	50	54		1	108	70-130	03/26/2020 2044
1,2-Dichloropropane	50	52		1	104	70-130	03/26/2020 2044
cis-1,3-Dichloropropene	50	55		1	111	70-130	03/26/2020 2044
trans-1,3-Dichloropropene	50	50		1	100	70-130	03/26/2020 2044
Ethylbenzene	50	53		1	105	70-130	03/26/2020 2044
2-Hexanone	100	100		1	103	70-130	03/26/2020 2044
Isopropylbenzene	50	55		1	109	70-130	03/26/2020 2044
Methyl acetate	50	50		1	100	70-130	03/26/2020 2044
Methyl tertiary butyl ether (MTBE)	50	53		1	106	70-130	03/26/2020 2044
4-Methyl-2-pentanone	100	100		1	104	70-130	03/26/2020 2044
Methylcyclohexane	50	51		1	103	70-130	03/26/2020 2044
Methylene chloride	50	51		1	102	70-130	03/26/2020 2044
Styrene	50	55		1	109	70-130	03/26/2020 2044
1,1,2,2-Tetrachloroethane	50	52		1	103	70-130	03/26/2020 2044
Tetrachloroethene	50	52		1	104	70-130	03/26/2020 2044
Toluene	50	52		1	104	70-130	03/26/2020 2044
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	52		1	105	70-130	03/26/2020 2044
1,2,4-Trichlorobenzene	50	54		1	108	70-130	03/26/2020 2044
1,1,1-Trichloroethane	50	52		1	104	70-130	03/26/2020 2044
1,1,2-Trichloroethane	50	51		1	101	70-130	03/26/2020 2044

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: VQ49129-002
Batch: 49129
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	53		1	106	70-130	03/26/2020 2044
Trichlorofluoromethane	50	53		1	105	70-130	03/26/2020 2044
Vinyl chloride	50	54		1	108	70-130	03/26/2020 2044
Xylenes (total)	100	110		1	108	70-130	03/26/2020 2044

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		99	70-130
1,2-Dichloroethane-d4		102	70-130
Toluene-d8		104	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: VQ49290-001
Batch: 49290
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Tetrachloroethene	ND		1	1.0	0.40	ug/L	03/28/2020 1512

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		100	70-130
1,2-Dichloroethane-d4		119	70-130
Toluene-d8		107	70-130

LOQ = Limit of Quantitation
DL = Detection Limit

ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria

N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: VQ49290-002
Batch: 49290
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Tetrachloroethene	50	50		1	100	70-130	03/28/2020 1405

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		99	70-130
1,2-Dichloroethane-d4		108	70-130
Toluene-d8		104	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Chain of Custody

and

Miscellaneous Documents

SHEALY ENVIRONMENTAL SERVICES, INC.
106 Vantage Point Drive • West Columbia, SC 29172
Telephone No. 803-791-9700 Fax No. 803-791-9111
www.shealylab.com

SHEALY Chain of Custody Record

Number 104447

Client: TRC	Report to Contact: Lisa Clark	Telephone No. / E-mail:	Quote No.
Address: 50 International Dr Ste 150	Sampler's Signature: X	Analysis (Attach list if more space is needed):	Page 1 of 1
City: Greenville / State: SC / Zip Code: 29615	Printed Name: Aharon Mirsky		VC24033
Project Name: WPH Clemson			LJO
Project No.: 300688.0.0.11	P.O. No.		

Sample ID / Description (Containers for each sample may be combined on one line.)	Date 2020	Time	Grab / Composite	Matrix: Air / Solid / Non-Aqueous	No of Containers by Preservative Type: Unpres. / H_2SO_4 / HNO3 / HCl / NaOH / S_2O_3 / Na / Tedlar	VOCs	Chloride, sulfate, Bromide	Nitrate	Diss Gasses	Remarks / Cooler I.D.
TBLK-20109	1	1	G	A	2	X				
RMW-05B	3-23	1300	G	A	2 / 3 / 3	X	X	X	X	
RMW-05A	3-23	1350	G	A	2 / 3 / 3	X	X	X	X	
RMW-01	3-23	1600	G	A	2 / 3 / 3	X	X	X	X	
RMW-09	3-23	1605	G	A	2 / 3 / 3	X	X	X	X	

Turn Around Time Required (Prior lab approval required for unspecified TAT.) ☐ Standard ☐ Rush (Specify)

Sample Disposal ☐ Return to Client ☐ Disposal by Lab

Possible Hazard Identification ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished by	3.23.20	1715	1. Received by: TRC SS	3.23.20	1715
2. Relinquished by: TRC SS	3.24.20	0950	2. Received by	3.24.20	0950
3. Relinquished by	3.24.20	1329	3. Received by	Date	Time
4. Relinquished by	Date	Time	4. Laboratory received by	3.24.20	1329

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY — Received on Ice (Circle) Yes / No — Ice Pack — Receipt Temp: 3.1 °C

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Client Copy

Document Number: F-AD-133 Effective Date: 08-01-2014

Shealy Environmental Services, Inc.
Document Number: ME0018C-14

Page 1 of 1
Effective Date: 8/2/2018

Sample Receipt Checklist (SRC)

Client: TRC Cooler Inspected by/date: BMG / 03/24/2020 Lot #: VC24033

Means of receipt: ☑ SESI ☐ Client ☐ UPS ☐ FedEx ☐ Other: _____

☐ Yes	☑ No		1. Were custody seals present on the cooler?
☐ Yes	☐ No	☑ NA	2. If custody seals were present, were they intact and unbroken?

pH Strip ID: NA Chlorine Strip ID: NA Tested by: NA

Original temperature upon receipt / Derived (Corrected) temperature upon receipt %Solid Snap-Cup ID: NA

3.1 / 3.1 °C NA / NA °C NA / NA °C NA / NA °C

Method: ☑ Temperature Blank ☐ Against Bottles IR Gun ID: 6 IR Gun Correction Factor: 0 °C

Method of coolant: ☑ Wet Ice ☐ Ice Packs ☐ Dry Ice ☐ None

☐ Yes	☐ No	☑ NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).
☐ Yes	☐ No	☑ NA	4. Is the commercial courier's packing slip attached to this form?
☑ Yes	☐ No		5. Were proper custody procedures (relinquished/received) followed?
☑ Yes	☐ No		6. Were sample IDs listed on the COC?
☑ Yes	☐ No		7. Were sample IDs listed on all sample containers?
☑ Yes	☐ No		8. Was collection date & time listed on the COC?
☑ Yes	☐ No		9. Was collection date & time listed on all sample containers?
☑ Yes	☐ No		10. Did all container label information (ID, date, time) agree with the COC?
☑ Yes	☐ No		11. Were tests to be performed listed on the COC?
☑ Yes	☐ No		12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)?
☑ Yes	☐ No		13. Was adequate sample volume available?
☐ Yes	☑ No		14. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
☐ Yes	☑ No		15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
☐ Yes	☑ No	☐ NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (¼" or 6mm in diameter) in any of the VOA vials?
☐ Yes	☐ No	☑ NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?
☐ Yes	☐ No	☑ NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
☐ Yes	☐ No	☑ NA	19. Were all applicable NH_3/TKN/cyanide/phenol/625 (< 0.5mg/L) samples free of residual chlorine?
☐ Yes	☐ No	☑ NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc…) correctly transcribed from the COC into the comment section in LIMS?
☐ Yes	☑ No		21. Was the quote number listed on the container label? If yes, Quote # NA

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) NA were received incorrectly preserved and were adjusted accordingly in sample receiving with NA mL of circle one: H2SO4, HNO3, HCl, NaOH using SR # NA.
Time of preservation NA. If more than one preservative is needed, please note in the comments below.

Sample(s) NA were received with bubbles >6 mm in diameter.

Samples(s) NA were received with TRC > 0.5 mg/L (If #19 is *no*) and were adjusted accordingly in sample receiving with sodium thiosulfate ($Na_2S_2O_3$) with Shealy ID: NA.

SR barcode labels applied by: BMG Date: 03/24/2020

Comments:

Pace Analytical Energy Services LLC
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

April 7, 2020

Lucas Odom
Pace Analytical Services South Carolina
106 Vantage Point Drive
West Columbia, SC 29172

RE: **WPH Clemson / TRC**

Pace Workorder: 33354

Dear Lucas Odom:

Enclosed are the analytical results for sample(s) received by the laboratory on Thursday, March 26, 2020. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Ruth Welsh 04/07/2020
Ruth.Welsh@pacelabs.com

Customer Service Representative

Enclosures

As a valued client we would appreciate your comments on our service.
Please email PAESfeedback@pacelabs.com.

Total Number of Pages 14

CERTIFICATE OF ANALYSIS

Laboratory Data Quality Review Notes

Project Name: WPH-Clemson, SC

Project Number: 300688.0000.0000 Phase 4

Lab Report: **33354** Pace Analytical Energy Services LLC; Pittsburgh, PA
This lab report is the subcontracted job related to **VC24033**.

Samples and Analyses: Four groundwater samples collected 23-Mar-2020 and analyzed for dissolved hydrocarbon gases (methane, ethane, ethene)

Chain of Custody, Sample Temperature, Sample Preservation: Chain of custody was signed (sample transfer from Pace Analytical, Columbia, to Pace Analytical, Pittsburgh); sample temperature was <6 ^{o}C upon arrival at the laboratory; samples were preserved properly.

Hold Time: Sample analyses were performed within acceptable hold time.

Surrogates: Surrogate recoveries are not applicable to dissolved hydrocarbon gas analyses.

Method Blank: Target analytes were not detected in the laboratory method blanks.

Trip Blank: A trip blank was not analyzed with these samples.

Field Blank: A field blank was not collected with these samples.

Equipment Rinse Blank: A rinsate blank was not collected with these samples.

LCS/LCSD: LCS and LCSD recoveries and LCS/LCSD RPDs are within the laboratory QC limits.

MS/MSD: MS/MSD analyses were not performed with this sample set.

Duplicates: No field duplicate sample was collected with this sample set. No laboratory duplicates were included with these analyses.

Dilutions: No dilutions were performed with these sample analyses.

No data qualifiers were assigned in this review.

Data reviewer: Amy Bass; TRC Environmental Corporation; 01-Oct-2020

Pace Analytical Energy Services LLC
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

LABORATORY ACCREDITATIONS & CERTIFICATIONS

Accreditor:	Pennsylvania Department of Environmental Protection, Bureau of Laboratories
Accreditation ID:	02-00538
Scope:	NELAP Non-Potable Water
Accreditor:	West Virginia Department of Environmental Protection, Division of Water and Waste Management
Accreditation ID:	395
Scope:	Non-Potable Water
Accreditor:	South Carolina Department of Health and Environmental Control, Office of Environmental Laboratory Certification
Accreditation ID:	89009003
Scope:	Clean Water Act (CWA); Resource Conservation and Recovery Act (RCRA)
Accreditor:	State of Virginia
Accreditation ID:	460201
Scope:	Non-Potable Water
Accreditor:	NELAP: New Jersey, Department of Environmental Protection
Accreditation ID:	PA026
Scope:	Non-Potable Water
Accreditor:	NELAP: New York, Department of Health Wadsworth Center
Accreditation ID:	11815
Scope:	Non-Potable Water
Accreditor:	State of Connecticut, Department of Public Health, Division of Environmental Health
Accreditation ID:	PH-0263
Scope:	Clean Water Act (CWA) Resource Conservation and Recovery Act (RCRA)
Accreditor:	NELAP: Texas, Commission on Environmental Quality
Accreditation ID:	T104704453-09-TX
Scope:	Non-Potable Water
Accreditor:	State of New Hampshire
Accreditation ID:	299409
Scope:	Non-potable water
Accreditor:	State of Georgia
Accreditation ID:	Chapter 391-3-26
Scope:	As per the Georgia EPD Rules and Regulations for Commercial Laboratories, PAES is accredited by the Pennsylvania Department of Environmental Protection Bureau of Laboratories under the National Environmental Laboratory Approval Program (NELAC).

Pace Analytical Energy Services LLC
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Pittsburgh, PA 15238
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SAMPLE SUMMARY

Workorder: 33354 WPH Clemson / TRC

Lab ID	Sample ID	Matrix	Date Collected	Date Received
333540001	RMW-05B	Water	3/23/2020 13:00	3/26/2020 10:15
333540002	RMW-05A	Water	3/23/2020 13:50	3/26/2020 10:15
333540003	RMW-01	Water	3/23/2020 15:00	3/26/2020 10:15
333540004	RMW-09	Water	3/23/2020 16:05	3/26/2020 10:15

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PROJECT SUMMARY

Workorder: 33354 WPH Clemson / TRC

Workorder Comments

The container pH for samples 33354 (0001-0004) were measured as below the expected pH (< 10) for those samples preserved with trisodium phosphate, as assigned to PAES method AM20GAx.

Pace Analytical Energy Services LLC
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Pittsburgh, PA 15238
Phone: (412) 826-5245
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ANALYTICAL RESULTS

Workorder: 33354 WPH Clemson / TRC

Lab ID: **333540001** Date Received: 3/26/2020 10:15 Matrix: Water

Sample ID: **RMW-05B** Date Collected: 3/23/2020 13:00

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**0.56**	ug/l	0.50	0.094	1	4/6/2020 06:27	TD	n
Ethane	**0.011U**	ug/l	0.10	0.011	1	4/6/2020 06:27	TD	n
Ethene	**0.080J**	ug/l	0.10	0.0080	1	4/6/2020 06:27	TD	n

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ANALYTICAL RESULTS

Workorder: 33354 WPH Clemson / TRC

Lab ID: **333540002** Date Received: 3/26/2020 10:15 Matrix: Water

Sample ID: **RMW-05A** Date Collected: 3/23/2020 13:50

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**0.094U**	ug/l	0.50	0.094	1	4/6/2020 06:43	TD	n
Ethane	**0.011U**	ug/l	0.10	0.011	1	4/6/2020 06:43	TD	n
Ethene	**0.0080U**	ug/l	0.10	0.0080	1	4/6/2020 06:43	TD	n

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ANALYTICAL RESULTS

Workorder: 33354 WPH Clemson / TRC

Lab ID: **333540003** Date Received: 3/26/2020 10:15 Matrix: Water

Sample ID: **RMW-01** Date Collected: 3/23/2020 15:00

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**0.094U**	ug/l	0.50	0.094	1	4/6/2020 06:56	TD	n
Ethane	**0.011U**	ug/l	0.10	0.011	1	4/6/2020 06:56	TD	n
Ethene	**0.037J**	ug/l	0.10	0.0080	1	4/6/2020 06:56	TD	n

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ANALYTICAL RESULTS

Workorder: 33354 WPH Clemson / TRC

Lab ID: **333540004** Date Received: 3/26/2020 10:15 Matrix: Water

Sample ID: **RMW-09** Date Collected: 3/23/2020 16:05

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**3.0**	ug/l	0.50	0.094	1	4/6/2020 07:08	TD	n
Ethane	**0.39**	ug/l	0.10	0.011	1	4/6/2020 07:08	TD	n
Ethene	**0.0080U**	ug/l	0.10	0.0080	1	4/6/2020 07:08	TD	n

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ANALYTICAL RESULTS QUALIFIERS

Workorder: 33354 WPH Clemson / TRC

DEFINITIONS/QUALIFIERS

MDL	Method Detection Limit. Can be used synonymously with LOD; Limit Of Detection.
PQL	Practical Quanitation Limit. Can be used synonymously with LOQ; Limit Of Quantitation.
ND	Not detected at or above reporting limit.
DF	Dilution Factor.
S	Surrogate.
RPD	Relative Percent Difference.
% Rec	Percent Recovery.
U	Indicates the compound was analyzed for, but not detected at or above the noted concentration.
J	Estimated concentration greater than the set method detection limit (MDL) and less than the set reporting limit (PQL).
n	The laboratory does not hold NELAP/TNI accreditation for this method or analyte.

Pace Analytical Energy Services LLC
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Pittsburgh, PA 15238
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QUALITY CONTROL DATA

Workorder: 33354 WPH Clemson / TRC

QC Batch: DISG/8194 Analysis Method: AM20GAX

QC Batch Method: AM20GAX

Associated Lab Samples: 333540001, 333540002, 333540003, 333540004

METHOD BLANK: 66665

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
RISK				
Methane	ug/l	0.094U	0.094	n
Ethane	ug/l	0.011U	0.011	n
Ethene	ug/l	0.0080U	0.0080	n

LABORATORY CONTROL SAMPLE & LCSD: 66667 66669

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Methane	ug/l	750	720	700	97	93	80-120	4	20	n
Ethane	ug/l	38	37	36	97	95	80-120	2.4	20	n
Ethene	ug/l	35	34	34	97	96	80-120	1.1	20	n

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Pittsburgh, PA 15238
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Fax: (412) 826-3433

QUALITY CONTROL DATA QUALIFIERS

Workorder: 33354 WPH Clemson / TRC

QUALITY CONTROL PARAMETER QUALIFIERS

n	The laboratory does not hold NELAP/TNI accreditation for this method or analyte.

Pace Analytical Energy Services LLC
220 William Pitt Way
Pittsburgh, PA 15238
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Fax: (412) 826-3433

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 33354 WPH Clemson / TRC

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
333540001	RMW-05B			AM20GAX	DISG/8194
333540002	RMW-05A			AM20GAX	DISG/8194
333540003	RMW-01			AM20GAX	DISG/8194
333540004	RMW-09			AM20GAX	DISG/8194

SHEALY

Chain of Custody Record

33354

Shealy Environmental Services, Inc.
106 Vantage Point Drive
West Columbia, South Carolina 29172
Telephone No. (803) 791-9700 Fax No. (803) 791-9111
www.shealylab.com

Number

Client	Report to Contact	Telephone No. / E-mail	Quote No.
Pace Analytical - Columbia	Lucas Odom	803-206-9537/lodom@shealylab.com	
Address	**Sampler's Signature**	**Analysis (Attach list if more space is needed)**	**Page**
106 Vantage Point Dr.			1 of 1
City / State / Zip Code	X _____		
West Columbia / SC / 29172	Printed Name		
Project Name			Laboratory Lot Number
WPH Clemson			

Project Number	P.O No.		G=Grab C=Composite	Matrix				No of Containers by Preservative Type							Dissolved Gasses									Remarks / Cooler I.D.
Sample ID / Description (Containers for each sample may be combined on one line)	Date	Time		Aqueous	Solid	Non-Aqueous		Unpres.	H2SO4	HNO3	HCl	NaOH	5035 Kit	TSP										
RMW-05B	3/23/2020	1300	G	X										X	X									VC24033
RMW-05A	3/23/2020	1350	G	X										X	X									
RMW-01	3/23/2020	1500	G	X										X	X									
RMW-09	3/23/2020	1605	G	X										X	X									

Turn Around Time Required (Prior lab approval required for expedited TAT)	Sample Disposal	Possible Hazard Identification (List any known hazards in the remarks)	QC Requirements
X Standard Rush	☐ Return to Client ☒ Disposal by Lab	☐ Non-Hazardous ☐ Flammable ☐ Skin Irritant ☐ SDS provided ☐ Unknown	

1. Relinquished by Kinley Hilo	Date 3/25/2020	Time 1800	1. Received by	Date	Time
2. Relinquished by	Date	Time	2. Received by	Date	Time
3. Relinquished by	Date	Time	3. Received by	Date	Time
4. Relinquished by	Date	Time	4. Laboratory Received by	Date	Time
			Lori PACE	3-26-2020	1015

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on Ice (Check) ☐ Y ☐ N ☐ ce Pack

Receipt Temp. 0.3 °C

Cooler Receipt Form

Client Name: Pace **Project:** VC24033 **Lab Work Order:** 33354

A. **Shipping/Container Information** (circle appropriate response)

Courier: (FedEx) UPS USPS Client Other:_____ **Air bill Present:** (Yes) No

Tracking Number: 166334637691

Custody Seal on Cooler/Box Present: (Yes) No **Seals Intact:** (Yes) No

Cooler/Box Packing Material: (Bubble Wrap) Absorbent Foam Other:_____

Type of Ice: (Wet) Blue None **Ice Intact:** (Yes) Melted

Cooler Temperature: 0.3°C **Radiation Screened:** Yes (No) **Chain of Custody Present:** (Yes) No

Comments:_____

B. **Laboratory Assignment/Log-in** (check appropriate response)

	YES	NO	N/A	Comment Reference non-Conformance
Chain of Custody properly filled out	✓			
Chain of Custody relinquished	✓			
Sampler Name & Signature on COC			✓	
Containers intact	✓			
Were samples in separate bags	✓			
Sample container labels match COC Sample name/date and time collected	✓			
Sufficient volume provided	✓			
PAES containers used	✓			
Are containers properly preserved for the requested testing? (as labeled)	✓			
If an unknown preservation state, were containers checked? Exception: VOA's coliform			✓	If yes, see pH form.
Was volume for dissolved testing field filtered, as noted on the COC? Was volume received in a preserved container?			✓	
Headspace present?		✓		

Comments:_____

Cooler contents examined/received by : LJ **Date:** 3.26.2020

Project Manager Review : RW **Date:** 3-26-2020

Report of Analysis

TRC Companies, Inc.
50 International Dr.
Suite 150
Greenville, SC 29615
Attention: Lisa Clark

Project Name: WPH Clemson

Project Number: 300688.0000.0000.00011

Lot Number:**VC25036**

Date Completed:10/05/2020
Revision Date: 10/05/2020

10/07/2020 9:31 AM
Approved and released by:
Project Manager II: **Lucas Odom**

Laboratory Data Quality Review Notes

Project Name: WPH-Clemson, SC

Project Number: 300688.0000.0000 Phase 4

Lab Report: **VC25036** Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.); West Columbia, SC; subcontracted report: **33367**

Samples and Analyses: Two groundwater samples, collected 24-Mar-2020 and analyzed for VOCs, chloride, bromide, sulfate, and nitrate; one trip blank, analyzed for VOCs only

Chain of Custody, Sample Temperature, Sample Preservation: Chain of custody was signed; sample temperature was <6 ^{o}C upon arrival at the laboratory; samples were preserved properly.

Hold Time: Sample analyses were performed within acceptable hold times.

Surrogates: VOC surrogate recoveries are within QC limits.

Method Blank: Target analytes were not detected in the laboratory method blanks.

Trip Blank: No target analytes were detected in the trip blank; analyzed for VOCs only.

Field Blank: A field blank was not collected with these samples.

Equipment Rinse Blank: A rinsate blank was not collected with these samples.

LCS/LCSD: LCS recoveries for all analyses are within QC limits. LCSD analyses were not performed.

MS/MSD: MS/MSD analyses were not performed using samples from this data set.

Duplicates: No field duplicate sample was collected with this sample set. No laboratory duplicates were included with these analyses.

Dilutions: All dilutions performed in these sample analyses were associated with positive results (detects); no ND results are associated with elevated DLs and LOQs due to dilution.

No data qualifiers were assigned in this review.

Data reviewer: Amy Bass; TRC Environmental Corporation; 01-Oct-2020

Case Narrative
TRC Companies, Inc.
Lot Number: VC25036

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Pace Analytical Services, LLC ("Pace") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Pace policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Pace Project Manager listed on the cover page.

Dissolved Gasses

The analysis for Dissolved Gasses has been performed by Pace Energy. The associated results are on Pace Energy report 33367.

Report Revision 10/07/20

Due to an import error, the Nitrate analysis times that were performed prior to 10:00 were not originally documented. These times have now been included.

Sample Summary
TRC Companies, Inc.
Lot Number: VC25036

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	TBLK-20110	Aqueous	03/24/2020	03/25/2020
002	RMW-26	Aqueous	03/24/2020 1040	03/25/2020
003	RMW-07	Aqueous	03/24/2020 1150	03/25/2020

(3 samples)

Detection Summary

TRC Companies, Inc.

Lot Number: VC25036

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
002	RMW-26	Aqueous	Bromide	300.0	1.2		mg/L	7
002	RMW-26	Aqueous	Chloride	300.0	32		mg/L	7
002	RMW-26	Aqueous	Nitrate - N	353.2	2.6		mg/L	7
002	RMW-26	Aqueous	Sulfate	300.0	17		mg/L	7
002	RMW-26	Aqueous	Benzene	8260D	5.2		ug/L	8
002	RMW-26	Aqueous	Cyclohexane	8260D	0.56	J	ug/L	8
002	RMW-26	Aqueous	1,1-Dichloroethane	8260D	2.8		ug/L	8
002	RMW-26	Aqueous	cis-1,2-Dichloroethene	8260D	0.49	J	ug/L	8
002	RMW-26	Aqueous	Ethylbenzene	8260D	51		ug/L	8
002	RMW-26	Aqueous	Isopropylbenzene	8260D	2.3		ug/L	8
002	RMW-26	Aqueous	Methylcyclohexane	8260D	0.82	J	ug/L	8
002	RMW-26	Aqueous	Tetrachloroethene	8260D	0.40	J	ug/L	8
002	RMW-26	Aqueous	Trichloroethene	8260D	0.51	J	ug/L	9
002	RMW-26	Aqueous	Vinyl chloride	8260D	1.7		ug/L	9
002	RMW-26	Aqueous	Xylenes (total)	8260D	64		ug/L	9
003	RMW-07	Aqueous	Bromide	300.0	0.27		mg/L	10
003	RMW-07	Aqueous	Chloride	300.0	23		mg/L	10
003	RMW-07	Aqueous	Nitrate - N	353.2	5.5		mg/L	10
003	RMW-07	Aqueous	Sulfate	300.0	0.83	J	mg/L	10
003	RMW-07	Aqueous	Acetone	8260D	16	J	ug/L	11
003	RMW-07	Aqueous	2-Butanone (MEK)	8260D	25		ug/L	11
003	RMW-07	Aqueous	Carbon disulfide	8260D	1.5		ug/L	11
003	RMW-07	Aqueous	cis-1,2-Dichloroethene	8260D	2.2		ug/L	11
003	RMW-07	Aqueous	Tetrachloroethene	8260D	220		ug/L	11
003	RMW-07	Aqueous	1,1,2-Trichloro-1,2,2-	8260D	1.1		ug/L	11
003	RMW-07	Aqueous	Trichloroethene	8260D	0.88	J	ug/L	12
003	RMW-07	Aqueous	Trichlorofluoromethane	8260D	0.93	J	ug/L	12

(27 detections)

Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc. | Laboratory ID: VC25036-001
Description: TBLK-20110 | Matrix: Aqueous
Date Sampled: 03/24/2020
Date Received: 03/25/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/28/2020 1616	STM		49290

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	ND		1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC25036-001
Description: TBLK-20110
Matrix: Aqueous
Date Sampled: 03/24/2020
Date Received: 03/25/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/28/2020 1616	STM		49290

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Trichloroethene	79-01-6	8260D	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		101	70-130
1,2-Dichloroethane-d4		119	70-130
Toluene-d8		111	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Inorganic non-metals

Client: TRC Companies, Inc.
Laboratory ID: VC25036-002
Description: RMW-26
Matrix: Aqueous
Date Sampled: 03/24/2020 1040
Date Received: 03/25/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	04/01/2020 0022	HKL		49620
1		(Chloride) 300.0	1	04/01/2020 0022	HKL		49618
1		(Nitrate - N) 353.2	2	03/26/2020 0828	AMR		49026
1		(Sulfate) 300.0	1	04/01/2020 0022	HKL		49615

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	1.2		0.20	0.050	mg/L	1
Chloride		300.0	32		1.0	0.20	mg/L	1
Nitrate - N		353.2	2.6		0.040	0.020	mg/L	1
Sulfate		300.0	17		1.0	0.20	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc. | Laboratory ID: VC25036-002
Description: RMW-26 | Matrix: Aqueous
Date Sampled: 03/24/2020 1040
Date Received: 03/25/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/28/2020 1728	STM		49290

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	5.0	ug/L	1
Benzene	71-43-2	8260D	5.2		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	0.56	J	1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	2.8		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	0.49	J	1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	51		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260D	2.3		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	0.82	J	5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	0.40	J	1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC25036-002
Description: RMW-26
Matrix: Aqueous
Date Sampled: 03/24/2020 1040
Date Received: 03/25/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/28/2020 1728	STM		49290

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Trichloroethene	79-01-6	8260D	0.51	J	1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	1.7		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	64		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		101	70-130
1,2-Dichloroethane-d4		119	70-130
Toluene-d8		109	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
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W = Reported on wet weight basis

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Inorganic non-metals

Client: TRC Companies, Inc.
Laboratory ID: VC25036-003
Description: RMW-07
Matrix: Aqueous
Date Sampled: 03/24/2020 1150
Date Received: 03/25/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	04/01/2020 0045	HKL		49620
1		(Chloride) 300.0	1	04/01/2020 0045	HKL		49618
1		(Nitrate - N) 353.2	5	03/26/2020 0830	AMR		49026
1		(Sulfate) 300.0	1	04/01/2020 0045	HKL		49615

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.27		0.20	0.050	mg/L	1
Chloride		300.0	23		1.0	0.20	mg/L	1
Nitrate - N		353.2	5.5		0.10	0.050	mg/L	1
Sulfate		300.0	0.83	J	1.0	0.20	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC25036-003
Description: RMW-07
Matrix: Aqueous
Date Sampled: 03/24/2020 1150
Date Received: 03/25/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/28/2020 1752	STM		49290
2	5030B	8260D	5	03/30/2020 1736	TML		49360

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	16	J	20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	25		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	1.5		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	2.2		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	220		5.0	2.0	ug/L	2
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	1.1		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
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N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC25036-003
Description: RMW-07
Matrix: Aqueous
Date Sampled: 03/24/2020 1150
Date Received: 03/25/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/28/2020 1752	STM		49290
2	5030B	8260D	5	03/30/2020 1736	TML		49360

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260D	0.88	J	1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	0.93	J	1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits	Q	Run 2 % Recovery	Acceptance Limits
Bromofluorobenzene		99	70-130		103	70-130
1,2-Dichloroethane-d4		121	70-130		98	70-130
Toluene-d8		110	70-130		105	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

Pace Analytical Services, LLC *(formerly Shealy Environmental Services, Inc.)*
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

QC Summary

Inorganic non-metals - MB

Sample ID: VQ49026-001
Batch: 49026
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Nitrate - N	ND		1	0.020	0.010	mg/L	03/26/2020 0815

LOQ = Limit of Quantitation
DL = Detection Limit

ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria

N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: VQ49026-002
Batch: 49026
Analytical Method: 353.2
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	0.80	0.76		1	95	90-110	03/26/2020 0816

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: VQ49615-001
Batch: 49615
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Sulfate	ND		1	1.0	0.20	mg/L	03/31/2020 1545

LOQ = Limit of Quantitation
DL = Detection Limit

ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria

N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: VQ49615-002
Batch: 49615
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Sulfate	20	19		1	95	90-110	03/31/2020 1631

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: VQ49618-001
Batch: 49618
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Chloride	ND		1	1.0	0.20	mg/L	03/31/2020 1545

LOQ = Limit of Quantitation
DL = Detection Limit

ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria

N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: VQ49618-002
Batch: 49618
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Chloride	20	20		1	99	90-110	03/31/2020 1631

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: VQ49620-001
Batch: 49620
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Bromide	ND		1	0.20	0.050	mg/L	03/31/2020 1545

LOQ = Limit of Quantitation
DL = Detection Limit

ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria

N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: VQ49620-002
Batch: 49620
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Bromide	8.0	7.6		1	95	90-110	03/31/2020 1631

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: VQ49290-001
Batch: 49290
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Acetone	ND		1	20	5.0	ug/L	03/28/2020 1512
Benzene	ND		1	1.0	0.40	ug/L	03/28/2020 1512
Bromodichloromethane	ND		1	1.0	0.40	ug/L	03/28/2020 1512
Bromoform	ND		1	1.0	0.40	ug/L	03/28/2020 1512
Bromomethane (Methyl bromide)	ND		1	2.0	0.40	ug/L	03/28/2020 1512
2-Butanone (MEK)	ND		1	10	2.0	ug/L	03/28/2020 1512
Carbon disulfide	ND		1	1.0	0.40	ug/L	03/28/2020 1512
Carbon tetrachloride	ND		1	1.0	0.40	ug/L	03/28/2020 1512
Chlorobenzene	ND		1	1.0	0.40	ug/L	03/28/2020 1512
Chloroethane	ND		1	2.0	0.40	ug/L	03/28/2020 1512
Chloroform	ND		1	1.0	0.40	ug/L	03/28/2020 1512
Chloromethane (Methyl chloride)	ND		1	1.0	0.50	ug/L	03/28/2020 1512
Cyclohexane	ND		1	1.0	0.40	ug/L	03/28/2020 1512
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	0.40	ug/L	03/28/2020 1512
Dibromochloromethane	ND		1	1.0	0.40	ug/L	03/28/2020 1512
1,2-Dibromoethane (EDB)	ND		1	1.0	0.40	ug/L	03/28/2020 1512
1,2-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/28/2020 1512
1,3-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/28/2020 1512
1,4-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/28/2020 1512
Dichlorodifluoromethane	ND		1	2.0	0.60	ug/L	03/28/2020 1512
1,1-Dichloroethane	ND		1	1.0	0.40	ug/L	03/28/2020 1512
1,2-Dichloroethane	ND		1	1.0	0.40	ug/L	03/28/2020 1512
1,1-Dichloroethene	ND		1	1.0	0.40	ug/L	03/28/2020 1512
cis-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	03/28/2020 1512
trans-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	03/28/2020 1512
1,2-Dichloropropane	ND		1	1.0	0.40	ug/L	03/28/2020 1512
cis-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	03/28/2020 1512
trans-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	03/28/2020 1512
Ethylbenzene	ND		1	1.0	0.40	ug/L	03/28/2020 1512
2-Hexanone	ND		1	10	2.0	ug/L	03/28/2020 1512
Isopropylbenzene	ND		1	1.0	0.40	ug/L	03/28/2020 1512
Methyl acetate	ND		1	1.0	0.40	ug/L	03/28/2020 1512
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	0.40	ug/L	03/28/2020 1512
4-Methyl-2-pentanone	ND		1	10	2.0	ug/L	03/28/2020 1512
Methylcyclohexane	ND		1	5.0	0.40	ug/L	03/28/2020 1512
Methylene chloride	ND		1	1.0	0.40	ug/L	03/28/2020 1512
Styrene	ND		1	1.0	0.41	ug/L	03/28/2020 1512
1,1,2,2-Tetrachloroethane	ND		1	1.0	0.40	ug/L	03/28/2020 1512
Tetrachloroethene	ND		1	1.0	0.40	ug/L	03/28/2020 1512
Toluene	ND		1	1.0	0.40	ug/L	03/28/2020 1512
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	0.42	ug/L	03/28/2020 1512
1,2,4-Trichlorobenzene	ND		1	1.0	0.40	ug/L	03/28/2020 1512
1,1,1-Trichloroethane	ND		1	1.0	0.40	ug/L	03/28/2020 1512
1,1,2-Trichloroethane	ND		1	1.0	0.40	ug/L	03/28/2020 1512

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: VQ49290-001
Batch: 49290
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Trichloroethene	ND		1	1.0	0.40	ug/L	03/28/2020 1512
Trichlorofluoromethane	ND		1	1.0	0.40	ug/L	03/28/2020 1512
Vinyl chloride	ND		1	1.0	0.40	ug/L	03/28/2020 1512
Xylenes (total)	ND		1	1.0	0.40	ug/L	03/28/2020 1512

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		100	70-130
1,2-Dichloroethane-d4		119	70-130
Toluene-d8		107	70-130

LOQ = Limit of Quantitation
DL = Detection Limit

ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria

N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: VQ49290-002
Batch: 49290
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	110		1	110	60-140	03/28/2020 1405
Benzene	50	52		1	103	70-130	03/28/2020 1405
Bromodichloromethane	50	55		1	111	70-130	03/28/2020 1405
Bromoform	50	47		1	94	70-130	03/28/2020 1405
Bromomethane (Methyl bromide)	50	47		1	94	70-130	03/28/2020 1405
2-Butanone (MEK)	100	110		1	110	70-130	03/28/2020 1405
Carbon disulfide	50	56		1	112	70-130	03/28/2020 1405
Carbon tetrachloride	50	52		1	104	70-130	03/28/2020 1405
Chlorobenzene	50	50		1	100	70-130	03/28/2020 1405
Chloroethane	50	49		1	98	70-130	03/28/2020 1405
Chloroform	50	54		1	108	70-130	03/28/2020 1405
Chloromethane (Methyl chloride)	50	50		1	100	60-140	03/28/2020 1405
Cyclohexane	50	56		1	113	70-130	03/28/2020 1405
1,2-Dibromo-3-chloropropane (DBCP)	50	57		1	114	70-130	03/28/2020 1405
Dibromochloromethane	50	49		1	97	70-130	03/28/2020 1405
1,2-Dibromoethane (EDB)	50	52		1	103	70-130	03/28/2020 1405
1,2-Dichlorobenzene	50	51		1	101	70-130	03/28/2020 1405
1,3-Dichlorobenzene	50	50		1	100	70-130	03/28/2020 1405
1,4-Dichlorobenzene	50	49		1	99	70-130	03/28/2020 1405
Dichlorodifluoromethane	50	49		1	99	60-140	03/28/2020 1405
1,1-Dichloroethane	50	54		1	109	70-130	03/28/2020 1405
1,2-Dichloroethane	50	55		1	110	70-130	03/28/2020 1405
1,1-Dichloroethene	50	54		1	109	70-130	03/28/2020 1405
cis-1,2-Dichloroethene	50	53		1	105	70-130	03/28/2020 1405
trans-1,2-Dichloroethene	50	53		1	106	70-130	03/28/2020 1405
1,2-Dichloropropane	50	52		1	103	70-130	03/28/2020 1405
cis-1,3-Dichloropropene	50	55		1	110	70-130	03/28/2020 1405
trans-1,3-Dichloropropene	50	50		1	101	70-130	03/28/2020 1405
Ethylbenzene	50	52		1	103	70-130	03/28/2020 1405
2-Hexanone	100	110		1	113	70-130	03/28/2020 1405
Isopropylbenzene	50	54		1	109	70-130	03/28/2020 1405
Methyl acetate	50	55		1	109	70-130	03/28/2020 1405
Methyl tertiary butyl ether (MTBE)	50	52		1	103	70-130	03/28/2020 1405
4-Methyl-2-pentanone	100	110		1	111	70-130	03/28/2020 1405
Methylcyclohexane	50	51		1	101	70-130	03/28/2020 1405
Methylene chloride	50	48		1	95	70-130	03/28/2020 1405
Styrene	50	53		1	106	70-130	03/28/2020 1405
1,1,2,2-Tetrachloroethane	50	52		1	104	70-130	03/28/2020 1405
Tetrachloroethene	50	50		1	100	70-130	03/28/2020 1405
Toluene	50	51		1	102	70-130	03/28/2020 1405
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	53		1	106	70-130	03/28/2020 1405
1,2,4-Trichlorobenzene	50	51		1	103	70-130	03/28/2020 1405
1,1,1-Trichloroethane	50	51		1	102	70-130	03/28/2020 1405
1,1,2-Trichloroethane	50	51		1	102	70-130	03/28/2020 1405

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: VQ49290-002
Batch: 49290
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	49		1	98	70-130	03/28/2020 1405
Trichlorofluoromethane	50	51		1	101	70-130	03/28/2020 1405
Vinyl chloride	50	51		1	103	70-130	03/28/2020 1405
Xylenes (total)	100	100		1	105	70-130	03/28/2020 1405

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		99	70-130
1,2-Dichloroethane-d4		108	70-130
Toluene-d8		104	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: VQ49360-001
Batch: 49360
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Tetrachloroethene	ND		1	1.0	0.40	ug/L	03/30/2020 1005

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		98	70-130
1,2-Dichloroethane-d4		99	70-130
Toluene-d8		104	70-130

LOQ = Limit of Quantitation
DL = Detection Limit

ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria

N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: VQ49360-002
Batch: 49360
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Tetrachloroethene	50	57		1	114	70-130	03/30/2020 0838

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		95	70-130
1,2-Dichloroethane-d4		91	70-130
Toluene-d8		94	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Chain of Custody

and

Miscellaneous Documents

SHEALY ENVIRONMENTAL SERVICES, INC.
106 Vantage Point Drive • West Columbia, SC 29172
Telephone No. 803-791-9700 Fax No. 803-791-9111
www.shealylab.com

SHEALY Chain of Custody Record

Number 92123

Client: TRC	Report to Contact: Lisa Clark	Telephone No. / E-mail	Quote No.
Address: 50 International Dr Ste 150	Sampler's Signature: x	Analysis (Attach list if more space is needed)	Page 1 of 1
City: Greenville / State: SC / Zip Code: 29615	Printed Name: Aharon Misiunas		
Project Name: WPH Clemson			
Project No.: 300688.0.0-11	P.O. No.		

Sample ID / Description (Containers for each sample may be combined on one line.)	Date 2020	Time	Grab/Comp	Matrix: Aqueous	Solid	Non Aqueous	No. of Containers by Preservative Type: Unpres.	HCl	HNO3	NaOH	S2O3 NO	TSP	VOCs	Chloride, Sulfate, Bromide	Nitrate	Diss. Gases
TBLK-20110	1	1	G	X				2					X			
RMW-26	3-24	1040	G	X			2		3			3	X	X	X	X
RMW-07	3-24	1150	G	X			2		3			3	X	X	X	X

VC25036

LJC

Turn Around Time Required (Prior lab approval required for expedited TAT.) ☐ Standard ☐ Rush (Specify)

Sample Disposal ☐ Return to Client ☐ Disposal by Lab

Possible Hazard Identification ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished by	3-24-20	1310	1. Received by TRC SS	3-24-20	1310
2. Relinquished by	5-25-20	0828	2. Received by	5-25-20	0828
3. Relinquished by	5-25-20	1332	3. Received by	Date	Time
4. Relinquished by	Date	Time	4. Laboratory received by	5/25/2020	1332

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on Ice (Circle) (Yes) No Ice Pack

Receipt Temp. 4.1 °C

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Client Copy

Document Number: F-AC 133 Effective Date: 08-01-2014

Shealy Environmental Services, Inc.
Document Number: ME00018C-14

Effective Date: 8/2/2018

Sample Receipt Checklist (SRC)

Client: TRC Cooler Inspected by/date: LKH / 03/25/2020 Lot #: VC25036

Means of receipt: ☑ SESI ☐ Client ☐ UPS ☐ FedEx ☐ Other:

☐ Yes	☑ No		1. Were custody seals present on the cooler?
☐ Yes	☐ No	☑ NA	2. If custody seals were present, were they intact and unbroken?

pH Strip ID: NA Chlorine Strip ID: NA Tested by: NA

Original temperature upon receipt / Derived (Corrected) temperature upon receipt %Solid Snap-Cup ID: NA

4.1 / 4.1 °C NA / NA °C NA / NA °C NA / NA °C

Method: ☑ Temperature Blank ☐ Against Bottles IR Gun ID: 6 IR Gun Correction Factor: 0 °C

Method of coolant: ☑ Wet Ice ☐ Ice Packs ☐ Dry Ice ☐ None

☐ Yes	☐ No	☑ NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).
☐ Yes	☐ No	☑ NA	4. Is the commercial courier's packing slip attached to this form?
☑ Yes	☐ No		5. Were proper custody procedures (relinquished/received) followed?
☑ Yes	☐ No		6. Were sample IDs listed on the COC?
☑ Yes	☐ No		7. Were sample IDs listed on all sample containers?
☑ Yes	☐ No		8. Was collection date & time listed on the COC?
☑ Yes	☐ No		9. Was collection date & time listed on all sample containers?
☑ Yes	☐ No		10. Did all container label information (ID, date, time) agree with the COC?
☑ Yes	☐ No		11. Were tests to be performed listed on the COC?
☑ Yes	☐ No		12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)?
☑ Yes	☐ No		13. Was adequate sample volume available?
☐ Yes	☑ No		14. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
☐ Yes	☑ No		15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
☐ Yes	☑ No	☐ NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (¼"or 6mm in diameter) in any of the VOA vials?
☐ Yes	☐ No	☑ NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?
☐ Yes	☐ No	☑ NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
☐ Yes	☐ No	☑ NA	19. Were all applicable NH_3/TKN/cyanide/phenol/625 (< 0.5mg/L) samples free of residual chlorine?
☐ Yes	☐ No	☑ NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc…) correctly transcribed from the COC into the comment section in LIMS?
☐ Yes	☑ No		21. Was the quote number listed on the container label? If yes, Quote # NA

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) NA were received incorrectly preserved and were adjusted accordingly in sample receiving with NA mL of circle one: H2SO4, HNO3, HCl, NaOH using SR # NA.
Time of preservation NA. If more than one preservative is needed, please note in the comments below.

Sample(s) NA were received with bubbles >6 mm in diameter.

Samples(s) NA were received with TRC > 0.5 mg/L (If #19 is *no*) and were adjusted accordingly in sample receiving with sodium thiosulfate ($Na_2S_2O_3$) with Shealy ID: NA.

SR barcode labels applied by: LKH Date: 03/25/2020

Comments:

Pace Analytical Energy Services LLC
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

April 10, 2020

Lucas Odom
Pace Analytical Services South Carolina
106 Vantage Point Drive
West Columbia, SC 29172

RE: **WPH CLEMSON / TRC**

Pace Workorder: 33367

Dear Lucas Odom:

Enclosed are the analytical results for sample(s) received by the laboratory on Friday, March 27, 2020. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Ruth Welsh 04/10/2020
Ruth.Welsh@pacelabs.com

Customer Service Representative

Enclosures

As a valued client we would appreciate your comments on our service.
Please email PAESfeedback@pacelabs.com.

Total Number of Pages 12

CERTIFICATE OF ANALYSIS

Laboratory Data Quality Review Notes

Project Name: WPH-Clemson, SC

Project Number: 300688.0000.0000 Phase 4

Lab Report: **33367** Pace Analytical Energy Services LLC; Pittsburgh, PA
This lab report is the subcontracted job related to **VC25036**.

Samples and Analyses: Two groundwater samples collected 24-Mar-2020 and analyzed for dissolved hydrocarbon gases (methane, ethane, ethene)

Chain of Custody, Sample Temperature, Sample Preservation: Chain of custody was signed (sample transfer from Pace Analytical, Columbia, to Pace Analytical, Pittsburgh); sample temperature was <6 ^{o}C upon arrival at the laboratory; samples were preserved properly.

Hold Time: Sample analyses were performed within acceptable hold time.

Surrogates: Surrogate recoveries are not applicable to dissolved hydrocarbon gas analyses.

Method Blank: Target analytes were not detected in the laboratory method blank.

Trip Blank: A trip blank was not analyzed with these samples.

Field Blank: A field blank was not collected with these samples.

Equipment Rinse Blank: A rinsate blank was not collected with these samples.

LCS/LCSD: LCS and LCSD recoveries and LCS/LCSD RPDs are within the laboratory QC limits.

MS/MSD: MS/MSD analyses were not performed using samples from this data set.

Duplicates: No field duplicate sample was collected with this sample set. No laboratory duplicates were included with these analyses.

Dilutions: No dilutions were performed with these sample analyses.

No data qualifiers were assigned in this review.

Data reviewer: Amy Bass; TRC Environmental Corporation; 01-Oct-2020

Pace Analytical Energy Services LLC
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Phone: (412) 826-5245
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LABORATORY ACCREDITATIONS & CERTIFICATIONS

Accreditor:	Pennsylvania Department of Environmental Protection, Bureau of Laboratories
Accreditation ID:	02-00538
Scope:	NELAP Non-Potable Water
Accreditor:	West Virginia Department of Environmental Protection, Division of Water and Waste Management
Accreditation ID:	395
Scope:	Non-Potable Water
Accreditor:	South Carolina Department of Health and Environmental Control, Office of Environmental Laboratory Certification
Accreditation ID:	89009003
Scope:	Clean Water Act (CWA); Resource Conservation and Recovery Act (RCRA)
Accreditor:	State of Virginia
Accreditation ID:	460201
Scope:	Non-Potable Water
Accreditor:	NELAP: New Jersey, Department of Environmental Protection
Accreditation ID:	PA026
Scope:	Non-Potable Water
Accreditor:	NELAP: New York, Department of Health Wadsworth Center
Accreditation ID:	11815
Scope:	Non-Potable Water
Accreditor:	State of Connecticut, Department of Public Health, Division of Environmental Health
Accreditation ID:	PH-0263
Scope:	Clean Water Act (CWA) Resource Conservation and Recovery Act (RCRA)
Accreditor:	NELAP: Texas, Commission on Environmental Quality
Accreditation ID:	T104704453-09-TX
Scope:	Non-Potable Water
Accreditor:	State of New Hampshire
Accreditation ID:	299409
Scope:	Non-potable water
Accreditor:	State of Georgia
Accreditation ID:	Chapter 391-3-26
Scope:	As per the Georgia EPD Rules and Regulations for Commercial Laboratories, PAES is accredited by the Pennsylvania Department of Environmental Protection Bureau of Laboratories under the National Environmental Laboratory Approval Program (NELAC).

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SAMPLE SUMMARY

Workorder: 33367 WPH CLEMSON / TRC

Lab ID	Sample ID	Matrix	Date Collected	Date Received
333670001	RMW-26	Water	3/24/2020 10:40	3/27/2020 10:15
333670002	RMW-07	Water	3/24/2020 11:50	3/27/2020 10:15

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PROJECT SUMMARY

Workorder: 33367 WPH CLEMSON / TRC

Workorder Comments

The container pH for samples 33367 (0001-0002) were measured as below the expected pH (< 10) for those samples preserved with trisodium phosphate, as assigned to PAES method AM20GAx.

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Phone: (412) 826-5245
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ANALYTICAL RESULTS

Workorder: 33367 WPH CLEMSON / TRC

Lab ID: **333670001** Date Received: 3/27/2020 10:15 Matrix: Water

Sample ID: **RMW-26** Date Collected: 3/24/2020 10:40

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**210**	ug/l	0.50	0.046	1	4/1/2020 11:55	BW	n
Ethane	**0.0050U**	ug/l	0.10	0.0050	1	4/1/2020 11:55	BW	n
Ethene	**0.39**	ug/l	0.10	0.0040	1	4/1/2020 11:55	BW	n

CERTIFICATE OF ANALYSIS

Pace Analytical Energy Services LLC
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ANALYTICAL RESULTS

Workorder: 33367 WPH CLEMSON / TRC

Lab ID: **333670002** Date Received: 3/27/2020 10:15 Matrix: Water

Sample ID: **RMW-07** Date Collected: 3/24/2020 11:50

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**9.8**	ug/l	0.50	0.046	1	4/1/2020 12:05	BW	n
Ethane	**0.25**	ug/l	0.10	0.0050	1	4/1/2020 12:05	BW	n
Ethene	**0.020J**	ug/l	0.10	0.0040	1	4/1/2020 12:05	BW	n

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ANALYTICAL RESULTS QUALIFIERS

Workorder: 33367 WPH CLEMSON / TRC

DEFINITIONS/QUALIFIERS

MDL	Method Detection Limit. Can be used synonymously with LOD; Limit Of Detection.
PQL	Practical Quanitation Limit. Can be used synonymously with LOQ; Limit Of Quantitation.
ND	Not detected at or above reporting limit.
DF	Dilution Factor.
S	Surrogate.
RPD	Relative Percent Difference.
% Rec	Percent Recovery.
U	Indicates the compound was analyzed for, but not detected at or above the noted concentration.
J	Estimated concentration greater than the set method detection limit (MDL) and less than the set reporting limit (PQL).
n	The laboratory does not hold NELAP/TNI accreditation for this method or analyte.

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QUALITY CONTROL DATA

Workorder: 33367 WPH CLEMSON / TRC

QC Batch: DISG/8183 Analysis Method: AM20GAX

QC Batch Method: AM20GAX

Associated Lab Samples: 333670001, 333670002

METHOD BLANK: 66591

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
RISK				
Methane	ug/l	0.046U	0.046	n
Ethane	ug/l	0.0050U	0.0050	n
Ethene	ug/l	0.0040U	0.0040	n

LABORATORY CONTROL SAMPLE & LCSD: 66592 66593

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Methane	ug/l	750	750	770	101	103	80-120	2.7	20	n
Ethane	ug/l	38	41	42	108	110	80-120	2	20	n
Ethene	ug/l	35	39	39	110	111	80-120	1.2	20	n

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 66616 66617 Original: 333330003

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
RISK											
Methane	ug/l	0.12	40	40	40	100	100	70-130	0.47	20	n
Ethane	ug/l	0.0056	76	74	74	98	98	70-130	0.13	20	n
Ethene	ug/l	0.014	71	69	69	97	98	70-130	0.82	20	n

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QUALITY CONTROL DATA QUALIFIERS

Workorder: 33367 WPH CLEMSON / TRC

QUALITY CONTROL PARAMETER QUALIFIERS

n	The laboratory does not hold NELAP/TNI accreditation for this method or analyte.

Pace Analytical Energy Services LLC
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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 33367 WPH CLEMSON / TRC

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
333670001	RMW-26			AM20GAX	DISG/8183
333670002	RMW-07			AM20GAX	DISG/8183

SHEALY

Chain of Custody Record 33367

Shealy Environmental Services, Inc.
106 Vantage Point Drive
West Columbia, South Carolina 29172
Telephone No. (803) 791-9700 Fax No. (803) 791-9111
www.shealylab.com

Number

Client: Pace Analytical - Columbia	Report to Contact: Lucas Odom	Telephone No. / E-mail: 803-206-9537/lodom@shealylab.com
Address: 106 Vantage Point Dr.	Sampler's Signature: X ____ Printed Name	Analysis (Attach list if more space is needed)
City: West Columbia, State: SC, Zip Code: 29172		Quote No.
Project Name: WPH Clemson		Page 1 of 1
Project Number	P.O No.	Laboratory Lot Number

Sample ID / Description (Containers for each sample may be combined on one line)	Date	Time	G=Grab C=Composite	Aqueous	Solid	Non-Aqueous		Unpres.	H2SO4	HNO3	HCl	NaOH	5035 Kit	TSP	Dissolved Gasses	Remarks / Cooler I.D.
RMW-26	3/24/2020	1040	G	X										X	X	VC25036
RMW-07	3/24/2020	1150	G	X										X	X	

Turn Around Time Required (Prior lab approval required for expedited TAT): X Standard ☐ Rush

Sample Disposal: ☐ Return to Client ☒ Disposal by Lab

Possible Hazard Identification (List any known hazards in the remarks): ☐ Non-Hazardous ☐ Flammable ☐ Skin Irritant ☐ SDS provided ☐ Unknown

QC Requirements

Relinquished by	Date	Time	Received by	Date	Time
1. Relinquished by [signature]	3/26/2020	1800	1. Received by		
2. Relinquished by			2. Received by		
3. Relinquished by			3. Received by		
4. Relinquished by			4. Laboratory Received by [signature] PACS	3.27.2020	1015

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on Ice (Check) ☐ Y ☐ N ☐ Ice Pack
Receipt Temp. 0.2 °C

Document Number: ME002OW-01

Cooler Receipt Form

Client Name: Pace **Project:** WPH Clemson **Lab Work Order:** 33367

A. **Shipping/Container Information** (circle appropriate response)

Courier: (FedEx) UPS USPS Client Other:_____ **Air bill Present:** Yes No

Tracking Number: 166334637717

Custody Seal on Cooler/Box Present: (Yes) No **Seals Intact:** (Yes) No

Cooler/Box Packing Material: (Bubble Wrap) Absorbent Foam Other:_____

Type of Ice: (Wet) Blue None **Ice Intact:** (Yes) Melted

Cooler Temperature: 0.2°C **Radiation Screened:** Yes (No) **Chain of Custody Present:** (Yes) No

Comments:_____

B. **Laboratory Assignment/Log-in** (check appropriate response)

	YES	NO	N/A	Comment Reference non-Conformance
Chain of Custody properly filled out	✓			
Chain of Custody relinquished	✓			
Sampler Name & Signature on COC			✓	
Containers intact	✓			
Were samples in separate bags	✓			
Sample container labels match COC Sample name/date and time collected	✓			
Sufficient volume provided	✓			
PAES containers used	✓			
Are containers properly preserved for the requested testing? (as labeled)	✓			
If an unknown preservation state, were containers checked? Exception: VOA's coliform			✓	If yes, see pH form.
Was volume for dissolved testing field filtered, as noted on the COC? Was volume received in a preserved container?			✓	
Headspace present?		✓		

Comments:_____

_____

Cooler contents examined/received by : LY **Date:** 3.27.2020

Project Manager Review : EBF **Date:** 3/27/2020

Report of Analysis

TRC Companies, Inc.
50 International Dr.
Suite 150
Greenville, SC 29615
Attention: Lisa Clark

Project Name: WPH Clemson

Project Number: 300688.0000.0000.00011

Lot Number:**VC25037**

Date Completed:10/05/2020
Revision Date: 10/05/2020

10/07/2020 9:33 AM
Approved and released by:
Project Manager II: **Lucas Odom**

Pace Analytical Services, LLC (*formerly Shealy Environmental Services, Inc.*)
106 Vantage Point Drive West Columbia, SC 29172
Tel: 803-791-9700 Fax: 803-791-9111 www.pacelabs.com

Laboratory Data Quality Review Notes

Project Name: WPH-Clemson, SC

Project Number: 300688.0000.0000 Phase 4

Lab Report: **VC25037** Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.); West Columbia, SC; subcontracted report: **33366**

Samples and Analyses: Three groundwater samples, collected 24-Mar-2020 and analyzed for VOCs, chloride, bromide, sulfate, and nitrate; one trip blank, analyzed for VOCs only

Chain of Custody, Sample Temperature, Sample Preservation: Chain of custody was signed; sample temperature was <6 ^{o}C upon arrival at the laboratory; samples were preserved properly.

Hold Time: Sample analyses were performed within acceptable hold times, with one exception:

- The nitrate analysis in sample DP-25 was performed outside the 48-hour hold time limit for that method. **The positive result for nitrate in sample DP-25 is qualified "j-" due to analysis past the method hold time limit.**

Surrogates: VOC surrogate recoveries are within QC limits.

Method Blank: Target analytes were not detected in the laboratory method blanks.

Trip Blank: No target analytes were detected in the trip blank; analyzed for VOCs only.

Field Blank: A field blank was not collected with these samples.

Equipment Rinse Blank: A rinsate blank was not collected with these samples.

LCS/LCSD: LCS recoveries for all analyses are within QC limits. LCSD analyses were not performed.

MS/MSD: MS/MSD analyses for nitrate were performed using sample DP-25, and MS/MSD analyses for bromide, chloride, and sulfate were performed using sample DP-25B. MS and MSD recoveries and MS/MSD RPDs are within QC limits.

Duplicates: No field duplicate sample was collected with this sample set. No laboratory duplicates were included with these analyses.

Dilutions: The ND results for the VOC analyses in these samples are associated with elevated DLs and LOQs due to dilution (as indicated): DP-25A (5×), DP-25B (5×). All other dilutions performed in these sample analyses were associated with positive results (detects).

Data reviewer: Amy Bass; TRC Environmental Corporation; 02-Oct-2020

Case Narrative
TRC Companies, Inc.
Lot Number: VC25037

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Pace Analytical Services, LLC ("Pace") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Pace policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Pace Project Manager listed on the cover page.

Nitrate

To ensure the 48 hour hold time was met, sample -001 was analyzed before its associated MB and LCS. This sample was reanalyzed outside of the hold time just after MB/LCS injections to confirm the result. The in hold run has been reported.

Dissolved Gasses

The analysis for Dissolved Gasses has been performed by Pace Energy. This data can be found on Pace Energy report 33366.

Report Revision 10/07/20

Due to an import error, the Nitrate analysis times that were performed prior to 10:00 were not originally documented. These times have now been included.

Sample Summary
TRC Companies, Inc.
Lot Number: VC25037

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	DP-25	Aqueous	03/24/2020 0815	03/25/2020
002	DP-25A	Aqueous	03/24/2020 0915	03/25/2020
003	DP-25B	Aqueous	03/24/2020 1015	03/25/2020
004	TBLK-20121	Aqueous	03/24/2020	03/25/2020

(4 samples)

Detection Summary

TRC Companies, Inc.

Lot Number: VC25037

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	DP-25	Aqueous	Bromide	300.0	0.32		mg/L	5
001	DP-25	Aqueous	Chloride	300.0	23		mg/L	5
001	DP-25	Aqueous	Nitrate - N	353.2	0.11	H	mg/L	5
001	DP-25	Aqueous	Sulfate	300.0	130		mg/L	5
001	DP-25	Aqueous	Acetone	8260D	180		ug/L	6
001	DP-25	Aqueous	2-Butanone (MEK)	8260D	120		ug/L	6
001	DP-25	Aqueous	Carbon disulfide	8260D	4.7		ug/L	6
001	DP-25	Aqueous	cis-1,2-Dichloroethene	8260D	0.78	J	ug/L	6
001	DP-25	Aqueous	Tetrachloroethene	8260D	170		ug/L	6
001	DP-25	Aqueous	1,1,2-Trichloro-1,2,2-	8260D	0.55	J	ug/L	6
001	DP-25	Aqueous	Trichloroethene	8260D	2.4		ug/L	7
002	DP-25A	Aqueous	Chloride	300.0	1.4		mg/L	8
002	DP-25A	Aqueous	Nitrate - N	353.2	2.7		mg/L	8
002	DP-25A	Aqueous	Sulfate	300.0	0.84	J	mg/L	8
002	DP-25A	Aqueous	Acetone	8260D	75	J	ug/L	9
002	DP-25A	Aqueous	2-Butanone (MEK)	8260D	30	J	ug/L	9
002	DP-25A	Aqueous	Chloroform	8260D	8.4		ug/L	9
002	DP-25A	Aqueous	Tetrachloroethene	8260D	340		ug/L	9
002	DP-25A	Aqueous	1,1,2-Trichloro-1,2,2-	8260D	3.8	J	ug/L	9
003	DP-25B	Aqueous	Chloride	300.0	1.1		mg/L	11
003	DP-25B	Aqueous	Nitrate - N	353.2	0.85		mg/L	11
003	DP-25B	Aqueous	Sulfate	300.0	1.5		mg/L	11
003	DP-25B	Aqueous	Chloroform	8260D	2.7	J	ug/L	12
003	DP-25B	Aqueous	Tetrachloroethene	8260D	240		ug/L	12
003	DP-25B	Aqueous	1,1,2-Trichloro-1,2,2-	8260D	3.1	J	ug/L	12

(25 detections)

Inorganic non-metals

Client: TRC Companies, Inc.
Laboratory ID: VC25037-001
Description: DP-25
Matrix: Aqueous
Date Sampled: 03/24/2020 0815
Date Received: 03/25/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	04/01/2020 0108	HKL		49620
1		(Chloride) 300.0	1	04/01/2020 0108	HKL		49618
2		(Nitrate - N) 353.2	1	03/26/2020 0818	AMR		49026
1		(Sulfate) 300.0	1	04/01/2020 0108	HKL		49615

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.32		0.20	0.050	mg/L	1
Chloride		300.0	23		1.0	0.20	mg/L	1
Nitrate - N		353.2	0.11	H	0.020	0.010	mg/L	2
Sulfate		300.0	130		1.0	0.20	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

Pace Analytical Services, LLC *(formerly Shealy Environmental Services, Inc.)*
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC25037-001
Description: DP-25
Matrix: Aqueous
Date Sampled: 03/24/2020 0815
Date Received: 03/25/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/28/2020 2150	STM		49290

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	180		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	120		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	4.7		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	0.78	J	1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	170		1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	0.55	J	1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC25037-001
Description: DP-25
Matrix: Aqueous
Date Sampled: 03/24/2020 0815
Date Received: 03/25/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/28/2020 2150	STM		49290

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Trichloroethene	79-01-6	8260D	2.4		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		100	70-130
1,2-Dichloroethane-d4		119	70-130
Toluene-d8		108	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Inorganic non-metals

Client: TRC Companies, Inc.
Laboratory ID: VC25037-002
Description: DP-25A
Matrix: Aqueous
Date Sampled: 03/24/2020 0915
Date Received: 03/25/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	04/01/2020 0131	HKL		49620
1		(Chloride) 300.0	1	04/01/2020 0131	HKL		49618
1		(Nitrate - N) 353.2	2	03/26/2020 0834	AMR		49026
1		(Sulfate) 300.0	1	04/01/2020 0131	HKL		49615

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	ND		0.20	0.050	mg/L	1
Chloride		300.0	1.4		1.0	0.20	mg/L	1
Nitrate - N		353.2	2.7		0.040	0.020	mg/L	1
Sulfate		300.0	0.84	J	1.0	0.20	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC25037-002
Description: DP-25A
Matrix: Aqueous
Date Sampled: 03/24/2020 0915
Date Received: 03/25/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	10	03/28/2020 2326	STM		49290
2	5030B	8260D	5	03/31/2020 0434	ALR1		49450

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	75	J	100	25	ug/L	2
Benzene	71-43-2	8260D	ND		5.0	2.0	ug/L	2
Bromodichloromethane	75-27-4	8260D	ND		5.0	2.0	ug/L	2
Bromoform	75-25-2	8260D	ND		5.0	2.0	ug/L	2
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		10	2.0	ug/L	2
2-Butanone (MEK)	78-93-3	8260D	30	J	50	10	ug/L	2
Carbon disulfide	75-15-0	8260D	ND		5.0	2.0	ug/L	2
Carbon tetrachloride	56-23-5	8260D	ND		5.0	2.0	ug/L	2
Chlorobenzene	108-90-7	8260D	ND		5.0	2.0	ug/L	2
Chloroethane	75-00-3	8260D	ND		10	2.0	ug/L	2
Chloroform	67-66-3	8260D	8.4		5.0	2.0	ug/L	2
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		5.0	2.5	ug/L	2
Cyclohexane	110-82-7	8260D	ND		5.0	2.0	ug/L	2
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		5.0	2.0	ug/L	2
Dibromochloromethane	124-48-1	8260D	ND		5.0	2.0	ug/L	2
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		5.0	2.0	ug/L	2
1,2-Dichlorobenzene	95-50-1	8260D	ND		5.0	2.0	ug/L	2
1,3-Dichlorobenzene	541-73-1	8260D	ND		5.0	2.0	ug/L	2
1,4-Dichlorobenzene	106-46-7	8260D	ND		5.0	2.0	ug/L	2
Dichlorodifluoromethane	75-71-8	8260D	ND		10	3.0	ug/L	2
1,1-Dichloroethane	75-34-3	8260D	ND		5.0	2.0	ug/L	2
1,2-Dichloroethane	107-06-2	8260D	ND		5.0	2.0	ug/L	2
1,1-Dichloroethene	75-35-4	8260D	ND		5.0	2.0	ug/L	2
cis-1,2-Dichloroethene	156-59-2	8260D	ND		5.0	2.0	ug/L	2
trans-1,2-Dichloroethene	156-60-5	8260D	ND		5.0	2.0	ug/L	2
1,2-Dichloropropane	78-87-5	8260D	ND		5.0	2.0	ug/L	2
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		5.0	2.0	ug/L	2
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		5.0	2.0	ug/L	2
Ethylbenzene	100-41-4	8260D	ND		5.0	2.0	ug/L	2
2-Hexanone	591-78-6	8260D	ND		50	10	ug/L	2
Isopropylbenzene	98-82-8	8260D	ND		5.0	2.0	ug/L	2
Methyl acetate	79-20-9	8260D	ND		5.0	2.0	ug/L	2
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		5.0	2.0	ug/L	2
4-Methyl-2-pentanone	108-10-1	8260D	ND		50	10	ug/L	2
Methylcyclohexane	108-87-2	8260D	ND		25	2.0	ug/L	2
Methylene chloride	75-09-2	8260D	ND		5.0	2.0	ug/L	2
Styrene	100-42-5	8260D	ND		5.0	2.1	ug/L	2
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		5.0	2.0	ug/L	2
Tetrachloroethene	127-18-4	8260D	340		10	4.0	ug/L	1
Toluene	108-88-3	8260D	ND		5.0	2.0	ug/L	2
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	3.8	J	5.0	2.1	ug/L	2
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		5.0	2.0	ug/L	2
1,1,1-Trichloroethane	71-55-6	8260D	ND		5.0	2.0	ug/L	2

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
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P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC25037-002
Description: DP-25A
Matrix: Aqueous
Date Sampled: 03/24/2020 0915
Date Received: 03/25/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	10	03/28/2020 2326	STM		49290
2	5030B	8260D	5	03/31/2020 0434	ALR1		49450

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
1,1,2-Trichloroethane	79-00-5	8260D	ND		5.0	2.0	ug/L	2
Trichloroethene	79-01-6	8260D	ND		5.0	2.0	ug/L	2
Trichlorofluoromethane	75-69-4	8260D	ND		5.0	2.0	ug/L	2
Vinyl chloride	75-01-4	8260D	ND		5.0	2.0	ug/L	2
Xylenes (total)	1330-20-7	8260D	ND		5.0	2.0	ug/L	2

Surrogate	Q	Run 1 % Recovery	Acceptance Limits	Q	Run 2 % Recovery	Acceptance Limits
Bromofluorobenzene		96	70-130		100	70-130
1,2-Dichloroethane-d4		121	70-130		99	70-130
Toluene-d8		107	70-130		104	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
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W = Reported on wet weight basis

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Inorganic non-metals

Client: TRC Companies, Inc.
Laboratory ID: VC25037-003
Description: DP-25B
Matrix: Aqueous
Date Sampled: 03/24/2020 1015
Date Received: 03/25/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	04/01/2020 0154	HKL		49620
1		(Chloride) 300.0	1	04/01/2020 0154	HKL		49618
1		(Nitrate - N) 353.2	1	03/26/2020 0827	AMR		49026
1		(Sulfate) 300.0	1	04/01/2020 0154	HKL		49615

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	ND		0.20	0.050	mg/L	1
Chloride		300.0	1.1		1.0	0.20	mg/L	1
Nitrate - N		353.2	0.85		0.020	0.010	mg/L	1
Sulfate		300.0	1.5		1.0	0.20	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc. | Laboratory ID: VC25037-003
Description: DP-25B | Matrix: Aqueous
Date Sampled: 03/24/2020 1015
Date Received: 03/25/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	5	03/28/2020 2238	STM		49290

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		100	25	ug/L	1
Benzene	71-43-2	8260D	ND		5.0	2.0	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		5.0	2.0	ug/L	1
Bromoform	75-25-2	8260D	ND		5.0	2.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		10	2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		50	10	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		5.0	2.0	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		5.0	2.0	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		5.0	2.0	ug/L	1
Chloroethane	75-00-3	8260D	ND		10	2.0	ug/L	1
Chloroform	67-66-3	8260D	2.7	J	5.0	2.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		5.0	2.5	ug/L	1
Cyclohexane	110-82-7	8260D	ND		5.0	2.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		5.0	2.0	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		5.0	2.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		5.0	2.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		5.0	2.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		5.0	2.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		5.0	2.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		10	3.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		5.0	2.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		5.0	2.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		5.0	2.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		5.0	2.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		5.0	2.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		5.0	2.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		5.0	2.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		5.0	2.0	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		5.0	2.0	ug/L	1
2-Hexanone	591-78-6	8260D	ND		50	10	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		5.0	2.0	ug/L	1
Methyl acetate	79-20-9	8260D	ND		5.0	2.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		5.0	2.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		50	10	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		25	2.0	ug/L	1
Methylene chloride	75-09-2	8260D	ND		5.0	2.0	ug/L	1
Styrene	100-42-5	8260D	ND		5.0	2.1	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		5.0	2.0	ug/L	1
Tetrachloroethene	127-18-4	8260D	240		5.0	2.0	ug/L	1
Toluene	108-88-3	8260D	ND		5.0	2.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	3.1	J	5.0	2.1	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		5.0	2.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		5.0	2.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		5.0	2.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC25037-003
Description: DP-25B
Matrix: Aqueous
Date Sampled: 03/24/2020 1015
Date Received: 03/25/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	5	03/28/2020 2238	STM		49290

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Trichloroethene	79-01-6	8260D	ND		5.0	2.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		5.0	2.0	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		5.0	2.0	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		5.0	2.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		99	70-130
1,2-Dichloroethane-d4		118	70-130
Toluene-d8		109	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC25037-004
Description: TBLK-20121
Matrix: Aqueous
Date Sampled: 03/24/2020
Date Received: 03/25/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/28/2020 1550	STM		49290

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	ND		1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

Pace Analytical Services, LLC *(formerly Shealy Environmental Services, Inc.)*
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC25037-004
Description: TBLK-20121
Matrix: Aqueous
Date Sampled: 03/24/2020
Date Received: 03/25/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/28/2020 1550	STM		49290

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Trichloroethene	79-01-6	8260D	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		100	70-130
1,2-Dichloroethane-d4		121	70-130
Toluene-d8		110	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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QC Summary

Inorganic non-metals - MB

Sample ID: VQ49026-001
Batch: 49026
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Nitrate - N	ND		1	0.020	0.010	mg/L	03/26/2020 0815

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: VQ49026-002
Batch: 49026
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	0.80	0.76		1	95	90-110	03/26/2020 0816

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MS

Sample ID: VC25037-001MS
Batch: 49026
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	0.11	0.80	0.93		1	102	90-110	03/26/2020 0819

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: VC25037-001MD
Batch: 49026
Analytical Method: 353.2
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Nitrate - N	0.11	0.80	0.89		1	97	4.6	90-110	20	03/26/2020 0820

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: VQ49615-001
Batch: 49615
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Sulfate	ND		1	1.0	0.20	mg/L	03/31/2020 1545

LOQ = Limit of Quantitation
DL = Detection Limit

ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria

N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: VQ49615-002
Batch: 49615
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Sulfate	20	19		1	95	90-110	03/31/2020 1631

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MS

Sample ID: VC25037-003MS
Batch: 49615
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Sulfate	1.5	20	21		1	98	90-110	04/01/2020 0216

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: VC25037-003MD
Batch: 49615
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Sulfate	1.5	20	22		1	101	2.3	90-110	20	04/01/2020 0239

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: VQ49618-001
Batch: 49618
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Chloride	ND		1	1.0	0.20	mg/L	03/31/2020 1545

LOQ = Limit of Quantitation
DL = Detection Limit

ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria

N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: VQ49618-002
Batch: 49618
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Chloride	20	20		1	99	90-110	03/31/2020 1631

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Sample ID: VC25037-003MS
Batch: 49618
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Chloride	1.1	20	21		1	98	90-110	04/01/2020 0216

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: VC25037-003MD
Batch: 49618
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Chloride	1.1	20	21		1	100	2.4	90-110	20	04/01/2020 0239

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: VQ49620-001
Batch: 49620
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Bromide	ND		1	0.20	0.050	mg/L	03/31/2020 1545

LOQ = Limit of Quantitation
DL = Detection Limit

ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria

N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: VQ49620-002
Batch: 49620
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Bromide	8.0	7.6		1	95	90-110	03/31/2020 1631

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MS

Sample ID: VC25037-003MS
Batch: 49620
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Bromide	ND	8.0	7.5		1	94	90-110	04/01/2020 0216

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: VC25037-003MD
Batch: 49620
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Bromide	ND	8.0	7.7		1	96	2.6	90-110	20	04/01/2020 0239

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: VQ49290-001
Batch: 49290
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Acetone	ND		1	20	5.0	ug/L	03/28/2020 1512
Benzene	ND		1	1.0	0.40	ug/L	03/28/2020 1512
Bromodichloromethane	ND		1	1.0	0.40	ug/L	03/28/2020 1512
Bromoform	ND		1	1.0	0.40	ug/L	03/28/2020 1512
Bromomethane (Methyl bromide)	ND		1	2.0	0.40	ug/L	03/28/2020 1512
2-Butanone (MEK)	ND		1	10	2.0	ug/L	03/28/2020 1512
Carbon disulfide	ND		1	1.0	0.40	ug/L	03/28/2020 1512
Carbon tetrachloride	ND		1	1.0	0.40	ug/L	03/28/2020 1512
Chlorobenzene	ND		1	1.0	0.40	ug/L	03/28/2020 1512
Chloroethane	ND		1	2.0	0.40	ug/L	03/28/2020 1512
Chloroform	ND		1	1.0	0.40	ug/L	03/28/2020 1512
Chloromethane (Methyl chloride)	ND		1	1.0	0.50	ug/L	03/28/2020 1512
Cyclohexane	ND		1	1.0	0.40	ug/L	03/28/2020 1512
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	0.40	ug/L	03/28/2020 1512
Dibromochloromethane	ND		1	1.0	0.40	ug/L	03/28/2020 1512
1,2-Dibromoethane (EDB)	ND		1	1.0	0.40	ug/L	03/28/2020 1512
1,2-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/28/2020 1512
1,3-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/28/2020 1512
1,4-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/28/2020 1512
Dichlorodifluoromethane	ND		1	2.0	0.60	ug/L	03/28/2020 1512
1,1-Dichloroethane	ND		1	1.0	0.40	ug/L	03/28/2020 1512
1,2-Dichloroethane	ND		1	1.0	0.40	ug/L	03/28/2020 1512
1,1-Dichloroethene	ND		1	1.0	0.40	ug/L	03/28/2020 1512
cis-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	03/28/2020 1512
trans-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	03/28/2020 1512
1,2-Dichloropropane	ND		1	1.0	0.40	ug/L	03/28/2020 1512
cis-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	03/28/2020 1512
trans-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	03/28/2020 1512
Ethylbenzene	ND		1	1.0	0.40	ug/L	03/28/2020 1512
2-Hexanone	ND		1	10	2.0	ug/L	03/28/2020 1512
Isopropylbenzene	ND		1	1.0	0.40	ug/L	03/28/2020 1512
Methyl acetate	ND		1	1.0	0.40	ug/L	03/28/2020 1512
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	0.40	ug/L	03/28/2020 1512
4-Methyl-2-pentanone	ND		1	10	2.0	ug/L	03/28/2020 1512
Methylcyclohexane	ND		1	5.0	0.40	ug/L	03/28/2020 1512
Methylene chloride	ND		1	1.0	0.40	ug/L	03/28/2020 1512
Styrene	ND		1	1.0	0.41	ug/L	03/28/2020 1512
1,1,2,2-Tetrachloroethane	ND		1	1.0	0.40	ug/L	03/28/2020 1512
Tetrachloroethene	ND		1	1.0	0.40	ug/L	03/28/2020 1512
Toluene	ND		1	1.0	0.40	ug/L	03/28/2020 1512
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	0.42	ug/L	03/28/2020 1512
1,2,4-Trichlorobenzene	ND		1	1.0	0.40	ug/L	03/28/2020 1512
1,1,1-Trichloroethane	ND		1	1.0	0.40	ug/L	03/28/2020 1512
1,1,2-Trichloroethane	ND		1	1.0	0.40	ug/L	03/28/2020 1512

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: VQ49290-001
Batch: 49290
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Trichloroethene	ND		1	1.0	0.40	ug/L	03/28/2020 1512
Trichlorofluoromethane	ND		1	1.0	0.40	ug/L	03/28/2020 1512
Vinyl chloride	ND		1	1.0	0.40	ug/L	03/28/2020 1512
Xylenes (total)	ND		1	1.0	0.40	ug/L	03/28/2020 1512

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		100	70-130
1,2-Dichloroethane-d4		119	70-130
Toluene-d8		107	70-130

LOQ = Limit of Quantitation
DL = Detection Limit

ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria

N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: VQ49290-002
Batch: 49290
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	110		1	110	60-140	03/28/2020 1405
Benzene	50	52		1	103	70-130	03/28/2020 1405
Bromodichloromethane	50	55		1	111	70-130	03/28/2020 1405
Bromoform	50	47		1	94	70-130	03/28/2020 1405
Bromomethane (Methyl bromide)	50	47		1	94	70-130	03/28/2020 1405
2-Butanone (MEK)	100	110		1	110	70-130	03/28/2020 1405
Carbon disulfide	50	56		1	112	70-130	03/28/2020 1405
Carbon tetrachloride	50	52		1	104	70-130	03/28/2020 1405
Chlorobenzene	50	50		1	100	70-130	03/28/2020 1405
Chloroethane	50	49		1	98	70-130	03/28/2020 1405
Chloroform	50	54		1	108	70-130	03/28/2020 1405
Chloromethane (Methyl chloride)	50	50		1	100	60-140	03/28/2020 1405
Cyclohexane	50	56		1	113	70-130	03/28/2020 1405
1,2-Dibromo-3-chloropropane (DBCP)	50	57		1	114	70-130	03/28/2020 1405
Dibromochloromethane	50	49		1	97	70-130	03/28/2020 1405
1,2-Dibromoethane (EDB)	50	52		1	103	70-130	03/28/2020 1405
1,2-Dichlorobenzene	50	51		1	101	70-130	03/28/2020 1405
1,3-Dichlorobenzene	50	50		1	100	70-130	03/28/2020 1405
1,4-Dichlorobenzene	50	49		1	99	70-130	03/28/2020 1405
Dichlorodifluoromethane	50	49		1	99	60-140	03/28/2020 1405
1,1-Dichloroethane	50	54		1	109	70-130	03/28/2020 1405
1,2-Dichloroethane	50	55		1	110	70-130	03/28/2020 1405
1,1-Dichloroethene	50	54		1	109	70-130	03/28/2020 1405
cis-1,2-Dichloroethene	50	53		1	105	70-130	03/28/2020 1405
trans-1,2-Dichloroethene	50	53		1	106	70-130	03/28/2020 1405
1,2-Dichloropropane	50	52		1	103	70-130	03/28/2020 1405
cis-1,3-Dichloropropene	50	55		1	110	70-130	03/28/2020 1405
trans-1,3-Dichloropropene	50	50		1	101	70-130	03/28/2020 1405
Ethylbenzene	50	52		1	103	70-130	03/28/2020 1405
2-Hexanone	100	110		1	113	70-130	03/28/2020 1405
Isopropylbenzene	50	54		1	109	70-130	03/28/2020 1405
Methyl acetate	50	55		1	109	70-130	03/28/2020 1405
Methyl tertiary butyl ether (MTBE)	50	52		1	103	70-130	03/28/2020 1405
4-Methyl-2-pentanone	100	110		1	111	70-130	03/28/2020 1405
Methylcyclohexane	50	51		1	101	70-130	03/28/2020 1405
Methylene chloride	50	48		1	95	70-130	03/28/2020 1405
Styrene	50	53		1	106	70-130	03/28/2020 1405
1,1,2,2-Tetrachloroethane	50	52		1	104	70-130	03/28/2020 1405
Tetrachloroethene	50	50		1	100	70-130	03/28/2020 1405
Toluene	50	51		1	102	70-130	03/28/2020 1405
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	53		1	106	70-130	03/28/2020 1405
1,2,4-Trichlorobenzene	50	51		1	103	70-130	03/28/2020 1405
1,1,1-Trichloroethane	50	51		1	102	70-130	03/28/2020 1405
1,1,2-Trichloroethane	50	51		1	102	70-130	03/28/2020 1405

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: VQ49290-002
Batch: 49290
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	49		1	98	70-130	03/28/2020 1405
Trichlorofluoromethane	50	51		1	101	70-130	03/28/2020 1405
Vinyl chloride	50	51		1	103	70-130	03/28/2020 1405
Xylenes (total)	100	100		1	105	70-130	03/28/2020 1405

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		99	70-130
1,2-Dichloroethane-d4		108	70-130
Toluene-d8		104	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: VQ49450-001
Batch: 49450
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Acetone	ND		1	20	5.0	ug/L	03/30/2020 2145
Benzene	ND		1	1.0	0.40	ug/L	03/30/2020 2145
Bromodichloromethane	ND		1	1.0	0.40	ug/L	03/30/2020 2145
Bromoform	ND		1	1.0	0.40	ug/L	03/30/2020 2145
Bromomethane (Methyl bromide)	ND		1	2.0	0.40	ug/L	03/30/2020 2145
2-Butanone (MEK)	ND		1	10	2.0	ug/L	03/30/2020 2145
Carbon disulfide	ND		1	1.0	0.40	ug/L	03/30/2020 2145
Carbon tetrachloride	ND		1	1.0	0.40	ug/L	03/30/2020 2145
Chlorobenzene	ND		1	1.0	0.40	ug/L	03/30/2020 2145
Chloroethane	ND		1	2.0	0.40	ug/L	03/30/2020 2145
Chloroform	ND		1	1.0	0.40	ug/L	03/30/2020 2145
Chloromethane (Methyl chloride)	ND		1	1.0	0.50	ug/L	03/30/2020 2145
Cyclohexane	ND		1	1.0	0.40	ug/L	03/30/2020 2145
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	0.40	ug/L	03/30/2020 2145
Dibromochloromethane	ND		1	1.0	0.40	ug/L	03/30/2020 2145
1,2-Dibromoethane (EDB)	ND		1	1.0	0.40	ug/L	03/30/2020 2145
1,2-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/30/2020 2145
1,3-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/30/2020 2145
1,4-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/30/2020 2145
Dichlorodifluoromethane	ND		1	2.0	0.60	ug/L	03/30/2020 2145
1,1-Dichloroethane	ND		1	1.0	0.40	ug/L	03/30/2020 2145
1,2-Dichloroethane	ND		1	1.0	0.40	ug/L	03/30/2020 2145
1,1-Dichloroethene	ND		1	1.0	0.40	ug/L	03/30/2020 2145
cis-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	03/30/2020 2145
trans-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	03/30/2020 2145
1,2-Dichloropropane	ND		1	1.0	0.40	ug/L	03/30/2020 2145
cis-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	03/30/2020 2145
trans-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	03/30/2020 2145
Ethylbenzene	ND		1	1.0	0.40	ug/L	03/30/2020 2145
2-Hexanone	ND		1	10	2.0	ug/L	03/30/2020 2145
Isopropylbenzene	ND		1	1.0	0.40	ug/L	03/30/2020 2145
Methyl acetate	ND		1	1.0	0.40	ug/L	03/30/2020 2145
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	0.40	ug/L	03/30/2020 2145
4-Methyl-2-pentanone	ND		1	10	2.0	ug/L	03/30/2020 2145
Methylcyclohexane	ND		1	5.0	0.40	ug/L	03/30/2020 2145
Methylene chloride	ND		1	1.0	0.40	ug/L	03/30/2020 2145
Styrene	ND		1	1.0	0.41	ug/L	03/30/2020 2145
1,1,2,2-Tetrachloroethane	ND		1	1.0	0.40	ug/L	03/30/2020 2145
Toluene	ND		1	1.0	0.40	ug/L	03/30/2020 2145
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	0.42	ug/L	03/30/2020 2145
1,2,4-Trichlorobenzene	ND		1	1.0	0.40	ug/L	03/30/2020 2145
1,1,1-Trichloroethane	ND		1	1.0	0.40	ug/L	03/30/2020 2145
1,1,2-Trichloroethane	ND		1	1.0	0.40	ug/L	03/30/2020 2145
Trichloroethene	ND		1	1.0	0.40	ug/L	03/30/2020 2145

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
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* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: VQ49450-001
Batch: 49450
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Trichlorofluoromethane	ND		1	1.0	0.40	ug/L	03/30/2020 2145
Vinyl chloride	ND		1	1.0	0.40	ug/L	03/30/2020 2145
Xylenes (total)	ND		1	1.0	0.40	ug/L	03/30/2020 2145

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		102	70-130
1,2-Dichloroethane-d4		100	70-130
Toluene-d8		105	70-130

LOQ = Limit of Quantitation
DL = Detection Limit

ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria

N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: VQ49450-002
Batch: 49450
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	99		1	99	60-140	03/30/2020 2024
Benzene	50	52		1	103	70-130	03/30/2020 2024
Bromodichloromethane	50	60		1	121	70-130	03/30/2020 2024
Bromoform	50	57		1	114	70-130	03/30/2020 2024
Bromomethane (Methyl bromide)	50	51		1	101	70-130	03/30/2020 2024
2-Butanone (MEK)	100	100		1	104	70-130	03/30/2020 2024
Carbon disulfide	50	46		1	92	70-130	03/30/2020 2024
Carbon tetrachloride	50	54		1	108	70-130	03/30/2020 2024
Chlorobenzene	50	55		1	109	70-130	03/30/2020 2024
Chloroethane	50	52		1	103	70-130	03/30/2020 2024
Chloroform	50	51		1	101	70-130	03/30/2020 2024
Chloromethane (Methyl chloride)	50	49		1	98	60-140	03/30/2020 2024
Cyclohexane	50	49		1	99	70-130	03/30/2020 2024
1,2-Dibromo-3-chloropropane (DBCP)	50	55		1	110	70-130	03/30/2020 2024
Dibromochloromethane	50	57		1	113	70-130	03/30/2020 2024
1,2-Dibromoethane (EDB)	50	56		1	111	70-130	03/30/2020 2024
1,2-Dichlorobenzene	50	55		1	110	70-130	03/30/2020 2024
1,3-Dichlorobenzene	50	55		1	111	70-130	03/30/2020 2024
1,4-Dichlorobenzene	50	54		1	108	70-130	03/30/2020 2024
Dichlorodifluoromethane	50	58		1	117	60-140	03/30/2020 2024
1,1-Dichloroethane	50	49		1	98	70-130	03/30/2020 2024
1,2-Dichloroethane	50	52		1	103	70-130	03/30/2020 2024
1,1-Dichloroethene	50	50		1	101	70-130	03/30/2020 2024
cis-1,2-Dichloroethene	50	48		1	97	70-130	03/30/2020 2024
trans-1,2-Dichloroethene	50	50		1	99	70-130	03/30/2020 2024
1,2-Dichloropropane	50	54		1	107	70-130	03/30/2020 2024
cis-1,3-Dichloropropene	50	55		1	110	70-130	03/30/2020 2024
trans-1,3-Dichloropropene	50	60		1	120	70-130	03/30/2020 2024
Ethylbenzene	50	58		1	116	70-130	03/30/2020 2024
2-Hexanone	100	120		1	118	70-130	03/30/2020 2024
Isopropylbenzene	50	58		1	117	70-130	03/30/2020 2024
Methyl acetate	50	49		1	98	70-130	03/30/2020 2024
Methyl tertiary butyl ether (MTBE)	50	49		1	98	70-130	03/30/2020 2024
4-Methyl-2-pentanone	100	110		1	112	70-130	03/30/2020 2024
Methylcyclohexane	50	52		1	104	70-130	03/30/2020 2024
Methylene chloride	50	45		1	90	70-130	03/30/2020 2024
Styrene	50	59		1	118	70-130	03/30/2020 2024
1,1,2,2-Tetrachloroethane	50	58		1	116	70-130	03/30/2020 2024
Toluene	50	56		1	112	70-130	03/30/2020 2024
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	50		1	100	70-130	03/30/2020 2024
1,2,4-Trichlorobenzene	50	58		1	115	70-130	03/30/2020 2024
1,1,1-Trichloroethane	50	52		1	105	70-130	03/30/2020 2024
1,1,2-Trichloroethane	50	55		1	111	70-130	03/30/2020 2024
Trichloroethene	50	54		1	109	70-130	03/30/2020 2024

LOQ = Limit of Quantitation
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ND = Not detected at or above the DL
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* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: VQ49450-002
Batch: 49450
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichlorofluoromethane	50	52		1	104	70-130	03/30/2020 2024
Vinyl chloride	50	53		1	106	70-130	03/30/2020 2024
Xylenes (total)	100	110		1	113	70-130	03/30/2020 2024

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		88	70-130
1,2-Dichloroethane-d4		85	70-130
Toluene-d8		88	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Pace Analytical Services, LLC *(formerly Shealy Environmental Services, Inc.)*
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Chain of Custody

and

Miscellaneous Documents

CHAIN-OF-CUSTODY Analytical Request Document

Pace Analytical™

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

LAB USE ONLY- Affix Workorder/Login Label Here or List Pace Workorder Number or MTJL Log-in Number Here

VC25037

ALL SHADED AREAS are for LAB USE

Company: TRC	Billing Information:
Address: 50 International Dr. Ste 150	
Report To: Lisa Clark	Email To:
Copy To: Lisa Clark	Site Collection Info/Address:
Customer Project Name/Number: WPH Clemson 300688.0.0.12	State: / County/City: / Time Zone Collected: [ ] PT [ ] MT [ ] CT [ ] ET
Phone: / Email:	Site/Facility ID #: / Compliance Monitoring? [ ] Yes [ ] No
Collected By (print): David Stynal	Purchase Order #: / Quote #: / DW PWS ID #: / DW Location Code:
Collected By (signature):	Turnaround Date Required: / Immediately Packed on Ice: (X) Yes [ ] No
Sample Disposal: (X) Dispose as appropriate [ ] Return [ ] Archive: [ ] Hold:	Rush: [ ] Same Day [ ] Next Day [ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day (Expedite Charges Apply) / Field Filtered (if applicable): [ ] Yes (X) No / Analysis:

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Container Preservative Type **

** Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium h; (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, ((C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other _____

Lab Project Mana: LJO

Analyses: VOCs; Chloride Sulfate, Bromide; Nitrate; Dissolved Gases

Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite Start) Date	Collected (or Composite Start) Time	Composite End Date	Composite End Time	Res Cl	# of Ctns
DP-25	GW	grab	3-24-20	0815				8
DP-25A	GW	grab	3-24-20	0915				8
DP-25B	GW	Grab	3-24-20	1015				8
TRIP BLK-20121		grab	/	/				2

Lab Sample Receipt Checklist:

Custody Seals Present/Intact	Y N NA
Custody Signatures Present	Y N NA
Collector Signature Present	Y N NA
Bottles Intact	Y N NA
Correct Bottles	Y N NA
Sufficient Volume	Y N NA
Samples Received on Ice	Y N NA
VOA - Headspace Acceptable	Y N NA
USDA Regulated Soils	Y N NA
Samples in Holding Time	Y N NA
Residual Chlorine Present	Y N NA
Cl Strips:	
Sample pH Acceptable	Y N NA
pH Strips:	
Sulfide Present	Y N NA
Lead Acetate Strips:	

LAB USE ONLY:
Lab Sample # / Comments:

T=4.1°C

Customer Remarks / Special Conditions / Possible Hazards:

Type of Ice Used: Wet Blue Dry None

Packing Material Used:

Radchem sample(s) screened (<500 cpm): Y N NA

SHORT HOLDS PRESENT (<72 hours): Y N N/A

Lab Tracking #: 2324943

Samples received via: FEDEX UPS Client Courier Pace Courier

Lab Sample Temperature Info:
Temp Blank Received: Y N NA
Therm ID#:
Cooler 1 Temp Upon Receipt: ____oC
Cooler 1 Therm Corr. Factor: ____oC
Cooler 1 Corrected Temp: ____oC
Comments:

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
	3/24/20 1100		3-24-20 1100
	3.24.20 1325	TRC SS	3.24.20 1325
TRC SS	3.25.20 0928	Pace	3.25.20 0928
Edward Adams/PACE	3.25.20 1332		3-25-2020 1332

MTJL LAB USE ONLY
Table #:
Acctnum:
Template:
Prelogin:
PM:
PB:

Trip Blank Received: Y N NA
HCL MeOH TSP Other

Non Conformance(s): YES / NO

Page: ____ of: ____

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Shealy Environmental Services, Inc.
Document Number: ME001810-14

Effective Date: 8/7/2018

Sample Receipt Checklist (SRC)

Client: TRC Cooler Inspected by/date: LKH / 03/25/2020 Lot #: VC25037

Means of receipt: ☑ SESI ☐ Client ☐ UPS ☐ FedEx ☐ Other:

☐ Yes	☑ No		1. Were custody seals present on the cooler?
☐ Yes	☐ No	☑ NA	2. If custody seals were present, were they intact and unbroken?

pH Strip ID: NA Chlorine Strip ID: NA Tested by: NA

Original temperature upon receipt / Derived (Corrected) temperature upon receipt %Solid Snap-Cup ID: NA

4.1 /4.1 °C NA /NA °C NA /NA °C NA /NA °C

Method: ☑ Temperature Blank ☐ Against Bottles IR Gun ID: 6 IR Gun Correction Factor: 0 °C

Method of coolant: ☑ Wet Ice ☐ Ice Packs ☐ Dry Ice ☐ None

☐ Yes	☐ No	☑ NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).
☐ Yes	☐ No	☑ NA	4. Is the commercial courier's packing slip attached to this form?
☑ Yes	☐ No		5. Were proper custody procedures (relinquished/received) followed?
☑ Yes	☐ No		6. Were sample IDs listed on the COC?
☑ Yes	☐ No		7. Were sample IDs listed on all sample containers?
☑ Yes	☐ No		8. Was collection date & time listed on the COC?
☑ Yes	☐ No		9. Was collection date & time listed on all sample containers?
☑ Yes	☐ No		10. Did all container label information (ID, date, time) agree with the COC?
☑ Yes	☐ No		11. Were tests to be performed listed on the COC?
☑ Yes	☐ No		12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)?
☑ Yes	☐ No		13. Was adequate sample volume available?
☐ Yes	☑ No		14. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
☐ Yes	☑ No		15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
☐ Yes	☑ No	☐ NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (¼"or 6mm in diameter) in any of the VOA vials?
☐ Yes	☐ No	☑ NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?
☐ Yes	☐ No	☑ NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
☐ Yes	☐ No	☑ NA	19. Were all applicable NH_3/TKN/cyanide/phenol/625 (< 0.5mg/L) samples free of residual chlorine?
☐ Yes	☐ No	☑ NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc…) correctly transcribed from the COC into the comment section in LIMS?
☐ Yes	☑ No		21. Was the quote number listed on the container label? If yes, Quote # NA

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) NA were received incorrectly preserved and were adjusted accordingly in sample receiving with NA mL of circle one: H_2SO_4, HNO_3, HCl, NaOH using SR # NA.

Time of preservation NA. If more than one preservative is needed, please note in the comments below.

Sample(s) NA were received with bubbles >6 mm in diameter.

Samples(s) NA were received with TRC > 0.5 mg/L (If #19 is *no*) and were adjusted accordingly in sample receiving with sodium thiosulfate ($Na_2S_2O_3$) with Shealy ID: NA.

SR barcode labels applied by: LKH Date: 03/25/2020

Comments:

Pace Analytical Energy Services LLC
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

April 10, 2020

Lucas Odom
Pace Analytical Services South Carolina
106 Vantage Point Drive
West Columbia, SC 29172

RE: **WPH CLEMSON / TRC**

Pace Workorder: 33366

Dear Lucas Odom:

Enclosed are the analytical results for sample(s) received by the laboratory on Friday, March 27, 2020. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Ruth Welsh 04/10/2020
Ruth.Welsh@pacelabs.com

Customer Service Representative

Enclosures

As a valued client we would appreciate your comments on our service.
Please email PAESfeedback@pacelabs.com.

Total Number of Pages 13

CERTIFICATE OF ANALYSIS

Laboratory Data Quality Review Notes

Project Name: WPH-Clemson, SC

Project Number: 300688.0000.0000 Phase 4

Lab Report: **33366** Pace Analytical Energy Services LLC; Pittsburgh, PA
This lab report is the subcontracted job related to **VC25037**.

Samples and Analyses: Three groundwater samples collected 24-Mar-2020 and analyzed for dissolved hydrocarbon gases (methane, ethane, ethene)

Chain of Custody, Sample Temperature, Sample Preservation: Chain of custody was signed (sample transfer from Pace Analytical, Columbia, to Pace Analytical, Pittsburgh); sample temperature was <6 ^{o}C upon arrival at the laboratory; samples were preserved properly.

Hold Time: Sample analyses were performed within acceptable hold time.

Surrogates: Surrogate recoveries are not applicable to dissolved hydrocarbon gas analyses.

Method Blank: Target analytes were not detected in the laboratory method blank.

Trip Blank: A trip blank was not analyzed with these samples.

Field Blank: A field blank was not collected with these samples.

Equipment Rinse Blank: A rinsate blank was not collected with these samples.

LCS/LCSD: LCS and LCSD recoveries and LCS/LCSD RPDs are within the laboratory QC limits.

MS/MSD: MS/MSD analyses were not performed using samples from this data set.

Duplicates: No field duplicate sample was collected with this sample set. No laboratory duplicates were included with these analyses.

Dilutions: No dilutions were performed with these sample analyses.

No data qualifiers were assigned in this review.

Data reviewer: Amy Bass; TRC Environmental Corporation; 02-Oct-2020

Pace Analytical Energy Services LLC
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

LABORATORY ACCREDITATIONS & CERTIFICATIONS

Accreditor:	Pennsylvania Department of Environmental Protection, Bureau of Laboratories
Accreditation ID:	02-00538
Scope:	NELAP Non-Potable Water
Accreditor:	West Virginia Department of Environmental Protection, Division of Water and Waste Management
Accreditation ID:	395
Scope:	Non-Potable Water
Accreditor:	South Carolina Department of Health and Environmental Control, Office of Environmental Laboratory Certification
Accreditation ID:	89009003
Scope:	Clean Water Act (CWA); Resource Conservation and Recovery Act (RCRA)
Accreditor:	State of Virginia
Accreditation ID:	460201
Scope:	Non-Potable Water
Accreditor:	NELAP: New Jersey, Department of Environmental Protection
Accreditation ID:	PA026
Scope:	Non-Potable Water
Accreditor:	NELAP: New York, Department of Health Wadsworth Center
Accreditation ID:	11815
Scope:	Non-Potable Water
Accreditor:	State of Connecticut, Department of Public Health, Division of Environmental Health
Accreditation ID:	PH-0263
Scope:	Clean Water Act (CWA) Resource Conservation and Recovery Act (RCRA)
Accreditor:	NELAP: Texas, Commission on Environmental Quality
Accreditation ID:	T104704453-09-TX
Scope:	Non-Potable Water
Accreditor:	State of New Hampshire
Accreditation ID:	299409
Scope:	Non-potable water
Accreditor:	State of Georgia
Accreditation ID:	Chapter 391-3-26
Scope:	As per the Georgia EPD Rules and Regulations for Commercial Laboratories, PAES is accredited by the Pennsylvania Department of Environmental Protection Bureau of Laboratories under the National Environmental Laboratory Approval Program (NELAC).

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SAMPLE SUMMARY

Workorder: 33366 WPH CLEMSON / TRC

Lab ID	Sample ID	Matrix	Date Collected	Date Received
333660001	DP-25	Water	3/24/2020 08:15	3/27/2020 10:15
333660002	DP-25A	Water	3/24/2020 09:15	3/27/2020 10:15
333660003	DP-25B	Water	3/24/2020 10:15	3/27/2020 10:15

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PROJECT SUMMARY

Workorder: 33366 WPH CLEMSON / TRC

Workorder Comments

The container pH for samples 33366 (0001-0003) were measured as below the expected pH (< 10) for those samples preserved with trisodium phosphate, as assigned to PAES method AM20GAx.

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ANALYTICAL RESULTS

Workorder: 33366 WPH CLEMSON / TRC

Lab ID: **333660001** Date Received: 3/27/2020 10:15 Matrix: Water

Sample ID: **DP-25** Date Collected: 3/24/2020 08:15

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**3.0**	ug/l	0.50	0.046	1	4/1/2020 11:24	BW	n
Ethane	**0.31**	ug/l	0.10	0.0050	1	4/1/2020 11:24	BW	n
Ethene	**0.45**	ug/l	0.10	0.0040	1	4/1/2020 11:24	BW	n

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ANALYTICAL RESULTS

Workorder: 33366 WPH CLEMSON / TRC

Lab ID: **333660002** Date Received: 3/27/2020 10:15 Matrix: Water

Sample ID: **DP-25A** Date Collected: 3/24/2020 09:15

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**1.0**	ug/l	0.50	0.046	1	4/1/2020 11:35	BW	n
Ethane	**0.36**	ug/l	0.10	0.0050	1	4/1/2020 11:35	BW	n
Ethene	**0.18**	ug/l	0.10	0.0040	1	4/1/2020 11:35	BW	n

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ANALYTICAL RESULTS

Workorder: 33366 WPH CLEMSON / TRC

Lab ID: **333660003** Date Received: 3/27/2020 10:15 Matrix: Water

Sample ID: **DP-25B** Date Collected: 3/24/2020 10:15

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**1.7**	ug/l	0.50	0.046	1	4/1/2020 11:46	BW	n
Ethane	**1.0**	ug/l	0.10	0.0050	1	4/1/2020 11:46	BW	n
Ethene	**0.45**	ug/l	0.10	0.0040	1	4/1/2020 11:46	BW	n

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ANALYTICAL RESULTS QUALIFIERS

Workorder: 33366 WPH CLEMSON / TRC

DEFINITIONS/QUALIFIERS

MDL	Method Detection Limit. Can be used synonymously with LOD; Limit Of Detection.
PQL	Practical Quanitation Limit. Can be used synonymously with LOQ; Limit Of Quantitation.
ND	Not detected at or above reporting limit.
DF	Dilution Factor.
S	Surrogate.
RPD	Relative Percent Difference.
% Rec	Percent Recovery.
U	Indicates the compound was analyzed for, but not detected at or above the noted concentration.
J	Estimated concentration greater than the set method detection limit (MDL) and less than the set reporting limit (PQL).
n	The laboratory does not hold NELAP/TNI accreditation for this method or analyte.

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QUALITY CONTROL DATA

Workorder: 33366 WPH CLEMSON / TRC

QC Batch: DISG/8183 Analysis Method: AM20GAX

QC Batch Method: AM20GAX

Associated Lab Samples: 333660001, 333660002, 333660003

METHOD BLANK: 66591

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
RISK				
Methane	ug/l	0.046U	0.046	n
Ethane	ug/l	0.0050U	0.0050	n
Ethene	ug/l	0.0040U	0.0040	n

LABORATORY CONTROL SAMPLE & LCSD: 66592 66593

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Methane	ug/l	750	750	770	101	103	80-120	2.7	20	n
Ethane	ug/l	38	41	42	108	110	80-120	2	20	n
Ethene	ug/l	35	39	39	110	111	80-120	1.2	20	n

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 66616 66617 Original: 333330003

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
RISK											
Methane	ug/l	0.12	40	40	40	100	100	70-130	0.47	20	n
Ethane	ug/l	0.0056	76	74	74	98	98	70-130	0.13	20	n
Ethene	ug/l	0.014	71	69	69	97	98	70-130	0.82	20	n

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QUALITY CONTROL DATA QUALIFIERS

Workorder: 33366 WPH CLEMSON / TRC

QUALITY CONTROL PARAMETER QUALIFIERS

n	The laboratory does not hold NELAP/TNI accreditation for this method or analyte.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 33366 WPH CLEMSON / TRC

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
333660001	DP-25			AM20GAX	DISG/8183
333660002	DP-25A			AM20GAX	DISG/8183
333660003	DP-25B			AM20GAX	DISG/8183

SHEALY

Chain of Custody Record 33366

Shealy Environmental Services, Inc.
106 Vantage Point Drive
West Columbia, South Carolina 29172
Telephone No. (803) 791-9700 Fax No. (803) 791-9111
www.shealylab.com

Number

Client	Report to Contact	Telephone No. / E-mail	Quote No.
Pace Analytical - Columbia	Lucas Odom	803-206-9537/lodom@shealylab.com	
Address	**Sampler's Signature**	**Analysis (Attach list if more space is needed)**	**Page**
106 Vantage Point Dr.			1 of 1
City / State / Zip Code	X _____ Printed Name		Laboratory Lot Number
West Columbia / SC / 29172			
Project Name			
WPH Clemson			
Project Number	**P.O No.**		

Sample ID / Description (Containers for each sample may be combined on one line)	Date	Time	G=Grab C=Composite	Matrix: Aqueous	Solid	Non-Aqueous		No of Containers by Preservative Type: Unpres.	H2SO4	HNO3	HCl	NaOH	5035 Kit	TSP	Dissolved Gasses									Remarks / Cooler I.D.
DP-25	3/24/2020	815	G	X										X	X									VC25037
DP-25A	3/24/2020	915	G	X										X	X									
DP-25B	3/24/2020	1015	G	X										X	X									

Turn Around Time Required (Prior lab approval required for expedited TAT)	Sample Disposal	Possible Hazard Identification (List any known hazards in the remarks)	QC Requirements
X Standard Rush	☐ Return to Client ☒ Disposal by Lab	☐ Non-Hazardous ☐ Flammable ☐ Skin Irritant ☐ SDS provided ☐ Unknown	

1. Relinquished by: Lindsay Hite	Date: 3/26/2020	Time: 1800	1. Received by	Date	Time
2. Relinquished by	Date	Time	2. Received by	Date	Time
3. Relinquished by	Date	Time	3. Received by	Date	Time
4. Relinquished by	Date	Time	4. Laboratory Received by: NED PACE	Date: 3.27.2020	Time: 1015

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on Ice (Check) ☐ Y ☐ N ☐ Ice Pack

Receipt Temp. 0.2 °C

Cooler Receipt Form

Client Name: Pace **Project:** WPH Clemson **Lab Work Order:** 33366

A. **Shipping/Container Information** (circle appropriate response)

Courier: (FedEx) UPS USPS Client Other:_____ **Air bill Present:** (Yes) No

Tracking Number: 166334637717

Custody Seal on Cooler/Box Present: (Yes) No **Seals Intact:** (Yes) No

Cooler/Box Packing Material: (Bubble Wrap) Absorbent Foam Other:_____

Type of Ice: (Wet) Blue None **Ice Intact:** (Yes) Melted

Cooler Temperature: 0.2°C **Radiation Screened:** Yes (No) **Chain of Custody Present:** (Yes) No

Comments:_____

B. **Laboratory Assignment/Log-in** (check appropriate response)

	YES	NO	N/A	Comment Reference non-Conformance
Chain of Custody properly filled out	✓			
Chain of Custody relinquished	✓			
Sampler Name & Signature on COC			✓	
Containers intact	✓			
Were samples in separate bags	✓			
Sample container labels match COC Sample name/date and time collected	✓			
Sufficient volume provided	✓			
PAES containers used	✓			
Are containers properly preserved for the requested testing? (as labeled)	✓			
If an unknown preservation state, were containers checked? Exception: VOA's coliform			✓	If yes, see pH form.
Was volume for dissolved testing field filtered, as noted on the COC? Was volume received in a preserved container?			✓	
Headspace present?		✓		

Comments:_____

_____

Cooler contents examined/received by : LY **Date:** 3.27.2020

Project Manager Review : SRJ **Date:** 3/27/2020

Report of Analysis

TRC Companies, Inc.
50 International Dr.
Suite 150
Greenville, SC 29615
Attention: Lisa Clark

Project Name: WPH Clemson

Project Number: 300688.0000.0000.00011

Lot Number:**VC26030**

Date Completed:04/02/2020

04/16/2020 1:48 PM
Approved and released by:
Lab Director - Greenville: **Lucas Odom**

The electronic signature above is the equivalent of a handwritten signature.

Pace Analytical Services, LLC (*formerly Shealy Environmental Services, Inc.*)
106 Vantage Point Drive West Columbia, SC 29172
Tel: 803-791-9700 Fax: 803-791-9111 www.pacelabs.com

Laboratory Data Quality Review Notes

Project Name: WPH-Clemson, SC

Project Number: 300688.0000.0000 Phase 4

Lab Report: **VC26030** Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.); West Columbia, SC; subcontracted report: **33392**

Samples and Analyses: Nine groundwater samples and one field duplicate, collected 25-Mar-2020 and analyzed for VOCs, chloride, bromide, sulfate, and nitrate; one trip blank, analyzed for VOCs only

Chain of Custody, Sample Temperature, Sample Preservation: Chain of custody was signed; sample temperature was <6 ^{o}C upon arrival at the laboratory; samples were preserved properly.

Hold Time: Sample analyses were performed within acceptable hold times.

Surrogates: VOC surrogate recoveries are within QC limits.

Method Blank: Target analytes were not detected in the laboratory method blanks.

Trip Blank: No target analytes were detected in the trip blank; analyzed for VOCs only.

Field Blank: A field blank was not collected with these samples.

Equipment Rinse Blank: A rinsate blank was not collected with these samples.

LCS/LCSD: LCS recoveries for all analyses are within QC limits. LCSD analyses were not performed.

MS/MSD: MS/MSD analyses for nitrate were performed using sample DUP-20104, and for VOCs using samples DP-24 and DP-24B. MS and MSD recoveries and MS/MSD RPDs are within QC limits, with the following exceptions:

- The MS and MSD recoveries for nitrate in sample DUP-20104 were below the QC criteria. **The positive result for nitrate in sample DUP-20104 is qualified "j-" due to low MS/MSD recoveries.**
- The sample DP-24 MS recoveries for multiple (13) VOCs were above the QC criteria. Qualification action for high MS/MSD recovery is applied only for positive results; therefore, no qualifiers are applied for these VOCs that were ND in sample DP-24. **The positive results for PCE and TCE in sample DR-24 are qualified "j+" due to high MS recoveries.**

Duplicates: No laboratory duplicates were included with these analyses. A field duplicate sample (DU-20104) was collected for sample DP-23A. RPDs were calculated for analytes detected above 5× the LOQ in both samples; absolute differences (AbsDs) were used to evaluate analytes detected below 5× the LOQ in one or both samples. RPD values were ≤ 30%, and AbsDs were ≤ LOQ; therefore, results are in acceptable agreement and no qualification action was needed.

Dilutions: The primary VOC analyses in the following samples were performed with dilution (as indicated): DP-24 (5×), DP-24A (20×), DP-23A (20×), DP-22A (50×), DP-22B (10×), and DUP-20104 (20×). ND results for the VOC analyses in these samples are associated with elevated DLs and LOQs due to dilution. All other dilutions performed in these sample analyses were associated with positive results (detects).

Data reviewer: Amy Bass; TRC Environmental Corporation; 02-Oct-2020

Case Narrative
TRC Companies, Inc.
Lot Number: VC26030

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Pace Analytical Services, LLC ("Pace") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Pace policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Pace Project Manager listed on the cover page.

Nitrate

Due to suspected matrix interferences, the MS/MSD associated with batch 49091 recovered Nitrate at 82% and 87% respectively.

VOCs by GC/MS

The MS associated with batch 49316 recovered multiple compounds marginally outside of method criteria due to suspected matrix interferences. The MSD recovered all of these compounds within method criteria, but was within the relative percent difference range with the MS.

Dissolved Gasses

The analysis for Dissolved Gasses has been performed by Pace Energy. The data for this parameter is found on Pace Energy report 33392.

Sample Summary
TRC Companies, Inc.
Lot Number: VC26030

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	DP-24	Aqueous	03/25/2020 0815	03/26/2020
002	DP-24A	Aqueous	03/25/2020 0900	03/26/2020
003	DP-24B	Aqueous	03/25/2020 1015	03/26/2020
004	DP-23	Aqueous	03/25/2020 1115	03/26/2020
005	DP-23A	Aqueous	03/25/2020 1215	03/26/2020
006	DP-23B	Aqueous	03/25/2020 1315	03/26/2020
007	DP-22	Aqueous	03/25/2020 1430	03/26/2020
008	DP-22A	Aqueous	03/25/2020 1530	03/26/2020
009	DP-22B	Aqueous	03/25/2020 1630	03/26/2020
010	DUP-20104	Aqueous	03/25/2020	03/26/2020
011	TBLK-20122	Aqueous	03/25/2020	03/26/2020

(11 samples)

Detection Summary

TRC Companies, Inc.

Lot Number: VC26030

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	DP-24	Aqueous	Bromide	300.0	0.25		mg/L	6
001	DP-24	Aqueous	Chloride	300.0	21		mg/L	6
001	DP-24	Aqueous	Nitrate - N	353.2	0.70		mg/L	6
001	DP-24	Aqueous	Sulfate	300.0	1.0		mg/L	6
001	DP-24	Aqueous	cis-1,2-Dichloroethene	8260D	100		ug/L	7
001	DP-24	Aqueous	Tetrachloroethene	8260D	340		ug/L	7
001	DP-24	Aqueous	Trichloroethene	8260D	19		ug/L	8
002	DP-24A	Aqueous	Chloride	300.0	0.95	J	mg/L	9
002	DP-24A	Aqueous	Nitrate - N	353.2	0.51		mg/L	9
002	DP-24A	Aqueous	Sulfate	300.0	0.26	J	mg/L	9
002	DP-24A	Aqueous	Tetrachloroethene	8260D	2600		ug/L	10
002	DP-24A	Aqueous	1,1,2-Trichloro-1,2,2-	8260D	19	J	ug/L	10
002	DP-24A	Aqueous	Trichloroethene	8260D	14	J	ug/L	11
003	DP-24B	Aqueous	Chloride	300.0	1.3		mg/L	12
003	DP-24B	Aqueous	Nitrate - N	353.2	2.1		mg/L	12
003	DP-24B	Aqueous	Sulfate	300.0	0.58	J	mg/L	12
003	DP-24B	Aqueous	Acetone	8260D	6.3	J	ug/L	13
003	DP-24B	Aqueous	Chloroform	8260D	0.49	J	ug/L	13
003	DP-24B	Aqueous	1,2-Dichlorobenzene	8260D	0.61	J	ug/L	13
003	DP-24B	Aqueous	Tetrachloroethene	8260D	200		ug/L	13
003	DP-24B	Aqueous	1,1,2-Trichloro-1,2,2-	8260D	5.2		ug/L	13
003	DP-24B	Aqueous	Trichloroethene	8260D	2.2		ug/L	14
003	DP-24B	Aqueous	Trichlorofluoromethane	8260D	0.74	J	ug/L	14
004	DP-23	Aqueous	Bromide	300.0	0.17	J	mg/L	15
004	DP-23	Aqueous	Chloride	300.0	11		mg/L	15
004	DP-23	Aqueous	Nitrate - N	353.2	4.7		mg/L	15
004	DP-23	Aqueous	Sulfate	300.0	0.87	J	mg/L	15
004	DP-23	Aqueous	Chloroform	8260D	0.52	J	ug/L	16
004	DP-23	Aqueous	Tetrachloroethene	8260D	64		ug/L	16
004	DP-23	Aqueous	Trichlorofluoromethane	8260D	0.60	J	ug/L	17
005	DP-23A	Aqueous	Chloride	300.0	1.3		mg/L	18
005	DP-23A	Aqueous	Nitrate - N	353.2	1.3		mg/L	18
005	DP-23A	Aqueous	Tetrachloroethene	8260D	2300		ug/L	19
005	DP-23A	Aqueous	1,1,2-Trichloro-1,2,2-	8260D	14	J	ug/L	19
006	DP-23B	Aqueous	Chloride	300.0	0.57	J	mg/L	21
006	DP-23B	Aqueous	Nitrate - N	353.2	0.41		mg/L	21
006	DP-23B	Aqueous	Chloroform	8260D	0.64	J	ug/L	22
006	DP-23B	Aqueous	Tetrachloroethene	8260D	44		ug/L	22
006	DP-23B	Aqueous	Trichlorofluoromethane	8260D	2.0		ug/L	23
007	DP-22	Aqueous	Bromide	300.0	0.15	J	mg/L	24
007	DP-22	Aqueous	Chloride	300.0	27		mg/L	24
007	DP-22	Aqueous	Nitrate - N	353.2	0.81		mg/L	24
007	DP-22	Aqueous	Sulfate	300.0	69		mg/L	24
007	DP-22	Aqueous	Acetone	8260D	36		ug/L	25
007	DP-22	Aqueous	2-Butanone (MEK)	8260D	93		ug/L	25

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
007	DP-22	Aqueous	Carbon disulfide	8260D	0.65	J	ug/L	25
007	DP-22	Aqueous	cis-1,2-Dichloroethene	8260D	0.95	J	ug/L	25
007	DP-22	Aqueous	Tetrachloroethene	8260D	230		ug/L	25
007	DP-22	Aqueous	Trichloroethene	8260D	0.71	J	ug/L	26
008	DP-22A	Aqueous	Bromide	300.0	3.5		mg/L	27
008	DP-22A	Aqueous	Chloride	300.0	220		mg/L	27
008	DP-22A	Aqueous	Nitrate - N	353.2	6.6		mg/L	27
008	DP-22A	Aqueous	Sulfate	300.0	0.28	J	mg/L	27
008	DP-22A	Aqueous	Tetrachloroethene	8260D	4100		ug/L	28
009	DP-22B	Aqueous	Bromide	300.0	0.26		mg/L	30
009	DP-22B	Aqueous	Chloride	300.0	170		mg/L	30
009	DP-22B	Aqueous	Nitrate - N	353.2	1.6		mg/L	30
009	DP-22B	Aqueous	Sulfate	300.0	0.25	J	mg/L	30
009	DP-22B	Aqueous	Tetrachloroethene	8260D	940		ug/L	31
009	DP-22B	Aqueous	Trichloroethene	8260D	6.5	J	ug/L	32
010	DUP-20104	Aqueous	Chloride	300.0	1.4		mg/L	33
010	DUP-20104	Aqueous	Nitrate - N	353.2	1.1		mg/L	33
010	DUP-20104	Aqueous	Tetrachloroethene	8260D	2000		ug/L	34
010	DUP-20104	Aqueous	1,1,2-Trichloro-1,2,2-	8260D	12	J	ug/L	34

(64 detections)

Inorganic non-metals

Client: TRC Companies, Inc.
Laboratory ID: VC26030-001
Description: DP-24
Matrix: Aqueous
Date Sampled: 03/25/2020 0815
Date Received: 03/26/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	04/01/2020 0302	HKL		49620
1		(Chloride) 300.0	1	04/01/2020 0302	HKL		49618
1		(Nitrate - N) 353.2	1	03/26/2020 1645	AMR		49091
1		(Sulfate) 300.0	1	04/01/2020 0302	HKL		49615

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.25		0.20	0.050	mg/L	1
Chloride		300.0	21		1.0	0.20	mg/L	1
Nitrate - N		353.2	0.70		0.020	0.010	mg/L	1
Sulfate		300.0	1.0		1.0	0.20	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

Pace Analytical Services, LLC *(formerly Shealy Environmental Services, Inc.)*
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC26030-001
Description: DP-24
Matrix: Aqueous
Date Sampled: 03/25/2020 0815
Date Received: 03/26/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	5	03/29/2020 2045	ALR1		49316

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		100	25	ug/L	1
Benzene	71-43-2	8260D	ND		5.0	2.0	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		5.0	2.0	ug/L	1
Bromoform	75-25-2	8260D	ND		5.0	2.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		10	2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		50	10	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		5.0	2.0	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		5.0	2.0	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		5.0	2.0	ug/L	1
Chloroethane	75-00-3	8260D	ND		10	2.0	ug/L	1
Chloroform	67-66-3	8260D	ND		5.0	2.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		5.0	2.5	ug/L	1
Cyclohexane	110-82-7	8260D	ND		5.0	2.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		5.0	2.0	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		5.0	2.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		5.0	2.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		5.0	2.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		5.0	2.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		5.0	2.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		10	3.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		5.0	2.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		5.0	2.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		5.0	2.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	100		5.0	2.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		5.0	2.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		5.0	2.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		5.0	2.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		5.0	2.0	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		5.0	2.0	ug/L	1
2-Hexanone	591-78-6	8260D	ND		50	10	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		5.0	2.0	ug/L	1
Methyl acetate	79-20-9	8260D	ND		5.0	2.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		5.0	2.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		50	10	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		25	2.0	ug/L	1
Methylene chloride	75-09-2	8260D	ND		5.0	2.0	ug/L	1
Styrene	100-42-5	8260D	ND		5.0	2.1	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		5.0	2.0	ug/L	1
Tetrachloroethene	127-18-4	8260D	340		5.0	2.0	ug/L	1
Toluene	108-88-3	8260D	ND		5.0	2.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		5.0	2.1	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		5.0	2.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		5.0	2.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		5.0	2.0	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC26030-001
Description: DP-24
Matrix: Aqueous
Date Sampled: 03/25/2020 0815
Date Received: 03/26/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	5	03/29/2020 2045	ALR1		49316

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Trichloroethene	79-01-6	8260D	19		5.0	2.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		5.0	2.0	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		5.0	2.0	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		5.0	2.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		97	70-130
1,2-Dichloroethane-d4		100	70-130
Toluene-d8		104	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
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Inorganic non-metals

Client: TRC Companies, Inc.
Laboratory ID: VC26030-002
Description: DP-24A
Matrix: Aqueous
Date Sampled: 03/25/2020 0900
Date Received: 03/26/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	04/01/2020 0325	HKL		49620
1		(Chloride) 300.0	1	04/01/2020 0325	HKL		49618
1		(Nitrate - N) 353.2	1	03/26/2020 1619	AMR		49091
1		(Sulfate) 300.0	1	04/01/2020 0325	HKL		49615

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	ND		0.20	0.050	mg/L	1
Chloride		300.0	0.95	J	1.0	0.20	mg/L	1
Nitrate - N		353.2	0.51		0.020	0.010	mg/L	1
Sulfate		300.0	0.26	J	1.0	0.20	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC26030-002
Description: DP-24A
Matrix: Aqueous
Date Sampled: 03/25/2020 0900
Date Received: 03/26/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	20	03/29/2020 2131	ALR1		49316

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		400	100	ug/L	1
Benzene	71-43-2	8260D	ND		20	8.0	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		20	8.0	ug/L	1
Bromoform	75-25-2	8260D	ND		20	8.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		40	8.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		200	40	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		20	8.0	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		20	8.0	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		20	8.0	ug/L	1
Chloroethane	75-00-3	8260D	ND		40	8.0	ug/L	1
Chloroform	67-66-3	8260D	ND		20	8.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		20	10	ug/L	1
Cyclohexane	110-82-7	8260D	ND		20	8.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		20	8.0	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		20	8.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		20	8.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		20	8.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		20	8.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		20	8.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		40	12	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		20	8.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		20	8.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		20	8.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		20	8.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		20	8.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		20	8.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		20	8.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		20	8.0	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		20	8.0	ug/L	1
2-Hexanone	591-78-6	8260D	ND		200	40	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		20	8.0	ug/L	1
Methyl acetate	79-20-9	8260D	ND		20	8.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		20	8.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		200	40	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		100	8.0	ug/L	1
Methylene chloride	75-09-2	8260D	ND		20	8.0	ug/L	1
Styrene	100-42-5	8260D	ND		20	8.2	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		20	8.0	ug/L	1
Tetrachloroethene	127-18-4	8260D	2600		20	8.0	ug/L	1
Toluene	108-88-3	8260D	ND		20	8.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	19	J	20	8.4	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		20	8.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		20	8.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		20	8.0	ug/L	1

LOQ = Limit of Quantitation
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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC26030-002
Description: DP-24A
Matrix: Aqueous
Date Sampled: 03/25/2020 0900
Date Received: 03/26/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	20	03/29/2020 2131	ALR1		49316

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Trichloroethene	79-01-6	8260D	14	J	20	8.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		20	8.0	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		20	8.0	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		20	8.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		102	70-130
1,2-Dichloroethane-d4		102	70-130
Toluene-d8		105	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
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Inorganic non-metals

Client: TRC Companies, Inc.
Laboratory ID: VC26030-003
Description: DP-24B
Matrix: Aqueous
Date Sampled: 03/25/2020 1015
Date Received: 03/26/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	04/01/2020 0348	HKL		49620
1		(Chloride) 300.0	1	04/01/2020 0348	HKL		49618
1		(Nitrate - N) 353.2	2	03/26/2020 1621	AMR		49091
1		(Sulfate) 300.0	1	04/01/2020 0348	HKL		49615

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	ND		0.20	0.050	mg/L	1
Chloride		300.0	1.3		1.0	0.20	mg/L	1
Nitrate - N		353.2	2.1		0.040	0.020	mg/L	1
Sulfate		300.0	0.58	J	1.0	0.20	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC26030-003
Description: DP-24B
Matrix: Aqueous
Date Sampled: 03/25/2020 1015
Date Received: 03/26/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/31/2020 0006	JTH		49453
2	5030B	8260D	5	04/01/2020 0435	ALR1		49599

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	6.3	J	20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	0.49	J	1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	0.61	J	1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	200		5.0	2.0	ug/L	2
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	5.2		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC26030-003
Description: DP-24B
Matrix: Aqueous
Date Sampled: 03/25/2020 1015
Date Received: 03/26/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/31/2020 0006	JTH		49453
2	5030B	8260D	5	04/01/2020 0435	ALR1		49599

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260D	2.2		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	0.74	J	1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits	Q	Run 2 % Recovery	Acceptance Limits
Bromofluorobenzene		100	70-130		97	70-130
1,2-Dichloroethane-d4		123	70-130		103	70-130
Toluene-d8		113	70-130		104	70-130

LOQ = Limit of Quantitation
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J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Inorganic non-metals

Client: TRC Companies, Inc.
Laboratory ID: VC26030-004
Description: DP-23
Matrix: Aqueous
Date Sampled: 03/25/2020 1115
Date Received: 03/26/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	04/01/2020 0457	HKL		49620
1		(Chloride) 300.0	1	04/01/2020 0457	HKL		49618
1		(Nitrate - N) 353.2	5	03/26/2020 1622	AMR		49091
1		(Sulfate) 300.0	1	04/01/2020 0457	HKL		49615

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.17	J	0.20	0.050	mg/L	1
Chloride		300.0	11		1.0	0.20	mg/L	1
Nitrate - N		353.2	4.7		0.10	0.050	mg/L	1
Sulfate		300.0	0.87	J	1.0	0.20	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc. | Laboratory ID: VC26030-004
Description: DP-23 | Matrix: Aqueous
Date Sampled: 03/25/2020 1115
Date Received: 03/26/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/28/2020 2008	STM		49291

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	0.52	J	1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	64		1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC26030-004
Description: DP-23
Matrix: Aqueous
Date Sampled: 03/25/2020 1115
Date Received: 03/26/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/28/2020 2008	STM		49291

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Trichloroethene	79-01-6	8260D	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	0.60	J	1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		97	70-130
1,2-Dichloroethane-d4		101	70-130
Toluene-d8		105	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Inorganic non-metals

Client: TRC Companies, Inc.
Laboratory ID: VC26030-005
Description: DP-23A
Matrix: Aqueous
Date Sampled: 03/25/2020 1215
Date Received: 03/26/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	04/01/2020 0519	HKL		49620
1		(Chloride) 300.0	1	04/01/2020 0519	HKL		49618
1		(Nitrate - N) 353.2	1	03/26/2020 1623	AMR		49091
1		(Sulfate) 300.0	1	04/01/2020 0519	HKL		49615

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	ND		0.20	0.050	mg/L	1
Chloride		300.0	1.3		1.0	0.20	mg/L	1
Nitrate - N		353.2	1.3		0.020	0.010	mg/L	1
Sulfate		300.0	ND		1.0	0.20	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC26030-005
Description: DP-23A
Matrix: Aqueous
Date Sampled: 03/25/2020 1215
Date Received: 03/26/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	20	03/29/2020 2154	ALR1		49316

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		400	100	ug/L	1
Benzene	71-43-2	8260D	ND		20	8.0	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		20	8.0	ug/L	1
Bromoform	75-25-2	8260D	ND		20	8.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		40	8.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		200	40	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		20	8.0	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		20	8.0	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		20	8.0	ug/L	1
Chloroethane	75-00-3	8260D	ND		40	8.0	ug/L	1
Chloroform	67-66-3	8260D	ND		20	8.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		20	10	ug/L	1
Cyclohexane	110-82-7	8260D	ND		20	8.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		20	8.0	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		20	8.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		20	8.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		20	8.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		20	8.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		20	8.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		40	12	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		20	8.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		20	8.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		20	8.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		20	8.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		20	8.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		20	8.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		20	8.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		20	8.0	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		20	8.0	ug/L	1
2-Hexanone	591-78-6	8260D	ND		200	40	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		20	8.0	ug/L	1
Methyl acetate	79-20-9	8260D	ND		20	8.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		20	8.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		200	40	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		100	8.0	ug/L	1
Methylene chloride	75-09-2	8260D	ND		20	8.0	ug/L	1
Styrene	100-42-5	8260D	ND		20	8.2	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		20	8.0	ug/L	1
Tetrachloroethene	127-18-4	8260D	2300		20	8.0	ug/L	1
Toluene	108-88-3	8260D	ND		20	8.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	14	J	20	8.4	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		20	8.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		20	8.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		20	8.0	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC26030-005
Description: DP-23A
Matrix: Aqueous
Date Sampled: 03/25/2020 1215
Date Received: 03/26/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	20	03/29/2020 2154	ALR1		49316

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Trichloroethene	79-01-6	8260D	ND		20	8.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		20	8.0	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		20	8.0	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		20	8.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		100	70-130
1,2-Dichloroethane-d4		103	70-130
Toluene-d8		105	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Inorganic non-metals

Client: TRC Companies, Inc.
Laboratory ID: VC26030-006
Description: DP-23B
Matrix: Aqueous
Date Sampled: 03/25/2020 1315
Date Received: 03/26/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	04/01/2020 0542	HKL		49620
1		(Chloride) 300.0	1	04/01/2020 0542	HKL		49618
1		(Nitrate - N) 353.2	1	03/26/2020 1625	AMR		49091
1		(Sulfate) 300.0	1	04/01/2020 0542	HKL		49615

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	ND		0.20	0.050	mg/L	1
Chloride		300.0	0.57	J	1.0	0.20	mg/L	1
Nitrate - N		353.2	0.41		0.020	0.010	mg/L	1
Sulfate		300.0	ND		1.0	0.20	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc. | Laboratory ID: VC26030-006
Description: DP-23B | Matrix: Aqueous
Date Sampled: 03/25/2020 1315
Date Received: 03/26/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/28/2020 2031	STM		49291

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	0.64	J	1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	44		1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC26030-006
Description: DP-23B
Matrix: Aqueous
Date Sampled: 03/25/2020 1315
Date Received: 03/26/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/28/2020 2031	STM		49291

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Trichloroethene	79-01-6	8260D	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	2.0		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		104	70-130
1,2-Dichloroethane-d4		103	70-130
Toluene-d8		107	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

Inorganic non-metals

Client: TRC Companies, Inc.
Laboratory ID: VC26030-007
Description: DP-22
Matrix: Aqueous
Date Sampled: 03/25/2020 1430
Date Received: 03/26/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	04/01/2020 0605	HKL		49620
1		(Chloride) 300.0	1	04/01/2020 0605	HKL		49618
1		(Nitrate - N) 353.2	1	03/26/2020 1659	AMR		49091
1		(Sulfate) 300.0	1	04/01/2020 0605	HKL		49615

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.15	J	0.20	0.050	mg/L	1
Chloride		300.0	27		1.0	0.20	mg/L	1
Nitrate - N		353.2	0.81		0.020	0.010	mg/L	1
Sulfate		300.0	69		1.0	0.20	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc. | Laboratory ID: VC26030-007

Description: DP-22 | Matrix: Aqueous

Date Sampled: 03/25/2020 1430

Date Received: 03/26/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/28/2020 2054	STM		49291
2	5030B	8260D	5	03/31/2020 0535	ALR1		49455

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	36		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	93		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	0.65	J	1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	0.95	J	1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	230		5.0	2.0	ug/L	2
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC26030-007
Description: DP-22
Matrix: Aqueous
Date Sampled: 03/25/2020 1430
Date Received: 03/26/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/28/2020 2054	STM		49291
2	5030B	8260D	5	03/31/2020 0535	ALR1		49455

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260D	0.71	J	1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits	Q	Run 2 % Recovery	Acceptance Limits
Bromofluorobenzene		100	70-130		91	70-130
1,2-Dichloroethane-d4		101	70-130		90	70-130
Toluene-d8		106	70-130		95	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

Inorganic non-metals

Client: TRC Companies, Inc.
Laboratory ID: VC26030-008
Description: DP-22A
Matrix: Aqueous
Date Sampled: 03/25/2020 1530
Date Received: 03/26/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	5	04/01/2020 0628	HKL		49620
1		(Chloride) 300.0	5	04/01/2020 0628	HKL		49618
1		(Nitrate - N) 353.2	5	03/26/2020 1627	AMR		49091
2		(Sulfate) 300.0	1	04/01/2020 2044	HKL		49779

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	3.5		1.0	0.25	mg/L	1
Chloride		300.0	220		5.0	1.0	mg/L	1
Nitrate - N		353.2	6.6		0.10	0.050	mg/L	1
Sulfate		300.0	0.28	J	1.0	0.20	mg/L	2

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc. | Laboratory ID: VC26030-008
Description: DP-22A | Matrix: Aqueous
Date Sampled: 03/25/2020 1530
Date Received: 03/26/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	50	03/29/2020 2326	ALR1		49316

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		1000	250	ug/L	1
Benzene	71-43-2	8260D	ND		50	20	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		50	20	ug/L	1
Bromoform	75-25-2	8260D	ND		50	20	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		100	20	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		500	100	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		50	20	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		50	20	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		50	20	ug/L	1
Chloroethane	75-00-3	8260D	ND		100	20	ug/L	1
Chloroform	67-66-3	8260D	ND		50	20	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		50	25	ug/L	1
Cyclohexane	110-82-7	8260D	ND		50	20	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		50	20	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		50	20	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		50	20	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		50	20	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		50	20	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		50	20	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		100	30	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		50	20	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		50	20	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		50	20	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		50	20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		50	20	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		50	20	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		50	20	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		50	20	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		50	20	ug/L	1
2-Hexanone	591-78-6	8260D	ND		500	100	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		50	20	ug/L	1
Methyl acetate	79-20-9	8260D	ND		50	20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		50	20	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		500	100	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		250	20	ug/L	1
Methylene chloride	75-09-2	8260D	ND		50	20	ug/L	1
Styrene	100-42-5	8260D	ND		50	21	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		50	20	ug/L	1
Tetrachloroethene	127-18-4	8260D	4100		50	20	ug/L	1
Toluene	108-88-3	8260D	ND		50	20	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		50	21	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		50	20	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		50	20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		50	20	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC26030-008
Description: DP-22A
Matrix: Aqueous
Date Sampled: 03/25/2020 1530
Date Received: 03/26/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	50	03/29/2020 2326	ALR1		49316

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Trichloroethene	79-01-6	8260D	ND		50	20	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		50	20	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		50	20	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		50	20	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		98	70-130
1,2-Dichloroethane-d4		99	70-130
Toluene-d8		104	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

Inorganic non-metals

Client: TRC Companies, Inc.
Laboratory ID: VC26030-009
Description: DP-22B
Matrix: Aqueous
Date Sampled: 03/25/2020 1630
Date Received: 03/26/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	04/01/2020 0651	HKL		49620
1		(Chloride) 300.0	1	04/01/2020 0651	HKL		49618
1		(Nitrate - N) 353.2	1	03/26/2020 1629	AMR		49091
1		(Sulfate) 300.0	1	04/01/2020 0651	HKL		49615

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.26		0.20	0.050	mg/L	1
Chloride		300.0	170		1.0	0.20	mg/L	1
Nitrate - N		353.2	1.6		0.020	0.010	mg/L	1
Sulfate		300.0	0.25	J	1.0	0.20	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc. | Laboratory ID: VC26030-009
Description: DP-22B | Matrix: Aqueous
Date Sampled: 03/25/2020 1630
Date Received: 03/26/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	10	03/29/2020 2108	ALR1		49316

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		200	50	ug/L	1
Benzene	71-43-2	8260D	ND		10	4.0	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		10	4.0	ug/L	1
Bromoform	75-25-2	8260D	ND		10	4.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		20	4.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		100	20	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		10	4.0	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		10	4.0	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		10	4.0	ug/L	1
Chloroethane	75-00-3	8260D	ND		20	4.0	ug/L	1
Chloroform	67-66-3	8260D	ND		10	4.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		10	5.0	ug/L	1
Cyclohexane	110-82-7	8260D	ND		10	4.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		10	4.0	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		10	4.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		10	4.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		10	4.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		10	4.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		10	4.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		20	6.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		10	4.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		10	4.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		10	4.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		10	4.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		10	4.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		10	4.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		10	4.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		10	4.0	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		10	4.0	ug/L	1
2-Hexanone	591-78-6	8260D	ND		100	20	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		10	4.0	ug/L	1
Methyl acetate	79-20-9	8260D	ND		10	4.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		10	4.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		100	20	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		50	4.0	ug/L	1
Methylene chloride	75-09-2	8260D	ND		10	4.0	ug/L	1
Styrene	100-42-5	8260D	ND		10	4.1	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		10	4.0	ug/L	1
Tetrachloroethene	127-18-4	8260D	940		10	4.0	ug/L	1
Toluene	108-88-3	8260D	ND		10	4.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		10	4.2	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		10	4.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		10	4.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		10	4.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC26030-009
Description: DP-22B
Matrix: Aqueous
Date Sampled: 03/25/2020 1630
Date Received: 03/26/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	10	03/29/2020 2108	ALR1		49316

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Trichloroethene	79-01-6	8260D	6.5	J	10	4.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		10	4.0	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		10	4.0	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		10	4.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		104	70-130
1,2-Dichloroethane-d4		104	70-130
Toluene-d8		108	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

Inorganic non-metals

Client: TRC Companies, Inc.
Laboratory ID: VC26030-010
Description: DUP-20104
Matrix: Aqueous
Date Sampled: 03/25/2020
Date Received: 03/26/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	04/01/2020 2104	HKL		49782
1		(Chloride) 300.0	1	04/01/2020 2104	HKL		49781
1		(Nitrate - N) 353.2	1	03/26/2020 1630	AMR		49091
1		(Sulfate) 300.0	1	04/01/2020 2104	HKL		49779

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	ND		0.20	0.050	mg/L	1
Chloride		300.0	1.4		1.0	0.20	mg/L	1
Nitrate - N		353.2	1.1		0.020	0.010	mg/L	1
Sulfate		300.0	ND		1.0	0.20	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC26030-010
Description: DUP-20104
Matrix: Aqueous
Date Sampled: 03/25/2020
Date Received: 03/26/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	20	03/29/2020 2217	ALR1		49316

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		400	100	ug/L	1
Benzene	71-43-2	8260D	ND		20	8.0	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		20	8.0	ug/L	1
Bromoform	75-25-2	8260D	ND		20	8.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		40	8.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		200	40	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		20	8.0	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		20	8.0	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		20	8.0	ug/L	1
Chloroethane	75-00-3	8260D	ND		40	8.0	ug/L	1
Chloroform	67-66-3	8260D	ND		20	8.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		20	10	ug/L	1
Cyclohexane	110-82-7	8260D	ND		20	8.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		20	8.0	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		20	8.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		20	8.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		20	8.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		20	8.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		20	8.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		40	12	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		20	8.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		20	8.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		20	8.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		20	8.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		20	8.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		20	8.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		20	8.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		20	8.0	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		20	8.0	ug/L	1
2-Hexanone	591-78-6	8260D	ND		200	40	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		20	8.0	ug/L	1
Methyl acetate	79-20-9	8260D	ND		20	8.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		20	8.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		200	40	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		100	8.0	ug/L	1
Methylene chloride	75-09-2	8260D	ND		20	8.0	ug/L	1
Styrene	100-42-5	8260D	ND		20	8.2	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		20	8.0	ug/L	1
Tetrachloroethene	127-18-4	8260D	2000		20	8.0	ug/L	1
Toluene	108-88-3	8260D	ND		20	8.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	12	J	20	8.4	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		20	8.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		20	8.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		20	8.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC26030-010
Description: DUP-20104
Matrix: Aqueous
Date Sampled: 03/25/2020
Date Received: 03/26/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	20	03/29/2020 2217	ALR1		49316

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Trichloroethene	79-01-6	8260D	ND		20	8.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		20	8.0	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		20	8.0	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		20	8.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		97	70-130
1,2-Dichloroethane-d4		99	70-130
Toluene-d8		103	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC26030-011
Description: TBLK-20122
Matrix: Aqueous
Date Sampled: 03/25/2020
Date Received: 03/26/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/29/2020 1850	ALR1		49316

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	ND		1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc. | Laboratory ID: VC26030-011
Description: TBLK-20122 | Matrix: Aqueous
Date Sampled: 03/25/2020
Date Received: 03/26/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/29/2020 1850	ALR1		49316

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Trichloroethene	79-01-6	8260D	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		99	70-130
1,2-Dichloroethane-d4		100	70-130
Toluene-d8		105	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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QC Summary

Inorganic non-metals - MB

Sample ID: VQ49091-001
Batch: 49091
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Nitrate - N	ND		1	0.020	0.010	mg/L	03/26/2020 1606

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: VQ49091-002
Batch: 49091
Analytical Method: 353.2
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	0.80	0.77		1	96	90-110	03/26/2020 1607

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MS

Sample ID: VC26030-010MS
Batch: 49091
Analytical Method: 353.2
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	1.1	0.80	1.7	N	1	82	90-110	03/26/2020 1635

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: VC26030-010MD
Batch: 49091
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Nitrate - N	1.1	0.80	1.8	N	1	87	2.4	90-110	20	03/26/2020 1637

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: VQ49615-001
Batch: 49615
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Sulfate	ND		1	1.0	0.20	mg/L	03/31/2020 1545

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: VQ49615-002
Batch: 49615
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Sulfate	20	19		1	95	90-110	03/31/2020 1631

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: VQ49618-001
Batch: 49618
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Chloride	ND		1	1.0	0.20	mg/L	03/31/2020 1545

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: VQ49618-002
Batch: 49618
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Chloride	20	20		1	99	90-110	03/31/2020 1631

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: VQ49620-001
Batch: 49620
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Bromide	ND		1	0.20	0.050	mg/L	03/31/2020 1545

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: VQ49620-002
Batch: 49620
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Bromide	8.0	7.6		1	95	90-110	03/31/2020 1631

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: VQ49779-001
Batch: 49779
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Sulfate	ND		1	1.0	0.20	mg/L	04/01/2020 1541

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: VQ49779-002
Batch: 49779
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Sulfate	20	20		1	102	90-110	04/01/2020 1621

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MB

Sample ID: VQ49781-001
Batch: 49781
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Chloride	ND		1	1.0	0.20	mg/L	04/01/2020 1541

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: VQ49781-002
Batch: 49781
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Chloride	20	21		1	103	90-110	04/01/2020 1621

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: VQ49782-001
Batch: 49782
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Bromide	ND		1	0.20	0.050	mg/L	04/01/2020 1541

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: VQ49782-002
Batch: 49782
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Bromide	8.0	8.2		1	102	90-110	04/01/2020 1621

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: VQ49291-001
Batch: 49291
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Acetone	ND		1	20	5.0	ug/L	03/28/2020 1551
Benzene	ND		1	1.0	0.40	ug/L	03/28/2020 1551
Bromodichloromethane	ND		1	1.0	0.40	ug/L	03/28/2020 1551
Bromoform	ND		1	1.0	0.40	ug/L	03/28/2020 1551
Bromomethane (Methyl bromide)	ND		1	2.0	0.40	ug/L	03/28/2020 1551
2-Butanone (MEK)	ND		1	10	2.0	ug/L	03/28/2020 1551
Carbon disulfide	ND		1	1.0	0.40	ug/L	03/28/2020 1551
Carbon tetrachloride	ND		1	1.0	0.40	ug/L	03/28/2020 1551
Chlorobenzene	ND		1	1.0	0.40	ug/L	03/28/2020 1551
Chloroethane	ND		1	2.0	0.40	ug/L	03/28/2020 1551
Chloroform	ND		1	1.0	0.40	ug/L	03/28/2020 1551
Chloromethane (Methyl chloride)	ND		1	1.0	0.50	ug/L	03/28/2020 1551
Cyclohexane	ND		1	1.0	0.40	ug/L	03/28/2020 1551
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	0.40	ug/L	03/28/2020 1551
Dibromochloromethane	ND		1	1.0	0.40	ug/L	03/28/2020 1551
1,2-Dibromoethane (EDB)	ND		1	1.0	0.40	ug/L	03/28/2020 1551
1,2-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/28/2020 1551
1,3-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/28/2020 1551
1,4-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/28/2020 1551
Dichlorodifluoromethane	ND		1	2.0	0.60	ug/L	03/28/2020 1551
1,1-Dichloroethane	ND		1	1.0	0.40	ug/L	03/28/2020 1551
1,2-Dichloroethane	ND		1	1.0	0.40	ug/L	03/28/2020 1551
1,1-Dichloroethene	ND		1	1.0	0.40	ug/L	03/28/2020 1551
cis-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	03/28/2020 1551
trans-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	03/28/2020 1551
1,2-Dichloropropane	ND		1	1.0	0.40	ug/L	03/28/2020 1551
cis-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	03/28/2020 1551
trans-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	03/28/2020 1551
Ethylbenzene	ND		1	1.0	0.40	ug/L	03/28/2020 1551
2-Hexanone	ND		1	10	2.0	ug/L	03/28/2020 1551
Isopropylbenzene	ND		1	1.0	0.40	ug/L	03/28/2020 1551
Methyl acetate	ND		1	1.0	0.40	ug/L	03/28/2020 1551
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	0.40	ug/L	03/28/2020 1551
4-Methyl-2-pentanone	ND		1	10	2.0	ug/L	03/28/2020 1551
Methylcyclohexane	ND		1	5.0	0.40	ug/L	03/28/2020 1551
Methylene chloride	ND		1	1.0	0.40	ug/L	03/28/2020 1551
Styrene	ND		1	1.0	0.41	ug/L	03/28/2020 1551
1,1,2,2-Tetrachloroethane	ND		1	1.0	0.40	ug/L	03/28/2020 1551
Tetrachloroethene	ND		1	1.0	0.40	ug/L	03/28/2020 1551
Toluene	ND		1	1.0	0.40	ug/L	03/28/2020 1551
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	0.42	ug/L	03/28/2020 1551
1,2,4-Trichlorobenzene	ND		1	1.0	0.40	ug/L	03/28/2020 1551
1,1,1-Trichloroethane	ND		1	1.0	0.40	ug/L	03/28/2020 1551
1,1,2-Trichloroethane	ND		1	1.0	0.40	ug/L	03/28/2020 1551

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: VQ49291-001
Batch: 49291
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Trichloroethene	ND		1	1.0	0.40	ug/L	03/28/2020 1551
Trichlorofluoromethane	ND		1	1.0	0.40	ug/L	03/28/2020 1551
Vinyl chloride	ND		1	1.0	0.40	ug/L	03/28/2020 1551
Xylenes (total)	ND		1	1.0	0.40	ug/L	03/28/2020 1551

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		97	70-130
1,2-Dichloroethane-d4		96	70-130
Toluene-d8		103	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: VQ49291-002
Batch: 49291
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	88		1	88	60-140	03/28/2020 1450
Benzene	50	47		1	94	70-130	03/28/2020 1450
Bromodichloromethane	50	54		1	108	70-130	03/28/2020 1450
Bromoform	50	55		1	111	70-130	03/28/2020 1450
Bromomethane (Methyl bromide)	50	42		1	83	70-130	03/28/2020 1450
2-Butanone (MEK)	100	92		1	92	70-130	03/28/2020 1450
Carbon disulfide	50	46		1	93	70-130	03/28/2020 1450
Carbon tetrachloride	50	47		1	94	70-130	03/28/2020 1450
Chlorobenzene	50	48		1	97	70-130	03/28/2020 1450
Chloroethane	50	45		1	89	70-130	03/28/2020 1450
Chloroform	50	46		1	93	70-130	03/28/2020 1450
Chloromethane (Methyl chloride)	50	43		1	86	60-140	03/28/2020 1450
Cyclohexane	50	43		1	87	70-130	03/28/2020 1450
1,2-Dibromo-3-chloropropane (DBCP)	50	57		1	113	70-130	03/28/2020 1450
Dibromochloromethane	50	53		1	105	70-130	03/28/2020 1450
1,2-Dibromoethane (EDB)	50	50		1	100	70-130	03/28/2020 1450
1,2-Dichlorobenzene	50	49		1	97	70-130	03/28/2020 1450
1,3-Dichlorobenzene	50	49		1	98	70-130	03/28/2020 1450
1,4-Dichlorobenzene	50	48		1	96	70-130	03/28/2020 1450
Dichlorodifluoromethane	50	40		1	81	60-140	03/28/2020 1450
1,1-Dichloroethane	50	45		1	91	70-130	03/28/2020 1450
1,2-Dichloroethane	50	47		1	94	70-130	03/28/2020 1450
1,1-Dichloroethene	50	46		1	93	70-130	03/28/2020 1450
cis-1,2-Dichloroethene	50	44		1	88	70-130	03/28/2020 1450
trans-1,2-Dichloroethene	50	46		1	91	70-130	03/28/2020 1450
1,2-Dichloropropane	50	49		1	97	70-130	03/28/2020 1450
cis-1,3-Dichloropropene	50	48		1	97	70-130	03/28/2020 1450
trans-1,3-Dichloropropene	50	54		1	107	70-130	03/28/2020 1450
Ethylbenzene	50	50		1	100	70-130	03/28/2020 1450
2-Hexanone	100	110		1	108	70-130	03/28/2020 1450
Isopropylbenzene	50	51		1	101	70-130	03/28/2020 1450
Methyl acetate	50	45		1	91	70-130	03/28/2020 1450
Methyl tertiary butyl ether (MTBE)	50	45		1	90	70-130	03/28/2020 1450
4-Methyl-2-pentanone	100	100		1	103	70-130	03/28/2020 1450
Methylcyclohexane	50	45		1	91	70-130	03/28/2020 1450
Methylene chloride	50	42		1	85	70-130	03/28/2020 1450
Styrene	50	52		1	104	70-130	03/28/2020 1450
1,1,2,2-Tetrachloroethane	50	53		1	106	70-130	03/28/2020 1450
Tetrachloroethene	50	53		1	106	70-130	03/28/2020 1450
Toluene	50	49		1	97	70-130	03/28/2020 1450
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	45		1	90	70-130	03/28/2020 1450
1,2,4-Trichlorobenzene	50	51		1	102	70-130	03/28/2020 1450
1,1,1-Trichloroethane	50	45		1	90	70-130	03/28/2020 1450
1,1,2-Trichloroethane	50	48		1	96	70-130	03/28/2020 1450

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: VQ49291-002
Batch: 49291
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	48		1	95	70-130	03/28/2020 1450
Trichlorofluoromethane	50	42		1	85	70-130	03/28/2020 1450
Vinyl chloride	50	43		1	86	70-130	03/28/2020 1450
Xylenes (total)	100	99		1	99	70-130	03/28/2020 1450

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		91	70-130
1,2-Dichloroethane-d4		86	70-130
Toluene-d8		87	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: VQ49316-001
Batch: 49316
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Acetone	ND		1	20	5.0	ug/L	03/29/2020 1758
Benzene	ND		1	1.0	0.40	ug/L	03/29/2020 1758
Bromodichloromethane	ND		1	1.0	0.40	ug/L	03/29/2020 1758
Bromoform	ND		1	1.0	0.40	ug/L	03/29/2020 1758
Bromomethane (Methyl bromide)	ND		1	2.0	0.40	ug/L	03/29/2020 1758
2-Butanone (MEK)	ND		1	10	2.0	ug/L	03/29/2020 1758
Carbon disulfide	ND		1	1.0	0.40	ug/L	03/29/2020 1758
Carbon tetrachloride	ND		1	1.0	0.40	ug/L	03/29/2020 1758
Chlorobenzene	ND		1	1.0	0.40	ug/L	03/29/2020 1758
Chloroethane	ND		1	2.0	0.40	ug/L	03/29/2020 1758
Chloroform	ND		1	1.0	0.40	ug/L	03/29/2020 1758
Chloromethane (Methyl chloride)	ND		1	1.0	0.50	ug/L	03/29/2020 1758
Cyclohexane	ND		1	1.0	0.40	ug/L	03/29/2020 1758
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	0.40	ug/L	03/29/2020 1758
Dibromochloromethane	ND		1	1.0	0.40	ug/L	03/29/2020 1758
1,2-Dibromoethane (EDB)	ND		1	1.0	0.40	ug/L	03/29/2020 1758
1,2-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/29/2020 1758
1,3-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/29/2020 1758
1,4-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/29/2020 1758
Dichlorodifluoromethane	ND		1	2.0	0.60	ug/L	03/29/2020 1758
1,1-Dichloroethane	ND		1	1.0	0.40	ug/L	03/29/2020 1758
1,2-Dichloroethane	ND		1	1.0	0.40	ug/L	03/29/2020 1758
1,1-Dichloroethene	ND		1	1.0	0.40	ug/L	03/29/2020 1758
cis-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	03/29/2020 1758
trans-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	03/29/2020 1758
1,2-Dichloropropane	ND		1	1.0	0.40	ug/L	03/29/2020 1758
cis-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	03/29/2020 1758
trans-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	03/29/2020 1758
Ethylbenzene	ND		1	1.0	0.40	ug/L	03/29/2020 1758
2-Hexanone	ND		1	10	2.0	ug/L	03/29/2020 1758
Isopropylbenzene	ND		1	1.0	0.40	ug/L	03/29/2020 1758
Methyl acetate	ND		1	1.0	0.40	ug/L	03/29/2020 1758
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	0.40	ug/L	03/29/2020 1758
4-Methyl-2-pentanone	ND		1	10	2.0	ug/L	03/29/2020 1758
Methylcyclohexane	ND		1	5.0	0.40	ug/L	03/29/2020 1758
Methylene chloride	ND		1	1.0	0.40	ug/L	03/29/2020 1758
Styrene	ND		1	1.0	0.41	ug/L	03/29/2020 1758
1,1,2,2-Tetrachloroethane	ND		1	1.0	0.40	ug/L	03/29/2020 1758
Tetrachloroethene	ND		1	1.0	0.40	ug/L	03/29/2020 1758
Toluene	ND		1	1.0	0.40	ug/L	03/29/2020 1758
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	0.42	ug/L	03/29/2020 1758
1,2,4-Trichlorobenzene	ND		1	1.0	0.40	ug/L	03/29/2020 1758
1,1,1-Trichloroethane	ND		1	1.0	0.40	ug/L	03/29/2020 1758
1,1,2-Trichloroethane	ND		1	1.0	0.40	ug/L	03/29/2020 1758

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: VQ49316-001
Batch: 49316
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Trichloroethene	ND		1	1.0	0.40	ug/L	03/29/2020 1758
Trichlorofluoromethane	ND		1	1.0	0.40	ug/L	03/29/2020 1758
Vinyl chloride	ND		1	1.0	0.40	ug/L	03/29/2020 1758
Xylenes (total)	ND		1	1.0	0.40	ug/L	03/29/2020 1758

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		97	70-130
1,2-Dichloroethane-d4		98	70-130
Toluene-d8		104	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: VQ49316-002
Batch: 49316
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	140		1	139	60-140	03/29/2020 1645
Benzene	50	48		1	97	70-130	03/29/2020 1645
Bromodichloromethane	50	56		1	113	70-130	03/29/2020 1645
Bromoform	50	56		1	113	70-130	03/29/2020 1645
Bromomethane (Methyl bromide)	50	47		1	95	70-130	03/29/2020 1645
2-Butanone (MEK)	100	110		1	114	70-130	03/29/2020 1645
Carbon disulfide	50	47		1	93	70-130	03/29/2020 1645
Carbon tetrachloride	50	50		1	99	70-130	03/29/2020 1645
Chlorobenzene	50	51		1	102	70-130	03/29/2020 1645
Chloroethane	50	48		1	97	70-130	03/29/2020 1645
Chloroform	50	47		1	94	70-130	03/29/2020 1645
Chloromethane (Methyl chloride)	50	46		1	93	60-140	03/29/2020 1645
Cyclohexane	50	49		1	99	70-130	03/29/2020 1645
1,2-Dibromo-3-chloropropane (DBCP)	50	57		1	113	70-130	03/29/2020 1645
Dibromochloromethane	50	55		1	110	70-130	03/29/2020 1645
1,2-Dibromoethane (EDB)	50	53		1	106	70-130	03/29/2020 1645
1,2-Dichlorobenzene	50	52		1	104	70-130	03/29/2020 1645
1,3-Dichlorobenzene	50	52		1	105	70-130	03/29/2020 1645
1,4-Dichlorobenzene	50	50		1	101	70-130	03/29/2020 1645
Dichlorodifluoromethane	50	56		1	112	60-140	03/29/2020 1645
1,1-Dichloroethane	50	46		1	91	70-130	03/29/2020 1645
1,2-Dichloroethane	50	49		1	97	70-130	03/29/2020 1645
1,1-Dichloroethene	50	48		1	95	70-130	03/29/2020 1645
cis-1,2-Dichloroethene	50	45		1	90	70-130	03/29/2020 1645
trans-1,2-Dichloroethene	50	47		1	93	70-130	03/29/2020 1645
1,2-Dichloropropane	50	50		1	100	70-130	03/29/2020 1645
cis-1,3-Dichloropropene	50	51		1	102	70-130	03/29/2020 1645
trans-1,3-Dichloropropene	50	57		1	115	70-130	03/29/2020 1645
Ethylbenzene	50	54		1	108	70-130	03/29/2020 1645
2-Hexanone	100	110		1	109	70-130	03/29/2020 1645
Isopropylbenzene	50	54		1	108	70-130	03/29/2020 1645
Methyl acetate	50	45		1	91	70-130	03/29/2020 1645
Methyl tertiary butyl ether (MTBE)	50	47		1	94	70-130	03/29/2020 1645
4-Methyl-2-pentanone	100	110		1	108	70-130	03/29/2020 1645
Methylcyclohexane	50	48		1	95	70-130	03/29/2020 1645
Methylene chloride	50	42		1	85	70-130	03/29/2020 1645
Styrene	50	55		1	110	70-130	03/29/2020 1645
1,1,2,2-Tetrachloroethane	50	56		1	112	70-130	03/29/2020 1645
Tetrachloroethene	50	56		1	112	70-130	03/29/2020 1645
Toluene	50	52		1	103	70-130	03/29/2020 1645
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	46		1	92	70-130	03/29/2020 1645
1,2,4-Trichlorobenzene	50	55		1	111	70-130	03/29/2020 1645
1,1,1-Trichloroethane	50	48		1	97	70-130	03/29/2020 1645
1,1,2-Trichloroethane	50	52		1	104	70-130	03/29/2020 1645

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: VQ49316-002
Batch: 49316
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	50		1	101	70-130	03/29/2020 1645
Trichlorofluoromethane	50	48		1	96	70-130	03/29/2020 1645
Vinyl chloride	50	48		1	96	70-130	03/29/2020 1645
Xylenes (total)	100	110		1	106	70-130	03/29/2020 1645

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		90	70-130
1,2-Dichloroethane-d4		86	70-130
Toluene-d8		89	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: VC26030-001MS
Batch: 49316
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	ND	500	530		5	105	60-140	03/29/2020 2350
Benzene	ND	250	320		5	129	70-130	03/29/2020 2350
Bromodichloromethane	ND	250	320		5	128	70-130	03/29/2020 2350
Bromoform	ND	250	320		5	127	70-130	03/29/2020 2350
Bromomethane (Methyl bromide)	ND	250	300		5	119	70-130	03/29/2020 2350
2-Butanone (MEK)	ND	500	570		5	114	70-130	03/29/2020 2350
Carbon disulfide	ND	250	270		5	109	70-130	03/29/2020 2350
Carbon tetrachloride	ND	250	340	N	5	135	70-130	03/29/2020 2350
Chlorobenzene	ND	250	310		5	125	70-130	03/29/2020 2350
Chloroethane	ND	250	350	N	5	140	70-130	03/29/2020 2350
Chloroform	ND	250	310		5	123	70-130	03/29/2020 2350
Chloromethane (Methyl chloride)	ND	250	300		5	119	60-140	03/29/2020 2350
Cyclohexane	ND	250	280		5	112	70-130	03/29/2020 2350
1,2-Dibromo-3-chloropropane (DBCP)	ND	250	330	N	5	132	70-130	03/29/2020 2350
Dibromochloromethane	ND	250	320		5	128	70-130	03/29/2020 2350
1,2-Dibromoethane (EDB)	ND	250	320		5	128	70-130	03/29/2020 2350
1,2-Dichlorobenzene	ND	250	300		5	122	70-130	03/29/2020 2350
1,3-Dichlorobenzene	ND	250	310		5	123	70-130	03/29/2020 2350
1,4-Dichlorobenzene	ND	250	300		5	120	70-130	03/29/2020 2350
Dichlorodifluoromethane	ND	250	330		5	131	60-140	03/29/2020 2350
1,1-Dichloroethane	ND	250	300		5	121	70-130	03/29/2020 2350
1,2-Dichloroethane	ND	250	310		5	123	70-130	03/29/2020 2350
1,1-Dichloroethene	ND	250	330	N	5	133	70-130	03/29/2020 2350
cis-1,2-Dichloroethene	100	250	410		5	126	70-130	03/29/2020 2350
trans-1,2-Dichloroethene	ND	250	320		5	128	70-130	03/29/2020 2350
1,2-Dichloropropane	ND	250	320		5	126	70-130	03/29/2020 2350
cis-1,3-Dichloropropene	ND	250	310		5	125	70-130	03/29/2020 2350
trans-1,3-Dichloropropene	ND	250	320		5	129	70-130	03/29/2020 2350
Ethylbenzene	ND	250	340	N	5	137	70-130	03/29/2020 2350
2-Hexanone	ND	500	650		5	130	70-130	03/29/2020 2350
Isopropylbenzene	ND	250	340	N	5	136	70-130	03/29/2020 2350
Methyl acetate	ND	250	280		5	113	70-130	03/29/2020 2350
Methyl tertiary butyl ether (MTBE)	ND	250	300		5	118	70-130	03/29/2020 2350
4-Methyl-2-pentanone	ND	500	620		5	125	70-130	03/29/2020 2350
Methylcyclohexane	ND	250	300		5	120	70-130	03/29/2020 2350
Methylene chloride	ND	250	280		5	112	70-130	03/29/2020 2350
Styrene	ND	250	340	N	5	135	70-130	03/29/2020 2350
1,1,2,2-Tetrachloroethane	ND	250	330	N	5	132	70-130	03/29/2020 2350
Tetrachloroethene	340	250	710	N	5	149	70-130	03/29/2020 2350
Toluene	ND	250	340	N	5	135	70-130	03/29/2020 2350
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	250	300		5	121	70-130	03/29/2020 2350
1,2,4-Trichlorobenzene	ND	250	310		5	122	70-130	03/29/2020 2350
1,1,1-Trichloroethane	ND	250	320		5	128	70-130	03/29/2020 2350
1,1,2-Trichloroethane	ND	250	320		5	129	70-130	03/29/2020 2350

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: VC26030-001MS
Batch: 49316
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	19	250	350	N	5	132	70-130	03/29/2020 2350
Trichlorofluoromethane	ND	250	340	N	5	137	70-130	03/29/2020 2350
Vinyl chloride	ND	250	310		5	125	70-130	03/29/2020 2350
Xylenes (total)	ND	500	690	N	5	138	70-130	03/29/2020 2350

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		104	70-130
1,2-Dichloroethane-d4		100	70-130
Toluene-d8		106	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MSD

Sample ID: VC26030-001MD
Batch: 49316
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	ND	500	510		5	102	3.4	60-140	20	03/30/2020 0013
Benzene	ND	250	290		5	117	9.4	70-130	20	03/30/2020 0013
Bromodichloromethane	ND	250	290		5	117	8.7	70-130	20	03/30/2020 0013
Bromoform	ND	250	290		5	117	8.2	70-130	20	03/30/2020 0013
Bromomethane (Methyl bromide)	ND	250	260		5	103	15	70-130	20	03/30/2020 0013
2-Butanone (MEK)	ND	500	540		5	109	4.3	70-130	20	03/30/2020 0013
Carbon disulfide	ND	250	250		5	99	9.1	70-130	20	03/30/2020 0013
Carbon tetrachloride	ND	250	310		5	122	9.7	70-130	20	03/30/2020 0013
Chlorobenzene	ND	250	290		5	115	8.6	70-130	20	03/30/2020 0013
Chloroethane	ND	250	300		5	119	17	70-130	20	03/30/2020 0013
Chloroform	ND	250	280		5	112	9.1	70-130	20	03/30/2020 0013
Chloromethane (Methyl chloride)	ND	250	260		5	105	13	60-140	20	03/30/2020 0013
Cyclohexane	ND	250	250		5	101	11	70-130	20	03/30/2020 0013
1,2-Dibromo-3-chloropropane (DBCP)	ND	250	300		5	119	10	70-130	20	03/30/2020 0013
Dibromochloromethane	ND	250	300		5	118	8.1	70-130	20	03/30/2020 0013
1,2-Dibromoethane (EDB)	ND	250	300		5	119	7.7	70-130	20	03/30/2020 0013
1,2-Dichlorobenzene	ND	250	270		5	108	12	70-130	20	03/30/2020 0013
1,3-Dichlorobenzene	ND	250	270		5	110	11	70-130	20	03/30/2020 0013
1,4-Dichlorobenzene	ND	250	270		5	106	12	70-130	20	03/30/2020 0013
Dichlorodifluoromethane	ND	250	280		5	113	15	60-140	20	03/30/2020 0013
1,1-Dichloroethane	ND	250	280		5	111	8.5	70-130	20	03/30/2020 0013
1,2-Dichloroethane	ND	250	280		5	112	9.3	70-130	20	03/30/2020 0013
1,1-Dichloroethene	ND	250	300		5	122	8.6	70-130	20	03/30/2020 0013
cis-1,2-Dichloroethene	100	250	370		5	108	11	70-130	20	03/30/2020 0013
trans-1,2-Dichloroethene	ND	250	290		5	117	9.2	70-130	20	03/30/2020 0013
1,2-Dichloropropane	ND	250	290		5	115	9.4	70-130	20	03/30/2020 0013
cis-1,3-Dichloropropene	ND	250	280		5	113	9.5	70-130	20	03/30/2020 0013
trans-1,3-Dichloropropene	ND	250	300		5	119	8.2	70-130	20	03/30/2020 0013
Ethylbenzene	ND	250	310		5	123	11	70-130	20	03/30/2020 0013
2-Hexanone	ND	500	600		5	120	8.1	70-130	20	03/30/2020 0013
Isopropylbenzene	ND	250	310		5	123	9.9	70-130	20	03/30/2020 0013
Methyl acetate	ND	250	260		5	104	8.0	70-130	20	03/30/2020 0013
Methyl tertiary butyl ether (MTBE)	ND	250	270		5	109	8.2	70-130	20	03/30/2020 0013
4-Methyl-2-pentanone	ND	500	570		5	114	9.0	70-130	20	03/30/2020 0013
Methylcyclohexane	ND	250	270		5	107	11	70-130	20	03/30/2020 0013
Methylene chloride	ND	250	260		5	103	8.2	70-130	20	03/30/2020 0013
Styrene	ND	250	310		5	125	7.6	70-130	20	03/30/2020 0013
1,1,2,2-Tetrachloroethane	ND	250	300		5	120	9.6	70-130	20	03/30/2020 0013
Tetrachloroethene	340	250	630		5	117	12	70-130	20	03/30/2020 0013
Toluene	ND	250	310		5	123	9.2	70-130	20	03/30/2020 0013
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	250	260		5	105	13	70-130	20	03/30/2020 0013
1,2,4-Trichlorobenzene	ND	250	270		5	109	11	70-130	20	03/30/2020 0013
1,1,1-Trichloroethane	ND	250	290		5	118	8.2	70-130	20	03/30/2020 0013
1,1,2-Trichloroethane	ND	250	300		5	118	8.7	70-130	20	03/30/2020 0013

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MSD

Sample ID: VC26030-001MD
Batch: 49316
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Trichloroethene	19	250	320		5	120	9.1	70-130	20	03/30/2020 0013
Trichlorofluoromethane	ND	250	300		5	119	14	70-130	20	03/30/2020 0013
Vinyl chloride	ND	250	270		5	108	15	70-130	20	03/30/2020 0013
Xylenes (total)	ND	500	630		5	126	9.1	70-130	20	03/30/2020 0013

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		104	70-130
1,2-Dichloroethane-d4		96	70-130
Toluene-d8		105	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: VQ49453-001
Batch: 49453
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Acetone	ND		1	20	5.0	ug/L	03/30/2020 2225
Benzene	ND		1	1.0	0.40	ug/L	03/30/2020 2225
Bromodichloromethane	ND		1	1.0	0.40	ug/L	03/30/2020 2225
Bromoform	ND		1	1.0	0.40	ug/L	03/30/2020 2225
Bromomethane (Methyl bromide)	ND		1	2.0	0.40	ug/L	03/30/2020 2225
2-Butanone (MEK)	ND		1	10	2.0	ug/L	03/30/2020 2225
Carbon disulfide	ND		1	1.0	0.40	ug/L	03/30/2020 2225
Carbon tetrachloride	ND		1	1.0	0.40	ug/L	03/30/2020 2225
Chlorobenzene	ND		1	1.0	0.40	ug/L	03/30/2020 2225
Chloroethane	ND		1	2.0	0.40	ug/L	03/30/2020 2225
Chloroform	ND		1	1.0	0.40	ug/L	03/30/2020 2225
Chloromethane (Methyl chloride)	ND		1	1.0	0.50	ug/L	03/30/2020 2225
Cyclohexane	ND		1	1.0	0.40	ug/L	03/30/2020 2225
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	0.40	ug/L	03/30/2020 2225
Dibromochloromethane	ND		1	1.0	0.40	ug/L	03/30/2020 2225
1,2-Dibromoethane (EDB)	ND		1	1.0	0.40	ug/L	03/30/2020 2225
1,2-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/30/2020 2225
1,3-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/30/2020 2225
1,4-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/30/2020 2225
Dichlorodifluoromethane	ND		1	2.0	0.60	ug/L	03/30/2020 2225
1,1-Dichloroethane	ND		1	1.0	0.40	ug/L	03/30/2020 2225
1,2-Dichloroethane	ND		1	1.0	0.40	ug/L	03/30/2020 2225
1,1-Dichloroethene	ND		1	1.0	0.40	ug/L	03/30/2020 2225
cis-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	03/30/2020 2225
trans-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	03/30/2020 2225
1,2-Dichloropropane	ND		1	1.0	0.40	ug/L	03/30/2020 2225
cis-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	03/30/2020 2225
trans-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	03/30/2020 2225
Ethylbenzene	ND		1	1.0	0.40	ug/L	03/30/2020 2225
2-Hexanone	ND		1	10	2.0	ug/L	03/30/2020 2225
Isopropylbenzene	ND		1	1.0	0.40	ug/L	03/30/2020 2225
Methyl acetate	ND		1	1.0	0.40	ug/L	03/30/2020 2225
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	0.40	ug/L	03/30/2020 2225
4-Methyl-2-pentanone	ND		1	10	2.0	ug/L	03/30/2020 2225
Methylcyclohexane	ND		1	5.0	0.40	ug/L	03/30/2020 2225
Methylene chloride	ND		1	1.0	0.40	ug/L	03/30/2020 2225
Styrene	ND		1	1.0	0.41	ug/L	03/30/2020 2225
1,1,2,2-Tetrachloroethane	ND		1	1.0	0.40	ug/L	03/30/2020 2225
Toluene	ND		1	1.0	0.40	ug/L	03/30/2020 2225
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	0.42	ug/L	03/30/2020 2225
1,2,4-Trichlorobenzene	ND		1	1.0	0.40	ug/L	03/30/2020 2225
1,1,1-Trichloroethane	ND		1	1.0	0.40	ug/L	03/30/2020 2225
1,1,2-Trichloroethane	ND		1	1.0	0.40	ug/L	03/30/2020 2225
Trichloroethene	ND		1	1.0	0.40	ug/L	03/30/2020 2225

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: VQ49453-001
Batch: 49453
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Trichlorofluoromethane	ND		1	1.0	0.40	ug/L	03/30/2020 2225
Vinyl chloride	ND		1	1.0	0.40	ug/L	03/30/2020 2225
Xylenes (total)	ND		1	1.0	0.40	ug/L	03/30/2020 2225

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		101	70-130
1,2-Dichloroethane-d4		120	70-130
Toluene-d8		112	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: VQ49453-002
Batch: 49453
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	110		1	115	60-140	03/30/2020 2124
Benzene	50	51		1	103	70-130	03/30/2020 2124
Bromodichloromethane	50	55		1	110	70-130	03/30/2020 2124
Bromoform	50	41		1	83	70-130	03/30/2020 2124
Bromomethane (Methyl bromide)	50	51		1	103	70-130	03/30/2020 2124
2-Butanone (MEK)	100	120		1	123	70-130	03/30/2020 2124
Carbon disulfide	50	56		1	112	70-130	03/30/2020 2124
Carbon tetrachloride	50	50		1	100	70-130	03/30/2020 2124
Chlorobenzene	50	49		1	98	70-130	03/30/2020 2124
Chloroethane	50	53		1	106	70-130	03/30/2020 2124
Chloroform	50	54		1	108	70-130	03/30/2020 2124
Chloromethane (Methyl chloride)	50	59		1	118	60-140	03/30/2020 2124
Cyclohexane	50	56		1	112	70-130	03/30/2020 2124
1,2-Dibromo-3-chloropropane (DBCP)	50	56		1	111	70-130	03/30/2020 2124
Dibromochloromethane	50	46		1	92	70-130	03/30/2020 2124
1,2-Dibromoethane (EDB)	50	51		1	102	70-130	03/30/2020 2124
1,2-Dichlorobenzene	50	50		1	99	70-130	03/30/2020 2124
1,3-Dichlorobenzene	50	49		1	98	70-130	03/30/2020 2124
1,4-Dichlorobenzene	50	48		1	96	70-130	03/30/2020 2124
Dichlorodifluoromethane	50	61		1	122	60-140	03/30/2020 2124
1,1-Dichloroethane	50	56		1	112	70-130	03/30/2020 2124
1,2-Dichloroethane	50	54		1	107	70-130	03/30/2020 2124
1,1-Dichloroethene	50	54		1	109	70-130	03/30/2020 2124
cis-1,2-Dichloroethene	50	53		1	105	70-130	03/30/2020 2124
trans-1,2-Dichloroethene	50	53		1	106	70-130	03/30/2020 2124
1,2-Dichloropropane	50	52		1	105	70-130	03/30/2020 2124
cis-1,3-Dichloropropene	50	54		1	107	70-130	03/30/2020 2124
trans-1,3-Dichloropropene	50	49		1	97	70-130	03/30/2020 2124
Ethylbenzene	50	51		1	101	70-130	03/30/2020 2124
2-Hexanone	100	120		1	120	70-130	03/30/2020 2124
Isopropylbenzene	50	52		1	104	70-130	03/30/2020 2124
Methyl acetate	50	60		1	119	70-130	03/30/2020 2124
Methyl tertiary butyl ether (MTBE)	50	51		1	102	70-130	03/30/2020 2124
4-Methyl-2-pentanone	100	110		1	114	70-130	03/30/2020 2124
Methylcyclohexane	50	49		1	98	70-130	03/30/2020 2124
Methylene chloride	50	51		1	101	70-130	03/30/2020 2124
Styrene	50	52		1	104	70-130	03/30/2020 2124
1,1,2,2-Tetrachloroethane	50	52		1	104	70-130	03/30/2020 2124
Toluene	50	50		1	101	70-130	03/30/2020 2124
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	52		1	103	70-130	03/30/2020 2124
1,2,4-Trichlorobenzene	50	49		1	98	70-130	03/30/2020 2124
1,1,1-Trichloroethane	50	53		1	106	70-130	03/30/2020 2124
1,1,2-Trichloroethane	50	50		1	99	70-130	03/30/2020 2124
Trichloroethene	50	50		1	99	70-130	03/30/2020 2124

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: VQ49453-002
Batch: 49453
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichlorofluoromethane	50	53		1	105	70-130	03/30/2020 2124
Vinyl chloride	50	59		1	117	70-130	03/30/2020 2124
Xylenes (total)	100	100		1	102	70-130	03/30/2020 2124

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		85	70-130
1,2-Dichloroethane-d4		95	70-130
Toluene-d8		88	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: VQ49455-001
Batch: 49455
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Tetrachloroethene	ND		1	1.0	0.40	ug/L	03/30/2020 2244

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		91	70-130
1,2-Dichloroethane-d4		94	70-130
Toluene-d8		93	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: VQ49455-002
Batch: 49455
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Tetrachloroethene	50	51		1	101	70-130	03/30/2020 2108

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		86	70-130
1,2-Dichloroethane-d4		88	70-130
Toluene-d8		87	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: VQ49599-001
Batch: 49599
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Tetrachloroethene	ND		1	1.0	0.40	ug/L	04/01/2020 0004

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		98	70-130
1,2-Dichloroethane-d4		99	70-130
Toluene-d8		100	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: VQ49599-002
Batch: 49599
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Tetrachloroethene	50	56		1	113	70-130	03/31/2020 2113

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		106	70-130
1,2-Dichloroethane-d4		101	70-130
Toluene-d8		102	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: VC26030-003MS
Batch: 49599
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Tetrachloroethene	200	250	490		5	116	70-130	04/01/2020 0716

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		99	70-130
1,2-Dichloroethane-d4		98	70-130
Toluene-d8		103	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MSD

Sample ID: VC26030-003MD
Batch: 49599
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Tetrachloroethene	200	250	480		5	111	2.7	70-130	20	04/01/2020 0739

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		99	70-130
1,2-Dichloroethane-d4		97	70-130
Toluene-d8		106	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Chain of Custody

and

Miscellaneous Documents

SHEALY **Chain of Custody Record**

SHEALY ENVIRONMENTAL SERVICES, INC.
106 Vantage Point Drive • West Columbia, SC 29172
Telephone No. 803-791-9700 Fax No. 803-791-9111
www.shealylab.com

Number 103984

Client: TRC	Report to Contact: Lisa Clark	Telephone No. / E-mail:	Quote No.
Address: 50 International Dr. ste 150	Sampler's Signature: X	Analysis (Attach list if more space is needed)	Page 1 of 2
City: Greenville	State: SC	Zip Code: 29615	Printed Name: David Szymal
Project Name: 300688.0.0.12			
Project No.: WPH Clemson	P.O. No.		

Sample ID / Description (Containers for each sample may be combined on one line.)	Date	Time	# of Containers	Matrix: Aqueous	Matrix: Solid	Matrix: Other	No. of Containers by Preservative Type: Glycerol	HCl	HNO3	H2SO4	NaOH	ZnOAc/NaOH	TSP	VOC's	Chlorine, Sulfate	Bromide	N. Nitrate	Dissolved gasses
DP-24	3-25-20	0815	6	X			2		3				3					
DP-24A		0900	6	X			2		3				3					
DP-24B		1015	6	X			2		3				3					
DP-23		1115	6	X			2		3				3					
DP-23A		1215	6	X			2		3				3					
DP-23B		1315	6	X			2		3				3					
DP-22		1430	6	X			2		3				3					
DP-22A		1530	6	X			2		3				3					
DP-22B		1630	6	X			2		3				3					
DUP-20104	3-25-20		6	X			2		3				3					

VC26030

Remarks / Cooler I.D.

Turn Around Time Required (Prior lab approval required for expedited TAT.)
☒ Standard ☐ Rush (Specify)

Sample Disposal
☐ Return to Client ☒ Disposal by Lab

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished by: David Szymal	3-25-20	1700	1. Received by:	3.25.20	~~1820~~ 1700
2. Relinquished by:	3.25.20	1820	2. Received by: TRC SS	3.25.20	1820
3. Relinquished by:	3.26.20	0940	3. Received by:	3.26.20	0940
4. Relinquished by:	3/26/20	1359	4. Laboratory received by:	3/26/20	1359

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on ice (Circle) (Yes) No Ice Pack: Receipt Temp. 2.3 °C

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Client Copy

Document Number: F-AD-153 Effective Date: 08-01-2014

SHEALY ENVIRONMENTAL SERVICES, INC.
106 Vantage Point Drive • West Columbia, SC 29172
Telephone No. 803-791-9700 Fax No. 803-791-9111
www.shealylab.com

SHEALY Chain of Custody Record

Number 103983

Client: TRC	Report to Contact: Lisk Clark
Address: 50 International Dr Ste 150	Sampler's Signature: X [signature]
City: Greenville	State: SC Zip Code: 29615
Project Name: WPH Clemson	Printed Name: David Szynal
Project No.: 300678.0.0.12	P.O. No.
Telephone No. / E-mail	Quote No.
Analysis (Attach list if more space is needed)	Page 2 of 2

Sample ID / Description (Containers for each sample may be combined on one line)	Date	Time	# Grab C-Composite	Matrix: Aqueous	Soil	Non Aqueous	No of Containers by Preservative Type: Unpres.	H2SO4	HNO3	HCl	NaOH	Na2S2O3	TSP	VOC's Chlorinated w/ Trizole	Aromatic w/ Trizole	BTEX 624.1	Remarks / Cooler I.D.
TBLK-20122	1	1	6	X						2			X	X	X	X	VC26030

Turn Around Time Required (Prior lab approval required for expedited TAT.)
☒ Standard ☐ Rush (Specify)

Sample Disposal
☒ Return to Client ☐ Disposal by Lab

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished by	3-25-20	1700	1. Received by	3.26.20	1706
2. Relinquished by	3.25.20	1820	2. Received by	3.25.20	1820
3. Relinquished by	3.26.20	0440	3. Received by	3.26.20	0440
4. Relinquished by	3.26.20	1359	4. Laboratory received by	3/26/20	1359

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on ice (Circle) (Yes) No Ice Pack Receipt Temp. 2.3 °C

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Client Copy

Document Number: F-AD-133 Effective Date: 08-01-2014

Shealy Environmental Services, Inc.
Document Number: ME0018C-14

Page 1 of 1
Effective Date: 8/2/2018

Sample Receipt Checklist (SRC)

Client: TRC Cooler Inspected by/date: LKH / 03/26/2020 Lot #: VC26030

Means of receipt: ☑ SESI ☐ Client ☐ UPS ☐ FedEx ☐ Other: _____

☐ Yes	☑ No		1. Were custody seals present on the cooler?
☐ Yes	☐ No	☑ NA	2. If custody seals were present, were they intact and unbroken?

pH Strip ID: NA Chlorine Strip ID: NA Tested by: NA

Original temperature upon receipt / Derived (Corrected) temperature upon receipt %Solid Snap-Cup ID: NA

2.3 / 2.3 °C NA / NA °C NA / NA °C NA / NA °C

Method: ☑ Temperature Blank ☐ Against Bottles IR Gun ID: 6 IR Gun Correction Factor: 0 °C

Method of coolant: ☑ Wet Ice ☐ Ice Packs ☐ Dry Ice ☐ None

☐ Yes	☐ No	☑ NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).
☐ Yes	☐ No	☑ NA	4. Is the commercial courier's packing slip attached to this form?
☑ Yes	☐ No		5. Were proper custody procedures (relinquished/received) followed?
☑ Yes	☐ No		6. Were sample IDs listed on the COC?
☑ Yes	☐ No		7. Were sample IDs listed on all sample containers?
☑ Yes	☐ No		8. Was collection date & time listed on the COC?
☑ Yes	☐ No		9. Was collection date & time listed on all sample containers?
☑ Yes	☐ No		10. Did all container label information (ID, date, time) agree with the COC?
☑ Yes	☐ No		11. Were tests to be performed listed on the COC?
☑ Yes	☐ No		12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)? _____
☑ Yes	☐ No		13. Was adequate sample volume available?
☐ Yes	☑ No		14. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
☐ Yes	☑ No		15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
☐ Yes	☑ No	☐ NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (¼"or 6mm in diameter) in any of the VOA vials?
☐ Yes	☐ No	☑ NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?
☐ Yes	☐ No	☑ NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
☐ Yes	☐ No	☑ NA	19. Were all applicable NH_3/TKN/cyanide/phenol/625 (< 0.5mg/L) samples free of residual chlorine?
☐ Yes	☐ No	☑ NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc...) correctly transcribed from the COC into the comment section in LIMS?
☐ Yes	☑ No		21. Was the quote number listed on the container label? If yes, Quote # NA

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) NA were received incorrectly preserved and were adjusted accordingly in sample receiving with NA mL of circle one: H_2SO_4, HNO_3, HCl, NaOH using SR # NA.
Time of preservation NA. If more than one preservative is needed, please note in the comments below.

Sample(s) NA were received with bubbles >6 mm in diameter.

Samples(s) NA were received with TRC > 0.5 mg/L (If #19 is *no*) and were adjusted accordingly in sample receiving with sodium thiosulfate ($Na_2S_2O_3$) with Shealy ID: NA.

SR barcode labels applied by: LKH Date: 03/26/2020

Comments:

Pace Analytical Energy Services LLC
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

April 13, 2020

Lucas Odom
Pace Analytical Services South Carolina
106 Vantage Point Drive
West Columbia, SC 29172

RE: **WPH CLEMSON / TRC**

Pace Workorder: 33392

Dear Lucas Odom:

Enclosed are the analytical results for sample(s) received by the laboratory on Tuesday, March 31, 2020. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Ruth Welsh 04/13/2020
Ruth.Welsh@pacelabs.com

Customer Service Representative

Enclosures

As a valued client we would appreciate your comments on our service.
Please email PAESfeedback@pacelabs.com.

Total Number of Pages 21

CERTIFICATE OF ANALYSIS

Laboratory Data Quality Review Notes

Project Name: WPH-Clemson, SC

Project Number: 300688.0000.0000 Phase 4

Lab Report: **33392** Pace Analytical Energy Services LLC; Pittsburgh, PA
This lab report is the subcontracted job related to **VC26030**.

Samples and Analyses: Nine groundwater samples and one field duplicate collected 25-Mar-2020 and analyzed for dissolved hydrocarbon gases (methane, ethane, ethene)

Chain of Custody, Sample Temperature, Sample Preservation: Chain of custody was signed (sample transfer from Pace Analytical, Columbia, to Pace Analytical, Pittsburgh); sample temperature was <6 ^{o}C upon arrival at the laboratory; samples were preserved properly.

Hold Time: Sample analyses were performed within acceptable hold time.

Surrogates: Surrogate recoveries are not applicable to dissolved hydrocarbon gas analyses.

Method Blank: Target analytes were not detected in the laboratory method blank.

Trip Blank: A trip blank was not analyzed with these samples.

Field Blank: A field blank was not collected with these samples.

Equipment Rinse Blank: A rinsate blank was not collected with these samples.

LCS/LCSD: LCS and LCSD recoveries and LCS/LCSD RPDs are within the laboratory QC limits.

MS/MSD: MS/MSD analyses were not performed using samples from this data set.

Duplicates: No laboratory duplicates were included with these analyses. A field duplicate sample (DU-20104) was collected for sample DP-23A. The RPD is appropriate for evaluation of duplicate results only when both results are ≥ 5× the LOQ. The absolute difference (AbsD) was used to evaluate the field duplicate results since each analyte had both concentrations below 5× the LOQ. AbsDs were ≤ LOQ; therefore, results are in acceptable agreement, and no qualification action was needed.

Dilutions: No dilutions were performed with these sample analyses.

No data qualifiers were assigned in this review.

Data reviewer: Amy Bass; TRC Environmental Corporation; 02-Oct-2020

Pace Analytical Energy Services LLC
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Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

LABORATORY ACCREDITATIONS & CERTIFICATIONS

Accreditor:	Pennsylvania Department of Environmental Protection, Bureau of Laboratories
Accreditation ID:	02-00538
Scope:	NELAP Non-Potable Water
Accreditor:	West Virginia Department of Environmental Protection, Division of Water and Waste Management
Accreditation ID:	395
Scope:	Non-Potable Water
Accreditor:	South Carolina Department of Health and Environmental Control, Office of Environmental Laboratory Certification
Accreditation ID:	89009003
Scope:	Clean Water Act (CWA); Resource Conservation and Recovery Act (RCRA)
Accreditor:	State of Virginia
Accreditation ID:	460201
Scope:	Non-Potable Water
Accreditor:	NELAP: New Jersey, Department of Environmental Protection
Accreditation ID:	PA026
Scope:	Non-Potable Water
Accreditor:	NELAP: New York, Department of Health Wadsworth Center
Accreditation ID:	11815
Scope:	Non-Potable Water
Accreditor:	State of Connecticut, Department of Public Health, Division of Environmental Health
Accreditation ID:	PH-0263
Scope:	Clean Water Act (CWA) Resource Conservation and Recovery Act (RCRA)
Accreditor:	NELAP: Texas, Commission on Environmental Quality
Accreditation ID:	T104704453-09-TX
Scope:	Non-Potable Water
Accreditor:	State of New Hampshire
Accreditation ID:	299409
Scope:	Non-potable water
Accreditor:	State of Georgia
Accreditation ID:	Chapter 391-3-26
Scope:	As per the Georgia EPD Rules and Regulations for Commercial Laboratories, PAES is accredited by the Pennsylvania Department of Environmental Protection Bureau of Laboratories under the National Environmental Laboratory Approval Program (NELAC).

Pace Analytical Energy Services LLC
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Pittsburgh, PA 15238
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SAMPLE SUMMARY

Workorder: 33392 WPH CLEMSON / TRC

Lab ID	Sample ID	Matrix	Date Collected	Date Received
333920001	DP-24	Water	3/25/2020 08:15	3/31/2020 11:00
333920002	DP-24A	Water	3/25/2020 09:00	3/31/2020 11:00
333920003	DP-24B	Water	3/25/2020 10:15	3/31/2020 11:00
333920004	DP-23	Water	3/25/2020 11:15	3/31/2020 11:00
333920005	DP-23A	Water	3/25/2020 12:15	3/31/2020 11:00
333920006	DP-23B	Water	3/25/2020 13:15	3/31/2020 11:00
333920007	DP-22	Water	3/25/2020 14:30	3/31/2020 11:00
333920008	DP-22A	Water	3/25/2020 15:30	3/31/2020 11:00
333920009	DP-22B	Water	3/25/2020 16:30	3/31/2020 11:00
333920010	DUP-20104	Water	3/25/2020 00:00	3/31/2020 11:00

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PROJECT SUMMARY

Workorder: 33392 WPH CLEMSON / TRC

Workorder Comments

The container pH for samples 33392 (0001, 0004, 0007-0010) were measured as below the expected pH (< 10) for those samples preserved with trisodium phosphate, as assigned to PAES method AM20GAx.

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ANALYTICAL RESULTS

Workorder: 33392 WPH CLEMSON / TRC

Lab ID: **333920001** Date Received: 3/31/2020 11:00 Matrix: Water

Sample ID: **DP-24** Date Collected: 3/25/2020 08:15

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**170**	ug/l	0.50	0.046	1	4/8/2020 09:26	BW	n
Ethane	**2.0**	ug/l	0.10	0.0050	1	4/8/2020 09:26	BW	n
Ethene	**0.11**	ug/l	0.10	0.0040	1	4/8/2020 09:26	BW	n

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ANALYTICAL RESULTS

Workorder: 33392 WPH CLEMSON / TRC

Lab ID: **333920002** Date Received: 3/31/2020 11:00 Matrix: Water

Sample ID: **DP-24A** Date Collected: 3/25/2020 09:00

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**1.2**	ug/l	0.50	0.046	1	4/8/2020 09:38	BW	n
Ethane	**0.28**	ug/l	0.10	0.0050	1	4/8/2020 09:38	BW	n
Ethene	**0.16**	ug/l	0.10	0.0040	1	4/8/2020 09:38	BW	n

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ANALYTICAL RESULTS

Workorder: 33392 WPH CLEMSON / TRC

Lab ID: **333920003** Date Received: 3/31/2020 11:00 Matrix: Water

Sample ID: **DP-24B** Date Collected: 3/25/2020 10:15

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**3.2**	ug/l	0.50	0.046	1	4/8/2020 09:51	BW	n
Ethane	**1.2**	ug/l	0.10	0.0050	1	4/8/2020 09:51	BW	n
Ethene	**0.69**	ug/l	0.10	0.0040	1	4/8/2020 09:51	BW	n

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Fax: (412) 826-3433

ANALYTICAL RESULTS

Workorder: 33392 WPH CLEMSON / TRC

Lab ID: **333920004** Date Received: 3/31/2020 11:00 Matrix: Water

Sample ID: **DP-23** Date Collected: 3/25/2020 11:15

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**0.44J**	ug/l	0.50	0.046	1	4/8/2020 10:45	BW	n
Ethane	**0.10**	ug/l	0.10	0.0050	1	4/8/2020 10:45	BW	n
Ethene	**0.13**	ug/l	0.10	0.0040	1	4/8/2020 10:45	BW	n

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ANALYTICAL RESULTS

Workorder: 33392 WPH CLEMSON / TRC

Lab ID: **333920005** Date Received: 3/31/2020 11:00 Matrix: Water

Sample ID: **DP-23A** Date Collected: 3/25/2020 12:15

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**0.49J**	ug/l	0.50	0.046	1	4/8/2020 10:54	BW	n
Ethane	**0.14**	ug/l	0.10	0.0050	1	4/8/2020 10:54	BW	n
Ethene	**0.061J**	ug/l	0.10	0.0040	1	4/8/2020 10:54	BW	n

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ANALYTICAL RESULTS

Workorder: 33392 WPH CLEMSON / TRC

Lab ID: **333920006** Date Received: 3/31/2020 11:00 Matrix: Water

Sample ID: **DP-23B** Date Collected: 3/25/2020 13:15

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**0.18J**	ug/l	0.50	0.046	1	4/8/2020 11:06	BW	n
Ethane	**0.051J**	ug/l	0.10	0.0050	1	4/8/2020 11:06	BW	n
Ethene	**0.044J**	ug/l	0.10	0.0040	1	4/8/2020 11:06	BW	n

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ANALYTICAL RESULTS

Workorder: 33392 WPH CLEMSON / TRC

Lab ID: **333920007** Date Received: 3/31/2020 11:00 Matrix: Water

Sample ID: **DP-22** Date Collected: 3/25/2020 14:30

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**85**	ug/l	0.50	0.094	1	4/8/2020 06:05	TD	n
Ethane	**0.97**	ug/l	0.10	0.011	1	4/8/2020 06:05	TD	n
Ethene	**1.0**	ug/l	0.10	0.0080	1	4/8/2020 06:05	TD	n

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ANALYTICAL RESULTS

Workorder: 33392 WPH CLEMSON / TRC

Lab ID: **333920008** Date Received: 3/31/2020 11:00 Matrix: Water

Sample ID: **DP-22A** Date Collected: 3/25/2020 15:30

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**2.4**	ug/l	0.50	0.094	1	4/8/2020 06:24	TD	n
Ethane	**1.2**	ug/l	0.10	0.011	1	4/8/2020 06:24	TD	n
Ethene	**0.48**	ug/l	0.10	0.0080	1	4/8/2020 06:24	TD	n

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ANALYTICAL RESULTS

Workorder: 33392 WPH CLEMSON / TRC

Lab ID: **333920009** Date Received: 3/31/2020 11:00 Matrix: Water

Sample ID: **DP-22B** Date Collected: 3/25/2020 16:30

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**0.40J**	ug/l	0.50	0.094	1	4/8/2020 06:39	TD	n
Ethane	**0.096J**	ug/l	0.10	0.011	1	4/8/2020 06:39	TD	n
Ethene	**0.060J**	ug/l	0.10	0.0080	1	4/8/2020 06:39	TD	n

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ANALYTICAL RESULTS

Workorder: 33392 WPH CLEMSON / TRC

Lab ID: **333920010** Date Received: 3/31/2020 11:00 Matrix: Water

Sample ID: **DUP-20104** Date Collected: 3/25/2020 00:00

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**0.34J**	ug/l	0.50	0.094	1	4/8/2020 06:54	TD	n
Ethane	**0.095J**	ug/l	0.10	0.011	1	4/8/2020 06:54	TD	n
Ethene	**0.033J**	ug/l	0.10	0.0080	1	4/8/2020 06:54	TD	n

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ANALYTICAL RESULTS QUALIFIERS

Workorder: 33392 WPH CLEMSON / TRC

DEFINITIONS/QUALIFIERS

MDL	Method Detection Limit. Can be used synonymously with LOD; Limit Of Detection.
PQL	Practical Quanitation Limit. Can be used synonymously with LOQ; Limit Of Quantitation.
ND	Not detected at or above reporting limit.
DF	Dilution Factor.
S	Surrogate.
RPD	Relative Percent Difference.
% Rec	Percent Recovery.
U	Indicates the compound was analyzed for, but not detected at or above the noted concentration.
J	Estimated concentration greater than the set method detection limit (MDL) and less than the set reporting limit (PQL).
n	The laboratory does not hold NELAP/TNI accreditation for this method or analyte.

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QUALITY CONTROL DATA

Workorder: 33392 WPH CLEMSON / TRC

QC Batch: DISG/8197 Analysis Method: AM20GAX

QC Batch Method: AM20GAX

Associated Lab Samples: 333920001, 333920002, 333920003, 333920004, 333920005, 333920006

METHOD BLANK: 66685

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
RISK				
Methane	ug/l	0.046U	0.046	n
Ethane	ug/l	0.0050U	0.0050	n
Ethene	ug/l	0.0040U	0.0040	n

LABORATORY CONTROL SAMPLE & LCSD: 66687 66689

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Methane	ug/l	750	720	750	96	100	80-120	4.2	20	n
Ethane	ug/l	38	38	39	102	103	80-120	1.5	20	n
Ethene	ug/l	35	37	37	105	106	80-120	1.2	20	n

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QUALITY CONTROL DATA

Workorder: 33392 WPH CLEMSON / TRC

QC Batch: DISG/8198 Analysis Method: AM20GAX

QC Batch Method: AM20GAX

Associated Lab Samples: 333920007, 333920008, 333920009, 333920010

METHOD BLANK: 66709

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
RISK				
Methane	ug/l	0.094U	0.094	n
Ethane	ug/l	0.011U	0.011	n
Ethene	ug/l	0.0080U	0.0080	n

LABORATORY CONTROL SAMPLE & LCSD: 66711 66713

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Methane	ug/l	750	810	750	109	101	80-120	7.5	20	n
Ethane	ug/l	38	39	37	102	97	80-120	5.5	20	n
Ethene	ug/l	35	37	35	105	99	80-120	5.6	20	n

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QUALITY CONTROL DATA QUALIFIERS

Workorder: 33392 WPH CLEMSON / TRC

QUALITY CONTROL PARAMETER QUALIFIERS

n	The laboratory does not hold NELAP/TNI accreditation for this method or analyte.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 33392 WPH CLEMSON / TRC

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
333920001	DP-24			AM20GAX	DISG/8197
333920002	DP-24A			AM20GAX	DISG/8197
333920003	DP-24B			AM20GAX	DISG/8197
333920004	DP-23			AM20GAX	DISG/8197
333920005	DP-23A			AM20GAX	DISG/8197
333920006	DP-23B			AM20GAX	DISG/8197
333920007	DP-22			AM20GAX	DISG/8198
333920008	DP-22A			AM20GAX	DISG/8198
333920009	DP-22B			AM20GAX	DISG/8198
333920010	DUP-20104			AM20GAX	DISG/8198

SHEALY

Chain of Custody Record

33592

Shealy Environmental Services, Inc.
106 Vantage Point Drive
West Columbia, South Carolina 29172
Telephone No. (803) 791-9700 Fax No. (803) 791-9111
www.shealylab.com

Number

Client: Pace Analytical - Columbia	Report to Contact: Lucas Odom	Telephone No. / E-mail: 803-206-9537/lodom@shealylab.com	Quote No.
Address: 106 Vantage Point Dr.	Sampler's Signature: X _____ Printed Name	Analysis (Attach list if more space is needed)	Page: 1 of 1
City: West Columbia; State: SC; Zip Code: 29172			
Project Name: WPH Clemson			Laboratory Lot Number

Project Number	P.O No.		G=Grab C=Composite	Matrix				No of Containers by Preservative Type							Dissolved Gasses										Remarks / Cooler I.D.
Sample ID / Description (Containers for each sample may be combined on one line)	Date	Time		Aqueous	Solid	Non-Aqueous		Unpres.	H2SO4	HNO3	HCl	NaOH	5035 Kit	TSP											
DP-24	3/25/2020	815	G	X										X	X										VC26030
DP-24A	3/25/2020	900	G	X										X	X										
DP-24B	3/25/2020	1015	G	X										X	X										
DP-23	3/25/2020	1115	G	X										X	X										
DP-23A	3/25/2020	1215	G	X										X	X										
DP-23B	3/25/2020	1315	G	X										X	X										
DP-22	3/25/2020	1430	G	X										X	X										
DP-22A	3/25/2020	1530	G	X										X	X										
DP-22B	3/25/2020	1630	G	X										X	X										
DUP-20104	3/25/2020		G	X										X	X										

Turn Around Time Required (Prior lab approval required for expedited TAT)	Sample Disposal	Possible Hazard Identification (List any known hazards in the remarks)	QC Requirements
X Standard Rush	☐ Return to Client ☒ Disposal by Lab	☐ Non-Hazardous ☐ Flammable ☐ Skin Irritant ☐ SDS provided ☐ Unknown	

1. Relinquished by: Melody Carter	Date: 3302020	Time: 1800	1. Received by	Date	Time
2. Relinquished by	Date	Time	2. Received by	Date	Time
3. Relinquished by	Date	Time	3. Received by	Date	Time
4. Relinquished by	Date	Time	4. Laboratory Received by: PHES	Date: 3.31.2020	Time: 11:00

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on Ice (Check) ☐ Y ☐ N ☐ Ice Pack

Receipt Temp. 0.3 °C

Cooler Receipt Form

Client Name: Pace **Project:** WPH Clemson **Lab Work Order:** 33392

A. **Shipping/Container Information** (circle appropriate response)

Courier: (FedEx) UPS USPS Client Other:_____ **Air bill Present:** (Yes) No

Tracking Number: 166334637750

Custody Seal on Cooler/Box Present: (Yes) No **Seals Intact:** (Yes) No

Cooler/Box Packing Material: (Bubble Wrap) Absorbent Foam Other:_____

Type of Ice: (Wet) Blue None **Ice Intact:** (Yes) Melted

Cooler Temperature: 0.3°C **Radiation Screened:** Yes (No) **Chain of Custody Present:** (Yes) No

Comments:_____

B. **Laboratory Assignment/Log-in** (check appropriate response)

	YES	NO	N/A	Comment Reference non-Conformance
Chain of Custody properly filled out	✓			
Chain of Custody relinquished	✓			
Sampler Name & Signature on COC			✓	
Containers intact	✓			
Were samples in separate bags	✓			
Sample container labels match COC Sample name/date and time collected	✓			
Sufficient volume provided	✓			
PAES containers used	✓			
Are containers properly preserved for the requested testing? (as labeled)	✓			
If an unknown preservation state, were containers checked? Exception: VOA's coliform			✓	If yes, see pH form.
Was volume for dissolved testing field filtered, as noted on the COC? Was volume received in a preserved container?			✓	
Headspace present?		✓		

Comments:_____

Cooler contents examined/received by : LS **Date:** 3.31.2020

Project Manager Review : ERJ **Date:** 3/31/2020

Report of Analysis

TRC Companies, Inc.
50 International Dr.
Suite 150
Greenville, SC 29615
Attention: Lisa Clark

Project Name: WPH Clemson

Project Number: 300688.0000.0000.00011

Lot Number:**VC26035**

Date Completed:04/02/2020

04/16/2020 2:04 PM
Approved and released by:
Lab Director - Greenville: **Lucas Odom**

The electronic signature above is the equivalent of a handwritten signature.

Pace Analytical Services, LLC (*formerly Shealy Environmental Services, Inc.*)
106 Vantage Point Drive West Columbia, SC 29172
Tel: 803-791-9700 Fax: 803-791-9111 www.pacelabs.com

Laboratory Data Quality Review Notes

Project Name: WPH-Clemson, SC

Project Number: 300688.0000.0000 Phase 4

Lab Report: **VC26035** Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.); West Columbia, SC; subcontracted report: **33393**

Samples and Analyses: Four groundwater samples and one field duplicate, collected 25-Mar-2020 and analyzed for VOCs, chloride, bromide, sulfate, and nitrate; one trip blank, analyzed for VOCs only

Chain of Custody, Sample Temperature, Sample Preservation: Chain of custody was signed; sample temperature was <6 ^{o}C upon arrival at the laboratory; samples were preserved properly.

Hold Time: Sample analyses were performed within acceptable hold times.

Surrogates: VOC surrogate recoveries are within QC limits.

Method Blank: Target analytes were not detected in the laboratory method blanks.

Trip Blank: No target analytes were detected in the trip blank; analyzed for VOCs only.

Field Blank: A field blank was not collected with these samples.

Equipment Rinse Blank: A rinsate blank was not collected with these samples.

LCS/LCSD: LCS recoveries for all analyses are within QC limits. LCSD analyses were not performed.

MS/MSD: MS/MSD analyses for bromide, chloride, and sulfate were performed using sample RMW-28A. MS and MSD recoveries and MS/MSD RPDs are within QC limits.

Duplicates: No laboratory duplicates were included with these analyses. A field duplicate sample (DU-20103) was collected for sample RMW-28B. RPDs were calculated for analytes detected above 5× the LOQ in both samples; absolute differences (AbsDs) were used to evaluate analytes detected below 5× the LOQ in one or both samples. RPD values were ≤ 30%, and AbsDs were ≤ LOQ; therefore, results are in acceptable agreement, and no qualification action was needed.

Dilutions: The primary VOC analyses in the following samples were performed with dilution (as indicated): RMW-28B (20×), and DUP-20103 (20×). ND results for the VOC analyses in these samples are associated with elevated DLs and LOQs due to dilution. All other dilutions performed in these sample analyses were associated with positive results (detects).

No data qualifiers were assigned in this review.

Data reviewer: Amy Bass; TRC Environmental Corporation; 02-Oct-2020

Case Narrative
TRC Companies, Inc.
Lot Number: VC26035

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Pace Analytical Services, LLC ("Pace") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Pace policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Pace Project Manager listed on the cover page.

Dissolved Gasses

The analysis for Dissolved Gasses has been performed by Pace Energy. The data for this analysis can be found on Pace Energy report 33393.

Sample Summary
TRC Companies, Inc.
Lot Number: VC26035

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	TBLK-20111	Aqueous	03/25/2020	03/26/2020
002	RMW-28A	Aqueous	03/25/2020 1140	03/26/2020
003	RMW-28B	Aqueous	03/25/2020 1205	03/26/2020
004	RMW-27A	Aqueous	03/25/2020 1545	03/26/2020
005	RMW-27B	Aqueous	03/25/2020 1635	03/26/2020
006	DU-20103	Aqueous	03/25/2020	03/26/2020

(6 samples)

Detection Summary

TRC Companies, Inc.

Lot Number: VC26035

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
002	RMW-28A	Aqueous	Bromide	300.0	0.070	J	mg/L	7
002	RMW-28A	Aqueous	Chloride	300.0	3.0		mg/L	7
002	RMW-28A	Aqueous	Nitrate - N	353.2	3.5		mg/L	7
002	RMW-28A	Aqueous	Sulfate	300.0	3.4		mg/L	7
002	RMW-28A	Aqueous	Tetrachloroethene	8260D	170		ug/L	8
002	RMW-28A	Aqueous	1,1,2-Trichloro-1,2,2-	8260D	0.50	J	ug/L	8
003	RMW-28B	Aqueous	Chloride	300.0	0.94	J	mg/L	10
003	RMW-28B	Aqueous	Nitrate - N	353.2	0.99		mg/L	10
003	RMW-28B	Aqueous	Tetrachloroethene	8260D	2300		ug/L	11
004	RMW-27A	Aqueous	Chloride	300.0	1.0		mg/L	13
004	RMW-27A	Aqueous	Nitrate - N	353.2	0.063		mg/L	13
005	RMW-27B	Aqueous	Chloride	300.0	1.6		mg/L	16
005	RMW-27B	Aqueous	Nitrate - N	353.2	1.3		mg/L	16
005	RMW-27B	Aqueous	Sulfate	300.0	2.8		mg/L	16
005	RMW-27B	Aqueous	cis-1,2-Dichloroethene	8260D	30		ug/L	17
005	RMW-27B	Aqueous	Tetrachloroethene	8260D	81		ug/L	17
005	RMW-27B	Aqueous	Trichloroethene	8260D	6.2		ug/L	18
006	DU-20103	Aqueous	Chloride	300.0	0.94	J	mg/L	19
006	DU-20103	Aqueous	Nitrate - N	353.2	1.0		mg/L	19
006	DU-20103	Aqueous	Tetrachloroethene	8260D	2100		ug/L	20

(20 detections)

Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC26035-001
Description: TBLK-20111
Matrix: Aqueous
Date Sampled: 03/25/2020
Date Received: 03/26/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/29/2020 1913	ALR1		49316

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	ND		1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC26035-001
Description: TBLK-20111
Matrix: Aqueous
Date Sampled: 03/25/2020
Date Received: 03/26/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/29/2020 1913	ALR1		49316

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Trichloroethene	79-01-6	8260D	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		98	70-130
1,2-Dichloroethane-d4		100	70-130
Toluene-d8		104	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Inorganic non-metals

Client: TRC Companies, Inc.
Laboratory ID: VC26035-002
Description: RMW-28A
Matrix: Aqueous
Date Sampled: 03/25/2020 1140
Date Received: 03/26/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	04/01/2020 2124	HKL		49782
1		(Chloride) 300.0	1	04/01/2020 2124	HKL		49781
1		(Nitrate - N) 353.2	5	03/26/2020 1638	AMR		49091
1		(Sulfate) 300.0	1	04/01/2020 2124	HKL		49779

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.070	J	0.20	0.050	mg/L	1
Chloride		300.0	3.0		1.0	0.20	mg/L	1
Nitrate - N		353.2	3.5		0.10	0.050	mg/L	1
Sulfate		300.0	3.4		1.0	0.20	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC26035-002
Description: RMW-28A
Matrix: Aqueous
Date Sampled: 03/25/2020 1140
Date Received: 03/26/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/29/2020 1936	ALR1		49316

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	170		1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	0.50	J	1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC26035-002
Description: RMW-28A
Matrix: Aqueous
Date Sampled: 03/25/2020 1140
Date Received: 03/26/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/29/2020 1936	ALR1		49316

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Trichloroethene	79-01-6	8260D	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		104	70-130
1,2-Dichloroethane-d4		100	70-130
Toluene-d8		106	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Inorganic non-metals

Client: TRC Companies, Inc.
Laboratory ID: VC26035-003
Description: RMW-28B
Matrix: Aqueous
Date Sampled: 03/25/2020 1205
Date Received: 03/26/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	04/01/2020 2303	HKL		49782
1		(Chloride) 300.0	1	04/01/2020 2303	HKL		49781
1		(Nitrate - N) 353.2	1	03/26/2020 1639	AMR		49091
1		(Sulfate) 300.0	1	04/01/2020 2303	HKL		49779

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	ND		0.20	0.050	mg/L	1
Chloride		300.0	0.94	J	1.0	0.20	mg/L	1
Nitrate - N		353.2	0.99		0.020	0.010	mg/L	1
Sulfate		300.0	ND		1.0	0.20	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
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W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc. | Laboratory ID: VC26035-003
Description: RMW-28B | Matrix: Aqueous
Date Sampled: 03/25/2020 1205
Date Received: 03/26/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	20	03/29/2020 2303	ALR1		49316

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		400	100	ug/L	1
Benzene	71-43-2	8260D	ND		20	8.0	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		20	8.0	ug/L	1
Bromoform	75-25-2	8260D	ND		20	8.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		40	8.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		200	40	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		20	8.0	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		20	8.0	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		20	8.0	ug/L	1
Chloroethane	75-00-3	8260D	ND		40	8.0	ug/L	1
Chloroform	67-66-3	8260D	ND		20	8.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		20	10	ug/L	1
Cyclohexane	110-82-7	8260D	ND		20	8.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		20	8.0	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		20	8.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		20	8.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		20	8.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		20	8.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		20	8.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		40	12	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		20	8.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		20	8.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		20	8.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		20	8.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		20	8.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		20	8.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		20	8.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		20	8.0	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		20	8.0	ug/L	1
2-Hexanone	591-78-6	8260D	ND		200	40	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		20	8.0	ug/L	1
Methyl acetate	79-20-9	8260D	ND		20	8.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		20	8.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		200	40	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		100	8.0	ug/L	1
Methylene chloride	75-09-2	8260D	ND		20	8.0	ug/L	1
Styrene	100-42-5	8260D	ND		20	8.2	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		20	8.0	ug/L	1
Tetrachloroethene	127-18-4	8260D	2300		20	8.0	ug/L	1
Toluene	108-88-3	8260D	ND		20	8.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		20	8.4	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		20	8.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		20	8.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		20	8.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC26035-003
Description: RMW-28B
Matrix: Aqueous
Date Sampled: 03/25/2020 1205
Date Received: 03/26/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	20	03/29/2020 2303	ALR1		49316

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Trichloroethene	79-01-6	8260D	ND		20	8.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		20	8.0	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		20	8.0	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		20	8.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		99	70-130
1,2-Dichloroethane-d4		98	70-130
Toluene-d8		105	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Inorganic non-metals

Client: TRC Companies, Inc.
Laboratory ID: VC26035-004
Description: RMW-27A
Matrix: Aqueous
Date Sampled: 03/25/2020 1545
Date Received: 03/26/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	04/01/2020 2323	HKL		49782
1		(Chloride) 300.0	1	04/01/2020 2323	HKL		49781
1		(Nitrate - N) 353.2	1	03/26/2020 1641	AMR		49091
1		(Sulfate) 300.0	1	04/01/2020 2323	HKL		49779

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	ND		0.20	0.050	mg/L	1
Chloride		300.0	1.0		1.0	0.20	mg/L	1
Nitrate - N		353.2	0.063		0.020	0.010	mg/L	1
Sulfate		300.0	ND		1.0	0.20	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC26035-004
Description: RMW-27A
Matrix: Aqueous
Date Sampled: 03/25/2020 1545
Date Received: 03/26/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/29/2020 1959	ALR1		49316

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	ND		1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC26035-004
Description: RMW-27A
Matrix: Aqueous
Date Sampled: 03/25/2020 1545
Date Received: 03/26/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/29/2020 1959	ALR1		49316

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Trichloroethene	79-01-6	8260D	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		103	70-130
1,2-Dichloroethane-d4		103	70-130
Toluene-d8		108	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Inorganic non-metals

Client: TRC Companies, Inc.
Laboratory ID: VC26035-005
Description: RMW-27B
Matrix: Aqueous
Date Sampled: 03/25/2020 1635
Date Received: 03/26/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	04/01/2020 2343	HKL		49782
1		(Chloride) 300.0	1	04/01/2020 2343	HKL		49781
1		(Nitrate - N) 353.2	1	03/26/2020 1642	AMR		49091
1		(Sulfate) 300.0	1	04/01/2020 2343	HKL		49779

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	ND		0.20	0.050	mg/L	1
Chloride		300.0	1.6		1.0	0.20	mg/L	1
Nitrate - N		353.2	1.3		0.020	0.010	mg/L	1
Sulfate		300.0	2.8		1.0	0.20	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc. | Laboratory ID: VC26035-005
Description: RMW-27B | Matrix: Aqueous
Date Sampled: 03/25/2020 1635
Date Received: 03/26/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/29/2020 2022	ALR1		49316

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	30		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	81		1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC26035-005
Description: RMW-27B
Matrix: Aqueous
Date Sampled: 03/25/2020 1635
Date Received: 03/26/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/29/2020 2022	ALR1		49316

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Trichloroethene	79-01-6	8260D	6.2		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		104	70-130
1,2-Dichloroethane-d4		101	70-130
Toluene-d8		107	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
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W = Reported on wet weight basis

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Inorganic non-metals

Client: TRC Companies, Inc.
Laboratory ID: VC26035-006
Description: DU-20103
Matrix: Aqueous
Date Sampled: 03/25/2020
Date Received: 03/26/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	04/02/2020 0003	HKL		49782
1		(Chloride) 300.0	1	04/02/2020 0003	HKL		49781
1		(Nitrate - N) 353.2	1	03/26/2020 1643	AMR		49091
1		(Sulfate) 300.0	1	04/02/2020 0003	HKL		49779

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	ND		0.20	0.050	mg/L	1
Chloride		300.0	0.94	J	1.0	0.20	mg/L	1
Nitrate - N		353.2	1.0		0.020	0.010	mg/L	1
Sulfate		300.0	ND		1.0	0.20	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc. | Laboratory ID: VC26035-006
Description: DU-20103 | Matrix: Aqueous
Date Sampled: 03/25/2020
Date Received: 03/26/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	20	03/29/2020 2240	ALR1		49316

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		400	100	ug/L	1
Benzene	71-43-2	8260D	ND		20	8.0	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		20	8.0	ug/L	1
Bromoform	75-25-2	8260D	ND		20	8.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		40	8.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		200	40	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		20	8.0	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		20	8.0	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		20	8.0	ug/L	1
Chloroethane	75-00-3	8260D	ND		40	8.0	ug/L	1
Chloroform	67-66-3	8260D	ND		20	8.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		20	10	ug/L	1
Cyclohexane	110-82-7	8260D	ND		20	8.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		20	8.0	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		20	8.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		20	8.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		20	8.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		20	8.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		20	8.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		40	12	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		20	8.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		20	8.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		20	8.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		20	8.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		20	8.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		20	8.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		20	8.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		20	8.0	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		20	8.0	ug/L	1
2-Hexanone	591-78-6	8260D	ND		200	40	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		20	8.0	ug/L	1
Methyl acetate	79-20-9	8260D	ND		20	8.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		20	8.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		200	40	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		100	8.0	ug/L	1
Methylene chloride	75-09-2	8260D	ND		20	8.0	ug/L	1
Styrene	100-42-5	8260D	ND		20	8.2	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		20	8.0	ug/L	1
Tetrachloroethene	127-18-4	8260D	2100		20	8.0	ug/L	1
Toluene	108-88-3	8260D	ND		20	8.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		20	8.4	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		20	8.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		20	8.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		20	8.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC26035-006
Description: DU-20103
Matrix: Aqueous
Date Sampled: 03/25/2020
Date Received: 03/26/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	20	03/29/2020 2240	ALR1		49316

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Trichloroethene	79-01-6	8260D	ND		20	8.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		20	8.0	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		20	8.0	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		20	8.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		99	70-130
1,2-Dichloroethane-d4		100	70-130
Toluene-d8		104	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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QC Summary

Inorganic non-metals - MB

Sample ID: VQ49091-001
Batch: 49091
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Nitrate - N	ND		1	0.020	0.010	mg/L	03/26/2020 1606

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: VQ49091-002
Batch: 49091
Analytical Method: 353.2
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	0.80	0.77		1	96	90-110	03/26/2020 1607

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: VQ49779-001
Batch: 49779
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Sulfate	ND		1	1.0	0.20	mg/L	04/01/2020 1541

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: VQ49779-002
Batch: 49779
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Sulfate	20	20		1	102	90-110	04/01/2020 1621

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MS

Sample ID: VC26035-002MS
Batch: 49779
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Sulfate	3.4	20	23		1	97	90-110	04/01/2020 2143

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: VC26035-002MD
Batch: 49779
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Sulfate	3.4	20	24		1	104	5.5	90-110	20	04/01/2020 2203

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: VQ49781-001
Batch: 49781
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Chloride	ND		1	1.0	0.20	mg/L	04/01/2020 1541

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: VQ49781-002
Batch: 49781
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Chloride	20	21		1	103	90-110	04/01/2020 1621

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Sample ID: VC26035-002MS
Batch: 49781
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Chloride	3.0	20	23		1	100	90-110	04/01/2020 2143

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: VC26035-002MD
Batch: 49781
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Chloride	3.0	20	24		1	106	5.5	90-110	20	04/01/2020 2203

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: VQ49782-001
Batch: 49782
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Bromide	ND		1	0.20	0.050	mg/L	04/01/2020 1541

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: VQ49782-002
Batch: 49782
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Bromide	8.0	8.2		1	102	90-110	04/01/2020 1621

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MS

Sample ID: VC26035-002MS
Batch: 49782
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Bromide	0.070	8.0	8.1		1	100	90-110	04/01/2020 2143

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: VC26035-002MD
Batch: 49782
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Bromide	0.070	8.0	8.6		1	107	6.0	90-110	20	04/01/2020 2203

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: VQ49316-001
Batch: 49316
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Acetone	ND		1	20	5.0	ug/L	03/29/2020 1758
Benzene	ND		1	1.0	0.40	ug/L	03/29/2020 1758
Bromodichloromethane	ND		1	1.0	0.40	ug/L	03/29/2020 1758
Bromoform	ND		1	1.0	0.40	ug/L	03/29/2020 1758
Bromomethane (Methyl bromide)	ND		1	2.0	0.40	ug/L	03/29/2020 1758
2-Butanone (MEK)	ND		1	10	2.0	ug/L	03/29/2020 1758
Carbon disulfide	ND		1	1.0	0.40	ug/L	03/29/2020 1758
Carbon tetrachloride	ND		1	1.0	0.40	ug/L	03/29/2020 1758
Chlorobenzene	ND		1	1.0	0.40	ug/L	03/29/2020 1758
Chloroethane	ND		1	2.0	0.40	ug/L	03/29/2020 1758
Chloroform	ND		1	1.0	0.40	ug/L	03/29/2020 1758
Chloromethane (Methyl chloride)	ND		1	1.0	0.50	ug/L	03/29/2020 1758
Cyclohexane	ND		1	1.0	0.40	ug/L	03/29/2020 1758
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	0.40	ug/L	03/29/2020 1758
Dibromochloromethane	ND		1	1.0	0.40	ug/L	03/29/2020 1758
1,2-Dibromoethane (EDB)	ND		1	1.0	0.40	ug/L	03/29/2020 1758
1,2-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/29/2020 1758
1,3-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/29/2020 1758
1,4-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/29/2020 1758
Dichlorodifluoromethane	ND		1	2.0	0.60	ug/L	03/29/2020 1758
1,1-Dichloroethane	ND		1	1.0	0.40	ug/L	03/29/2020 1758
1,2-Dichloroethane	ND		1	1.0	0.40	ug/L	03/29/2020 1758
1,1-Dichloroethene	ND		1	1.0	0.40	ug/L	03/29/2020 1758
cis-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	03/29/2020 1758
trans-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	03/29/2020 1758
1,2-Dichloropropane	ND		1	1.0	0.40	ug/L	03/29/2020 1758
cis-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	03/29/2020 1758
trans-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	03/29/2020 1758
Ethylbenzene	ND		1	1.0	0.40	ug/L	03/29/2020 1758
2-Hexanone	ND		1	10	2.0	ug/L	03/29/2020 1758
Isopropylbenzene	ND		1	1.0	0.40	ug/L	03/29/2020 1758
Methyl acetate	ND		1	1.0	0.40	ug/L	03/29/2020 1758
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	0.40	ug/L	03/29/2020 1758
4-Methyl-2-pentanone	ND		1	10	2.0	ug/L	03/29/2020 1758
Methylcyclohexane	ND		1	5.0	0.40	ug/L	03/29/2020 1758
Methylene chloride	ND		1	1.0	0.40	ug/L	03/29/2020 1758
Styrene	ND		1	1.0	0.41	ug/L	03/29/2020 1758
1,1,2,2-Tetrachloroethane	ND		1	1.0	0.40	ug/L	03/29/2020 1758
Tetrachloroethene	ND		1	1.0	0.40	ug/L	03/29/2020 1758
Toluene	ND		1	1.0	0.40	ug/L	03/29/2020 1758
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	0.42	ug/L	03/29/2020 1758
1,2,4-Trichlorobenzene	ND		1	1.0	0.40	ug/L	03/29/2020 1758
1,1,1-Trichloroethane	ND		1	1.0	0.40	ug/L	03/29/2020 1758
1,1,2-Trichloroethane	ND		1	1.0	0.40	ug/L	03/29/2020 1758

LOQ = Limit of Quantitation
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LOD = Limit of Detection

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J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: VQ49316-001
Batch: 49316
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Trichloroethene	ND		1	1.0	0.40	ug/L	03/29/2020 1758
Trichlorofluoromethane	ND		1	1.0	0.40	ug/L	03/29/2020 1758
Vinyl chloride	ND		1	1.0	0.40	ug/L	03/29/2020 1758
Xylenes (total)	ND		1	1.0	0.40	ug/L	03/29/2020 1758

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		97	70-130
1,2-Dichloroethane-d4		98	70-130
Toluene-d8		104	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: VQ49316-002
Batch: 49316
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	140		1	139	60-140	03/29/2020 1645
Benzene	50	48		1	97	70-130	03/29/2020 1645
Bromodichloromethane	50	56		1	113	70-130	03/29/2020 1645
Bromoform	50	56		1	113	70-130	03/29/2020 1645
Bromomethane (Methyl bromide)	50	47		1	95	70-130	03/29/2020 1645
2-Butanone (MEK)	100	110		1	114	70-130	03/29/2020 1645
Carbon disulfide	50	47		1	93	70-130	03/29/2020 1645
Carbon tetrachloride	50	50		1	99	70-130	03/29/2020 1645
Chlorobenzene	50	51		1	102	70-130	03/29/2020 1645
Chloroethane	50	48		1	97	70-130	03/29/2020 1645
Chloroform	50	47		1	94	70-130	03/29/2020 1645
Chloromethane (Methyl chloride)	50	46		1	93	60-140	03/29/2020 1645
Cyclohexane	50	49		1	99	70-130	03/29/2020 1645
1,2-Dibromo-3-chloropropane (DBCP)	50	57		1	113	70-130	03/29/2020 1645
Dibromochloromethane	50	55		1	110	70-130	03/29/2020 1645
1,2-Dibromoethane (EDB)	50	53		1	106	70-130	03/29/2020 1645
1,2-Dichlorobenzene	50	52		1	104	70-130	03/29/2020 1645
1,3-Dichlorobenzene	50	52		1	105	70-130	03/29/2020 1645
1,4-Dichlorobenzene	50	50		1	101	70-130	03/29/2020 1645
Dichlorodifluoromethane	50	56		1	112	60-140	03/29/2020 1645
1,1-Dichloroethane	50	46		1	91	70-130	03/29/2020 1645
1,2-Dichloroethane	50	49		1	97	70-130	03/29/2020 1645
1,1-Dichloroethene	50	48		1	95	70-130	03/29/2020 1645
cis-1,2-Dichloroethene	50	45		1	90	70-130	03/29/2020 1645
trans-1,2-Dichloroethene	50	47		1	93	70-130	03/29/2020 1645
1,2-Dichloropropane	50	50		1	100	70-130	03/29/2020 1645
cis-1,3-Dichloropropene	50	51		1	102	70-130	03/29/2020 1645
trans-1,3-Dichloropropene	50	57		1	115	70-130	03/29/2020 1645
Ethylbenzene	50	54		1	108	70-130	03/29/2020 1645
2-Hexanone	100	110		1	109	70-130	03/29/2020 1645
Isopropylbenzene	50	54		1	108	70-130	03/29/2020 1645
Methyl acetate	50	45		1	91	70-130	03/29/2020 1645
Methyl tertiary butyl ether (MTBE)	50	47		1	94	70-130	03/29/2020 1645
4-Methyl-2-pentanone	100	110		1	108	70-130	03/29/2020 1645
Methylcyclohexane	50	48		1	95	70-130	03/29/2020 1645
Methylene chloride	50	42		1	85	70-130	03/29/2020 1645
Styrene	50	55		1	110	70-130	03/29/2020 1645
1,1,2,2-Tetrachloroethane	50	56		1	112	70-130	03/29/2020 1645
Tetrachloroethene	50	56		1	112	70-130	03/29/2020 1645
Toluene	50	52		1	103	70-130	03/29/2020 1645
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	46		1	92	70-130	03/29/2020 1645
1,2,4-Trichlorobenzene	50	55		1	111	70-130	03/29/2020 1645
1,1,1-Trichloroethane	50	48		1	97	70-130	03/29/2020 1645
1,1,2-Trichloroethane	50	52		1	104	70-130	03/29/2020 1645

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: VQ49316-002
Batch: 49316
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	50		1	101	70-130	03/29/2020 1645
Trichlorofluoromethane	50	48		1	96	70-130	03/29/2020 1645
Vinyl chloride	50	48		1	96	70-130	03/29/2020 1645
Xylenes (total)	100	110		1	106	70-130	03/29/2020 1645

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		90	70-130
1,2-Dichloroethane-d4		86	70-130
Toluene-d8		89	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Chain of Custody

and

Miscellaneous Documents

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
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SHEALY ENVIRONMENTAL SERVICES, INC.
106 Vantage Point Drive • West Columbia, SC 29172
Telephone No. 803-791-9700 Fax No. 803-791-9111
www.shealylab.com

Chain of Custody Record

Number 103982

Client	Report to Contact	Telephone No. / E-mail	Quote No.
TRC	Lisa Clarke		

Address	Sampler's Signature	Analysis (Attach list if more space is needed)	Page 1 of 1
50 International Dr Ste 150	x		

City	State	Zip Code	Printed Name
Greenville	SC	29615	Aharon Misiunas

Project Name	Project No.	P.O. No.
WPH Clemson	300688.0.0.11	

Sample ID / Description (Containers for each sample may be combined on one line)	Date	Time	Grab / Composite	Matrix: Aqueous	Matrix: Solid	Matrix: Air / Vapor	No of Containers by Preservative Type: Unpres.	HNO3	HCl	NaOH	Na2S2O3	TSP	VOCs	Chloride, Sulfate, Bromide	Nitrate	Dis. Gases
TBLK-20111	1	1	G	x					2				x			
RMW-28A	3-25	1140	G	x			2		3			3	x	x	x	x
RMW-28B	3-25	1205	G	x			2		3			3	x	x	x	x
RMW-27A	3-25	1545	G	x			2		3			3	x	x	x	x
RMW-27B	3-25	1635	G	x			2		3			3	x	x	x	x
DV-20103	1	1	G	x			2		3			3	x	x	x	x

VC26035

Turn Around Time Required (Prior lab approval required for expedited TAT.) ☐ Standard ☐ Rush (Specify)

Sample Disposal ☐ Return to Client ☐ Disposal by Lab

Possible Hazard Identification ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished by	3.25.20	1810	1. Received by TRC SS	3.25.20	1810
2. Relinquished by TRC SS	3.26.20	0947	2. Received by	3.26.20	0947
3. Relinquished by	3.26.20	1359	3. Received by	Date	Time
4. Relinquished by	Date	Time	4. Laboratory received by	3/26/20	1359

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on ice (Circle) (Yes) No Ice Pack

Receipt Temp. 2.2 °C

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Client Copy

Document Number: F-AD-133 Effective Date: 08-01-2014

Shealy Environmental Services, Inc.
Document Number: ME0018C-14

Page 1 of 1
Effective Date: 8/2/2018

Sample Receipt Checklist (SRC)

Client: TRC Cooler Inspected by/date: LKH / 03/26/2020 Lot #: VC26035

Means of receipt: ☑ SESI ☐ Client ☐ UPS ☐ FedEx ☐ Other: ____

☐ Yes	☑ No		1. Were custody seals present on the cooler?
☐ Yes	☐ No	☑ NA	2. If custody seals were present, were they intact and unbroken?

pH Strip ID: NA Chlorine Strip ID: NA Tested by: NA

Original temperature upon receipt / Derived (Corrected) temperature upon receipt %Solid Snap-Cup ID: NA

2.2 / 2.2 °C NA / NA °C NA / NA °C NA / NA °C

Method: ☑ Temperature Blank ☐ Against Bottles IR Gun ID: 6 IR Gun Correction Factor: 0 °C

Method of coolant: ☑ Wet Ice ☐ Ice Packs ☐ Dry Ice ☐ None

☐ Yes	☐ No	☑ NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).
☐ Yes	☐ No	☑ NA	4. Is the commercial courier's packing slip attached to this form?
☑ Yes	☐ No		5. Were proper custody procedures (relinquished/received) followed?
☑ Yes	☐ No		6. Were sample IDs listed on the COC?
☑ Yes	☐ No		7. Were sample IDs listed on all sample containers?
☑ Yes	☐ No		8. Was collection date & time listed on the COC?
☑ Yes	☐ No		9. Was collection date & time listed on all sample containers?
☑ Yes	☐ No		10. Did all container label information (ID, date, time) agree with the COC?
☑ Yes	☐ No		11. Were tests to be performed listed on the COC?
☑ Yes	☐ No		12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)?
☑ Yes	☐ No		13. Was adequate sample volume available?
☐ Yes	☑ No		14. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
☐ Yes	☑ No		15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
☐ Yes	☑ No	☐ NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (¼"or 6mm in diameter) in any of the VOA vials?
☐ Yes	☐ No	☑ NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?
☐ Yes	☐ No	☑ NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
☐ Yes	☐ No	☑ NA	19. Were all applicable NH_3/TKN/cyanide/phenol/625 (< 0.5mg/L) samples free of residual chlorine?
☐ Yes	☐ No	☑ NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc…) correctly transcribed from the COC into the comment section in LIMS?
☐ Yes	☑ No		21. Was the quote number listed on the container label? If yes, Quote # NA

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) NA were received incorrectly preserved and were adjusted accordingly in sample receiving with NA mL of circle one: H2SO4, HNO3, HCl, NaOH using SR # NA.
Time of preservation NA. If more than one preservative is needed, please note in the comments below.

Sample(s) NA were received with bubbles >6 mm in diameter.

Samples(s) NA were received with TRC > 0.5 mg/L (If #19 is *no*) and were adjusted accordingly in sample receiving with sodium thiosulfate ($Na_2S_2O_3$) with Shealy ID: NA.

SR barcode labels applied by: LKH Date: 03/26/2020

Comments:

Pace Analytical Energy Services LLC
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

April 13, 2020

Lucas Odom
Pace Analytical Services South Carolina
106 Vantage Point Drive
West Columbia, SC 29172

RE: **WPH CLEMSON / TRC**

Pace Workorder: 33393

Dear Lucas Odom:

Enclosed are the analytical results for sample(s) received by the laboratory on Tuesday, March 31, 2020. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Ruth Welsh 04/13/2020
Ruth.Welsh@pacelabs.com

Customer Service Representative

Enclosures

As a valued client we would appreciate your comments on our service.
Please email PAESfeedback@pacelabs.com.

Total Number of Pages 15

CERTIFICATE OF ANALYSIS

Laboratory Data Quality Review Notes

Project Name: WPH-Clemson, SC

Project Number: 300688.0000.0000 Phase 4

Lab Report: **33393** Pace Analytical Energy Services LLC; Pittsburgh, PA
This lab report is the subcontracted job related to **VC26035**.

Samples and Analyses: Four groundwater samples and one field duplicate collected 25-Mar-2020 and analyzed for dissolved hydrocarbon gases (methane, ethane, ethene)

Chain of Custody, Sample Temperature, Sample Preservation: Chain of custody was signed (sample transfer from Pace Analytical, Columbia, to Pace Analytical, Pittsburgh); sample temperature was <6 ^{o}C upon arrival at the laboratory; samples were preserved properly.

Hold Time: Sample analyses were performed within acceptable hold time.

Surrogates: Surrogate recoveries are not applicable to dissolved hydrocarbon gas analyses.

Method Blank: Target analytes were not detected in the laboratory method blank.

Trip Blank: A trip blank was not analyzed with these samples.

Field Blank: A field blank was not collected with these samples.

Equipment Rinse Blank: A rinsate blank was not collected with these samples.

LCS/LCSD: LCS and LCSD recoveries and LCS/LCSD RPDs are within the laboratory QC limits.

MS/MSD: MS/MSD analyses were not performed using samples from this data set.

Duplicates: No laboratory duplicates were included with these analyses. A field duplicate sample (DU-20103) was collected for sample RMW-28B. The RPD is appropriate for evaluation of duplicate results only when both results are ≥ 5× the LOQ. The absolute difference (AbsD) was used to evaluate the field duplicate results since each analyte had both concentrations below 5× the LOQ. AbsDs were ≤ LOQ; therefore, results are in acceptable agreement, and no qualification action was needed.

Dilutions: No dilutions were performed with these sample analyses.

No data qualifiers were assigned in this review.

Data reviewer: Amy Bass; TRC Environmental Corporation; 02-Oct-2020

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LABORATORY ACCREDITATIONS & CERTIFICATIONS

Accreditor:	Pennsylvania Department of Environmental Protection, Bureau of Laboratories
Accreditation ID:	02-00538
Scope:	NELAP Non-Potable Water
Accreditor:	West Virginia Department of Environmental Protection, Division of Water and Waste Management
Accreditation ID:	395
Scope:	Non-Potable Water
Accreditor:	South Carolina Department of Health and Environmental Control, Office of Environmental Laboratory Certification
Accreditation ID:	89009003
Scope:	Clean Water Act (CWA); Resource Conservation and Recovery Act (RCRA)
Accreditor:	State of Virginia
Accreditation ID:	460201
Scope:	Non-Potable Water
Accreditor:	NELAP: New Jersey, Department of Environmental Protection
Accreditation ID:	PA026
Scope:	Non-Potable Water
Accreditor:	NELAP: New York, Department of Health Wadsworth Center
Accreditation ID:	11815
Scope:	Non-Potable Water
Accreditor:	State of Connecticut, Department of Public Health, Division of Environmental Health
Accreditation ID:	PH-0263
Scope:	Clean Water Act (CWA) Resource Conservation and Recovery Act (RCRA)
Accreditor:	NELAP: Texas, Commission on Environmental Quality
Accreditation ID:	T104704453-09-TX
Scope:	Non-Potable Water
Accreditor:	State of New Hampshire
Accreditation ID:	299409
Scope:	Non-potable water
Accreditor:	State of Georgia
Accreditation ID:	Chapter 391-3-26
Scope:	As per the Georgia EPD Rules and Regulations for Commercial Laboratories, PAES is accredited by the Pennsylvania Department of Environmental Protection Bureau of Laboratories under the National Environmental Laboratory Approval Program (NELAC).

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SAMPLE SUMMARY

Workorder: 33393 WPH CLEMSON / TRC

Lab ID	Sample ID	Matrix	Date Collected	Date Received
333930001	RMW-28A	Water	3/25/2020 11:40	3/31/2020 11:00
333930002	RMW-28B	Water	3/25/2020 12:05	3/31/2020 11:00
333930003	RMW-27A	Water	3/25/2020 15:45	3/31/2020 11:00
333930004	RMW-27B	Water	3/25/2020 16:35	3/31/2020 11:00
333930005	DU-20103	Water	3/25/2020 00:00	3/31/2020 11:00

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PROJECT SUMMARY

Workorder: 33393 WPH CLEMSON / TRC

Workorder Comments

The container pH for samples 33393 (0001-0005) were measured as below the expected pH (< 10) for those samples preserved with trisodium phosphate, as assigned to PAES method AM20GAx.

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ANALYTICAL RESULTS

Workorder: 33393 WPH CLEMSON / TRC

Lab ID: **333930001** Date Received: 3/31/2020 11:00 Matrix: Water

Sample ID: **RMW-28A** Date Collected: 3/25/2020 11:40

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**1.3**	ug/l	0.50	0.094	1	4/8/2020 07:08	TD	n
Ethane	**0.011U**	ug/l	0.10	0.011	1	4/8/2020 07:08	TD	n
Ethene	**0.0080U**	ug/l	0.10	0.0080	1	4/8/2020 07:08	TD	n

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ANALYTICAL RESULTS

Workorder: 33393 WPH CLEMSON / TRC

Lab ID: **333930002** Date Received: 3/31/2020 11:00 Matrix: Water

Sample ID: **RMW-28B** Date Collected: 3/25/2020 12:05

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**0.79**	ug/l	0.50	0.094	1	4/8/2020 07:26	TD	n
Ethane	**0.016J**	ug/l	0.10	0.011	1	4/8/2020 07:26	TD	n
Ethene	**0.031J**	ug/l	0.10	0.0080	1	4/8/2020 07:26	TD	n

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ANALYTICAL RESULTS

Workorder: 33393 WPH CLEMSON / TRC

Lab ID: **333930003** Date Received: 3/31/2020 11:00 Matrix: Water

Sample ID: **RMW-27A** Date Collected: 3/25/2020 15:45

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**20000**	ug/l	0.50	0.094	1	4/8/2020 07:41	TD	n
Ethane	**0.37**	ug/l	0.10	0.011	1	4/8/2020 07:41	TD	n
Ethene	**0.074J**	ug/l	0.10	0.0080	1	4/8/2020 07:41	TD	n

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ANALYTICAL RESULTS

Workorder: 33393 WPH CLEMSON / TRC

Lab ID: **333930004** Date Received: 3/31/2020 11:00 Matrix: Water

Sample ID: **RMW-27B** Date Collected: 3/25/2020 16:35

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**1.2**	ug/l	0.50	0.094	1	4/8/2020 07:56	TD	n
Ethane	**0.035J**	ug/l	0.10	0.011	1	4/8/2020 07:56	TD	n
Ethene	**0.31**	ug/l	0.10	0.0080	1	4/8/2020 07:56	TD	n

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ANALYTICAL RESULTS

Workorder: 33393 WPH CLEMSON / TRC

Lab ID: **333930005** Date Received: 3/31/2020 11:00 Matrix: Water

Sample ID: **DU-20103** Date Collected: 3/25/2020 00:00

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**0.82**	ug/l	0.50	0.094	1	4/8/2020 08:13	TD	n
Ethane	**0.018J**	ug/l	0.10	0.011	1	4/8/2020 08:13	TD	n
Ethene	**0.028J**	ug/l	0.10	0.0080	1	4/8/2020 08:13	TD	n

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ANALYTICAL RESULTS QUALIFIERS

Workorder: 33393 WPH CLEMSON / TRC

DEFINITIONS/QUALIFIERS

MDL	Method Detection Limit. Can be used synonymously with LOD; Limit Of Detection.
PQL	Practical Quanitation Limit. Can be used synonymously with LOQ; Limit Of Quantitation.
ND	Not detected at or above reporting limit.
DF	Dilution Factor.
S	Surrogate.
RPD	Relative Percent Difference.
% Rec	Percent Recovery.
U	Indicates the compound was analyzed for, but not detected at or above the noted concentration.
J	Estimated concentration greater than the set method detection limit (MDL) and less than the set reporting limit (PQL).
n	The laboratory does not hold NELAP/TNI accreditation for this method or analyte.

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QUALITY CONTROL DATA

Workorder: 33393 WPH CLEMSON / TRC

QC Batch: DISG/8198 Analysis Method: AM20GAX

QC Batch Method: AM20GAX

Associated Lab Samples: 333930001, 333930002, 333930003, 333930004, 333930005

METHOD BLANK: 66709

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
RISK				
Methane	ug/l	0.094U	0.094	n
Ethane	ug/l	0.011U	0.011	n
Ethene	ug/l	0.0080U	0.0080	n

LABORATORY CONTROL SAMPLE & LCSD: 66711 66713

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Methane	ug/l	750	810	750	109	101	80-120	7.5	20	n
Ethane	ug/l	38	39	37	102	97	80-120	5.5	20	n
Ethene	ug/l	35	37	35	105	99	80-120	5.6	20	n

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QUALITY CONTROL DATA QUALIFIERS

Workorder: 33393 WPH CLEMSON / TRC

QUALITY CONTROL PARAMETER QUALIFIERS

n	The laboratory does not hold NELAP/TNI accreditation for this method or analyte.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 33393 WPH CLEMSON / TRC

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
333930001	RMW-28A			AM20GAX	DISG/8198
333930002	RMW-28B			AM20GAX	DISG/8198
333930003	RMW-27A			AM20GAX	DISG/8198
333930004	RMW-27B			AM20GAX	DISG/8198
333930005	DU-20103			AM20GAX	DISG/8198

SHEALY

Chain of Custody Record

33393

Shealy Environmental Services, Inc.
106 Vantage Point Drive
West Columbia, South Carolina 29172
Telephone No. (803) 791-9700 Fax No. (803) 791-9111
www.shealylab.com

Number

Client	Report to Contact	Telephone No. / E-mail	Quote No.
Pace Analytical - Columbia	Lucas Odom	803-206-9537/lodom@shealylab.com	
Address	**Sampler's Signature**	**Analysis (Attach list if more space is needed)**	**Page**
106 Vantage Point Dr.	X _____ Printed Name		1 of 1
City: West Columbia / State: SC / Zip Code: 29172			
Project Name: WPH Clemson			Laboratory Lot Number
Project Number	P.O No.		

Sample ID / Description (Containers for each sample may be combined on one line)	Date	Time	G=Grab C=Composite	Matrix: Aqueous	Solid	Non-Aqueous	No of Containers by Preservative Type: Unpres.	H2SO4	HNO3	HCl	NaOH	5035 Kit	TSP	Dissolved Gasses									Remarks / Cooler I.D.
RMW-28A	3/25/2020	1140	G	X									X	X									VC26035
RMW-28B	3/25/2020	1205	G	X									X	X									
RMW-27A	3/25/2020	1545	G	X									X	X									
RMW-27B	3/25/2020	1635	G	X									X	X									
DU-20103	3/25/2020		G	X									X	X									

Turn Around Time Required (Prior lab approval required for expedited TAT)
X Standard Rush

Sample Disposal
☐ Return to Client ☒ Disposal by Lab

Possible Hazard Identification (List any known hazards in the remarks)
☐ Non-Hazardous ☐ Flammable ☐ Skin Irritant ☐ SDS provided ☐ Unknown

QC Requirements

	Date	Time		Date	Time
1. Relinquished by: Molly Cole	3-20-2020	1800	1. Received by		
2. Relinquished by			2. Received by		
3. Relinquished by			3. Received by		
4. Relinquished by			4. Laboratory Received by: PHES	3.21.2020	11:07

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on Ice (Check) ☐ Y ☐ N ☐ Ice Pack

Receipt Temp. 0.3 °C

Cooler Receipt Form

Client Name: Pace **Project:** WPH Clemson **Lab Work Order:** 33393

A. **Shipping/Container Information** (circle appropriate response)

Courier: (FedEx) UPS USPS Client Other:_____ **Air bill Present:** (Yes) No

Tracking Number: 166334637750

Custody Seal on Cooler/Box Present: (Yes) No **Seals Intact:** (Yes) No

Cooler/Box Packing Material: (Bubble Wrap) Absorbent Foam Other:_____

Type of Ice: (Wet) Blue None **Ice Intact:** (Yes) Melted

Cooler Temperature: 0.3°C **Radiation Screened:** Yes (No) **Chain of Custody Present:** (Yes) No

Comments:_____

B. **Laboratory Assignment/Log-in** (check appropriate response)

	YES	NO	N/A	Comment Reference non-Conformance
Chain of Custody properly filled out	✓			
Chain of Custody relinquished	✓			
Sampler Name & Signature on COC			✓	
Containers intact	✓			
Were samples in separate bags	✓			
Sample container labels match COC Sample name/date and time collected	✓			
Sufficient volume provided	✓			
PAES containers used	✓			
Are containers properly preserved for the requested testing? (as labeled)	✓			
If an unknown preservation state, were containers checked? Exception: VOA's coliform			✓	If yes, see pH form.
Was volume for dissolved testing field filtered, as noted on the COC? Was volume received in a preserved container?			✓	
Headspace present?		✓		

Comments:_____

Cooler contents examined/received by : LS **Date:** 3.31.2020

Project Manager Review : ERG **Date:** 3/31/2020

Report of Analysis

TRC Companies, Inc.
50 International Dr.
Suite 150
Greenville, SC 29615
Attention: Lisa Clark

Project Name: WPH Clemson

Project Number: 300688.0000.0000.00011

Lot Number:**VC27020**

Date Completed:04/02/2020

04/16/2020 2:16 PM
Approved and released by:
Lab Director - Greenville: **Lucas Odom**

The electronic signature above is the equivalent of a handwritten signature.

Pace Analytical Services, LLC (*formerly Shealy Environmental Services, Inc.*)
106 Vantage Point Drive West Columbia, SC 29172
Tel: 803-791-9700 Fax: 803-791-9111 www.pacelabs.com

Laboratory Data Quality Review Notes

Project Name: WPH-Clemson, SC

Project Number: 300688.0000.0000 Phase 4

Lab Report: **VC27020** Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.); West Columbia, SC; subcontracted report: **33390**

Samples and Analyses: Six groundwater samples and one field duplicate, collected 26-Mar-2020 and analyzed for VOCs, chloride, bromide, sulfate, and nitrate; one trip blank, analyzed for VOCs only

Chain of Custody, Sample Temperature, Sample Preservation: Chain of custody was signed; sample temperature was <6 ^{o}C upon arrival at the laboratory; samples were preserved properly.

Hold Time: Sample analyses were performed within acceptable hold times.

Surrogates: VOC surrogate recoveries are within QC limits.

Method Blank: Target analytes were not detected in the laboratory method blanks.

Trip Blank: No target analytes were detected in the trip blank; analyzed for VOCs only.

Field Blank: A field blank was not collected with these samples.

Equipment Rinse Blank: A rinsate blank was not collected with these samples.

LCS/LCSD: LCS recoveries for all analyses are within QC limits. LCSD analyses were not performed.

MS/MSD: MS/MSD analyses for bromide, chloride, and sulfate were performed using sample DP-20, and for VOCs (PCE only) using sample DP-20B. MS and MSD recoveries and MS/MSD RPDs are within QC limits.

Duplicates: No laboratory duplicates were included with these analyses. A field duplicate sample (DU-20105) was collected for sample DP-20A. RPDs were calculated for analytes detected above 5× the LOQ in both samples; absolute differences (AbsDs) were used to evaluate analytes detected below 5× the LOQ in one or both samples. RPD values were ≤ 30%, and AbsDs were ≤ LOQ; therefore, results are in acceptable agreement, and no qualification action was needed.

Dilutions: The primary VOC analyses in the following samples were performed with dilution (as indicated): DP-21A (20×), DP-20 (5×), DP-20A (50×), and DUP-20105 (20×). ND results for the VOC analyses in these samples are associated with elevated DLs and LOQs due to dilution. All other dilutions performed in these sample analyses were associated with positive results.

No data qualifiers were assigned in this review.

Data reviewer: Amy Bass; TRC Environmental Corporation; 02-Oct-2020

Case Narrative
TRC Companies, Inc.
Lot Number: VC27020

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Pace Analytical Services, LLC ("Pace") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Pace policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Pace Project Manager listed on the cover page.

Dissolved Gasses

The analysis for Dissolved Gasses has been performed by Pace Energy. This data is located on Pace Energy report 33390.

Sample Summary
TRC Companies, Inc.
Lot Number: VC27020

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	TBLK-20123	Aqueous	03/26/2020	03/27/2020
002	DP-21	Aqueous	03/26/2020 0815	03/27/2020
003	DP-21A	Aqueous	03/26/2020 0915	03/27/2020
004	DP-21B	Aqueous	03/26/2020 1015	03/27/2020
005	DP-20	Aqueous	03/26/2020 1145	03/27/2020
006	DP-20A	Aqueous	03/26/2020 1215	03/27/2020
007	DP-20B	Aqueous	03/26/2020 1330	03/27/2020
008	DU-20105	Aqueous	03/26/2020	03/27/2020

(8 samples)

Detection Summary

TRC Companies, Inc.

Lot Number: VC27020

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
002	DP-21	Aqueous	Bromide	300.0	0.099	J	mg/L	7
002	DP-21	Aqueous	Chloride	300.0	8.4		mg/L	7
002	DP-21	Aqueous	Nitrate - N	353.2	0.35		mg/L	7
002	DP-21	Aqueous	Sulfate	300.0	20		mg/L	7
002	DP-21	Aqueous	Acetone	8260D	5.2	J	ug/L	8
002	DP-21	Aqueous	2-Butanone (MEK)	8260D	4.6	J	ug/L	8
002	DP-21	Aqueous	Carbon disulfide	8260D	0.41	J	ug/L	8
002	DP-21	Aqueous	cis-1,2-Dichloroethene	8260D	1.1		ug/L	8
002	DP-21	Aqueous	Tetrachloroethene	8260D	20		ug/L	8
002	DP-21	Aqueous	Trichloroethene	8260D	5.5		ug/L	9
003	DP-21A	Aqueous	Bromide	300.0	0.94		mg/L	10
003	DP-21A	Aqueous	Chloride	300.0	89		mg/L	10
003	DP-21A	Aqueous	Nitrate - N	353.2	6.6		mg/L	10
003	DP-21A	Aqueous	Tetrachloroethene	8260D	1700		ug/L	11
004	DP-21B	Aqueous	Chloride	300.0	20		mg/L	13
004	DP-21B	Aqueous	Nitrate - N	353.2	1.7		mg/L	13
004	DP-21B	Aqueous	Acetone	8260D	6.8	J	ug/L	14
004	DP-21B	Aqueous	2-Butanone (MEK)	8260D	3.7	J	ug/L	14
004	DP-21B	Aqueous	Tetrachloroethene	8260D	42		ug/L	14
005	DP-20	Aqueous	Bromide	300.0	0.20		mg/L	16
005	DP-20	Aqueous	Chloride	300.0	40		mg/L	16
005	DP-20	Aqueous	Nitrate - N	353.2	4.5		mg/L	16
005	DP-20	Aqueous	Sulfate	300.0	38		mg/L	16
005	DP-20	Aqueous	cis-1,2-Dichloroethene	8260D	20		ug/L	17
005	DP-20	Aqueous	Tetrachloroethene	8260D	390		ug/L	17
005	DP-20	Aqueous	Trichloroethene	8260D	2.7	J	ug/L	18
006	DP-20A	Aqueous	Bromide	300.0	0.32		mg/L	19
006	DP-20A	Aqueous	Chloride	300.0	61		mg/L	19
006	DP-20A	Aqueous	Nitrate - N	353.2	3.4		mg/L	19
006	DP-20A	Aqueous	Sulfate	300.0	0.85	J	mg/L	19
006	DP-20A	Aqueous	Tetrachloroethene	8260D	3100		ug/L	20
007	DP-20B	Aqueous	Chloride	300.0	20		mg/L	22
007	DP-20B	Aqueous	Nitrate - N	353.2	2.0		mg/L	22
007	DP-20B	Aqueous	Sulfate	300.0	6.6		mg/L	22
007	DP-20B	Aqueous	Tetrachloroethene	8260D	200		ug/L	23
007	DP-20B	Aqueous	Trichloroethene	8260D	0.46	J	ug/L	24
008	DU-20105	Aqueous	Bromide	300.0	0.32		mg/L	25
008	DU-20105	Aqueous	Chloride	300.0	61		mg/L	25
008	DU-20105	Aqueous	Nitrate - N	353.2	3.3		mg/L	25
008	DU-20105	Aqueous	Sulfate	300.0	1.1		mg/L	25
008	DU-20105	Aqueous	Tetrachloroethene	8260D	3000		ug/L	26

(41 detections)

Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC27020-001
Description: TBLK-20123
Matrix: Aqueous
Date Sampled: 03/26/2020
Date Received: 03/27/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/29/2020 1840	ALR1		49315

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	ND		1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC27020-001
Description: TBLK-20123
Matrix: Aqueous
Date Sampled: 03/26/2020
Date Received: 03/27/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/29/2020 1840	ALR1		49315

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Trichloroethene	79-01-6	8260D	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		91	70-130
1,2-Dichloroethane-d4		95	70-130
Toluene-d8		93	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Inorganic non-metals

Client: TRC Companies, Inc.
Laboratory ID: VC27020-002
Description: DP-21
Matrix: Aqueous
Date Sampled: 03/26/2020 0815
Date Received: 03/27/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	04/02/2020 0023	HKL		49782
1		(Chloride) 300.0	1	04/02/2020 0023	HKL		49781
1		(Nitrate - N) 353.2	1	03/27/2020 2013	MDD		49265
1		(Sulfate) 300.0	1	04/02/2020 0023	HKL		49779

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.099	J	0.20	0.050	mg/L	1
Chloride		300.0	8.4		1.0	0.20	mg/L	1
Nitrate - N		353.2	0.35		0.020	0.010	mg/L	1
Sulfate		300.0	20		1.0	0.20	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC27020-002
Description: DP-21
Matrix: Aqueous
Date Sampled: 03/26/2020 0815
Date Received: 03/27/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/29/2020 1946	ALR1		49315
2	5030B	8260D	1	03/31/2020 0106	ALR1		49450

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	5.2	J	20	5.0	ug/L	2
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	4.6	J	10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	0.41	J	1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	1.1		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	20		1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC27020-002
Description: DP-21
Matrix: Aqueous
Date Sampled: 03/26/2020 0815
Date Received: 03/27/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/29/2020 1946	ALR1		49315
2	5030B	8260D	1	03/31/2020 0106	ALR1		49450

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260D	5.5		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits	Q	Run 2 % Recovery	Acceptance Limits
Bromofluorobenzene		90	70-130		100	70-130
1,2-Dichloroethane-d4		97	70-130		100	70-130
Toluene-d8		94	70-130		104	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Inorganic non-metals

Client: TRC Companies, Inc.
Laboratory ID: VC27020-003
Description: DP-21A
Matrix: Aqueous
Date Sampled: 03/26/2020 0915
Date Received: 03/27/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	04/02/2020 0043	HKL		49782
1		(Chloride) 300.0	1	04/02/2020 0043	HKL		49781
1		(Nitrate - N) 353.2	5	03/27/2020 1954	MDD		49265
1		(Sulfate) 300.0	1	04/02/2020 0043	HKL		49779

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.94		0.20	0.050	mg/L	1
Chloride		300.0	89		1.0	0.20	mg/L	1
Nitrate - N		353.2	6.6		0.10	0.050	mg/L	1
Sulfate		300.0	ND		1.0	0.20	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc. | Laboratory ID: VC27020-003
Description: DP-21A | Matrix: Aqueous
Date Sampled: 03/26/2020 0915
Date Received: 03/27/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	20	03/30/2020 0031	ALR1		49315

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		400	100	ug/L	1
Benzene	71-43-2	8260D	ND		20	8.0	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		20	8.0	ug/L	1
Bromoform	75-25-2	8260D	ND		20	8.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		40	8.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		200	40	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		20	8.0	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		20	8.0	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		20	8.0	ug/L	1
Chloroethane	75-00-3	8260D	ND		40	8.0	ug/L	1
Chloroform	67-66-3	8260D	ND		20	8.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		20	10	ug/L	1
Cyclohexane	110-82-7	8260D	ND		20	8.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		20	8.0	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		20	8.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		20	8.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		20	8.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		20	8.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		20	8.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		40	12	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		20	8.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		20	8.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		20	8.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		20	8.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		20	8.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		20	8.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		20	8.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		20	8.0	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		20	8.0	ug/L	1
2-Hexanone	591-78-6	8260D	ND		200	40	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		20	8.0	ug/L	1
Methyl acetate	79-20-9	8260D	ND		20	8.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		20	8.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		200	40	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		100	8.0	ug/L	1
Methylene chloride	75-09-2	8260D	ND		20	8.0	ug/L	1
Styrene	100-42-5	8260D	ND		20	8.2	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		20	8.0	ug/L	1
Tetrachloroethene	127-18-4	8260D	1700		20	8.0	ug/L	1
Toluene	108-88-3	8260D	ND		20	8.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		20	8.4	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		20	8.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		20	8.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		20	8.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC27020-003
Description: DP-21A
Matrix: Aqueous
Date Sampled: 03/26/2020 0915
Date Received: 03/27/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	20	03/30/2020 0031	ALR1		49315

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Trichloroethene	79-01-6	8260D	ND		20	8.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		20	8.0	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		20	8.0	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		20	8.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		85	70-130
1,2-Dichloroethane-d4		90	70-130
Toluene-d8		88	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

Inorganic non-metals

Client: TRC Companies, Inc.
Laboratory ID: VC27020-004
Description: DP-21B
Matrix: Aqueous
Date Sampled: 03/26/2020 1015
Date Received: 03/27/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	04/02/2020 0103	HKL		49782
1		(Chloride) 300.0	1	04/02/2020 0103	HKL		49781
1		(Nitrate - N) 353.2	1	03/27/2020 2021	MDD		49265
1		(Sulfate) 300.0	1	04/02/2020 0103	HKL		49779

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	ND		0.20	0.050	mg/L	1
Chloride		300.0	20		1.0	0.20	mg/L	1
Nitrate - N		353.2	1.7		0.020	0.010	mg/L	1
Sulfate		300.0	ND		1.0	0.20	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC27020-004
Description: DP-21B
Matrix: Aqueous
Date Sampled: 03/26/2020 1015
Date Received: 03/27/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/29/2020 2008	ALR1		49315
2	5030B	8260D	1	03/31/2020 0130	ALR1		49450

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	6.8	J	20	5.0	ug/L	2
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	3.7	J	10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	42		1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc. | Laboratory ID: VC27020-004

Description: DP-21B | Matrix: Aqueous

Date Sampled: 03/26/2020 1015

Date Received: 03/27/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/29/2020 2008	ALR1		49315
2	5030B	8260D	1	03/31/2020 0130	ALR1		49450

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260D	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits	Q	Run 2 % Recovery	Acceptance Limits
Bromofluorobenzene		91	70-130		102	70-130
1,2-Dichloroethane-d4		97	70-130		99	70-130
Toluene-d8		93	70-130		106	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

Inorganic non-metals

Client: TRC Companies, Inc.
Laboratory ID: VC27020-005
Description: DP-20
Matrix: Aqueous
Date Sampled: 03/26/2020 1145
Date Received: 03/27/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	04/02/2020 0123	HKL		49782
1		(Chloride) 300.0	1	04/02/2020 0123	HKL		49781
1		(Nitrate - N) 353.2	5	03/27/2020 1957	MDD		49265
1		(Sulfate) 300.0	1	04/02/2020 0123	HKL		49779

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.20		0.20	0.050	mg/L	1
Chloride		300.0	40		1.0	0.20	mg/L	1
Nitrate - N		353.2	4.5		0.10	0.050	mg/L	1
Sulfate		300.0	38		1.0	0.20	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC27020-005
Description: DP-20
Matrix: Aqueous
Date Sampled: 03/26/2020 1145
Date Received: 03/27/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	5	03/30/2020 0010	ALR1		49315

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		100	25	ug/L	1
Benzene	71-43-2	8260D	ND		5.0	2.0	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		5.0	2.0	ug/L	1
Bromoform	75-25-2	8260D	ND		5.0	2.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		10	2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		50	10	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		5.0	2.0	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		5.0	2.0	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		5.0	2.0	ug/L	1
Chloroethane	75-00-3	8260D	ND		10	2.0	ug/L	1
Chloroform	67-66-3	8260D	ND		5.0	2.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		5.0	2.5	ug/L	1
Cyclohexane	110-82-7	8260D	ND		5.0	2.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		5.0	2.0	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		5.0	2.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		5.0	2.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		5.0	2.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		5.0	2.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		5.0	2.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		10	3.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		5.0	2.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		5.0	2.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		5.0	2.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	20		5.0	2.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		5.0	2.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		5.0	2.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		5.0	2.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		5.0	2.0	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		5.0	2.0	ug/L	1
2-Hexanone	591-78-6	8260D	ND		50	10	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		5.0	2.0	ug/L	1
Methyl acetate	79-20-9	8260D	ND		5.0	2.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		5.0	2.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		50	10	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		25	2.0	ug/L	1
Methylene chloride	75-09-2	8260D	ND		5.0	2.0	ug/L	1
Styrene	100-42-5	8260D	ND		5.0	2.1	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		5.0	2.0	ug/L	1
Tetrachloroethene	127-18-4	8260D	390		5.0	2.0	ug/L	1
Toluene	108-88-3	8260D	ND		5.0	2.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		5.0	2.1	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		5.0	2.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		5.0	2.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		5.0	2.0	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC27020-005
Description: DP-20
Matrix: Aqueous
Date Sampled: 03/26/2020 1145
Date Received: 03/27/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	5	03/30/2020 0010	ALR1		49315

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Trichloroethene	79-01-6	8260D	2.7	J	5.0	2.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		5.0	2.0	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		5.0	2.0	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		5.0	2.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		88	70-130
1,2-Dichloroethane-d4		93	70-130
Toluene-d8		90	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Inorganic non-metals

Client: TRC Companies, Inc.
Laboratory ID: VC27020-006
Description: DP-20A
Matrix: Aqueous
Date Sampled: 03/26/2020 1215
Date Received: 03/27/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	04/02/2020 0302	HKL		49782
1		(Chloride) 300.0	1	04/02/2020 0302	HKL		49781
1		(Nitrate - N) 353.2	5	03/27/2020 1958	MDD		49265
1		(Sulfate) 300.0	1	04/02/2020 0302	HKL		49779

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.32		0.20	0.050	mg/L	1
Chloride		300.0	61		1.0	0.20	mg/L	1
Nitrate - N		353.2	3.4		0.10	0.050	mg/L	1
Sulfate		300.0	0.85	J	1.0	0.20	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc. | Laboratory ID: VC27020-006
Description: DP-20A | Matrix: Aqueous
Date Sampled: 03/26/2020 1215
Date Received: 03/27/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	50	03/30/2020 0053	ALR1		49315

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		1000	250	ug/L	1
Benzene	71-43-2	8260D	ND		50	20	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		50	20	ug/L	1
Bromoform	75-25-2	8260D	ND		50	20	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		100	20	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		500	100	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		50	20	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		50	20	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		50	20	ug/L	1
Chloroethane	75-00-3	8260D	ND		100	20	ug/L	1
Chloroform	67-66-3	8260D	ND		50	20	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		50	25	ug/L	1
Cyclohexane	110-82-7	8260D	ND		50	20	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		50	20	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		50	20	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		50	20	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		50	20	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		50	20	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		50	20	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		100	30	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		50	20	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		50	20	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		50	20	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		50	20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		50	20	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		50	20	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		50	20	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		50	20	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		50	20	ug/L	1
2-Hexanone	591-78-6	8260D	ND		500	100	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		50	20	ug/L	1
Methyl acetate	79-20-9	8260D	ND		50	20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		50	20	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		500	100	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		250	20	ug/L	1
Methylene chloride	75-09-2	8260D	ND		50	20	ug/L	1
Styrene	100-42-5	8260D	ND		50	21	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		50	20	ug/L	1
Tetrachloroethene	127-18-4	8260D	3100		50	20	ug/L	1
Toluene	108-88-3	8260D	ND		50	20	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		50	21	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		50	20	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		50	20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		50	20	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC27020-006
Description: DP-20A
Matrix: Aqueous
Date Sampled: 03/26/2020 1215
Date Received: 03/27/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	50	03/30/2020 0053	ALR1		49315

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Trichloroethene	79-01-6	8260D	ND		50	20	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		50	20	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		50	20	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		50	20	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		87	70-130
1,2-Dichloroethane-d4		93	70-130
Toluene-d8		90	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Inorganic non-metals

Client: TRC Companies, Inc.
Laboratory ID: VC27020-007
Description: DP-20B
Matrix: Aqueous
Date Sampled: 03/26/2020 1330
Date Received: 03/27/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	04/02/2020 0322	HKL		49782
1		(Chloride) 300.0	1	04/02/2020 0322	HKL		49781
1		(Nitrate - N) 353.2	2	03/27/2020 2019	MDD		49265
1		(Sulfate) 300.0	1	04/02/2020 0322	HKL		49779

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	ND		0.20	0.050	mg/L	1
Chloride		300.0	20		1.0	0.20	mg/L	1
Nitrate - N		353.2	2.0		0.040	0.020	mg/L	1
Sulfate		300.0	6.6		1.0	0.20	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC27020-007
Description: DP-20B
Matrix: Aqueous
Date Sampled: 03/26/2020 1330
Date Received: 03/27/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/29/2020 2030	ALR1		49315
2	5030B	8260D	5	03/31/2020 0557	ALR1		49455

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	200		5.0	2.0	ug/L	2
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc. | Laboratory ID: VC27020-007

Description: DP-20B | Matrix: Aqueous

Date Sampled: 03/26/2020 1330

Date Received: 03/27/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/29/2020 2030	ALR1		49315
2	5030B	8260D	5	03/31/2020 0557	ALR1		49455

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260D	0.46	J	1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits	Q	Run 2 % Recovery	Acceptance Limits
Bromofluorobenzene		90	70-130		90	70-130
1,2-Dichloroethane-d4		94	70-130		91	70-130
Toluene-d8		92	70-130		93	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Inorganic non-metals

Client: TRC Companies, Inc.
Laboratory ID: VC27020-008
Description: DU-20105
Matrix: Aqueous
Date Sampled: 03/26/2020
Date Received: 03/27/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	04/02/2020 0342	HKL		49782
1		(Chloride) 300.0	1	04/02/2020 0342	HKL		49781
1		(Nitrate - N) 353.2	5	03/27/2020 2005	MDD		49265
1		(Sulfate) 300.0	1	04/02/2020 0342	HKL		49779

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.32		0.20	0.050	mg/L	1
Chloride		300.0	61		1.0	0.20	mg/L	1
Nitrate - N		353.2	3.3		0.10	0.050	mg/L	1
Sulfate		300.0	1.1		1.0	0.20	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc. | Laboratory ID: VC27020-008
Description: DU-20105 | Matrix: Aqueous
Date Sampled: 03/26/2020
Date Received: 03/27/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	50	03/30/2020 0115	ALR1		49315

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		1000	250	ug/L	1
Benzene	71-43-2	8260D	ND		50	20	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		50	20	ug/L	1
Bromoform	75-25-2	8260D	ND		50	20	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		100	20	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		500	100	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		50	20	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		50	20	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		50	20	ug/L	1
Chloroethane	75-00-3	8260D	ND		100	20	ug/L	1
Chloroform	67-66-3	8260D	ND		50	20	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		50	25	ug/L	1
Cyclohexane	110-82-7	8260D	ND		50	20	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		50	20	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		50	20	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		50	20	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		50	20	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		50	20	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		50	20	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		100	30	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		50	20	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		50	20	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		50	20	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		50	20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		50	20	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		50	20	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		50	20	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		50	20	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		50	20	ug/L	1
2-Hexanone	591-78-6	8260D	ND		500	100	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		50	20	ug/L	1
Methyl acetate	79-20-9	8260D	ND		50	20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		50	20	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		500	100	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		250	20	ug/L	1
Methylene chloride	75-09-2	8260D	ND		50	20	ug/L	1
Styrene	100-42-5	8260D	ND		50	21	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		50	20	ug/L	1
Tetrachloroethene	127-18-4	8260D	3000		50	20	ug/L	1
Toluene	108-88-3	8260D	ND		50	20	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		50	21	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		50	20	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		50	20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		50	20	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC27020-008
Description: DU-20105
Matrix: Aqueous
Date Sampled: 03/26/2020
Date Received: 03/27/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	50	03/30/2020 0115	ALR1		49315

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Trichloroethene	79-01-6	8260D	ND		50	20	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		50	20	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		50	20	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		50	20	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		85	70-130
1,2-Dichloroethane-d4		89	70-130
Toluene-d8		88	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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QC Summary

Inorganic non-metals - MB

Sample ID: VQ49265-001
Batch: 49265
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Nitrate - N	ND		1	0.020	0.010	mg/L	03/27/2020 1950

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: VQ49265-002
Batch: 49265
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	0.80	0.76		1	95	90-110	03/27/2020 1951

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: VQ49779-001
Batch: 49779
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Sulfate	ND		1	1.0	0.20	mg/L	04/01/2020 1541

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: VQ49779-002
Batch: 49779
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Sulfate	20	20		1	102	90-110	04/01/2020 1621

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MS

Sample ID: VC27020-005MS
Batch: 49779
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Sulfate	38	20	59		1	103	90-110	04/02/2020 0142

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: VC27020-005MD
Batch: 49779
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Sulfate	38	20	59		1	101	0.68	90-110	20	04/02/2020 0202

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: VQ49781-001
Batch: 49781
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Chloride	ND		1	1.0	0.20	mg/L	04/01/2020 1541

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: VQ49781-002
Batch: 49781
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Chloride	20	21		1	103	90-110	04/01/2020 1621

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MS

Sample ID: VC27020-005MS
Batch: 49781
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Chloride	40	20	60		1	103	90-110	04/02/2020 0142

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: VC27020-005MD
Batch: 49781
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Chloride	40	20	60		1	100	0.84	90-110	20	04/02/2020 0202

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: VQ49782-001
Batch: 49782
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Bromide	ND		1	0.20	0.050	mg/L	04/01/2020 1541

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: VQ49782-002
Batch: 49782
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Bromide	8.0	8.2		1	102	90-110	04/01/2020 1621

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Sample ID: VC27020-005MS
Batch: 49782
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Bromide	0.20	8.0	8.8		1	108	90-110	04/02/2020 0142

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: VC27020-005MD
Batch: 49782
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Bromide	0.20	8.0	8.6		1	105	2.3	90-110	20	04/02/2020 0202

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: VQ49315-001
Batch: 49315
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Acetone	ND		1	20	5.0	ug/L	03/29/2020 1756
Benzene	ND		1	1.0	0.40	ug/L	03/29/2020 1756
Bromodichloromethane	ND		1	1.0	0.40	ug/L	03/29/2020 1756
Bromoform	ND		1	1.0	0.40	ug/L	03/29/2020 1756
Bromomethane (Methyl bromide)	ND		1	2.0	0.40	ug/L	03/29/2020 1756
2-Butanone (MEK)	ND		1	10	2.0	ug/L	03/29/2020 1756
Carbon disulfide	ND		1	1.0	0.40	ug/L	03/29/2020 1756
Carbon tetrachloride	ND		1	1.0	0.40	ug/L	03/29/2020 1756
Chlorobenzene	ND		1	1.0	0.40	ug/L	03/29/2020 1756
Chloroethane	ND		1	2.0	0.40	ug/L	03/29/2020 1756
Chloroform	ND		1	1.0	0.40	ug/L	03/29/2020 1756
Chloromethane (Methyl chloride)	ND		1	1.0	0.50	ug/L	03/29/2020 1756
Cyclohexane	ND		1	1.0	0.40	ug/L	03/29/2020 1756
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	0.40	ug/L	03/29/2020 1756
Dibromochloromethane	ND		1	1.0	0.40	ug/L	03/29/2020 1756
1,2-Dibromoethane (EDB)	ND		1	1.0	0.40	ug/L	03/29/2020 1756
1,2-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/29/2020 1756
1,3-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/29/2020 1756
1,4-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/29/2020 1756
Dichlorodifluoromethane	ND		1	2.0	0.60	ug/L	03/29/2020 1756
1,1-Dichloroethane	ND		1	1.0	0.40	ug/L	03/29/2020 1756
1,2-Dichloroethane	ND		1	1.0	0.40	ug/L	03/29/2020 1756
1,1-Dichloroethene	ND		1	1.0	0.40	ug/L	03/29/2020 1756
cis-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	03/29/2020 1756
trans-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	03/29/2020 1756
1,2-Dichloropropane	ND		1	1.0	0.40	ug/L	03/29/2020 1756
cis-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	03/29/2020 1756
trans-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	03/29/2020 1756
Ethylbenzene	ND		1	1.0	0.40	ug/L	03/29/2020 1756
2-Hexanone	ND		1	10	2.0	ug/L	03/29/2020 1756
Isopropylbenzene	ND		1	1.0	0.40	ug/L	03/29/2020 1756
Methyl acetate	ND		1	1.0	0.40	ug/L	03/29/2020 1756
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	0.40	ug/L	03/29/2020 1756
4-Methyl-2-pentanone	ND		1	10	2.0	ug/L	03/29/2020 1756
Methylcyclohexane	ND		1	5.0	0.40	ug/L	03/29/2020 1756
Methylene chloride	ND		1	1.0	0.40	ug/L	03/29/2020 1756
Styrene	ND		1	1.0	0.41	ug/L	03/29/2020 1756
1,1,2,2-Tetrachloroethane	ND		1	1.0	0.40	ug/L	03/29/2020 1756
Tetrachloroethene	ND		1	1.0	0.40	ug/L	03/29/2020 1756
Toluene	ND		1	1.0	0.40	ug/L	03/29/2020 1756
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	0.42	ug/L	03/29/2020 1756
1,2,4-Trichlorobenzene	ND		1	1.0	0.40	ug/L	03/29/2020 1756
1,1,1-Trichloroethane	ND		1	1.0	0.40	ug/L	03/29/2020 1756
1,1,2-Trichloroethane	ND		1	1.0	0.40	ug/L	03/29/2020 1756

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: VQ49315-001
Batch: 49315
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Trichloroethene	ND		1	1.0	0.40	ug/L	03/29/2020 1756
Trichlorofluoromethane	ND		1	1.0	0.40	ug/L	03/29/2020 1756
Vinyl chloride	ND		1	1.0	0.40	ug/L	03/29/2020 1756
Xylenes (total)	ND		1	1.0	0.40	ug/L	03/29/2020 1756

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		84	70-130
1,2-Dichloroethane-d4		88	70-130
Toluene-d8		86	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: VQ49315-002
Batch: 49315
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	130		1	125	60-140	03/29/2020 1644
Benzene	50	51		1	102	70-130	03/29/2020 1644
Bromodichloromethane	50	58		1	116	70-130	03/29/2020 1644
Bromoform	50	55		1	109	70-130	03/29/2020 1644
Bromomethane (Methyl bromide)	50	42		1	85	70-130	03/29/2020 1644
2-Butanone (MEK)	100	110		1	114	70-130	03/29/2020 1644
Carbon disulfide	50	52		1	105	70-130	03/29/2020 1644
Carbon tetrachloride	50	51		1	101	70-130	03/29/2020 1644
Chlorobenzene	50	50		1	99	70-130	03/29/2020 1644
Chloroethane	50	49		1	99	70-130	03/29/2020 1644
Chloroform	50	52		1	103	70-130	03/29/2020 1644
Chloromethane (Methyl chloride)	50	47		1	95	60-140	03/29/2020 1644
Cyclohexane	50	49		1	97	70-130	03/29/2020 1644
1,2-Dibromo-3-chloropropane (DBCP)	50	53		1	106	70-130	03/29/2020 1644
Dibromochloromethane	50	53		1	107	70-130	03/29/2020 1644
1,2-Dibromoethane (EDB)	50	54		1	108	70-130	03/29/2020 1644
1,2-Dichlorobenzene	50	50		1	99	70-130	03/29/2020 1644
1,3-Dichlorobenzene	50	49		1	98	70-130	03/29/2020 1644
1,4-Dichlorobenzene	50	49		1	99	70-130	03/29/2020 1644
Dichlorodifluoromethane	50	70		1	139	60-140	03/29/2020 1644
1,1-Dichloroethane	50	51		1	101	70-130	03/29/2020 1644
1,2-Dichloroethane	50	54		1	107	70-130	03/29/2020 1644
1,1-Dichloroethene	50	55		1	109	70-130	03/29/2020 1644
cis-1,2-Dichloroethene	50	52		1	105	70-130	03/29/2020 1644
trans-1,2-Dichloroethene	50	54		1	108	70-130	03/29/2020 1644
1,2-Dichloropropane	50	54		1	108	70-130	03/29/2020 1644
cis-1,3-Dichloropropene	50	54		1	107	70-130	03/29/2020 1644
trans-1,3-Dichloropropene	50	55		1	111	70-130	03/29/2020 1644
Ethylbenzene	50	51		1	101	70-130	03/29/2020 1644
2-Hexanone	100	100		1	104	70-130	03/29/2020 1644
Isopropylbenzene	50	51		1	103	70-130	03/29/2020 1644
Methyl acetate	50	58		1	116	70-130	03/29/2020 1644
Methyl tertiary butyl ether (MTBE)	50	53		1	106	70-130	03/29/2020 1644
4-Methyl-2-pentanone	100	110		1	108	70-130	03/29/2020 1644
Methylcyclohexane	50	51		1	101	70-130	03/29/2020 1644
Methylene chloride	50	52		1	104	70-130	03/29/2020 1644
Styrene	50	54		1	107	70-130	03/29/2020 1644
1,1,2,2-Tetrachloroethane	50	53		1	106	70-130	03/29/2020 1644
Tetrachloroethene	50	53		1	105	70-130	03/29/2020 1644
Toluene	50	51		1	102	70-130	03/29/2020 1644
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	53		1	106	70-130	03/29/2020 1644
1,2,4-Trichlorobenzene	50	56		1	111	70-130	03/29/2020 1644
1,1,1-Trichloroethane	50	51		1	102	70-130	03/29/2020 1644
1,1,2-Trichloroethane	50	53		1	107	70-130	03/29/2020 1644

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: VQ49315-002
Batch: 49315
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	53		1	105	70-130	03/29/2020 1644
Trichlorofluoromethane	50	51		1	102	70-130	03/29/2020 1644
Vinyl chloride	50	51		1	101	70-130	03/29/2020 1644
Xylenes (total)	100	100		1	101	70-130	03/29/2020 1644

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		88	70-130
1,2-Dichloroethane-d4		92	70-130
Toluene-d8		89	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: VQ49450-001
Batch: 49450
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Acetone	ND		1	20	5.0	ug/L	03/30/2020 2145

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		102	70-130
1,2-Dichloroethane-d4		100	70-130
Toluene-d8		105	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: VQ49450-002
Batch: 49450
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	99		1	99	60-140	03/30/2020 2024

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		88	70-130
1,2-Dichloroethane-d4		85	70-130
Toluene-d8		88	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: VQ49455-001
Batch: 49455
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Tetrachloroethene	ND		1	1.0	0.40	ug/L	03/30/2020 2244

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		91	70-130
1,2-Dichloroethane-d4		94	70-130
Toluene-d8		93	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: VQ49455-002
Batch: 49455
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Tetrachloroethene	50	51		1	101	70-130	03/30/2020 2108

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		86	70-130
1,2-Dichloroethane-d4		88	70-130
Toluene-d8		87	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: VC27020-007MS
Batch: 49455
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Tetrachloroethene	200	250	390		5	75	70-130	03/31/2020 0618

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		91	70-130
1,2-Dichloroethane-d4		87	70-130
Toluene-d8		95	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MSD

Sample ID: VC27020-007MD
Batch: 49455
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Tetrachloroethene	200	250	410		5	83	5.0	70-130	20	03/31/2020 0641

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		91	70-130
1,2-Dichloroethane-d4		88	70-130
Toluene-d8		94	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Chain of Custody

and

Miscellaneous Documents

SHEALY ENVIRONMENTAL SERVICES, INC.
106 Vantage Point Drive • West Columbia, SC 29172
Telephone No. 803-791-9700 Fax No. 803-791-9111
www.shealylab.com

SHEALY Chain of Custody Record

Number 103985

Client: TRC	Report to Contact: Lisa Clark	Telephone No. / E-mail	Quote No.
Address: 50 International Dr. Ste 150	Sampler's Signature: X	Analysis (Attach list if more space is needed)	Page 1 of 1
City: Greenville	State: SC	Zip Code: 29615	
Project Name: WPH Clemson	Printed Name: David Szymal		VC27020
Project No.: 300688.0.0.12	P.O. No.		LIO

Sample ID / Description (Containers for each sample may be combined on one line.)	Date	Time	Grab/Composite	Matrix: Aqueous	Solid	Wipe/Liquid	No of Containers by Preservative Type: Unpres.	H2SO4	HNO3	HCl	NaOH	Na2S2O3	TSP	Volatiles	Chloride / Sulfate / Bromide	Nitrate	Diss. Gasses	Remarks / Cooler I.D.
TBLK-20123	\	\	G	X						2				X				
DP-21	3-26-20	0815	G	X			2			3			3	X	X	X	X	
DP-21A	3-26-20	0915	G	X			2			3			3	X	X	X	X	
DP-21B	3-26-20	1015	G	X			2			3			3	X	X	X	X	
DP-20	3-26-20	1145	G	X			2			3			3	X	X	X	X	
DP-20A	3-26-20	1215	G	X			2			3			3	X	X	X	X	
DP-20B	3-26-20	1330	G	X			2			3			3	X	X	X	X	
DU-20105	\	\	G	X			2			3			3	X	X	X	X	

Turn Around Time Required (Prior lab approval required for expedited TAT.): ☑ Standard ☐ Rush (Specify)

Sample Disposal: ☐ Return to Client ☒ Disposal by Lab

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

QC Requirements (Specify)

	Relinquished by	Date	Time	Received by	Date	Time
1	David Szymal	3-26-20	1400		3-26-20	1400
2		3-26-20	1655	TRC SS	3-26-20	1655
3	TRC SS	3.27.20	0905		3.27.20	0905
4		3.27.20	1422	Lindy	3/27/20	1422

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY — Received on ice (Circle) (Yes) No Ice Pack — Receipt Temp. 2.9 °C

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Client Copy

Document Number: F-AD-133 Effective Date: 09-01-2014

Shealy Environmental Services, Inc.
Document Number: MS00180-14

Effective Date: 8/2/2018

Sample Receipt Checklist (SRC)

Client: TRC Cooler Inspected by/date: LKH / 03/27/2020 Lot #: VC27020

Means of receipt: ☑ SESI ☐ Client ☐ UPS ☐ FedEx ☐ Other: _____

☐ Yes	☑ No		1. Were custody seals present on the cooler?
☐ Yes	☐ No	☑ NA	2. If custody seals were present, were they intact and unbroken?

pH Strip ID: NA Chlorine Strip ID: NA Tested by: NA

Original temperature upon receipt / Derived (Corrected) temperature upon receipt %Solid Snap-Cup ID: NA

2.9 / 2.9 °C NA / NA °C NA / NA °C NA / NA °C

Method: ☑ Temperature Blank ☐ Against Bottles IR Gun ID: 6 IR Gun Correction Factor: 0 °C

Method of coolant: ☑ Wet Ice ☐ Ice Packs ☐ Dry Ice ☐ None

☐ Yes	☐ No	☑ NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).
☐ Yes	☐ No	☑ NA	4. Is the commercial courier's packing slip attached to this form?
☑ Yes	☐ No		5. Were proper custody procedures (relinquished/received) followed?
☑ Yes	☐ No		6. Were sample IDs listed on the COC?
☑ Yes	☐ No		7. Were sample IDs listed on all sample containers?
☑ Yes	☐ No		8. Was collection date & time listed on the COC?
☑ Yes	☐ No		9. Was collection date & time listed on all sample containers?
☑ Yes	☐ No		10. Did all container label information (ID, date, time) agree with the COC?
☑ Yes	☐ No		11. Were tests to be performed listed on the COC?
☑ Yes	☐ No		12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)?
☑ Yes	☐ No		13. Was adequate sample volume available?
☑ Yes	☒ No		14. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
☐ Yes	☑ No		15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
☐ Yes	☑ No	☐ NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (¼"or 6mm in diameter) in any of the VOA vials?
☐ Yes	☐ No	☑ NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?
☐ Yes	☐ No	☑ NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
☐ Yes	☐ No	☑ NA	19. Were all applicable NH_3/TKN/cyanide/phenol/625 (< 0.5mg/L) samples free of residual chlorine?
☐ Yes	☐ No	☑ NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc…) correctly transcribed from the COC into the comment section in LIMS?
☐ Yes	☑ No		21. Was the quote number listed on the container label? If yes, Qubte # NA

JSH 3/27

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) NA _____ were received incorrectly preserved and were adjusted accordingly in sample receiving with NA mL of circle one: H2SO4, HNO3, HCl, NaOH using SR # NA.

Time of preservation NA. If more than one preservative is needed, please note in the comments below.

Sample(s) NA _____ were received with bubbles >6 mm in diameter.

Samples(s) NA _____ were received with TRC > 0.5 mg/L (If #19 is *no*) and were adjusted accordingly in sample receiving with sodium thiosulfate ($Na_2S_2O_3$) with Shealy ID: NA.

SR barcode labels applied by: JSH Date: 03/27/2020

Comments:

Pace Analytical Energy Services LLC
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

April 13, 2020

Lucas Odom
Pace Analytical Services South Carolina
106 Vantage Point Drive
West Columbia, SC 29172

RE: **WPH CLEMSON / TRC**

Pace Workorder: 33390

Dear Lucas Odom:

Enclosed are the analytical results for sample(s) received by the laboratory on Tuesday, March 31, 2020. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Ruth Welsh 04/13/2020
Ruth.Welsh@pacelabs.com

Customer Service Representative

Enclosures

As a valued client we would appreciate your comments on our service.
Please email PAESfeedback@pacelabs.com.

Total Number of Pages 17

CERTIFICATE OF ANALYSIS

Laboratory Data Quality Review Notes

Project Name: WPH-Clemson, SC

Project Number: 300688.0000.0000 Phase 4

Lab Report: **33390** Pace Analytical Energy Services LLC; Pittsburgh, PA
This lab report is the subcontracted job related to **VC27020**.

Samples and Analyses: Four groundwater samples and one field duplicate collected 26-Mar-2020 and analyzed for dissolved hydrocarbon gases (methane, ethane, ethene)

Chain of Custody, Sample Temperature, Sample Preservation: Chain of custody was signed (sample transfer from Pace Analytical, Columbia, to Pace Analytical, Pittsburgh); sample temperature was <6 ^{o}C upon arrival at the laboratory; samples were preserved properly.

Hold Time: Sample analyses were performed within acceptable hold time.

Surrogates: Surrogate recoveries are not applicable to dissolved hydrocarbon gas analyses.

Method Blank: Target analytes were not detected in the laboratory method blank.

Trip Blank: A trip blank was not analyzed with these samples.

Field Blank: A field blank was not collected with these samples.

Equipment Rinse Blank: A rinsate blank was not collected with these samples.

LCS/LCSD: LCS and LCSD recoveries and LCS/LCSD RPDs are within the laboratory QC limits.

MS/MSD: MS/MSD analyses were not performed with this data set.

Duplicates: No laboratory duplicates were included with these analyses. A field duplicate sample (DU-20105) was collected for sample DP-20A. The RPD is appropriate for evaluation of duplicate results only when both results are ≥ 5× the LOQ. The absolute difference (AbsD) was used to evaluate the field duplicate results since each analyte had both concentrations below 5× the LOQ. AbsDs were ≤ LOQ; therefore, results are in acceptable agreement, and no qualification action was needed.

Dilutions: No dilutions were performed with these sample analyses.

No data qualifiers were assigned in this review.

Data reviewer: Amy Bass; TRC Environmental Corporation; 02-Oct-2020

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LABORATORY ACCREDITATIONS & CERTIFICATIONS

Accreditor:	Pennsylvania Department of Environmental Protection, Bureau of Laboratories
Accreditation ID:	02-00538
Scope:	NELAP Non-Potable Water
Accreditor:	West Virginia Department of Environmental Protection, Division of Water and Waste Management
Accreditation ID:	395
Scope:	Non-Potable Water
Accreditor:	South Carolina Department of Health and Environmental Control, Office of Environmental Laboratory Certification
Accreditation ID:	89009003
Scope:	Clean Water Act (CWA); Resource Conservation and Recovery Act (RCRA)
Accreditor:	State of Virginia
Accreditation ID:	460201
Scope:	Non-Potable Water
Accreditor:	NELAP: New Jersey, Department of Environmental Protection
Accreditation ID:	PA026
Scope:	Non-Potable Water
Accreditor:	NELAP: New York, Department of Health Wadsworth Center
Accreditation ID:	11815
Scope:	Non-Potable Water
Accreditor:	State of Connecticut, Department of Public Health, Division of Environmental Health
Accreditation ID:	PH-0263
Scope:	Clean Water Act (CWA) Resource Conservation and Recovery Act (RCRA)
Accreditor:	NELAP: Texas, Commission on Environmental Quality
Accreditation ID:	T104704453-09-TX
Scope:	Non-Potable Water
Accreditor:	State of New Hampshire
Accreditation ID:	299409
Scope:	Non-potable water
Accreditor:	State of Georgia
Accreditation ID:	Chapter 391-3-26
Scope:	As per the Georgia EPD Rules and Regulations for Commercial Laboratories, PAES is accredited by the Pennsylvania Department of Environmental Protection Bureau of Laboratories under the National Environmental Laboratory Approval Program (NELAC).

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SAMPLE SUMMARY

Workorder: 33390 WPH CLEMSON / TRC

Lab ID	Sample ID	Matrix	Date Collected	Date Received
333900001	DP-21	Water	3/26/2020 08:15	3/31/2020 01:03
333900002	DP-21A	Water	3/26/2020 09:15	3/31/2020 01:03
333900003	DP-21B	Water	3/26/2020 10:15	3/31/2020 01:03
333900004	DP-20	Water	3/26/2020 11:45	3/31/2020 01:03
333900005	DP-20A	Water	3/26/2020 12:15	3/31/2020 01:03
333900006	DP-20B	Water	3/26/2020 13:30	3/31/2020 01:03
333900007	DU-20105	Water	3/26/2020 00:00	3/31/2020 01:03

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PROJECT SUMMARY

Workorder: 33390 WPH CLEMSON / TRC

Workorder Comments

The container pH for samples 33390 (0001-0002) were measured as below the expected pH (< 10) for those samples preserved with trisodium phosphate, as assigned to PAES method AM20GAx.

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ANALYTICAL RESULTS

Workorder: 33390 WPH CLEMSON / TRC

Lab ID: **333900001** Date Received: 3/31/2020 01:03 Matrix: Water

Sample ID: **DP-21** Date Collected: 3/26/2020 08:15

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**110**	ug/l	0.50	0.046	1	4/8/2020 08:10	BW	n
Ethane	**0.35**	ug/l	0.10	0.0050	1	4/8/2020 08:10	BW	n
Ethene	**0.98**	ug/l	0.10	0.0040	1	4/8/2020 08:10	BW	n

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ANALYTICAL RESULTS

Workorder: 33390 WPH CLEMSON / TRC

Lab ID: **333900002** Date Received: 3/31/2020 01:03 Matrix: Water

Sample ID: **DP-21A** Date Collected: 3/26/2020 09:15

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**5.4**	ug/l	0.50	0.046	1	4/8/2020 08:20	BW	n
Ethane	**2.4**	ug/l	0.10	0.0050	1	4/8/2020 08:20	BW	n
Ethene	**1.5**	ug/l	0.10	0.0040	1	4/8/2020 08:20	BW	n

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ANALYTICAL RESULTS

Workorder: 33390 WPH CLEMSON / TRC

Lab ID: **333900003** Date Received: 3/31/2020 01:03 Matrix: Water

Sample ID: **DP-21B** Date Collected: 3/26/2020 10:15

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**0.70**	ug/l	0.50	0.046	1	4/8/2020 08:30	BW	n
Ethane	**0.096J**	ug/l	0.10	0.0050	1	4/8/2020 08:30	BW	n
Ethene	**0.052J**	ug/l	0.10	0.0040	1	4/8/2020 08:30	BW	n

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ANALYTICAL RESULTS

Workorder: 33390 WPH CLEMSON / TRC

Lab ID: **333900004** Date Received: 3/31/2020 01:03 Matrix: Water

Sample ID: **DP-20** Date Collected: 3/26/2020 11:45

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**260**	ug/l	0.50	0.046	1	4/8/2020 08:40	BW	n
Ethane	**0.14**	ug/l	0.10	0.0050	1	4/8/2020 08:40	BW	n
Ethene	**0.17**	ug/l	0.10	0.0040	1	4/8/2020 08:40	BW	n

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ANALYTICAL RESULTS

Workorder: 33390 WPH CLEMSON / TRC

Lab ID: **333900005** Date Received: 3/31/2020 01:03 Matrix: Water

Sample ID: **DP-20A** Date Collected: 3/26/2020 12:15

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**0.37J**	ug/l	0.50	0.046	1	4/8/2020 08:49	BW	n
Ethane	**0.059J**	ug/l	0.10	0.0050	1	4/8/2020 08:49	BW	n
Ethene	**0.036J**	ug/l	0.10	0.0040	1	4/8/2020 08:49	BW	n

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ANALYTICAL RESULTS

Workorder: 33390 WPH CLEMSON / TRC

Lab ID: **333900006** Date Received: 3/31/2020 01:03 Matrix: Water

Sample ID: **DP-20B** Date Collected: 3/26/2020 13:30

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**0.64**	ug/l	0.50	0.046	1	4/8/2020 09:02	BW	n
Ethane	**0.26**	ug/l	0.10	0.0050	1	4/8/2020 09:02	BW	n
Ethene	**0.13**	ug/l	0.10	0.0040	1	4/8/2020 09:02	BW	n

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ANALYTICAL RESULTS

Workorder: 33390 WPH CLEMSON / TRC

Lab ID: **333900007** Date Received: 3/31/2020 01:03 Matrix: Water

Sample ID: **DU-20105** Date Collected: 3/26/2020 00:00

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**0.44J**	ug/l	0.50	0.046	1	4/8/2020 09:15	BW	n
Ethane	**0.079J**	ug/l	0.10	0.0050	1	4/8/2020 09:15	BW	n
Ethene	**0.047J**	ug/l	0.10	0.0040	1	4/8/2020 09:15	BW	n

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ANALYTICAL RESULTS QUALIFIERS

Workorder: 33390 WPH CLEMSON / TRC

DEFINITIONS/QUALIFIERS

MDL	Method Detection Limit. Can be used synonymously with LOD; Limit Of Detection.
PQL	Practical Quanitation Limit. Can be used synonymously with LOQ; Limit Of Quantitation.
ND	Not detected at or above reporting limit.
DF	Dilution Factor.
S	Surrogate.
RPD	Relative Percent Difference.
% Rec	Percent Recovery.
U	Indicates the compound was analyzed for, but not detected at or above the noted concentration.
J	Estimated concentration greater than the set method detection limit (MDL) and less than the set reporting limit (PQL).
n	The laboratory does not hold NELAP/TNI accreditation for this method or analyte.

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QUALITY CONTROL DATA

Workorder: 33390 WPH CLEMSON / TRC

QC Batch: DISG/8197 Analysis Method: AM20GAX

QC Batch Method: AM20GAX

Associated Lab Samples: 333900001, 333900002, 333900003, 333900004, 333900005, 333900006, 333900007

METHOD BLANK: 66685

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
RISK				
Methane	ug/l	0.046U	0.046	n
Ethane	ug/l	0.0050U	0.0050	n
Ethene	ug/l	0.0040U	0.0040	n

LABORATORY CONTROL SAMPLE & LCSD: 66687 66689

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Methane	ug/l	750	720	750	96	100	80-120	4.2	20	n
Ethane	ug/l	38	38	39	102	103	80-120	1.5	20	n
Ethene	ug/l	35	37	37	105	106	80-120	1.2	20	n

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QUALITY CONTROL DATA QUALIFIERS

Workorder: 33390 WPH CLEMSON / TRC

QUALITY CONTROL PARAMETER QUALIFIERS

n	The laboratory does not hold NELAP/TNI accreditation for this method or analyte.

Pace Analytical Energy Services LLC
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Phone: (412) 826-5245
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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 33390 WPH CLEMSON / TRC

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
333900001	DP-21			AM20GAX	DISG/8197
333900002	DP-21A			AM20GAX	DISG/8197
333900003	DP-21B			AM20GAX	DISG/8197
333900004	DP-20			AM20GAX	DISG/8197
333900005	DP-20A			AM20GAX	DISG/8197
333900006	DP-20B			AM20GAX	DISG/8197
333900007	DU-20105			AM20GAX	DISG/8197

SHEALY

Chain of Custody Record 333190

Shealy Environmental Services, Inc.
106 Vantage Point Drive
West Columbia, South Carolina 29172
Telephone No. (803) 791-9700 Fax No. (803) 791-9111
www.shealylab.com

Number

Client	Report to Contact	Telephone No. / E-mail	Quote No.
Pace Analytical - Columbia	Lucas Odom	803-206-9537/lodom@shealylab.com	
Address	**Sampler's Signature**	**Analysis (Attach list if more space is needed)**	**Page**
106 Vantage Point Dr.			1 of 1
City / State / Zip Code	X _____		
West Columbia / SC / 29172	Printed Name		
Project Name			Laboratory Lot Number
WPH Clemson			

Project Number	P.O No.		G=Grab C=Composite	Matrix				No of Containers by Preservative Type							Dissolved Gasses									Remarks / Cooler I.D.
Sample ID / Description (Containers for each sample may be combined on one line)	Date	Time		Aqueous	Solid	Non-Aqueous		Unpres.	H2SO4	HNO3	HCl	NaOH	5035 Kit	TSP										
DP-21	3/26/2020	815	G	X										X	X									VC27020
DP-21A	3/26/2020	915	G	X										X	X									
DP-21B	3/26/2020	1015	G	X										X	X									
DP-20	3/26/2020	1145	G	X										X	X									
DP-20A	3/26/2020	1215	G	X										X	X									
DP-20B	3/26/2020	1330	G	X										X	X									
DU-20105	3/26/2020		G	X										X	X									

Turn Around Time Required (Prior lab approval required for expedited TAT)	Sample Disposal	Possible Hazard Identification (List any known hazards in the remarks)	QC Requirements
X Standard Rush	☐ Return to Client ☒ Disposal by Lab	☐ Non-Hazardous ☐ Flammable ☐ Skin Irritant ☐ SDS provided ☐ Unknown	

1. Relinquished by	Date 3-30-2020	Time 1800	1. Received by	Date	Time	
2. Relinquished by	Date	Time	2. Received by	Date	Time	
3. Relinquished by	Date	Time	3. Received by	Date	Time	
4. Relinquished by	Date	Time	4. Laboratory Received by PAS	Date 3.31.2020	Time 11:00	

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on Ice (Check) ☐ Y ☐ N ☐ Ice Pack

Receipt Temp: 0.3 °C

Cooler Receipt Form

Client Name: Pace **Project:** WPH Clemson **Lab Work Order:** 33390

A. **Shipping/Container Information** (circle appropriate response)

Courier: (FedEx) UPS USPS Client Other:_____ **Air bill Present:** (Yes) No

Tracking Number: 166334637750

Custody Seal on Cooler/Box Present: (Yes) No **Seals Intact:** (Yes) No

Cooler/Box Packing Material: (Bubble Wrap) Absorbent Foam Other:_____

Type of Ice: (Wet) Blue None **Ice Intact:** (Yes) Melted

Cooler Temperature: 0.3°C **Radiation Screened:** Yes (No) **Chain of Custody Present:** (Yes) No

Comments:_____

B. **Laboratory Assignment/Log-in** (check appropriate response)

	YES	NO	N/A	Comment Reference non-Conformance
Chain of Custody properly filled out	✓			
Chain of Custody relinquished	✓			
Sampler Name & Signature on COC			✓	
Containers intact	✓			
Were samples in separate bags	✓			
Sample container labels match COC Sample name/date and time collected	✓			
Sufficient volume provided	✓			
PAES containers used	✓			
Are containers properly preserved for the requested testing? (as labeled)	✓			
If an unknown preservation state, were containers checked? Exception: VOA's coliform			✓	If yes, see pH form.
Was volume for dissolved testing field filtered, as noted on the COC? Was volume received in a preserved container?			✓	
Headspace present?		✓		

Comments:_____

Cooler contents examined/received by : LG **Date:** 3.31.2020

Project Manager Review : [signature] **Date:** 3/31/2020

Report of Analysis

TRC Companies, Inc.
50 International Dr.
Suite 150
Greenville, SC 29615
Attention: Lisa Clark

Project Name: WPH Clemson

Project Number: 300688.0000.0000.00011

Lot Number:**VC27021**

Date Completed:04/02/2020

04/16/2020 2:26 PM
Approved and released by:
Lab Director - Greenville: **Lucas Odom**

The electronic signature above is the equivalent of a handwritten signature.

Pace Analytical Services, LLC (*formerly Shealy Environmental Services, Inc.*)
106 Vantage Point Drive West Columbia, SC 29172
Tel: 803-791-9700 Fax: 803-791-9111 www.pacelabs.com

Laboratory Data Quality Review Notes

Project Name: WPH-Clemson, SC

Project Number: 300688.0000.0000 Phase 4

Lab Report: **VC27021** Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.); West Columbia, SC; subcontracted report: **33391**

Samples and Analyses: Three groundwater samples, collected 26-Mar-2020 and analyzed for VOCs, chloride, bromide, sulfate, and nitrate; one trip blank, analyzed for VOCs only

Chain of Custody, Sample Temperature, Sample Preservation: Chain of custody was signed; sample temperature was <6 ^{o}C upon arrival at the laboratory; samples were preserved properly.

Hold Time: Sample analyses were performed within acceptable hold times.

Surrogates: VOC surrogate recoveries are within QC limits.

Method Blank: Target analytes were not detected in the laboratory method blanks.

Trip Blank: No target analytes were detected in the trip blank; analyzed for VOCs only.

Field Blank: A field blank was not collected with these samples.

Equipment Rinse Blank: A rinsate blank was not collected with these samples.

LCS/LCSD: LCS recoveries for all analyses are within QC limits. LCSD analyses were not performed.

MS/MSD: MS/MSD analyses were performed for nitrate using sample MG-06B. The MS and MSD recoveries and MS/MSD RPD are within QC criteria.

Duplicates: No laboratory duplicates were included with these analyses. No field duplicate sample was collected with this data set.

Dilutions: No dilutions were performed in these sample analyses.

No data qualifiers were assigned in this review.

Data reviewer: Amy Bass; TRC Environmental Corporation; 02-Oct-2020

Case Narrative
TRC Companies, Inc.
Lot Number: VC27021

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Pace Analytical Services, LLC ("Pace") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Pace policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Pace Project Manager listed on the cover page.

Dissolved Gasses

The analysis for Dissolved Gasses has been performed by Pace Energy. The data for this analysis can be found on Pace Energy report 33391.

Sample Summary
TRC Companies, Inc.
Lot Number: VC27021

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	TBLK-20112	Aqueous	03/26/2020	03/27/2020
002	MG-06	Aqueous	03/26/2020 1120	03/27/2020
003	MG-06A	Aqueous	03/26/2020 1440	03/27/2020
004	MG-06B	Aqueous	03/26/2020 1455	03/27/2020

(4 samples)

Detection Summary

TRC Companies, Inc.

Lot Number: VC27021

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
002	MG-06	Aqueous	Chloride	300.0	1.2		mg/L	7
002	MG-06	Aqueous	Nitrate - N	353.2	0.070		mg/L	7
002	MG-06	Aqueous	Sulfate	300.0	25		mg/L	7
003	MG-06A	Aqueous	Chloride	300.0	1.6		mg/L	10
003	MG-06A	Aqueous	Nitrate - N	353.2	1.8		mg/L	10
003	MG-06A	Aqueous	Sulfate	300.0	1.4		mg/L	10
003	MG-06A	Aqueous	Tetrachloroethene	8260D	13		ug/L	11
004	MG-06B	Aqueous	Chloride	300.0	22		mg/L	13
004	MG-06B	Aqueous	Nitrate - N	353.2	1.6		mg/L	13
004	MG-06B	Aqueous	Sulfate	300.0	20		mg/L	13
004	MG-06B	Aqueous	cis-1,2-Dichloroethene	8260D	7.5		ug/L	14
004	MG-06B	Aqueous	Tetrachloroethene	8260D	130		ug/L	14

(12 detections)

Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc. | Laboratory ID: VC27021-001
Description: TBLK-20112 | Matrix: Aqueous
Date Sampled: 03/26/2020
Date Received: 03/27/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/30/2020 1041	TML		49360

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	ND		1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC27021-001
Description: TBLK-20112
Matrix: Aqueous
Date Sampled: 03/26/2020
Date Received: 03/27/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/30/2020 1041	TML		49360

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Trichloroethene	79-01-6	8260D	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		102	70-130
1,2-Dichloroethane-d4		102	70-130
Toluene-d8		104	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Inorganic non-metals

Client: TRC Companies, Inc.
Laboratory ID: VC27021-002
Description: MG-06
Matrix: Aqueous
Date Sampled: 03/26/2020 1120
Date Received: 03/27/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	04/02/2020 0402	HKL		49782
1		(Chloride) 300.0	1	04/02/2020 0402	HKL		49781
1		(Nitrate - N) 353.2	1	03/27/2020 2022	MDD		49265
1		(Sulfate) 300.0	1	04/02/2020 0402	HKL		49779

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	ND		0.20	0.050	mg/L	1
Chloride		300.0	1.2		1.0	0.20	mg/L	1
Nitrate - N		353.2	0.070		0.020	0.010	mg/L	1
Sulfate		300.0	25		1.0	0.20	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC27021-002
Description: MG-06
Matrix: Aqueous
Date Sampled: 03/26/2020 1120
Date Received: 03/27/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/30/2020 1212	TML		49360

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	ND		1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC27021-002
Description: MG-06
Matrix: Aqueous
Date Sampled: 03/26/2020 1120
Date Received: 03/27/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/30/2020 1212	TML		49360

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Trichloroethene	79-01-6	8260D	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		103	70-130
1,2-Dichloroethane-d4		99	70-130
Toluene-d8		106	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Inorganic non-metals

Client: TRC Companies, Inc.
Laboratory ID: VC27021-003
Description: MG-06A
Matrix: Aqueous
Date Sampled: 03/26/2020 1440
Date Received: 03/27/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	04/02/2020 0422	HKL		49782
1		(Chloride) 300.0	1	04/02/2020 0422	HKL		49781
1		(Nitrate - N) 353.2	1	03/27/2020 2023	MDD		49265
1		(Sulfate) 300.0	1	04/02/2020 0422	HKL		49779

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	ND		0.20	0.050	mg/L	1
Chloride		300.0	1.6		1.0	0.20	mg/L	1
Nitrate - N		353.2	1.8		0.020	0.010	mg/L	1
Sulfate		300.0	1.4		1.0	0.20	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC27021-003
Description: MG-06A
Matrix: Aqueous
Date Sampled: 03/26/2020 1440
Date Received: 03/27/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/30/2020 1236	TML		49360

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	13		1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC27021-003
Description: MG-06A
Matrix: Aqueous
Date Sampled: 03/26/2020 1440
Date Received: 03/27/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/30/2020 1236	TML		49360

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Trichloroethene	79-01-6	8260D	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		98	70-130
1,2-Dichloroethane-d4		100	70-130
Toluene-d8		105	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Inorganic non-metals

Client: TRC Companies, Inc.
Laboratory ID: VC27021-004
Description: MG-06B
Matrix: Aqueous
Date Sampled: 03/26/2020 1455
Date Received: 03/27/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	04/02/2020 0442	HKL		49782
1		(Chloride) 300.0	1	04/02/2020 0442	HKL		49781
1		(Nitrate - N) 353.2	1	03/27/2020 2025	MDD		49265
1		(Sulfate) 300.0	1	04/02/2020 0442	HKL		49779

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	ND		0.20	0.050	mg/L	1
Chloride		300.0	22		1.0	0.20	mg/L	1
Nitrate - N		353.2	1.6		0.020	0.010	mg/L	1
Sulfate		300.0	20		1.0	0.20	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC27021-004
Description: MG-06B
Matrix: Aqueous
Date Sampled: 03/26/2020 1455
Date Received: 03/27/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/30/2020 1259	TML		49360

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	7.5		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	130		1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC27021-004
Description: MG-06B
Matrix: Aqueous
Date Sampled: 03/26/2020 1455
Date Received: 03/27/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/30/2020 1259	TML		49360

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Trichloroethene	79-01-6	8260D	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		99	70-130
1,2-Dichloroethane-d4		99	70-130
Toluene-d8		104	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

QC Summary

Inorganic non-metals - MB

Sample ID: VQ49265-001
Batch: 49265
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Nitrate - N	ND		1	0.020	0.010	mg/L	03/27/2020 1950

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: VQ49265-002
Batch: 49265
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	0.80	0.76		1	95	90-110	03/27/2020 1951

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MS

Sample ID: VC27021-004MS
Batch: 49265
Analytical Method: 353.2
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	1.6	0.80	2.3		1	90	90-110	03/27/2020 2026

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: VC27021-004MD
Batch: 49265
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Nitrate - N	1.6	0.80	2.3		1	90	0.0088	90-110	20	03/27/2020 2027

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: VQ49779-001
Batch: 49779
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Sulfate	ND		1	1.0	0.20	mg/L	04/01/2020 1541

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: VQ49779-002
Batch: 49779
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Sulfate	20	20		1	102	90-110	04/01/2020 1621

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MB

Sample ID: VQ49781-001
Batch: 49781
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Chloride	ND		1	1.0	0.20	mg/L	04/01/2020 1541

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - LCS

Sample ID: VQ49781-002
Batch: 49781
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Chloride	20	21		1	103	90-110	04/01/2020 1621

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: VQ49782-001
Batch: 49782
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Bromide	ND		1	0.20	0.050	mg/L	04/01/2020 1541

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: VQ49782-002
Batch: 49782
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Bromide	8.0	8.2		1	102	90-110	04/01/2020 1621

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: VQ49360-001
Batch: 49360
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Acetone	ND		1	20	5.0	ug/L	03/30/2020 1005
Benzene	ND		1	1.0	0.40	ug/L	03/30/2020 1005
Bromodichloromethane	ND		1	1.0	0.40	ug/L	03/30/2020 1005
Bromoform	ND		1	1.0	0.40	ug/L	03/30/2020 1005
Bromomethane (Methyl bromide)	ND		1	2.0	0.40	ug/L	03/30/2020 1005
2-Butanone (MEK)	ND		1	10	2.0	ug/L	03/30/2020 1005
Carbon disulfide	ND		1	1.0	0.40	ug/L	03/30/2020 1005
Carbon tetrachloride	ND		1	1.0	0.40	ug/L	03/30/2020 1005
Chlorobenzene	ND		1	1.0	0.40	ug/L	03/30/2020 1005
Chloroethane	ND		1	2.0	0.40	ug/L	03/30/2020 1005
Chloroform	ND		1	1.0	0.40	ug/L	03/30/2020 1005
Chloromethane (Methyl chloride)	ND		1	1.0	0.50	ug/L	03/30/2020 1005
Cyclohexane	ND		1	1.0	0.40	ug/L	03/30/2020 1005
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	0.40	ug/L	03/30/2020 1005
Dibromochloromethane	ND		1	1.0	0.40	ug/L	03/30/2020 1005
1,2-Dibromoethane (EDB)	ND		1	1.0	0.40	ug/L	03/30/2020 1005
1,2-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/30/2020 1005
1,3-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/30/2020 1005
1,4-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/30/2020 1005
Dichlorodifluoromethane	ND		1	2.0	0.60	ug/L	03/30/2020 1005
1,1-Dichloroethane	ND		1	1.0	0.40	ug/L	03/30/2020 1005
1,2-Dichloroethane	ND		1	1.0	0.40	ug/L	03/30/2020 1005
1,1-Dichloroethene	ND		1	1.0	0.40	ug/L	03/30/2020 1005
cis-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	03/30/2020 1005
trans-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	03/30/2020 1005
1,2-Dichloropropane	ND		1	1.0	0.40	ug/L	03/30/2020 1005
cis-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	03/30/2020 1005
trans-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	03/30/2020 1005
Ethylbenzene	ND		1	1.0	0.40	ug/L	03/30/2020 1005
2-Hexanone	ND		1	10	2.0	ug/L	03/30/2020 1005
Isopropylbenzene	ND		1	1.0	0.40	ug/L	03/30/2020 1005
Methyl acetate	ND		1	1.0	0.40	ug/L	03/30/2020 1005
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	0.40	ug/L	03/30/2020 1005
4-Methyl-2-pentanone	ND		1	10	2.0	ug/L	03/30/2020 1005
Methylcyclohexane	ND		1	5.0	0.40	ug/L	03/30/2020 1005
Methylene chloride	ND		1	1.0	0.40	ug/L	03/30/2020 1005
Styrene	ND		1	1.0	0.41	ug/L	03/30/2020 1005
1,1,2,2-Tetrachloroethane	ND		1	1.0	0.40	ug/L	03/30/2020 1005
Tetrachloroethene	ND		1	1.0	0.40	ug/L	03/30/2020 1005
Toluene	ND		1	1.0	0.40	ug/L	03/30/2020 1005
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	0.42	ug/L	03/30/2020 1005
1,2,4-Trichlorobenzene	ND		1	1.0	0.40	ug/L	03/30/2020 1005
1,1,1-Trichloroethane	ND		1	1.0	0.40	ug/L	03/30/2020 1005
1,1,2-Trichloroethane	ND		1	1.0	0.40	ug/L	03/30/2020 1005

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: VQ49360-001
Batch: 49360
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Trichloroethene	ND		1	1.0	0.40	ug/L	03/30/2020 1005
Trichlorofluoromethane	ND		1	1.0	0.40	ug/L	03/30/2020 1005
Vinyl chloride	ND		1	1.0	0.40	ug/L	03/30/2020 1005
Xylenes (total)	ND		1	1.0	0.40	ug/L	03/30/2020 1005

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		98	70-130
1,2-Dichloroethane-d4		99	70-130
Toluene-d8		104	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: VQ49360-002
Batch: 49360
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	98		1	98	60-140	03/30/2020 0838
Benzene	50	50		1	100	70-130	03/30/2020 0838
Bromodichloromethane	50	58		1	117	70-130	03/30/2020 0838
Bromoform	50	59		1	118	70-130	03/30/2020 0838
Bromomethane (Methyl bromide)	50	51		1	102	70-130	03/30/2020 0838
2-Butanone (MEK)	100	99		1	99	70-130	03/30/2020 0838
Carbon disulfide	50	46		1	92	70-130	03/30/2020 0838
Carbon tetrachloride	50	50		1	100	70-130	03/30/2020 0838
Chlorobenzene	50	53		1	106	70-130	03/30/2020 0838
Chloroethane	50	52		1	104	70-130	03/30/2020 0838
Chloroform	50	49		1	98	70-130	03/30/2020 0838
Chloromethane (Methyl chloride)	50	51		1	101	60-140	03/30/2020 0838
Cyclohexane	50	47		1	94	70-130	03/30/2020 0838
1,2-Dibromo-3-chloropropane (DBCP)	50	60		1	120	70-130	03/30/2020 0838
Dibromochloromethane	50	57		1	115	70-130	03/30/2020 0838
1,2-Dibromoethane (EDB)	50	54		1	108	70-130	03/30/2020 0838
1,2-Dichlorobenzene	50	53		1	106	70-130	03/30/2020 0838
1,3-Dichlorobenzene	50	54		1	108	70-130	03/30/2020 0838
1,4-Dichlorobenzene	50	52		1	105	70-130	03/30/2020 0838
Dichlorodifluoromethane	50	57		1	113	60-140	03/30/2020 0838
1,1-Dichloroethane	50	47		1	94	70-130	03/30/2020 0838
1,2-Dichloroethane	50	50		1	100	70-130	03/30/2020 0838
1,1-Dichloroethene	50	48		1	96	70-130	03/30/2020 0838
cis-1,2-Dichloroethene	50	47		1	93	70-130	03/30/2020 0838
trans-1,2-Dichloroethene	50	47		1	95	70-130	03/30/2020 0838
1,2-Dichloropropane	50	51		1	102	70-130	03/30/2020 0838
cis-1,3-Dichloropropene	50	52		1	105	70-130	03/30/2020 0838
trans-1,3-Dichloropropene	50	59		1	118	70-130	03/30/2020 0838
Ethylbenzene	50	55		1	109	70-130	03/30/2020 0838
2-Hexanone	100	110		1	113	70-130	03/30/2020 0838
Isopropylbenzene	50	55		1	110	70-130	03/30/2020 0838
Methyl acetate	50	46		1	93	70-130	03/30/2020 0838
Methyl tertiary butyl ether (MTBE)	50	48		1	96	70-130	03/30/2020 0838
4-Methyl-2-pentanone	100	110		1	109	70-130	03/30/2020 0838
Methylcyclohexane	50	49		1	97	70-130	03/30/2020 0838
Methylene chloride	50	44		1	88	70-130	03/30/2020 0838
Styrene	50	57		1	113	70-130	03/30/2020 0838
1,1,2,2-Tetrachloroethane	50	57		1	113	70-130	03/30/2020 0838
Tetrachloroethene	50	57		1	114	70-130	03/30/2020 0838
Toluene	50	53		1	107	70-130	03/30/2020 0838
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	44		1	89	70-130	03/30/2020 0838
1,2,4-Trichlorobenzene	50	56		1	112	70-130	03/30/2020 0838
1,1,1-Trichloroethane	50	50		1	100	70-130	03/30/2020 0838
1,1,2-Trichloroethane	50	54		1	107	70-130	03/30/2020 0838

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: VQ49360-002
Batch: 49360
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	52		1	104	70-130	03/30/2020 0838
Trichlorofluoromethane	50	51		1	102	70-130	03/30/2020 0838
Vinyl chloride	50	52		1	104	70-130	03/30/2020 0838
Xylenes (total)	100	110		1	109	70-130	03/30/2020 0838

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		95	70-130
1,2-Dichloroethane-d4		91	70-130
Toluene-d8		94	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Chain of Custody

and

Miscellaneous Documents

SHEALY ENVIRONMENTAL SERVICES, INC.
106 Vantage Point Drive • West Columbia, SC 29172
Telephone No. 803-791-9700 Fax No. 803-791-9111
www.shealylab.com

Chain of Custody Record

Number 103986

Client	Report to Contact	Telephone No. / E-mail	Quote No.
TRC	Lisa Vark		

Address: 50 International Dr Ste 150
City: Greenville | State: SC | Zip Code: 29615
Project Name: WPH Clemson
Project No.: 300688.0.0.11
P.O. No.:
Sampler's Signature: x
Printed Name: Aharon Massuras
Analysis (Attach list if more space is needed)
Page 1 of 1

VC27021
LJD

Sample ID / Description (Containers for each sample may be combined on one line)	Date 2020	Time	Grab/Composite	Matrix: Aqueous	Matrix: Solid	Matrix: Non-aqueous	No of Containers by Preservative Type: Unpres.	H2SO4	HNO3	HCl	NaOH	NaSO3	Other	VOCs	Chloride, Sulfate, Bromide	Nitrate	Diss. Gasses	Remarks / Cooler I.D.
TBLK-20112	1	1	G	x						2				x				
MG-06	3.26	1120	G	x			2			3			3	x	x	x	x	
MG-06A	3.26	1440	G	x			2			3			3	x	x	x	x	
MG-06B	3.26	1455	G	x			2			3			3	x	x	x	x	

Turn Around Time Required (Prior lab approval required for expedited TAT.)
☐ Standard ☐ Rush (Specify)

Sample Disposal
☐ Return to Client ☐ Disposal by Lab

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

QC Requirements (Specify)

	Date	Time
1. Relinquished by	3.26.20	1645
2. Relinquished by TRC DS	3.27.20	0905
3. Relinquished by	3.27.20	1422
4. Relinquished by	Date	Time

	Date	Time
1. Received by TRC SS	3.26.20	1645
2. Received by	3.27.20	0905
3. Received by	Date	Time
4. Laboratory received by	3/27/20	1422

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on Ice (Circle) (Yes) No Ice Pack Receipt Temp.: 2.3 °C

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Client Copy

Document Number: F-AD-133 Effective Date: 09-01-2014

Shealy Environmental Services, Inc.
Document Number: MF0018C-14

Page 1 of 1
Effective Date: 8/2/2018

Sample Receipt Checklist (SRC)

Client: TRC Cooler Inspected by/date: LKR / 03/27/2020 Lot #: VC27021

Means of receipt: ☑ SESI ☐ Client ☐ UPS ☐ FedEx ☐ Other:

☐ Yes	☑ No		1. Were custody seals present on the cooler?
☐ Yes	☐ No	☑ NA	2. If custody seals were present, were they intact and unbroken?

pH Strip ID: NA Chlorine Strip ID: NA Tested by: NA

Original temperature upon receipt / Derived (Corrected) temperature upon receipt %Solid Snap-Cup ID: NA

2.3 / 2.3 °C NA / NA °C NA / NA °C NA / NA °C

Method: ☑ Temperature Blank ☐ Against Bottles IR Gun ID: 6 IR Gun Correction Factor: 0 °C

Method of coolant: ☑ Wet Ice ☐ Ice Packs ☐ Dry Ice ☐ None

☐ Yes	☐ No	☑ NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).
☐ Yes	☐ No	☑ NA	4. Is the commercial courier's packing slip attached to this form?
☑ Yes	☐ No		5. Were proper custody procedures (relinquished/received) followed?
☑ Yes	☐ No		6. Were sample IDs listed on the COC?
☑ Yes	☐ No		7. Were sample IDs listed on all sample containers?
☑ Yes	☐ No		8. Was collection date & time listed on the COC?
☑ Yes	☐ No		9. Was collection date & time listed on all sample containers?
☑ Yes	☐ No		10. Did all container label information (ID, date, time) agree with the COC?
☑ Yes	☐ No		11. Were tests to be performed listed on the COC?
☑ Yes	☐ No		12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)?
☑ Yes	☐ No		13. Was adequate sample volume available?
☐ Yes	☑ No		14. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
☐ Yes	☑ No		15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
☐ Yes	☑ No	☐ NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (¼" or 6mm in diameter) in any of the VOA vials?
☐ Yes	☐ No	☑ NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?
☐ Yes	☐ No	☑ NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
☐ Yes	☐ No	☑ NA	19. Were all applicable NH_3/TKN/cyanide/phenol/625 (< 0.5mg/L) samples free of residual chlorine?
☐ Yes	☐ No	☑ NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc...) correctly transcribed from the COC into the comment section in LIMS?
☐ Yes	☑ No		21. Was the quote number listed on the container label? If yes, Quote # NA

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) NA were received incorrectly preserved and were adjusted accordingly in sample receiving with NA mL of circle one: H2SO4, HNO3, HCl, NaOH using SR # NA.

Time of preservation NA. If more than one preservative is needed, please note in the comments below.

Sample(s) NA were received with bubbles >6 mm in diameter.

Sample(s) NA were received with TRC > 0.5 mg/L (If #19 is *no*) and were adjusted accordingly in sample receiving with sodium thiosulfate ($Na_2S_2O_3$) with Shealy ID: NA.

SR barcode labels applied by: JSH Date: 03/27/2020

Comments:

Pace Analytical Energy Services LLC
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

April 13, 2020

Lucas Odom
Pace Analytical Services South Carolina
106 Vantage Point Drive
West Columbia, SC 29172

RE: **WPH CLEMSON / TRC**

Pace Workorder: 33391

Dear Lucas Odom:

Enclosed are the analytical results for sample(s) received by the laboratory on Tuesday, March 31, 2020. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Ruth Welsh 04/13/2020
Ruth.Welsh@pacelabs.com

Customer Service Representative

Enclosures

As a valued client we would appreciate your comments on our service.
Please email PAESfeedback@pacelabs.com.

Total Number of Pages 12

CERTIFICATE OF ANALYSIS

Laboratory Data Quality Review Notes

Project Name: WPH-Clemson, SC

Project Number: 300688.0000.0000 Phase 4

Lab Report: **33391** Pace Analytical Energy Services LLC; Pittsburgh, PA
This lab report is the subcontracted job related to **VC27021**.

Samples and Analyses: Three groundwater samples, collected 26-Mar-2020 and analyzed for dissolved hydrocarbon gases (methane, ethane, ethene)

Chain of Custody, Sample Temperature, Sample Preservation: Chain of custody was signed (sample transfer from Pace Analytical, Columbia, to Pace Analytical, Pittsburgh); sample temperature was <6 ^{o}C upon arrival at the laboratory; samples were preserved properly.

Hold Time: Sample analyses were performed within acceptable hold time.

Surrogates: Surrogate recoveries are not applicable to dissolved hydrocarbon gas analyses.

Method Blank: Target analytes were not detected in the laboratory method blank.

Trip Blank: A trip blank was not analyzed with these samples.

Field Blank: A field blank was not collected with these samples.

Equipment Rinse Blank: A rinsate blank was not collected with these samples.

LCS/LCSD: LCS and LCSD recoveries and LCS/LCSD RPDs are within the laboratory QC limits.

MS/MSD: MS/MSD analyses were not performed using a sample from this data set.

Duplicates: No laboratory duplicates were included with these analyses. No field duplicate sample was collected with this data set.

Dilutions: No dilutions were performed with these sample analyses.

No data qualifiers were assigned in this review.

Data reviewer: Amy Bass; TRC Environmental Corporation; 02-Oct-2020

Pace Analytical Energy Services LLC
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

LABORATORY ACCREDITATIONS & CERTIFICATIONS

Accreditor:	Pennsylvania Department of Environmental Protection, Bureau of Laboratories
Accreditation ID:	02-00538
Scope:	NELAP Non-Potable Water
Accreditor:	West Virginia Department of Environmental Protection, Division of Water and Waste Management
Accreditation ID:	395
Scope:	Non-Potable Water
Accreditor:	South Carolina Department of Health and Environmental Control, Office of Environmental Laboratory Certification
Accreditation ID:	89009003
Scope:	Clean Water Act (CWA); Resource Conservation and Recovery Act (RCRA)
Accreditor:	State of Virginia
Accreditation ID:	460201
Scope:	Non-Potable Water
Accreditor:	NELAP: New Jersey, Department of Environmental Protection
Accreditation ID:	PA026
Scope:	Non-Potable Water
Accreditor:	NELAP: New York, Department of Health Wadsworth Center
Accreditation ID:	11815
Scope:	Non-Potable Water
Accreditor:	State of Connecticut, Department of Public Health, Division of Environmental Health
Accreditation ID:	PH-0263
Scope:	Clean Water Act (CWA) Resource Conservation and Recovery Act (RCRA)
Accreditor:	NELAP: Texas, Commission on Environmental Quality
Accreditation ID:	T104704453-09-TX
Scope:	Non-Potable Water
Accreditor:	State of New Hampshire
Accreditation ID:	299409
Scope:	Non-potable water
Accreditor:	State of Georgia
Accreditation ID:	Chapter 391-3-26
Scope:	As per the Georgia EPD Rules and Regulations for Commercial Laboratories, PAES is accredited by the Pennsylvania Department of Environmental Protection Bureau of Laboratories under the National Environmental Laboratory Approval Program (NELAC).

Pace Analytical Energy Services LLC
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Pittsburgh, PA 15238
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SAMPLE SUMMARY

Workorder: 33391 WPH CLEMSON / TRC

Lab ID	Sample ID	Matrix	Date Collected	Date Received
333910001	MG-06	Water	3/26/2020 11:20	3/31/2020 11:00
333910002	MG-06A	Water	3/26/2020 14:40	3/31/2020 11:00
333910003	MG-06B	Water	3/26/2020 14:55	3/31/2020 11:00

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ANALYTICAL RESULTS

Workorder: 33391 WPH CLEMSON / TRC

Lab ID: **333910001** Date Received: 3/31/2020 11:00 Matrix: Water

Sample ID: **MG-06** Date Collected: 3/26/2020 11:20

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**0.94**	ug/l	0.50	0.046	1	4/7/2020 11:54	BW	n
Ethane	**0.0050U**	ug/l	0.10	0.0050	1	4/7/2020 11:54	BW	n
Ethene	**0.022J**	ug/l	0.10	0.0040	1	4/7/2020 11:54	BW	n

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ANALYTICAL RESULTS

Workorder: 33391 WPH CLEMSON / TRC

Lab ID: **333910002** Date Received: 3/31/2020 11:00 Matrix: Water

Sample ID: **MG-06A** Date Collected: 3/26/2020 14:40

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**0.046U**	ug/l	0.50	0.046	1	4/7/2020 12:04	BW	n
Ethane	**0.0050U**	ug/l	0.10	0.0050	1	4/7/2020 12:04	BW	n
Ethene	**0.0073J**	ug/l	0.10	0.0040	1	4/7/2020 12:04	BW	n

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ANALYTICAL RESULTS

Workorder: 33391 WPH CLEMSON / TRC

Lab ID: **333910003** Date Received: 3/31/2020 11:00 Matrix: Water

Sample ID: **MG-06B** Date Collected: 3/26/2020 14:55

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**0.064J**	ug/l	0.50	0.046	1	4/7/2020 12:15	BW	n
Ethane	**0.0050U**	ug/l	0.10	0.0050	1	4/7/2020 12:15	BW	n
Ethene	**0.013J**	ug/l	0.10	0.0040	1	4/7/2020 12:15	BW	n

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ANALYTICAL RESULTS QUALIFIERS

Workorder: 33391 WPH CLEMSON / TRC

DEFINITIONS/QUALIFIERS

MDL	Method Detection Limit. Can be used synonymously with LOD; Limit Of Detection.
PQL	Practical Quanitation Limit. Can be used synonymously with LOQ; Limit Of Quantitation.
ND	Not detected at or above reporting limit.
DF	Dilution Factor.
S	Surrogate.
RPD	Relative Percent Difference.
% Rec	Percent Recovery.
U	Indicates the compound was analyzed for, but not detected at or above the noted concentration.
J	Estimated concentration greater than the set method detection limit (MDL) and less than the set reporting limit (PQL).
n	The laboratory does not hold NELAP/TNI accreditation for this method or analyte.

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QUALITY CONTROL DATA

Workorder: 33391 WPH CLEMSON / TRC

QC Batch: DISG/8196 Analysis Method: AM20GAX

QC Batch Method: AM20GAX

Associated Lab Samples: 333910001, 333910002, 333910003

METHOD BLANK: 66682

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
RISK				
Methane	ug/l	0.046U	0.046	n
Ethane	ug/l	0.0050U	0.0050	n
Ethene	ug/l	0.0040U	0.0040	n

LABORATORY CONTROL SAMPLE & LCSD: 66683 66684

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Methane	ug/l	750	720	730	96	97	80-120	1.2	20	n
Ethane	ug/l	38	38	38	102	102	80-120	0.077	20	n
Ethene	ug/l	35	36	36	103	104	80-120	0.12	20	n

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 66699 66700 Original: 333690003

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
RISK											
Methane	ug/l	0.07	40	39	40	97	98	70-130	0.3	20	n
Ethane	ug/l	0.049	76	73	72	96	95	70-130	0.97	20	n
Ethene	ug/l	0.013	71	69	69	98	98	70-130	0.26	20	n

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Pittsburgh, PA 15238
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QUALITY CONTROL DATA QUALIFIERS

Workorder: 33391 WPH CLEMSON / TRC

QUALITY CONTROL PARAMETER QUALIFIERS

n	The laboratory does not hold NELAP/TNI accreditation for this method or analyte.

Pace Analytical Energy Services LLC
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Pittsburgh, PA 15238
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Fax: (412) 826-3433

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 33391 WPH CLEMSON / TRC

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
333910001	MG-06			AM20GAX	DISG/8196
333910002	MG-06A			AM20GAX	DISG/8196
333910003	MG-06B			AM20GAX	DISG/8196

2

SHEALY

Chain of Custody Record 33391

Shealy Environmental Services, Inc.
106 Vantage Point Drive
West Columbia, South Carolina 29172
Telephone No. (803) 791-9700 Fax No. (803) 791-9111
www.shealylab.com

Number

Client	Report to Contact	Telephone No. / E-mail	Quote No.
Pace Analytical - Columbia	Lucas Odom	803-206-9537/lodom@shealylab.com	
Address	**Sampler's Signature**	**Analysis (Attach list if more space is needed)**	**Page**
106 Vantage Point Dr.			1 of 1
City / State / Zip Code	X _____ Printed Name		Laboratory Lot Number
West Columbia / SC / 29172			
Project Name			
WPH Clemson			
Project Number	**P.O No.**		

Sample ID / Description (Containers for each sample may be combined on one line)	Date	Time	G=Grab C=Composite	Matrix: Aqueous	Solid	Non-Aqueous		No of Containers by Preservative Type: Unpres.	H2SO4	HNO3	HCl	NaOH	5035 Kit	TSP	Dissolved Gasses									Remarks / Cooler I.D.
MG-06	3/26/2020	1120	G	X										X	X									VC27021
MG-06A	3/26/2020	1440	G	X										X	X									
MG-06B	3/26/2020	1455	G	X										X	X									

Turn Around Time Required (Prior lab approval required for expedited TAT)	Sample Disposal	Possible Hazard Identification (List any known hazards in the remarks)	QC Requirements
X Standard Rush	☐ Return to Client ☒ Disposal by Lab	☐ Non-Hazardous ☐ Flammable ☐ Skin Irritant ☐ SDS provided ☐ Unknown	

1. Relinquished by	Date 3-30-2020	Time 1802	1. Received by	Date	Time
2. Relinquished by	Date	Time	2. Received by	Date	Time
3. Relinquished by	Date	Time	3. Received by	Date	Time
4. Relinquished by	Date	Time	4. Laboratory Received by PAS	Date 3.31.2020	Time 1100

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on Ice (Check) ☐ Y ☐ N ☐ ce Pack

Receipt Temp. 0.3 °C

Cooler Receipt Form

Client Name: Pace **Project:** WPH Clemson **Lab Work Order:** 33391

A. **Shipping/Container Information** (circle appropriate response)

Courier: (FedEx) UPS USPS Client Other:_____ **Air bill Present:** (Yes) No

Tracking Number: 166334637750

Custody Seal on Cooler/Box Present: (Yes) No **Seals Intact:** (Yes) No

Cooler/Box Packing Material: (Bubble Wrap) Absorbent Foam Other:_____

Type of Ice: (Wet) Blue None **Ice Intact:** (Yes) Melted

Cooler Temperature: 0.3°C **Radiation Screened:** Yes (No) **Chain of Custody Present:** (Yes) No

Comments:_____

B. **Laboratory Assignment/Log-in** (check appropriate response)

	YES	NO	N/A	Comment Reference non-Conformance
Chain of Custody properly filled out	✓			
Chain of Custody relinquished	✓			
Sampler Name & Signature on COC			✓	
Containers intact	✓			
Were samples in separate bags	✓			
Sample container labels match COC Sample name/date and time collected	✓			
Sufficient volume provided	✓			
PAES containers used	✓			
Are containers properly preserved for the requested testing? (as labeled)	✓			
If an unknown preservation state, were containers checked? Exception: VOA's coliform			✓	If yes, see pH form.
Was volume for dissolved testing field filtered, as noted on the COC? Was volume received in a preserved container?			✓	
Headspace present?		✓		

Comments:_____

Cooler contents examined/received by : LS **Date:** 3.31.2020

Project Manager Review : ERG **Date:** 3/31/2020

Report of Analysis

TRC Companies, Inc.
50 International Dr.
Suite 150
Greenville, SC 29615
Attention: Lisa Clark

Project Name: WPH Clemson

Project Number: 300688.0000.0000.00011

Lot Number:**VC31032**

Date Completed:04/06/2020

04/16/2020 2:34 PM
Approved and released by:
Lab Director - Greenville: **Lucas Odom**

The electronic signature above is the equivalent of a handwritten signature.

Pace Analytical Services, LLC (*formerly Shealy Environmental Services, Inc.*)
106 Vantage Point Drive West Columbia, SC 29172
Tel: 803-791-9700 Fax: 803-791-9111 www.pacelabs.com

Laboratory Data Quality Review Notes

Project Name: WPH-Clemson, SC

Project Number: 300688.0000.0000 Phase 4

Lab Report: **VC31032** Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.); West Columbia, SC; subcontracted report: **33403**

Samples and Analyses: Two groundwater samples, collected 30-Mar-2020 and analyzed for VOCs, chloride, bromide, sulfate, and nitrate; one trip blank, analyzed for VOCs only

Chain of Custody, Sample Temperature, Sample Preservation: Chain of custody was signed; sample temperature was <6 ^{o}C upon arrival at the laboratory; samples were preserved properly.

Hold Time: Sample analyses were performed within acceptable hold times.

Surrogates: VOC surrogate recoveries are within QC limits.

Method Blank: Target analytes were not detected in the laboratory method blanks.

Trip Blank: No target analytes were detected in the trip blank; analyzed for VOCs only.

Field Blank: A field blank was not collected with these samples.

Equipment Rinse Blank: A rinsate blank was not collected with these samples.

LCS/LCSD: LCS recoveries for all analyses are within QC limits. LCSD analyses were not performed.

MS/MSD: MS/MSD analyses were performed for bromide, nitrate, and VOCs using sample RMW-18. The MS and MSD recoveries and MS/MSD RPDs are within QC criteria, with these exceptions:

- The MS and MSD recoveries for nitrate in sample RMW-18 are below the QC limits. In this case, however, the nitrate concentration (3.3 mg/L) in sample RMW-18 is > 4× the MS/MSD spike concentration (0.8 mg/L), which causes the MS/MSD results to be unreliable and unusable for sample qualification. Validation action is not appropriate.
- The MS and MSD recoveries for bromomethane in the VOCs analysis are above the QC limits. Qualification is applied only to positive results (detects) when MS/MSD recoveries are high. Bromomethane is ND in sample RMW-18; therefore, no qualification action is required.

Duplicates: No laboratory duplicates were included with these analyses. No field duplicate sample was collected with this data set.

Dilutions: No dilutions were performed in these sample analyses.

No data qualifiers were assigned in this review.

Data reviewer: Amy Bass; TRC Environmental Corporation; 02-Oct-2020

Case Narrative
TRC Companies, Inc.
Lot Number: VC31032

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Pace Analytical Services, LLC ("Pace") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Pace policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Pace Project Manager listed on the cover page.

Nitrate

Due to suspected matrix interferences, the MS/MSD associated with batch 49692 recovered outside of method criteria at 72% and 81% respectively.

VOCs by GC/MS

Due to suspected matrix interferences, the MS/MSD associated with batch 49784 recovered Bromomethane outside of method criteria at 136% and 132% respectively.

Dissolved Gasses

The analysis for Dissolved Gasses has been performed by Pace Energy. This data can be found on Pace Energy report 33403.

Sample Summary
TRC Companies, Inc.
Lot Number: VC31032

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	TBLK-20113	Aqueous	03/30/2020	03/31/2020
002	RMW-24	Aqueous	03/30/2020 1135	03/31/2020
003	RMW-18	Aqueous	03/30/2020 1335	03/31/2020

(3 samples)

Detection Summary

TRC Companies, Inc.

Lot Number: VC31032

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	TBLK-20113	Aqueous	Acetone	8260D	6.1	J	ug/L	5
002	RMW-24	Aqueous	Bromide	300.0	0.45		mg/L	7
002	RMW-24	Aqueous	Chloride	300.0	120		mg/L	7
002	RMW-24	Aqueous	Nitrate - N	353.2	1.3		mg/L	7
002	RMW-24	Aqueous	Sulfate	300.0	74		mg/L	7
002	RMW-24	Aqueous	Acetone	8260D	26		ug/L	8
002	RMW-24	Aqueous	Benzene	8260D	74		ug/L	8
002	RMW-24	Aqueous	Chlorobenzene	8260D	1.6		ug/L	8
002	RMW-24	Aqueous	Chloroform	8260D	1.7		ug/L	8
002	RMW-24	Aqueous	Cyclohexane	8260D	93		ug/L	8
002	RMW-24	Aqueous	1,2-Dichlorobenzene	8260D	6.6		ug/L	8
002	RMW-24	Aqueous	1,4-Dichlorobenzene	8260D	0.75	J	ug/L	8
002	RMW-24	Aqueous	1,2-Dichloroethane	8260D	2.8		ug/L	8
002	RMW-24	Aqueous	Ethylbenzene	8260D	120		ug/L	8
002	RMW-24	Aqueous	Isopropylbenzene	8260D	88		ug/L	8
002	RMW-24	Aqueous	Methylcyclohexane	8260D	29		ug/L	8
002	RMW-24	Aqueous	Toluene	8260D	26		ug/L	8
002	RMW-24	Aqueous	Xylenes (total)	8260D	85		ug/L	9
003	RMW-18	Aqueous	Bromide	300.0	0.19	J	mg/L	10
003	RMW-18	Aqueous	Chloride	300.0	45		mg/L	10
003	RMW-18	Aqueous	Nitrate - N	353.2	3.3		mg/L	10
003	RMW-18	Aqueous	Sulfate	300.0	49		mg/L	10
003	RMW-18	Aqueous	cis-1,2-Dichloroethene	8260D	19		ug/L	11
003	RMW-18	Aqueous	Tetrachloroethene	8260D	1000		ug/L	11

(24 detections)

Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc. | Laboratory ID: VC31032-001
Description: TBLK-20113 | Matrix: Aqueous
Date Sampled: 03/30/2020
Date Received: 03/31/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	04/02/2020 1159	TML		49784

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	6.1	J	20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	ND		1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC31032-001
Description: TBLK-20113
Matrix: Aqueous
Date Sampled: 03/30/2020
Date Received: 03/31/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	04/02/2020 1159	TML		49784

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Trichloroethene	79-01-6	8260D	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		96	70-130
1,2-Dichloroethane-d4		96	70-130
Toluene-d8		106	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Inorganic non-metals

Client: TRC Companies, Inc.
Laboratory ID: VC31032-002
Description: RMW-24
Matrix: Aqueous
Date Sampled: 03/30/2020 1135
Date Received: 03/31/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2		(Bromide) 300.0	1	04/03/2020 1456	HKL		49944
1		(Chloride) 300.0	5	04/03/2020 0011	HKL		49893
1		(Nitrate - N) 353.2	1	04/01/2020 1131	AMR		49692
1		(Sulfate) 300.0	5	04/03/2020 0011	HKL		49892

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.45		0.20	0.050	mg/L	2
Chloride		300.0	120		5.0	1.0	mg/L	1
Nitrate - N		353.2	1.3		0.020	0.010	mg/L	1
Sulfate		300.0	74		5.0	1.0	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC31032-002
Description: RMW-24
Matrix: Aqueous
Date Sampled: 03/30/2020 1135
Date Received: 03/31/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	5030B	8260D	1	04/04/2020 1905	BWS		49988

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	26		20	5.0	ug/L	2
Benzene	71-43-2	8260D	74		1.0	0.40	ug/L	2
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	2
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	2
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	2
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	2
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	2
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	2
Chlorobenzene	108-90-7	8260D	1.6		1.0	0.40	ug/L	2
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	2
Chloroform	67-66-3	8260D	1.7		1.0	0.40	ug/L	2
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	2
Cyclohexane	110-82-7	8260D	93		1.0	0.40	ug/L	2
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	2
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	2
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	2
1,2-Dichlorobenzene	95-50-1	8260D	6.6		1.0	0.40	ug/L	2
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	2
1,4-Dichlorobenzene	106-46-7	8260D	0.75	J	1.0	0.40	ug/L	2
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	2
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	2
1,2-Dichloroethane	107-06-2	8260D	2.8		1.0	0.40	ug/L	2
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	2
cis-1,2-Dichloroethene	156-59-2	8260D	ND		1.0	0.40	ug/L	2
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	2
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	2
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	2
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	2
Ethylbenzene	100-41-4	8260D	120		1.0	0.40	ug/L	2
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	2
Isopropylbenzene	98-82-8	8260D	88		1.0	0.40	ug/L	2
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	2
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	2
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	2
Methylcyclohexane	108-87-2	8260D	29		5.0	0.40	ug/L	2
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	2
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	2
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	2
Tetrachloroethene	127-18-4	8260D	ND		1.0	0.40	ug/L	2
Toluene	108-88-3	8260D	26		1.0	0.40	ug/L	2
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	2
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	2
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	2
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	2

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC31032-002
Description: RMW-24
Matrix: Aqueous
Date Sampled: 03/30/2020 1135
Date Received: 03/31/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2	5030B	8260D	1	04/04/2020 1905	BWS		49988

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Trichloroethene	79-01-6	8260D	ND		1.0	0.40	ug/L	2
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	2
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	2
Xylenes (total)	1330-20-7	8260D	85		1.0	0.40	ug/L	2

Surrogate	Q	Run 2 % Recovery	Acceptance Limits
Bromofluorobenzene		95	70-130
1,2-Dichloroethane-d4		93	70-130
Toluene-d8		96	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Inorganic non-metals

Client: TRC Companies, Inc.
Laboratory ID: VC31032-003
Description: RMW-18
Matrix: Aqueous
Date Sampled: 03/30/2020 1335
Date Received: 03/31/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2		(Bromide) 300.0	1	04/03/2020 1515	HKL		49944
1		(Chloride) 300.0	5	04/03/2020 0030	HKL		49893
1		(Nitrate - N) 353.2	2	04/01/2020 1123	AMR		49692
1		(Sulfate) 300.0	5	04/03/2020 0030	HKL		49892

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.19	J	0.20	0.050	mg/L	2
Chloride		300.0	45		5.0	1.0	mg/L	1
Nitrate - N		353.2	3.3		0.040	0.020	mg/L	1
Sulfate		300.0	49		5.0	1.0	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc. | Laboratory ID: VC31032-003
Description: RMW-18 | Matrix: Aqueous
Date Sampled: 03/30/2020 1335
Date Received: 03/31/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	10	04/02/2020 1601	TML		49784

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		200	50	ug/L	1
Benzene	71-43-2	8260D	ND		10	4.0	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		10	4.0	ug/L	1
Bromoform	75-25-2	8260D	ND		10	4.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		20	4.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		100	20	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		10	4.0	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		10	4.0	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		10	4.0	ug/L	1
Chloroethane	75-00-3	8260D	ND		20	4.0	ug/L	1
Chloroform	67-66-3	8260D	ND		10	4.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		10	5.0	ug/L	1
Cyclohexane	110-82-7	8260D	ND		10	4.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		10	4.0	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		10	4.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		10	4.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		10	4.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		10	4.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		10	4.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		20	6.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		10	4.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		10	4.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		10	4.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	19		10	4.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		10	4.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		10	4.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		10	4.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		10	4.0	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		10	4.0	ug/L	1
2-Hexanone	591-78-6	8260D	ND		100	20	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		10	4.0	ug/L	1
Methyl acetate	79-20-9	8260D	ND		10	4.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		10	4.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		100	20	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		50	4.0	ug/L	1
Methylene chloride	75-09-2	8260D	ND		10	4.0	ug/L	1
Styrene	100-42-5	8260D	ND		10	4.1	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		10	4.0	ug/L	1
Tetrachloroethene	127-18-4	8260D	1000		10	4.0	ug/L	1
Toluene	108-88-3	8260D	ND		10	4.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		10	4.2	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		10	4.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		10	4.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		10	4.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Pace Analytical Services, LLC *(formerly Shealy Environmental Services, Inc.)*
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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VC31032-003
Description: RMW-18
Matrix: Aqueous
Date Sampled: 03/30/2020 1335
Date Received: 03/31/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	10	04/02/2020 1601	TML		49784

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Trichloroethene	79-01-6	8260D	ND		10	4.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		10	4.0	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		10	4.0	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		10	4.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		95	70-130
1,2-Dichloroethane-d4		97	70-130
Toluene-d8		105	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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QC Summary

Inorganic non-metals - MB

Sample ID: VQ49692-001
Batch: 49692
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Nitrate - N	ND		1	0.020	0.010	mg/L	04/01/2020 1118

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: VQ49692-002
Batch: 49692
Analytical Method: 353.2
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	0.80	0.77		1	96	90-110	04/01/2020 1119

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MS

Sample ID: VC31032-003MS
Batch: 49692
Analytical Method: 353.2
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	3.3	0.80	3.9	N	2	72	90-110	04/01/2020 1124

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: VC31032-003MD
Batch: 49692
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Nitrate - N	3.3	0.80	4.0	N	2	81	1.8	90-110	20	04/01/2020 1126

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: VQ49892-001
Batch: 49892
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Sulfate	ND		1	1.0	0.20	mg/L	04/02/2020 1532

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: VQ49892-002
Batch: 49892
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Sulfate	20	20		1	102	90-110	04/02/2020 1611

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: VQ49893-001
Batch: 49893
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Chloride	ND		1	1.0	0.20	mg/L	04/02/2020 1532

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: VQ49893-002
Batch: 49893
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Chloride	20	21		1	103	90-110	04/02/2020 1611

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: VQ49944-001
Batch: 49944
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Bromide	ND		1	0.20	0.050	mg/L	04/03/2020 1336

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: VQ49944-002
Batch: 49944
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Bromide	8.0	8.2		1	102	90-110	04/03/2020 1416

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MS

Sample ID: VC31032-003MS
Batch: 49944
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Bromide	0.19	8.0	8.4		1	103	90-110	04/03/2020 1535

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: VC31032-003MD
Batch: 49944
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Bromide	0.19	8.0	8.6		1	105	2.4	90-110	20	04/03/2020 1555

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL
N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: VQ49784-001
Batch: 49784
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Acetone	ND		1	20	5.0	ug/L	04/02/2020 1030
Benzene	ND		1	1.0	0.40	ug/L	04/02/2020 1030
Bromodichloromethane	ND		1	1.0	0.40	ug/L	04/02/2020 1030
Bromoform	ND		1	1.0	0.40	ug/L	04/02/2020 1030
Bromomethane (Methyl bromide)	ND		1	2.0	0.40	ug/L	04/02/2020 1030
2-Butanone (MEK)	ND		1	10	2.0	ug/L	04/02/2020 1030
Carbon disulfide	ND		1	1.0	0.40	ug/L	04/02/2020 1030
Carbon tetrachloride	ND		1	1.0	0.40	ug/L	04/02/2020 1030
Chlorobenzene	ND		1	1.0	0.40	ug/L	04/02/2020 1030
Chloroethane	ND		1	2.0	0.40	ug/L	04/02/2020 1030
Chloroform	ND		1	1.0	0.40	ug/L	04/02/2020 1030
Chloromethane (Methyl chloride)	ND		1	1.0	0.50	ug/L	04/02/2020 1030
Cyclohexane	ND		1	1.0	0.40	ug/L	04/02/2020 1030
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	0.40	ug/L	04/02/2020 1030
Dibromochloromethane	ND		1	1.0	0.40	ug/L	04/02/2020 1030
1,2-Dibromoethane (EDB)	ND		1	1.0	0.40	ug/L	04/02/2020 1030
1,2-Dichlorobenzene	ND		1	1.0	0.40	ug/L	04/02/2020 1030
1,3-Dichlorobenzene	ND		1	1.0	0.40	ug/L	04/02/2020 1030
1,4-Dichlorobenzene	ND		1	1.0	0.40	ug/L	04/02/2020 1030
Dichlorodifluoromethane	ND		1	2.0	0.60	ug/L	04/02/2020 1030
1,1-Dichloroethane	ND		1	1.0	0.40	ug/L	04/02/2020 1030
1,2-Dichloroethane	ND		1	1.0	0.40	ug/L	04/02/2020 1030
1,1-Dichloroethene	ND		1	1.0	0.40	ug/L	04/02/2020 1030
cis-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	04/02/2020 1030
trans-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	04/02/2020 1030
1,2-Dichloropropane	ND		1	1.0	0.40	ug/L	04/02/2020 1030
cis-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	04/02/2020 1030
trans-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	04/02/2020 1030
Ethylbenzene	ND		1	1.0	0.40	ug/L	04/02/2020 1030
2-Hexanone	ND		1	10	2.0	ug/L	04/02/2020 1030
Isopropylbenzene	ND		1	1.0	0.40	ug/L	04/02/2020 1030
Methyl acetate	ND		1	1.0	0.40	ug/L	04/02/2020 1030
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	0.40	ug/L	04/02/2020 1030
4-Methyl-2-pentanone	ND		1	10	2.0	ug/L	04/02/2020 1030
Methylcyclohexane	ND		1	5.0	0.40	ug/L	04/02/2020 1030
Methylene chloride	ND		1	1.0	0.40	ug/L	04/02/2020 1030
Styrene	ND		1	1.0	0.41	ug/L	04/02/2020 1030
1,1,2,2-Tetrachloroethane	ND		1	1.0	0.40	ug/L	04/02/2020 1030
Tetrachloroethene	ND		1	1.0	0.40	ug/L	04/02/2020 1030
Toluene	ND		1	1.0	0.40	ug/L	04/02/2020 1030
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	0.42	ug/L	04/02/2020 1030
1,2,4-Trichlorobenzene	ND		1	1.0	0.40	ug/L	04/02/2020 1030
1,1,1-Trichloroethane	ND		1	1.0	0.40	ug/L	04/02/2020 1030
1,1,2-Trichloroethane	ND		1	1.0	0.40	ug/L	04/02/2020 1030

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: VQ49784-001
Batch: 49784
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Trichloroethene	ND		1	1.0	0.40	ug/L	04/02/2020 1030
Trichlorofluoromethane	ND		1	1.0	0.40	ug/L	04/02/2020 1030
Vinyl chloride	ND		1	1.0	0.40	ug/L	04/02/2020 1030
Xylenes (total)	ND		1	1.0	0.40	ug/L	04/02/2020 1030

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		95	70-130
1,2-Dichloroethane-d4		97	70-130
Toluene-d8		104	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: VQ49784-002
Batch: 49784
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	100		1	101	60-140	04/02/2020 0909
Benzene	50	54		1	108	70-130	04/02/2020 0909
Bromodichloromethane	50	53		1	106	70-130	04/02/2020 0909
Bromoform	50	55		1	110	70-130	04/02/2020 0909
Bromomethane (Methyl bromide)	50	56		1	112	70-130	04/02/2020 0909
2-Butanone (MEK)	100	95		1	95	70-130	04/02/2020 0909
Carbon disulfide	50	51		1	103	70-130	04/02/2020 0909
Carbon tetrachloride	50	55		1	110	70-130	04/02/2020 0909
Chlorobenzene	50	54		1	108	70-130	04/02/2020 0909
Chloroethane	50	49		1	99	70-130	04/02/2020 0909
Chloroform	50	53		1	105	70-130	04/02/2020 0909
Chloromethane (Methyl chloride)	50	46		1	92	60-140	04/02/2020 0909
Cyclohexane	50	50		1	99	70-130	04/02/2020 0909
1,2-Dibromo-3-chloropropane (DBCP)	50	47		1	93	70-130	04/02/2020 0909
Dibromochloromethane	50	54		1	107	70-130	04/02/2020 0909
1,2-Dibromoethane (EDB)	50	54		1	107	70-130	04/02/2020 0909
1,2-Dichlorobenzene	50	54		1	108	70-130	04/02/2020 0909
1,3-Dichlorobenzene	50	54		1	108	70-130	04/02/2020 0909
1,4-Dichlorobenzene	50	53		1	107	70-130	04/02/2020 0909
Dichlorodifluoromethane	50	51		1	102	60-140	04/02/2020 0909
1,1-Dichloroethane	50	50		1	99	70-130	04/02/2020 0909
1,2-Dichloroethane	50	56		1	111	70-130	04/02/2020 0909
1,1-Dichloroethene	50	53		1	107	70-130	04/02/2020 0909
cis-1,2-Dichloroethene	50	52		1	105	70-130	04/02/2020 0909
trans-1,2-Dichloroethene	50	54		1	108	70-130	04/02/2020 0909
1,2-Dichloropropane	50	52		1	104	70-130	04/02/2020 0909
cis-1,3-Dichloropropene	50	54		1	108	70-130	04/02/2020 0909
trans-1,3-Dichloropropene	50	53		1	105	70-130	04/02/2020 0909
Ethylbenzene	50	54		1	108	70-130	04/02/2020 0909
2-Hexanone	100	89		1	89	70-130	04/02/2020 0909
Isopropylbenzene	50	56		1	111	70-130	04/02/2020 0909
Methyl acetate	50	46		1	92	70-130	04/02/2020 0909
Methyl tertiary butyl ether (MTBE)	50	50		1	101	70-130	04/02/2020 0909
4-Methyl-2-pentanone	100	97		1	97	70-130	04/02/2020 0909
Methylcyclohexane	50	54		1	109	70-130	04/02/2020 0909
Methylene chloride	50	51		1	103	70-130	04/02/2020 0909
Styrene	50	54		1	109	70-130	04/02/2020 0909
1,1,2,2-Tetrachloroethane	50	49		1	98	70-130	04/02/2020 0909
Tetrachloroethene	50	57		1	115	70-130	04/02/2020 0909
Toluene	50	53		1	107	70-130	04/02/2020 0909
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	57		1	114	70-130	04/02/2020 0909
1,2,4-Trichlorobenzene	50	53		1	106	70-130	04/02/2020 0909
1,1,1-Trichloroethane	50	54		1	108	70-130	04/02/2020 0909
1,1,2-Trichloroethane	50	53		1	105	70-130	04/02/2020 0909

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: VQ49784-002
Batch: 49784
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	57		1	114	70-130	04/02/2020 0909
Trichlorofluoromethane	50	53		1	106	70-130	04/02/2020 0909
Vinyl chloride	50	50		1	99	70-130	04/02/2020 0909
Xylenes (total)	100	110		1	109	70-130	04/02/2020 0909

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		111	70-130
1,2-Dichloroethane-d4		115	70-130
Toluene-d8		115	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: VC31032-003MS
Batch: 49784
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	ND	1000	930		10	93	60-140	04/02/2020 1722
Benzene	ND	500	580		10	117	70-130	04/02/2020 1722
Bromodichloromethane	ND	500	510		10	103	70-130	04/02/2020 1722
Bromoform	ND	500	560		10	112	70-130	04/02/2020 1722
Bromomethane (Methyl bromide)	ND	500	680	N	10	136	70-130	04/02/2020 1722
2-Butanone (MEK)	ND	1000	1100		10	106	70-130	04/02/2020 1722
Carbon disulfide	ND	500	460		10	93	70-130	04/02/2020 1722
Carbon tetrachloride	ND	500	620		10	124	70-130	04/02/2020 1722
Chlorobenzene	ND	500	560		10	112	70-130	04/02/2020 1722
Chloroethane	ND	500	620		10	124	70-130	04/02/2020 1722
Chloroform	ND	500	570		10	114	70-130	04/02/2020 1722
Chloromethane (Methyl chloride)	ND	500	510		10	102	60-140	04/02/2020 1722
Cyclohexane	ND	500	440		10	89	70-130	04/02/2020 1722
1,2-Dibromo-3-chloropropane (DBCP)	ND	500	480		10	95	70-130	04/02/2020 1722
Dibromochloromethane	ND	500	550		10	111	70-130	04/02/2020 1722
1,2-Dibromoethane (EDB)	ND	500	560		10	111	70-130	04/02/2020 1722
1,2-Dichlorobenzene	ND	500	540		10	108	70-130	04/02/2020 1722
1,3-Dichlorobenzene	ND	500	540		10	108	70-130	04/02/2020 1722
1,4-Dichlorobenzene	ND	500	530		10	107	70-130	04/02/2020 1722
Dichlorodifluoromethane	ND	500	550		10	111	60-140	04/02/2020 1722
1,1-Dichloroethane	ND	500	550		10	110	70-130	04/02/2020 1722
1,2-Dichloroethane	ND	500	590		10	117	70-130	04/02/2020 1722
1,1-Dichloroethene	ND	500	590		10	117	70-130	04/02/2020 1722
cis-1,2-Dichloroethene	19	500	590		10	115	70-130	04/02/2020 1722
trans-1,2-Dichloroethene	ND	500	600		10	119	70-130	04/02/2020 1722
1,2-Dichloropropane	ND	500	550		10	110	70-130	04/02/2020 1722
cis-1,3-Dichloropropene	ND	500	560		10	112	70-130	04/02/2020 1722
trans-1,3-Dichloropropene	ND	500	510		10	103	70-130	04/02/2020 1722
Ethylbenzene	ND	500	580		10	115	70-130	04/02/2020 1722
2-Hexanone	ND	1000	950		10	95	70-130	04/02/2020 1722
Isopropylbenzene	ND	500	590		10	118	70-130	04/02/2020 1722
Methyl acetate	ND	500	490		10	97	70-130	04/02/2020 1722
Methyl tertiary butyl ether (MTBE)	ND	500	530		10	105	70-130	04/02/2020 1722
4-Methyl-2-pentanone	ND	1000	990		10	99	70-130	04/02/2020 1722
Methylcyclohexane	ND	500	560		10	111	70-130	04/02/2020 1722
Methylene chloride	ND	500	550		10	109	70-130	04/02/2020 1722
Styrene	ND	500	570		10	113	70-130	04/02/2020 1722
1,1,2,2-Tetrachloroethane	ND	500	510		10	101	70-130	04/02/2020 1722
Tetrachloroethene	1000	500	1600		10	109	70-130	04/02/2020 1722
Toluene	ND	500	580		10	117	70-130	04/02/2020 1722
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	500	580		10	116	70-130	04/02/2020 1722
1,2,4-Trichlorobenzene	ND	500	530		10	106	70-130	04/02/2020 1722
1,1,1-Trichloroethane	ND	500	590		10	118	70-130	04/02/2020 1722
1,1,2-Trichloroethane	ND	500	560		10	112	70-130	04/02/2020 1722

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: VC31032-003MS
Batch: 49784
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	ND	500	620		10	124	70-130	04/02/2020 1722
Trichlorofluoromethane	ND	500	630		10	126	70-130	04/02/2020 1722
Vinyl chloride	ND	500	550		10	111	70-130	04/02/2020 1722
Xylenes (total)	ND	1000	1200		10	119	70-130	04/02/2020 1722

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		101	70-130
1,2-Dichloroethane-d4		103	70-130
Toluene-d8		106	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MSD

Sample ID: VC31032-003MD
Batch: 49784
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	ND	1000	930		10	93	0.18	60-140	20	04/02/2020 1749
Benzene	ND	500	570		10	113	2.9	70-130	20	04/02/2020 1749
Bromodichloromethane	ND	500	500		10	100	3.0	70-130	20	04/02/2020 1749
Bromoform	ND	500	540		10	108	3.7	70-130	20	04/02/2020 1749
Bromomethane (Methyl bromide)	ND	500	660	N	10	132	3.2	70-130	20	04/02/2020 1749
2-Butanone (MEK)	ND	1000	1000		10	103	2.6	70-130	20	04/02/2020 1749
Carbon disulfide	ND	500	460		10	91	2.0	70-130	20	04/02/2020 1749
Carbon tetrachloride	ND	500	600		10	120	3.3	70-130	20	04/02/2020 1749
Chlorobenzene	ND	500	550		10	110	1.4	70-130	20	04/02/2020 1749
Chloroethane	ND	500	610		10	123	1.1	70-130	20	04/02/2020 1749
Chloroform	ND	500	550		10	109	4.0	70-130	20	04/02/2020 1749
Chloromethane (Methyl chloride)	ND	500	490		10	98	4.3	60-140	20	04/02/2020 1749
Cyclohexane	ND	500	440		10	88	1.2	70-130	20	04/02/2020 1749
1,2-Dibromo-3-chloropropane (DBCP)	ND	500	460		10	92	3.2	70-130	20	04/02/2020 1749
Dibromochloromethane	ND	500	540		10	107	3.1	70-130	20	04/02/2020 1749
1,2-Dibromoethane (EDB)	ND	500	540		10	108	3.2	70-130	20	04/02/2020 1749
1,2-Dichlorobenzene	ND	500	520		10	105	2.7	70-130	20	04/02/2020 1749
1,3-Dichlorobenzene	ND	500	530		10	106	1.6	70-130	20	04/02/2020 1749
1,4-Dichlorobenzene	ND	500	520		10	105	1.7	70-130	20	04/02/2020 1749
Dichlorodifluoromethane	ND	500	550		10	109	1.6	60-140	20	04/02/2020 1749
1,1-Dichloroethane	ND	500	540		10	108	2.3	70-130	20	04/02/2020 1749
1,2-Dichloroethane	ND	500	570		10	113	3.8	70-130	20	04/02/2020 1749
1,1-Dichloroethene	ND	500	570		10	114	2.3	70-130	20	04/02/2020 1749
cis-1,2-Dichloroethene	19	500	570		10	111	3.2	70-130	20	04/02/2020 1749
trans-1,2-Dichloroethene	ND	500	580		10	116	2.8	70-130	20	04/02/2020 1749
1,2-Dichloropropane	ND	500	530		10	107	2.6	70-130	20	04/02/2020 1749
cis-1,3-Dichloropropene	ND	500	540		10	108	3.3	70-130	20	04/02/2020 1749
trans-1,3-Dichloropropene	ND	500	500		10	100	3.1	70-130	20	04/02/2020 1749
Ethylbenzene	ND	500	570		10	114	1.1	70-130	20	04/02/2020 1749
2-Hexanone	ND	1000	930		10	93	1.9	70-130	20	04/02/2020 1749
Isopropylbenzene	ND	500	580		10	116	1.5	70-130	20	04/02/2020 1749
Methyl acetate	ND	500	470		10	95	2.9	70-130	20	04/02/2020 1749
Methyl tertiary butyl ether (MTBE)	ND	500	510		10	102	2.9	70-130	20	04/02/2020 1749
4-Methyl-2-pentanone	ND	1000	960		10	96	2.5	70-130	20	04/02/2020 1749
Methylcyclohexane	ND	500	550		10	110	1.6	70-130	20	04/02/2020 1749
Methylene chloride	ND	500	530		10	106	2.7	70-130	20	04/02/2020 1749
Styrene	ND	500	550		10	110	2.6	70-130	20	04/02/2020 1749
1,1,2,2-Tetrachloroethane	ND	500	490		10	98	2.8	70-130	20	04/02/2020 1749
Tetrachloroethene	1000	500	1600		10	107	0.49	70-130	20	04/02/2020 1749
Toluene	ND	500	570		10	114	2.1	70-130	20	04/02/2020 1749
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	500	570		10	114	1.8	70-130	20	04/02/2020 1749
1,2,4-Trichlorobenzene	ND	500	520		10	104	1.7	70-130	20	04/02/2020 1749
1,1,1-Trichloroethane	ND	500	580		10	116	2.0	70-130	20	04/02/2020 1749
1,1,2-Trichloroethane	ND	500	540		10	109	2.9	70-130	20	04/02/2020 1749

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Volatile Organic Compounds by GC/MS - MSD

Sample ID: VC31032-003MD
Batch: 49784
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Trichloroethene	ND	500	610		10	121	2.0	70-130	20	04/02/2020 1749
Trichlorofluoromethane	ND	500	620		10	124	1.4	70-130	20	04/02/2020 1749
Vinyl chloride	ND	500	530		10	107	3.6	70-130	20	04/02/2020 1749
Xylenes (total)	ND	1000	1200		10	116	2.2	70-130	20	04/02/2020 1749

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		101	70-130
1,2-Dichloroethane-d4		102	70-130
Toluene-d8		106	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: VQ49988-001
Batch: 49988
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Acetone	ND		1	20	5.0	ug/L	04/04/2020 1130
Benzene	ND		1	1.0	0.40	ug/L	04/04/2020 1130
Bromodichloromethane	ND		1	1.0	0.40	ug/L	04/04/2020 1130
Bromoform	ND		1	1.0	0.40	ug/L	04/04/2020 1130
Bromomethane (Methyl bromide)	ND		1	2.0	0.40	ug/L	04/04/2020 1130
2-Butanone (MEK)	ND		1	10	2.0	ug/L	04/04/2020 1130
Carbon disulfide	ND		1	1.0	0.40	ug/L	04/04/2020 1130
Carbon tetrachloride	ND		1	1.0	0.40	ug/L	04/04/2020 1130
Chlorobenzene	ND		1	1.0	0.40	ug/L	04/04/2020 1130
Chloroethane	ND		1	2.0	0.40	ug/L	04/04/2020 1130
Chloroform	ND		1	1.0	0.40	ug/L	04/04/2020 1130
Chloromethane (Methyl chloride)	ND		1	1.0	0.50	ug/L	04/04/2020 1130
Cyclohexane	ND		1	1.0	0.40	ug/L	04/04/2020 1130
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	0.40	ug/L	04/04/2020 1130
Dibromochloromethane	ND		1	1.0	0.40	ug/L	04/04/2020 1130
1,2-Dibromoethane (EDB)	ND		1	1.0	0.40	ug/L	04/04/2020 1130
1,2-Dichlorobenzene	ND		1	1.0	0.40	ug/L	04/04/2020 1130
1,3-Dichlorobenzene	ND		1	1.0	0.40	ug/L	04/04/2020 1130
1,4-Dichlorobenzene	ND		1	1.0	0.40	ug/L	04/04/2020 1130
Dichlorodifluoromethane	ND		1	2.0	0.60	ug/L	04/04/2020 1130
1,1-Dichloroethane	ND		1	1.0	0.40	ug/L	04/04/2020 1130
1,2-Dichloroethane	ND		1	1.0	0.40	ug/L	04/04/2020 1130
1,1-Dichloroethene	ND		1	1.0	0.40	ug/L	04/04/2020 1130
cis-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	04/04/2020 1130
trans-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	04/04/2020 1130
1,2-Dichloropropane	ND		1	1.0	0.40	ug/L	04/04/2020 1130
cis-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	04/04/2020 1130
trans-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	04/04/2020 1130
Ethylbenzene	ND		1	1.0	0.40	ug/L	04/04/2020 1130
2-Hexanone	ND		1	10	2.0	ug/L	04/04/2020 1130
Isopropylbenzene	ND		1	1.0	0.40	ug/L	04/04/2020 1130
Methyl acetate	ND		1	1.0	0.40	ug/L	04/04/2020 1130
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	0.40	ug/L	04/04/2020 1130
4-Methyl-2-pentanone	ND		1	10	2.0	ug/L	04/04/2020 1130
Methylcyclohexane	ND		1	5.0	0.40	ug/L	04/04/2020 1130
Methylene chloride	ND		1	1.0	0.40	ug/L	04/04/2020 1130
Styrene	ND		1	1.0	0.41	ug/L	04/04/2020 1130
1,1,2,2-Tetrachloroethane	ND		1	1.0	0.40	ug/L	04/04/2020 1130
Tetrachloroethene	ND		1	1.0	0.40	ug/L	04/04/2020 1130
Toluene	ND		1	1.0	0.40	ug/L	04/04/2020 1130
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	0.42	ug/L	04/04/2020 1130
1,2,4-Trichlorobenzene	ND		1	1.0	0.40	ug/L	04/04/2020 1130
1,1,1-Trichloroethane	ND		1	1.0	0.40	ug/L	04/04/2020 1130
1,1,2-Trichloroethane	ND		1	1.0	0.40	ug/L	04/04/2020 1130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: VQ49988-001
Batch: 49988
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Trichloroethene	ND		1	1.0	0.40	ug/L	04/04/2020 1130
Trichlorofluoromethane	ND		1	1.0	0.40	ug/L	04/04/2020 1130
Vinyl chloride	ND		1	1.0	0.40	ug/L	04/04/2020 1130
Xylenes (total)	ND		1	1.0	0.40	ug/L	04/04/2020 1130

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		87	70-130
1,2-Dichloroethane-d4		90	70-130
Toluene-d8		96	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: VQ49988-002
Batch: 49988
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	100		1	101	60-140	04/04/2020 1026
Benzene	50	49		1	97	70-130	04/04/2020 1026
Bromodichloromethane	50	55		1	110	70-130	04/04/2020 1026
Bromoform	50	58		1	116	70-130	04/04/2020 1026
Bromomethane (Methyl bromide)	50	46		1	93	70-130	04/04/2020 1026
2-Butanone (MEK)	100	96		1	96	70-130	04/04/2020 1026
Carbon disulfide	50	48		1	95	70-130	04/04/2020 1026
Carbon tetrachloride	50	49		1	98	70-130	04/04/2020 1026
Chlorobenzene	50	51		1	101	70-130	04/04/2020 1026
Chloroethane	50	49		1	99	70-130	04/04/2020 1026
Chloroform	50	47		1	93	70-130	04/04/2020 1026
Chloromethane (Methyl chloride)	50	50		1	100	60-140	04/04/2020 1026
Cyclohexane	50	49		1	98	70-130	04/04/2020 1026
1,2-Dibromo-3-chloropropane (DBCP)	50	48		1	95	70-130	04/04/2020 1026
Dibromochloromethane	50	55		1	110	70-130	04/04/2020 1026
1,2-Dibromoethane (EDB)	50	53		1	105	70-130	04/04/2020 1026
1,2-Dichlorobenzene	50	51		1	101	70-130	04/04/2020 1026
1,3-Dichlorobenzene	50	52		1	104	70-130	04/04/2020 1026
1,4-Dichlorobenzene	50	50		1	100	70-130	04/04/2020 1026
Dichlorodifluoromethane	50	51		1	103	60-140	04/04/2020 1026
1,1-Dichloroethane	50	47		1	94	70-130	04/04/2020 1026
1,2-Dichloroethane	50	48		1	96	70-130	04/04/2020 1026
1,1-Dichloroethene	50	49		1	98	70-130	04/04/2020 1026
cis-1,2-Dichloroethene	50	45		1	90	70-130	04/04/2020 1026
trans-1,2-Dichloroethene	50	47		1	94	70-130	04/04/2020 1026
1,2-Dichloropropane	50	51		1	102	70-130	04/04/2020 1026
cis-1,3-Dichloropropene	50	50		1	100	70-130	04/04/2020 1026
trans-1,3-Dichloropropene	50	56		1	112	70-130	04/04/2020 1026
Ethylbenzene	50	54		1	108	70-130	04/04/2020 1026
2-Hexanone	100	110		1	112	70-130	04/04/2020 1026
Isopropylbenzene	50	53		1	106	70-130	04/04/2020 1026
Methyl acetate	50	47		1	93	70-130	04/04/2020 1026
Methyl tertiary butyl ether (MTBE)	50	45		1	90	70-130	04/04/2020 1026
4-Methyl-2-pentanone	100	110		1	106	70-130	04/04/2020 1026
Methylcyclohexane	50	49		1	99	70-130	04/04/2020 1026
Methylene chloride	50	43		1	86	70-130	04/04/2020 1026
Styrene	50	55		1	109	70-130	04/04/2020 1026
1,1,2,2-Tetrachloroethane	50	54		1	109	70-130	04/04/2020 1026
Tetrachloroethene	50	56		1	112	70-130	04/04/2020 1026
Toluene	50	52		1	104	70-130	04/04/2020 1026
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	47		1	93	70-130	04/04/2020 1026
1,2,4-Trichlorobenzene	50	49		1	99	70-130	04/04/2020 1026
1,1,1-Trichloroethane	50	48		1	95	70-130	04/04/2020 1026
1,1,2-Trichloroethane	50	52		1	104	70-130	04/04/2020 1026

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: VQ49988-002
Batch: 49988
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	50		1	99	70-130	04/04/2020 1026
Trichlorofluoromethane	50	48		1	96	70-130	04/04/2020 1026
Vinyl chloride	50	50		1	100	70-130	04/04/2020 1026
Xylenes (total)	100	110		1	106	70-130	04/04/2020 1026

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		96	70-130
1,2-Dichloroethane-d4		90	70-130
Toluene-d8		97	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
LOD = Limit of Detection

P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
ND = Not detected at or above the DL

N = Recovery is out of criteria
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Chain of Custody

and

Miscellaneous Documents

SHEALY ENVIRONMENTAL SERVICES, INC.

106 Vantage Point Drive • West Columbia, SC 29172
Telephone No. 803-791-9700 Fax No. 803-791-9111
www.shealylab.com

Chain of Custody Record

Number 82489

Client	Report to Contact	Telephone No. / E-mail	Quote No.
TRC	Lisa Clark		

Address	Sampler's Signature	Analysis (Attach list if more space is needed)	Page 1 of 1
50 International Dr Suite 150	X		

City	State	Zip Code	Printed Name
Greenville	SC	29615	Benjamin Medlin

Project Name	Project No.	P.O. No.
WPH Clemson	300688.0.0.11	

VC31032
L.I.D.

Sample ID / Description (Containers for each sample may be combined on one line.)	Date 2020	Time	C=Grab C=Composite	Matrix: Aqueous	Soil	Non Aqueous	No of Containers by Preservative Type: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc NaOH	TSP	VOCs	Cl, SO4, Br	NO3	Diss. Gasses	Remarks / Cooler I.D.
TBLK-20113	1	1	G	X						2				X				
RMW-24	3.30	1135	G	X			2			3			3	X	X	X	X	
RMW-18 / RMW-18 MS/MSD	3.30	1335	G	X			4			6			6	X	X	X	X	

Turn Around Time Required (Prior lab approval required for expedited TAT.)
☐ Standard ☐ Rush (Specify)

Sample Disposal
☐ Return to Client ☐ Disposal by Lab

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

QC Requirements (Specify)

	Relinquished by	Date	Time	Received by	Date	Time
1		3.30.20	1540	TRC Sample storage	3.30.20	1540
2	TRC Sample storage	3.31.20	1120		3.31.20	1120
3		3.31.20	1443		Date	Time
4		Date	Time	Laboratory received by	Date 3/31/2020	Time 1443

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on ice (Circle) (Yes) No Ice Pack

Receipt Temp. 2.4 °C

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Client Copy

Document Number: F-AD-133 Effective Date: 08-01-2014

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Shealy Environmental Services, Inc.
Document Number: ME001SC-14

Page 1 of 1
Effective Date: 8/2/2018

Sample Receipt Checklist (SRC)

Client: ~~SESI~~ JSH 3/31 TRC Cooler Inspected by/date: JSH / 03/31/2020 Lot #: VC31032

Means of receipt: ☑ SESI ☐ Client ☐ UPS ☐ FedEx ☐ Other: _____

☐ Yes	☑ No		1. Were custody seals present on the cooler?
☐ Yes	☐ No	☑ NA	2. If custody seals were present, were they intact and unbroken?

pH Strip ID: NA Chlorine Strip ID: NA Tested by: NA

Original temperature upon receipt / Derived (Corrected) temperature upon receipt %Solid Snap-Cup ID: NA

2.4 / 2.4 °C NA / NA °C NA / NA °C NA / NA °C

Method: ☑ Temperature Blank ☐ Against Bottles IR Gun ID: 6 IR Gun Correction Factor: 0 °C

Method of coolant: ☑ Wet Ice ☐ Ice Packs ☐ Dry Ice ☐ None

☐ Yes	☐ No	☑ NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).
☐ Yes	☐ No	☑ NA	4. Is the commercial courier's packing slip attached to this form?
☑ Yes	☐ No		5. Were proper custody procedures (relinquished/received) followed?
☑ Yes	☐ No		6. Were sample IDs listed on the COC?
☑ Yes	☐ No		7. Were sample IDs listed on all sample containers?
☑ Yes	☐ No		8. Was collection date & time listed on the COC?
☑ Yes	☐ No		9. Was collection date & time listed on all sample containers?
☑ Yes	☐ No		10. Did all container label information (ID, date, time) agree with the COC?
☑ Yes	☐ No		11. Were tests to be performed listed on the COC?
☑ Yes	☐ No		12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)? _____
☑ Yes	☐ No		13. Was adequate sample volume available?
☐ Yes	☑ No		14. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
☐ Yes	☑ No		15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
☐ Yes	☑ No	☐ NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (¼"or 6mm in diameter) in any of the VOA vials?
☐ Yes	☐ No	☑ NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?
☐ Yes	☐ No	☑ NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
☐ Yes	☐ No	☑ NA	19. Were all applicable NH_3/TKN/cyanide/phenol/625 (< 0.5mg/L) samples free of residual chlorine?
☐ Yes	☐ No	☑ NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc…) correctly transcribed from the COC into the comment section in LIMS?
☐ Yes	☑ No		21. Was the quote number listed on the container label? If yes, Quote # NA

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) NA were received incorrectly preserved and were adjusted accordingly in sample receiving with NA mL of circle one: H2SO4, HNO3, HCl, NaOH using SR # NA.
Time of preservation NA. If more than one preservative is needed, please note in the comments below.

Sample(s) NA were received with bubbles >6 mm in diameter.

Samples(s) NA were received with TRC > 0.5 mg/L (If #19 is *no*) and were adjusted accordingly in sample receiving with sodium thiosulfate ($Na_2S_2O_3$) with Shealy ID: NA.

SR barcode labels applied by: JSH Date: 03/31/2020

Comments:

Pace Analytical Energy Services LLC
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

April 15, 2020

Lucas Odom
Pace Analytical Services South Carolina
106 Vantage Point Drive
West Columbia, SC 29172

RE: **WPH CLEMSON / TRC**

Pace Workorder: 33403

Dear Lucas Odom:

Enclosed are the analytical results for sample(s) received by the laboratory on Thursday, April 02, 2020. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Ruth Welsh 04/15/2020
Ruth.Welsh@pacelabs.com

Customer Service Representative

Enclosures

As a valued client we would appreciate your comments on our service.
Please email PAESfeedback@pacelabs.com.

Total Number of Pages 14

CERTIFICATE OF ANALYSIS

Laboratory Data Quality Review Notes

Project Name: WPH-Clemson, SC

Project Number: 300688.0000.0000 Phase 4

Lab Report: **33403** Pace Analytical Energy Services LLC; Pittsburgh, PA
This lab report is the subcontracted job related to **VC31032**.

Samples and Analyses: Two groundwater samples, collected 30-Mar-2020 and analyzed for dissolved hydrocarbon gases (methane, ethane, ethene)

Chain of Custody, Sample Temperature, Sample Preservation: Chain of custody was signed (sample transfer from Pace Analytical, Columbia, to Pace Analytical, Pittsburgh); sample temperature was <6 ^{o}C upon arrival at the laboratory; samples were preserved properly.

Hold Time: Sample analyses were performed within acceptable hold time.

Surrogates: Surrogate recoveries are not applicable to dissolved hydrocarbon gas analyses.

Method Blank: Target analytes were not detected in the laboratory method blank.

Trip Blank: A trip blank was not analyzed with these samples.

Field Blank: A field blank was not collected with these samples.

Equipment Rinse Blank: A rinsate blank was not collected with these samples.

LCS/LCSD: LCS and LCSD recoveries and LCS/LCSD RPDs are within the laboratory QC limits.

MS/MSD: MS/MSD analyses were performed using sample RMW-18. The MS and MSD recoveries and MS/MSD RPDs are within the QC limits.

Duplicates: No laboratory duplicates were included with these analyses. No field duplicate sample was collected with this data set.

Dilutions: No dilutions were performed with these sample analyses.

No data qualifiers were assigned in this review.

Data reviewer: Amy Bass; TRC Environmental Corporation; 02-Oct-2020

Pace Analytical Energy Services LLC
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Phone: (412) 826-5245
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LABORATORY ACCREDITATIONS & CERTIFICATIONS

Accreditor:	Pennsylvania Department of Environmental Protection, Bureau of Laboratories
Accreditation ID:	02-00538
Scope:	NELAP Non-Potable Water
Accreditor:	West Virginia Department of Environmental Protection, Division of Water and Waste Management
Accreditation ID:	395
Scope:	Non-Potable Water
Accreditor:	South Carolina Department of Health and Environmental Control, Office of Environmental Laboratory Certification
Accreditation ID:	89009003
Scope:	Clean Water Act (CWA); Resource Conservation and Recovery Act (RCRA)
Accreditor:	State of Virginia
Accreditation ID:	460201
Scope:	Non-Potable Water
Accreditor:	NELAP: New Jersey, Department of Environmental Protection
Accreditation ID:	PA026
Scope:	Non-Potable Water
Accreditor:	NELAP: New York, Department of Health Wadsworth Center
Accreditation ID:	11815
Scope:	Non-Potable Water
Accreditor:	State of Connecticut, Department of Public Health, Division of Environmental Health
Accreditation ID:	PH-0263
Scope:	Clean Water Act (CWA) Resource Conservation and Recovery Act (RCRA)
Accreditor:	NELAP: Texas, Commission on Environmental Quality
Accreditation ID:	T104704453-09-TX
Scope:	Non-Potable Water
Accreditor:	State of New Hampshire
Accreditation ID:	299409
Scope:	Non-potable water
Accreditor:	State of Georgia
Accreditation ID:	Chapter 391-3-26
Scope:	As per the Georgia EPD Rules and Regulations for Commercial Laboratories, PAES is accredited by the Pennsylvania Department of Environmental Protection Bureau of Laboratories under the National Environmental Laboratory Approval Program (NELAC).

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SAMPLE SUMMARY

Workorder: 33403 WPH CLEMSON / TRC

Lab ID	Sample ID	Matrix	Date Collected	Date Received
334030001	RMW-24	Water	3/30/2020 11:35	4/2/2020 10:30
334030002	RMW-18	Water	3/30/2020 13:35	4/2/2020 10:30
334030003	RMW-18 MS	Water	3/30/2020 13:35	4/2/2020 10:30
334030004	RMW-18 MSD	Water	3/30/2020 13:35	4/2/2020 10:30

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PROJECT SUMMARY

Workorder: 33403 WPH CLEMSON / TRC

Workorder Comments

The container pH for samples 33403 (0001) were measured as below the expected pH (< 10) for those samples preserved with trisodium phosphate, as assigned to PAES method AM20GAx.

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ANALYTICAL RESULTS

Workorder: 33403 WPH CLEMSON / TRC

Lab ID: **334030001** Date Received: 4/2/2020 10:30 Matrix: Water

Sample ID: **RMW-24** Date Collected: 3/30/2020 11:35

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**13**	ug/l	0.50	0.046	1	4/10/2020 10:34	BW	n
Ethane	**0.27**	ug/l	0.10	0.0050	1	4/10/2020 10:34	BW	n
Ethene	**0.29**	ug/l	0.10	0.0040	1	4/10/2020 10:34	BW	n

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ANALYTICAL RESULTS

Workorder: 33403 WPH CLEMSON / TRC

Lab ID: **334030002** Date Received: 4/2/2020 10:30 Matrix: Water

Sample ID: **RMW-18** Date Collected: 3/30/2020 13:35

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**750**	ug/l	0.50	0.046	1	4/10/2020 10:44	BW	n
Ethane	**0.39**	ug/l	0.10	0.0050	1	4/10/2020 10:44	BW	n
Ethene	**0.021J**	ug/l	0.10	0.0040	1	4/10/2020 10:44	BW	n

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ANALYTICAL RESULTS

Workorder: 33403 WPH CLEMSON / TRC

Lab ID: **334030003** Date Received: 4/2/2020 10:30 Matrix: Water

Sample ID: **RMW-18 MS** Date Collected: 3/30/2020 13:35

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**1700**	ug/l	0.50	0.046	1	4/10/2020 11:00	BW	n
Ethane	**36**	ug/l	0.10	0.0050	1	4/10/2020 11:00	BW	n
Ethene	**34**	ug/l	0.10	0.0040	1	4/10/2020 11:00	BW	n

CERTIFICATE OF ANALYSIS

Pace Analytical Energy Services LLC
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ANALYTICAL RESULTS

Workorder: 33403 WPH CLEMSON / TRC

Lab ID: **334030004** Date Received: 4/2/2020 10:30 Matrix: Water

Sample ID: **RMW-18 MSD** Date Collected: 3/30/2020 13:35

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**1500**	ug/l	0.50	0.046	1	4/10/2020 11:11	BW	n
Ethane	**36**	ug/l	0.10	0.0050	1	4/10/2020 11:11	BW	n
Ethene	**34**	ug/l	0.10	0.0040	1	4/10/2020 11:11	BW	n

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ANALYTICAL RESULTS QUALIFIERS

Workorder: 33403 WPH CLEMSON / TRC

DEFINITIONS/QUALIFIERS

MDL	Method Detection Limit. Can be used synonymously with LOD; Limit Of Detection.
PQL	Practical Quanitation Limit. Can be used synonymously with LOQ; Limit Of Quantitation.
ND	Not detected at or above reporting limit.
DF	Dilution Factor.
S	Surrogate.
RPD	Relative Percent Difference.
% Rec	Percent Recovery.
U	Indicates the compound was analyzed for, but not detected at or above the noted concentration.
J	Estimated concentration greater than the set method detection limit (MDL) and less than the set reporting limit (PQL).
n	The laboratory does not hold NELAP/TNI accreditation for this method or analyte.

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QUALITY CONTROL DATA

Workorder: 33403 WPH CLEMSON / TRC

QC Batch: DISG/8200 Analysis Method: AM20GAX

QC Batch Method: AM20GAX

Associated Lab Samples: 334030001, 334030002, 334030003, 334030004

METHOD BLANK: 66722

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
RISK				
Methane	ug/l	0.046U	0.046	n
Ethane	ug/l	0.0050U	0.0050	n
Ethene	ug/l	0.0040U	0.0040	n

LABORATORY CONTROL SAMPLE & LCSD: 66723 66724

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Methane	ug/l	750	750	740	100	99	80-120	0.61	20	n
Ethane	ug/l	38	39	40	102	105	80-120	2.4	20	n
Ethene	ug/l	35	36	38	104	107	80-120	3.1	20	n

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 66741 66742 Original: 334030002

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
RISK											
Methane	ug/l	750	750	1700	1500	122	105	70-130	8	20	n
Ethane	ug/l	0.39	38	36	36	95	93	70-130	1.8	20	n
Ethene	ug/l	0.021	35	34	34	97	95	70-130	1.9	20	n

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QUALITY CONTROL DATA QUALIFIERS

Workorder: 33403 WPH CLEMSON / TRC

QUALITY CONTROL PARAMETER QUALIFIERS

n	The laboratory does not hold NELAP/TNI accreditation for this method or analyte.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 33403 WPH CLEMSON / TRC

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
334030001	RMW-24			AM20GAX	DISG/8200
334030002	RMW-18			AM20GAX	DISG/8200
334030003	RMW-18 MS			AM20GAX	DISG/8200
334030004	RMW-18 MSD			AM20GAX	DISG/8200

SHEALY

Chain of Custody Record 33403

Shealy Environmental Services, Inc.
106 Vantage Point Drive
West Columbia, South Carolina 29172
Telephone No. (803) 791-9700 Fax No. (803) 791-9111
www.shealylab.com

Number

Client	Report to Contact	Telephone No. / E-mail	Quote No.
Pace Analytical - Columbia	Lucas Odom	803-206-9537/lodom@shealylab.com	
Address	**Sampler's Signature**	**Analysis (Attach list if more space is needed)**	**Page**
106 Vantage Point Dr.			1 of 1
City / State / Zip Code	X _____		
West Columbia / SC / 29172	Printed Name		
Project Name			Laboratory Lot Number
WPH Clemson			

Project Number	P.O No.		G=Grab C=Composite	Matrix				No of Containers by Preservative Type							Dissolved Gasses									Laboratory Lot Number
Sample ID / Description (Containers for each sample may be combined on one line)	Date	Time		Aqueous	Solid	Non-Aqueous		Unpres.	H2SO4	HNO3	HCl	NaOH	5035 Kit	TSP										Remarks / Cooler I.D.
RMW-24	3/30/2020	1135	G	X										X	X									VC31032
RMW-18	3/30/2020	1335	G	X										X	X									**MS/MSD**

Turn Around Time Required (Prior lab approval required for expedited TAT)	Sample Disposal	Possible Hazard Identification (List any known hazards in the remarks)	QC Requirements
X Standard Rush	☐ Return to Client ☒ Disposal by Lab	☐ Non-Hazardous ☐ Flammable ☐ Skin Irritant ☐ SDS provided ☐ Unknown	

1. Relinquished by	Date	Time	1. Received by	Date	Time
McCody Cole	4-1-2020	1800			
2. Relinquished by	Date	Time	2. Received by	Date	Time
3. Relinquished by	Date	Time	3. Received by	Date	Time
4. Relinquished by	Date	Time	4. Laboratory Received by	Date	Time
			Lodz PAtS	4.2.2020	1030

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on Ice (Check) ☐ Y ☐ N ☐ Ice Pack

Receipt Temp. 0.4 °C

Document Number: ME002OW-01

Cooler Receipt Form

Client Name: Pace **Project:** WPH Clemson **Lab Work Order:** 33403

A. **Shipping/Container Information** (circle appropriate response)

Courier: (FedEx) UPS USPS Client Other:_____ **Air bill Present:** (Yes) No

Tracking Number: 166334637810

Custody Seal on Cooler/Box Present: (Yes) No **Seals Intact:** (Yes) No

Cooler/Box Packing Material: (Bubble Wrap) Absorbent Foam Other:_____

Type of Ice: (Wet) Blue None **Ice Intact:** (Yes) Melted

Cooler Temperature: 0.4°C **Radiation Screened:** Yes (No) **Chain of Custody Present:** (Yes) No

Comments:_____

B. **Laboratory Assignment/Log-in** (check appropriate response)

	YES	NO	N/A	Comment Reference non-Conformance
Chain of Custody properly filled out	✓			
Chain of Custody relinquished	✓			
Sampler Name & Signature on COC			✓	
Containers intact	✓			
Were samples in separate bags	✓			
Sample container labels match COC Sample name/date and time collected	✓			
Sufficient volume provided	✓			
PAES containers used	✓			
Are containers properly preserved for the requested testing? (as labeled)	✓			
If an unknown preservation state, were containers checked? Exception: VOA's coliform			✓	If yes, see pH form.
Was volume for dissolved testing field filtered, as noted on the COC? Was volume received in a preserved container?			✓	
Headspace present?		✓		

Comments:_____

Cooler contents examined/received by : LY **Date:** 4.2.2020

Project Manager Review : ERJ **Date:** 4/2/2020

Report of Analysis

TRC Companies, Inc.
50 International Dr.
Suite 150
Greenville, SC 29615
Attention: Lisa Clark

Project Name: WPH Clemson

Project Number: 300688.0000.0000.00011

Lot Number:**VD01033**

Date Completed:10/05/2020
Revision Date: 10/05/2020

10/07/2020 9:39 AM
Approved and released by:
Project Manager II: **Lucas Odom**

The electronic signature above is the equivalent of a handwritten signature.

Pace Analytical Services, LLC (*formerly Shealy Environmental Services, Inc.*)
106 Vantage Point Drive West Columbia, SC 29172
Tel: 803-791-9700 Fax: 803-791-9111 www.pacelabs.com

Laboratory Data Quality Review Notes

Project Name: WPH-Clemson, SC

Project Number: 300688.0000.0000 Phase 4

Lab Report: **VD01033** Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.); West Columbia, SC; subcontracted report: **33410**

Samples and Analyses: Four groundwater samples, one equipment rinsate blank, and one trip blank; collected 31-Mar-2020 and analyzed for VOCs, chloride, bromide, sulfate, and nitrate; one trip blank, analyzed for VOCs only

Chain of Custody, Sample Temperature, Sample Preservation: Chain of custody was signed; sample temperature was <6 ^{o}C upon arrival at the laboratory; samples were preserved properly.

Hold Time: Sample analyses were performed within acceptable hold times, with the exception of the nitrate analysis in sample RMW-02, which was analyzed 5 minutes past the 48-hour hold time limit. **The positive result for nitrate in sample RMW-02 is qualified "j" due to analysis past the hold time limit.** Low bias is generally applied for analyses performed past the hold time limit, but this result is also qualified "j" due to MS/MSD recovery and RPD nonconformances; the combined qualification is "j", with no bias.

Surrogates: VOC surrogate recoveries are within QC limits.

Method Blank: Target analytes were not detected in the laboratory method blanks.

Trip Blank: No target analytes were detected in the trip blank; analyzed for VOCs only.

Field Blank: A field blank was not collected with these samples.

Equipment Rinse Blank: No target analytes were detected in the equipment rinse blank.

LCS/LCSD: LCS recoveries for all analyses are within QC limits. LCSD analyses were not performed.

MS/MSD: MS/MSD analyses were performed for nitrate and VOCs using sample RMW-02. The MS and MSD recoveries and MS/MSD RPDs are within QC criteria, with the exception of the following:

- The MS recovery for nitrate in sample RMW-02 is below the QC limits, and the MSD recovery is above the QC limits. The MS/MSD RPD is above the QC limit. **The positive result for nitrate in sample RMW-02 is qualified "j" due to these MS/MSD nonconformances.** Note that this result is also qualified "j" due to analysis past the hold time limit.

Duplicates: No laboratory duplicates were included with these analyses. No field duplicate sample was collected with this data set.

Dilutions: The sulfate analysis in sample RMW-20B was performed with a dilution of 5×, and the VOC analyses in samples RMW-27 and RMW-02 were both performed with 10× dilution. The ND

results for these analyses are associated with correspondingly elevated DL and LOQ values. Other dilutions performed in the analyses for this data set are associated with positive results (detects).

Data reviewer: Amy Bass; TRC Environmental Corporation; 02-Oct-2020

Case Narrative
TRC Companies, Inc.
Lot Number: VD01033

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved NELAC standards, the Pace Analytical Services, LLC ("Pace") Quality Assurance Management Plan (QAMP), standard operating procedures (SOPs), and Pace policies. Any exceptions to the NELAC standards, the QAMP, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Pace Project Manager listed on the cover page.

Sulfate

The following sample was diluted due to the nature of the sample matrix: VD01033-003. The LOQ has been elevated to reflect the dilution.

Nitrate

Sample -006 was initially analyzed within the 48 hour hold time at a 5X dilution and yielding a value of 0.67 mg/L. The MS/MSD performed on this run yielded recoveries of 70% and 133% respectively. An additional, out of hold, run was performed at a 10X dilution yielding a detection of 0.31 mg/L. The out of hold run has been reported.

Dissolved Gasses

The analysis for Dissolved Gasses has been Performed by Pace Energy. This data can be found on Pace Energy report 33410.

Report Revision 10/07/20

Due to an import error, the Nitrate analysis times that were performed prior to 10:00 were not originally documented. These times have now been included.

Sample Summary
TRC Companies, Inc.
Lot Number: VD01033

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	TBLK-20114	Aqueous	03/31/2020	04/01/2020
002	RBLK-20101	Aqueous	03/31/2020 1010	04/01/2020
003	RMW-20B	Aqueous	03/31/2020 1100	04/01/2020
004	RMW-18A	Aqueous	03/31/2020 1245	04/01/2020
005	RMW-27	Aqueous	03/31/2020 1405	04/01/2020
006	RMW-02	Aqueous	03/31/2020 1605	04/01/2020

(6 samples)

Detection Summary

TRC Companies, Inc.

Lot Number: VD01033

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
003	RMW-20B	Aqueous	Chloride	300.0	3.0		mg/L	10
003	RMW-20B	Aqueous	Nitrate - N	353.2	0.14		mg/L	10
003	RMW-20B	Aqueous	Acetone	8260D	8.4	J	ug/L	11
003	RMW-20B	Aqueous	2-Butanone (MEK)	8260D	11		ug/L	11
003	RMW-20B	Aqueous	Methyl acetate	8260D	1.3		ug/L	11
004	RMW-18A	Aqueous	Chloride	300.0	54		mg/L	13
004	RMW-18A	Aqueous	Nitrate - N	353.2	0.34		mg/L	13
004	RMW-18A	Aqueous	Sulfate	300.0	130		mg/L	13
004	RMW-18A	Aqueous	Acetone	8260D	5.9	J	ug/L	14
004	RMW-18A	Aqueous	Tetrachloroethene	8260D	180		ug/L	14
005	RMW-27	Aqueous	Bromide	300.0	0.34		mg/L	16
005	RMW-27	Aqueous	Chloride	300.0	82		mg/L	16
005	RMW-27	Aqueous	Nitrate - N	353.2	0.15		mg/L	16
005	RMW-27	Aqueous	Sulfate	300.0	85		mg/L	16
005	RMW-27	Aqueous	cis-1,2-Dichloroethene	8260D	740		ug/L	17
005	RMW-27	Aqueous	Tetrachloroethene	8260D	330		ug/L	17
005	RMW-27	Aqueous	Trichloroethene	8260D	140		ug/L	18
006	RMW-02	Aqueous	Bromide	300.0	0.20		mg/L	19
006	RMW-02	Aqueous	Chloride	300.0	17		mg/L	19
006	RMW-02	Aqueous	Nitrate - N	353.2	0.31	H	mg/L	19
006	RMW-02	Aqueous	Sulfate	300.0	11		mg/L	19
006	RMW-02	Aqueous	Acetone	8260D	100	J	ug/L	20
006	RMW-02	Aqueous	Ethylbenzene	8260D	610		ug/L	20
006	RMW-02	Aqueous	Styrene	8260D	12		ug/L	20
006	RMW-02	Aqueous	Xylenes (total)	8260D	2000		ug/L	21

(25 detections)

Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc. | Laboratory ID: VD01033-001
Description: TBLK-20114 | Matrix: Aqueous
Date Sampled: 03/31/2020
Date Received: 04/01/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	04/06/2020 1046	TML		50080

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	ND		1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VD01033-001
Description: TBLK-20114
Matrix: Aqueous
Date Sampled: 03/31/2020
Date Received: 04/01/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	04/06/2020 1046	TML		50080

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Trichloroethene	79-01-6	8260D	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		85	70-130
1,2-Dichloroethane-d4		91	70-130
Toluene-d8		95	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

Inorganic non-metals

Client: TRC Companies, Inc.
Laboratory ID: VD01033-002
Description: RBLK-20101
Matrix: Aqueous
Date Sampled: 03/31/2020 1010
Date Received: 04/01/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	04/03/2020 0330	HKL		49894
1		(Chloride) 300.0	1	04/03/2020 0330	HKL		49893
1		(Nitrate - N) 353.2	1	04/02/2020 0837	AMR		49766
1		(Sulfate) 300.0	1	04/03/2020 0330	HKL		49892

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	ND		0.20	0.050	mg/L	1
Chloride		300.0	ND		1.0	0.20	mg/L	1
Nitrate - N		353.2	ND		0.020	0.010	mg/L	1
Sulfate		300.0	ND		1.0	0.20	mg/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VD01033-002
Description: RBLK-20101
Matrix: Aqueous
Date Sampled: 03/31/2020 1010
Date Received: 04/01/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	04/06/2020 1109	TML		50080

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	ND		1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VD01033-002
Description: RBLK-20101
Matrix: Aqueous
Date Sampled: 03/31/2020 1010
Date Received: 04/01/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	04/06/2020 1109	TML		50080

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Trichloroethene	79-01-6	8260D	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		88	70-130
1,2-Dichloroethane-d4		90	70-130
Toluene-d8		95	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

Inorganic non-metals

Client: TRC Companies, Inc.
Laboratory ID: VD01033-003
Description: RMW-20B
Matrix: Aqueous
Date Sampled: 03/31/2020 1100
Date Received: 04/01/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	04/03/2020 1915	AMR		50000
1		(Chloride) 300.0	1	04/03/2020 1915	AMR		49999
1		(Nitrate - N) 353.2	1	04/02/2020 0901	AMR		49769
2		(Sulfate) 300.0	5	04/07/2020 2240	HKL		50305

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	ND		0.20	0.050	mg/L	1
Chloride		300.0	3.0		1.0	0.20	mg/L	1
Nitrate - N		353.2	0.14		0.020	0.010	mg/L	1
Sulfate		300.0	ND		5.0	1.0	mg/L	2

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc. | Laboratory ID: VD01033-003
Description: RMW-20B | Matrix: Aqueous
Date Sampled: 03/31/2020 1100
Date Received: 04/01/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	04/06/2020 1545	TML		50080

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	8.4	J	20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	11		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	1.3		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	ND		1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VD01033-003
Description: RMW-20B
Matrix: Aqueous
Date Sampled: 03/31/2020 1100
Date Received: 04/01/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	04/06/2020 1545	TML		50080

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Trichloroethene	79-01-6	8260D	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		87	70-130
1,2-Dichloroethane-d4		91	70-130
Toluene-d8		95	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

Inorganic non-metals

Client: TRC Companies, Inc.
Laboratory ID: VD01033-004
Description: RMW-18A
Matrix: Aqueous
Date Sampled: 03/31/2020 1245
Date Received: 04/01/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	04/03/2020 1934	AMR		50000
1		(Chloride) 300.0	1	04/03/2020 1934	AMR		49999
1		(Nitrate - N) 353.2	1	04/02/2020 0902	AMR		49769
1		(Sulfate) 300.0	1	04/03/2020 1934	AMR		49998

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	ND		0.20	0.050	mg/L	1
Chloride		300.0	54		1.0	0.20	mg/L	1
Nitrate - N		353.2	0.34		0.020	0.010	mg/L	1
Sulfate		300.0	130		1.0	0.20	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VD01033-004
Description: RMW-18A
Matrix: Aqueous
Date Sampled: 03/31/2020 1245
Date Received: 04/01/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	04/06/2020 1609	TML		50080

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	5.9	J	20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	180		1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VD01033-004
Description: RMW-18A
Matrix: Aqueous
Date Sampled: 03/31/2020 1245
Date Received: 04/01/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	04/06/2020 1609	TML		50080

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Trichloroethene	79-01-6	8260D	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		87	70-130
1,2-Dichloroethane-d4		89	70-130
Toluene-d8		95	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

Inorganic non-metals

Client: TRC Companies, Inc.
Laboratory ID: VD01033-005
Description: RMW-27
Matrix: Aqueous
Date Sampled: 03/31/2020 1405
Date Received: 04/01/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	04/03/2020 1954	AMR		50000
1		(Chloride) 300.0	1	04/03/2020 1954	AMR		49999
1		(Nitrate - N) 353.2	1	04/02/2020 0904	AMR		49769
1		(Sulfate) 300.0	1	04/03/2020 1954	AMR		49998

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.34		0.20	0.050	mg/L	1
Chloride		300.0	82		1.0	0.20	mg/L	1
Nitrate - N		353.2	0.15		0.020	0.010	mg/L	1
Sulfate		300.0	85		1.0	0.20	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
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W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VD01033-005
Description: RMW-27
Matrix: Aqueous
Date Sampled: 03/31/2020 1405
Date Received: 04/01/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	10	04/06/2020 1718	TML		50080

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		200	50	ug/L	1
Benzene	71-43-2	8260D	ND		10	4.0	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		10	4.0	ug/L	1
Bromoform	75-25-2	8260D	ND		10	4.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		20	4.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		100	20	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		10	4.0	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		10	4.0	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		10	4.0	ug/L	1
Chloroethane	75-00-3	8260D	ND		20	4.0	ug/L	1
Chloroform	67-66-3	8260D	ND		10	4.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		10	5.0	ug/L	1
Cyclohexane	110-82-7	8260D	ND		10	4.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		10	4.0	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		10	4.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		10	4.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		10	4.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		10	4.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		10	4.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		20	6.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		10	4.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		10	4.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		10	4.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	740		10	4.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		10	4.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		10	4.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		10	4.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		10	4.0	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		10	4.0	ug/L	1
2-Hexanone	591-78-6	8260D	ND		100	20	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		10	4.0	ug/L	1
Methyl acetate	79-20-9	8260D	ND		10	4.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		10	4.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		100	20	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		50	4.0	ug/L	1
Methylene chloride	75-09-2	8260D	ND		10	4.0	ug/L	1
Styrene	100-42-5	8260D	ND		10	4.1	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		10	4.0	ug/L	1
Tetrachloroethene	127-18-4	8260D	330		10	4.0	ug/L	1
Toluene	108-88-3	8260D	ND		10	4.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		10	4.2	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		10	4.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		10	4.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		10	4.0	ug/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
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W = Reported on wet weight basis

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Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VD01033-005
Description: RMW-27
Matrix: Aqueous
Date Sampled: 03/31/2020 1405
Date Received: 04/01/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	10	04/06/2020 1718	TML		50080

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Trichloroethene	79-01-6	8260D	140		10	4.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		10	4.0	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		10	4.0	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		10	4.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		89	70-130
1,2-Dichloroethane-d4		91	70-130
Toluene-d8		95	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

Inorganic non-metals

Client: TRC Companies, Inc.
Laboratory ID: VD01033-006
Description: RMW-02
Matrix: Aqueous
Date Sampled: 03/31/2020 1605
Date Received: 04/01/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	04/03/2020 2014	AMR		50000
1		(Chloride) 300.0	1	04/03/2020 2014	AMR		49999
2		(Nitrate - N) 353.2	10	04/02/2020 1610	AMR		49830
1		(Sulfate) 300.0	1	04/03/2020 2014	AMR		49998

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.20		0.20	0.050	mg/L	1
Chloride		300.0	17		1.0	0.20	mg/L	1
Nitrate - N		353.2	0.31	H	0.20	0.10	mg/L	2
Sulfate		300.0	11		1.0	0.20	mg/L	1

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc. | Laboratory ID: VD01033-006
Description: RMW-02 | Matrix: Aqueous
Date Sampled: 03/31/2020 1605
Date Received: 04/01/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	10	04/06/2020 1741	TML		50080

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	100	J	200	50	ug/L	1
Benzene	71-43-2	8260D	ND		10	4.0	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		10	4.0	ug/L	1
Bromoform	75-25-2	8260D	ND		10	4.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		20	4.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		100	20	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		10	4.0	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		10	4.0	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		10	4.0	ug/L	1
Chloroethane	75-00-3	8260D	ND		20	4.0	ug/L	1
Chloroform	67-66-3	8260D	ND		10	4.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		10	5.0	ug/L	1
Cyclohexane	110-82-7	8260D	ND		10	4.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		10	4.0	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		10	4.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		10	4.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		10	4.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		10	4.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		10	4.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		20	6.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		10	4.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		10	4.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		10	4.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		10	4.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		10	4.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		10	4.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		10	4.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		10	4.0	ug/L	1
Ethylbenzene	100-41-4	8260D	610		10	4.0	ug/L	1
2-Hexanone	591-78-6	8260D	ND		100	20	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		10	4.0	ug/L	1
Methyl acetate	79-20-9	8260D	ND		10	4.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		10	4.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		100	20	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		50	4.0	ug/L	1
Methylene chloride	75-09-2	8260D	ND		10	4.0	ug/L	1
Styrene	100-42-5	8260D	12		10	4.1	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		10	4.0	ug/L	1
Tetrachloroethene	127-18-4	8260D	ND		10	4.0	ug/L	1
Toluene	108-88-3	8260D	ND		10	4.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		10	4.2	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		10	4.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		10	4.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		10	4.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Pace Analytical Services, LLC *(formerly Shealy Environmental Services, Inc.)*
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Volatile Organic Compounds by GC/MS

Client: TRC Companies, Inc.
Laboratory ID: VD01033-006
Description: RMW-02
Matrix: Aqueous
Date Sampled: 03/31/2020 1605
Date Received: 04/01/2020

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	10	04/06/2020 1741	TML		50080

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Trichloroethene	79-01-6	8260D	ND		10	4.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		10	4.0	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		10	4.0	ug/L	1
Xylenes (total)	1330-20-7	8260D	2000		10	4.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		88	70-130
1,2-Dichloroethane-d4		89	70-130
Toluene-d8		95	70-130

LOQ = Limit of Quantitation
B = Detected in the method blank
E = Quantitation of compound exceeded the calibration range
DL = Detection Limit
ND = Not detected at or above the DL
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
J = Estimated result < LOQ and ≥ DL
H = Out of holding time
W = Reported on wet weight basis

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QC Summary

Inorganic non-metals - MB

Sample ID: VQ49766-001
Batch: 49766
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Nitrate - N	ND		1	0.020	0.010	mg/L	04/02/2020 0752

LOQ = Limit of Quantitation
DL = Detection Limit

ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria

N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: VQ49766-002
Batch: 49766
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	0.80	0.78		1	97	90-110	04/02/2020 0753

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: VQ49769-001
Batch: 49769
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Nitrate - N	ND		1	0.020	0.010	mg/L	04/02/2020 0838

LOQ = Limit of Quantitation
DL = Detection Limit

ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria

N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: VQ49769-002
Batch: 49769
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	0.80	0.77		1	96	90-110	04/02/2020 0840

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MS

Sample ID: VD01033-006MS
Batch: 49769
Analytical Method: 353.2
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	0.67	0.80	1.2	N	5	70	90-110	04/02/2020 0926

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: VD01033-006MD
Batch: 49769
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Nitrate - N	0.67	0.80	1.7	N,+	5	133	34	90-110	20	04/02/2020 0928

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: VQ49830-001
Batch: 49830
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Nitrate - N	ND		1	0.020	0.010	mg/L	04/02/2020 1607

LOQ = Limit of Quantitation
DL = Detection Limit

ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria

N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: VQ49830-002
Batch: 49830
Analytical Method: 353.2

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Nitrate - N	0.80	0.76		1	95	90-110	04/02/2020 1609

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: VQ49892-001
Batch: 49892
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Sulfate	ND		1	1.0	0.20	mg/L	04/02/2020 1532

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: VQ49892-002
Batch: 49892
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Sulfate	20	20		1	102	90-110	04/02/2020 1611

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: VQ49893-001
Batch: 49893
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Chloride	ND		1	1.0	0.20	mg/L	04/02/2020 1532

LOQ = Limit of Quantitation
DL = Detection Limit

ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria

N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: VQ49893-002
Batch: 49893
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Chloride	20	21		1	103	90-110	04/02/2020 1611

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: VQ49894-001
Batch: 49894
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Bromide	ND		1	0.20	0.050	mg/L	04/02/2020 1532

LOQ = Limit of Quantitation
DL = Detection Limit

ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria

N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: VQ49894-002
Batch: 49894
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Bromide	8.0	8.3		1	104	90-110	04/02/2020 1611

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: VQ49998-001
Batch: 49998
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Sulfate	ND		1	1.0	0.20	mg/L	04/03/2020 1336

LOQ = Limit of Quantitation
DL = Detection Limit

ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria

N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: VQ49998-002
Batch: 49998
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Sulfate	20	20		1	102	90-110	04/03/2020 1416

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: VQ49999-001
Batch: 49999
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Chloride	ND		1	1.0	0.20	mg/L	04/03/2020 1336

LOQ = Limit of Quantitation
DL = Detection Limit

ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria

N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: VQ49999-002
Batch: 49999
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Chloride	20	20		1	102	90-110	04/03/2020 1416

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: VQ50000-001
Batch: 50000
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Bromide	ND		1	0.20	0.050	mg/L	04/03/2020 1336

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: VQ50000-002
Batch: 50000
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Bromide	8.0	8.2		1	102	90-110	04/03/2020 1416

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: VQ50305-001
Batch: 50305
Analytical Method: 300.0

Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Sulfate	ND		1	1.0	0.20	mg/L	04/07/2020 1242

LOQ = Limit of Quantitation
DL = Detection Limit

ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria

N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: VQ50305-002
Batch: 50305
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Sulfate	20	21		1	103	90-110	04/07/2020 1321

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: VQ50080-001
Batch: 50080
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Acetone	ND		1	20	5.0	ug/L	04/06/2020 0948
Benzene	ND		1	1.0	0.40	ug/L	04/06/2020 0948
Bromodichloromethane	ND		1	1.0	0.40	ug/L	04/06/2020 0948
Bromoform	ND		1	1.0	0.40	ug/L	04/06/2020 0948
Bromomethane (Methyl bromide)	ND		1	2.0	0.40	ug/L	04/06/2020 0948
2-Butanone (MEK)	ND		1	10	2.0	ug/L	04/06/2020 0948
Carbon disulfide	ND		1	1.0	0.40	ug/L	04/06/2020 0948
Carbon tetrachloride	ND		1	1.0	0.40	ug/L	04/06/2020 0948
Chlorobenzene	ND		1	1.0	0.40	ug/L	04/06/2020 0948
Chloroethane	ND		1	2.0	0.40	ug/L	04/06/2020 0948
Chloroform	ND		1	1.0	0.40	ug/L	04/06/2020 0948
Chloromethane (Methyl chloride)	ND		1	1.0	0.50	ug/L	04/06/2020 0948
Cyclohexane	ND		1	1.0	0.40	ug/L	04/06/2020 0948
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	0.40	ug/L	04/06/2020 0948
Dibromochloromethane	ND		1	1.0	0.40	ug/L	04/06/2020 0948
1,2-Dibromoethane (EDB)	ND		1	1.0	0.40	ug/L	04/06/2020 0948
1,2-Dichlorobenzene	ND		1	1.0	0.40	ug/L	04/06/2020 0948
1,3-Dichlorobenzene	ND		1	1.0	0.40	ug/L	04/06/2020 0948
1,4-Dichlorobenzene	ND		1	1.0	0.40	ug/L	04/06/2020 0948
Dichlorodifluoromethane	ND		1	2.0	0.60	ug/L	04/06/2020 0948
1,1-Dichloroethane	ND		1	1.0	0.40	ug/L	04/06/2020 0948
1,2-Dichloroethane	ND		1	1.0	0.40	ug/L	04/06/2020 0948
1,1-Dichloroethene	ND		1	1.0	0.40	ug/L	04/06/2020 0948
cis-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	04/06/2020 0948
trans-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	04/06/2020 0948
1,2-Dichloropropane	ND		1	1.0	0.40	ug/L	04/06/2020 0948
cis-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	04/06/2020 0948
trans-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	04/06/2020 0948
Ethylbenzene	ND		1	1.0	0.40	ug/L	04/06/2020 0948
2-Hexanone	ND		1	10	2.0	ug/L	04/06/2020 0948
Isopropylbenzene	ND		1	1.0	0.40	ug/L	04/06/2020 0948
Methyl acetate	ND		1	1.0	0.40	ug/L	04/06/2020 0948
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	0.40	ug/L	04/06/2020 0948
4-Methyl-2-pentanone	ND		1	10	2.0	ug/L	04/06/2020 0948
Methylcyclohexane	ND		1	5.0	0.40	ug/L	04/06/2020 0948
Methylene chloride	ND		1	1.0	0.40	ug/L	04/06/2020 0948
Styrene	ND		1	1.0	0.41	ug/L	04/06/2020 0948
1,1,2,2-Tetrachloroethane	ND		1	1.0	0.40	ug/L	04/06/2020 0948
Tetrachloroethene	ND		1	1.0	0.40	ug/L	04/06/2020 0948
Toluene	ND		1	1.0	0.40	ug/L	04/06/2020 0948
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	0.42	ug/L	04/06/2020 0948
1,2,4-Trichlorobenzene	ND		1	1.0	0.40	ug/L	04/06/2020 0948
1,1,1-Trichloroethane	ND		1	1.0	0.40	ug/L	04/06/2020 0948
1,1,2-Trichloroethane	ND		1	1.0	0.40	ug/L	04/06/2020 0948

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: VQ50080-001
Batch: 50080
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Trichloroethene	ND		1	1.0	0.40	ug/L	04/06/2020 0948
Trichlorofluoromethane	ND		1	1.0	0.40	ug/L	04/06/2020 0948
Vinyl chloride	ND		1	1.0	0.40	ug/L	04/06/2020 0948
Xylenes (total)	ND		1	1.0	0.40	ug/L	04/06/2020 0948

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		90	70-130
1,2-Dichloroethane-d4		91	70-130
Toluene-d8		96	70-130

LOQ = Limit of Quantitation
DL = Detection Limit

ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria

N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: VQ50080-002
Batch: 50080
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	94		1	94	60-140	04/06/2020 0813
Benzene	50	47		1	93	70-130	04/06/2020 0813
Bromodichloromethane	50	54		1	108	70-130	04/06/2020 0813
Bromoform	50	55		1	110	70-130	04/06/2020 0813
Bromomethane (Methyl bromide)	50	46		1	92	70-130	04/06/2020 0813
2-Butanone (MEK)	100	88		1	88	70-130	04/06/2020 0813
Carbon disulfide	50	46		1	93	70-130	04/06/2020 0813
Carbon tetrachloride	50	48		1	96	70-130	04/06/2020 0813
Chlorobenzene	50	49		1	97	70-130	04/06/2020 0813
Chloroethane	50	48		1	96	70-130	04/06/2020 0813
Chloroform	50	45		1	91	70-130	04/06/2020 0813
Chloromethane (Methyl chloride)	50	48		1	95	60-140	04/06/2020 0813
Cyclohexane	50	46		1	92	70-130	04/06/2020 0813
1,2-Dibromo-3-chloropropane (DBCP)	50	47		1	95	70-130	04/06/2020 0813
Dibromochloromethane	50	53		1	106	70-130	04/06/2020 0813
1,2-Dibromoethane (EDB)	50	50		1	99	70-130	04/06/2020 0813
1,2-Dichlorobenzene	50	50		1	100	70-130	04/06/2020 0813
1,3-Dichlorobenzene	50	51		1	102	70-130	04/06/2020 0813
1,4-Dichlorobenzene	50	49		1	97	70-130	04/06/2020 0813
Dichlorodifluoromethane	50	51		1	102	60-140	04/06/2020 0813
1,1-Dichloroethane	50	45		1	91	70-130	04/06/2020 0813
1,2-Dichloroethane	50	46		1	92	70-130	04/06/2020 0813
1,1-Dichloroethene	50	47		1	94	70-130	04/06/2020 0813
cis-1,2-Dichloroethene	50	44		1	88	70-130	04/06/2020 0813
trans-1,2-Dichloroethene	50	46		1	92	70-130	04/06/2020 0813
1,2-Dichloropropane	50	48		1	95	70-130	04/06/2020 0813
cis-1,3-Dichloropropene	50	49		1	97	70-130	04/06/2020 0813
trans-1,3-Dichloropropene	50	54		1	109	70-130	04/06/2020 0813
Ethylbenzene	50	51		1	102	70-130	04/06/2020 0813
2-Hexanone	100	100		1	100	70-130	04/06/2020 0813
Isopropylbenzene	50	51		1	103	70-130	04/06/2020 0813
Methyl acetate	50	42		1	84	70-130	04/06/2020 0813
Methyl tertiary butyl ether (MTBE)	50	46		1	91	70-130	04/06/2020 0813
4-Methyl-2-pentanone	100	97		1	97	70-130	04/06/2020 0813
Methylcyclohexane	50	46		1	93	70-130	04/06/2020 0813
Methylene chloride	50	42		1	84	70-130	04/06/2020 0813
Styrene	50	52		1	104	70-130	04/06/2020 0813
1,1,2,2-Tetrachloroethane	50	52		1	103	70-130	04/06/2020 0813
Tetrachloroethene	50	54		1	109	70-130	04/06/2020 0813
Toluene	50	50		1	100	70-130	04/06/2020 0813
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	45		1	89	70-130	04/06/2020 0813
1,2,4-Trichlorobenzene	50	50		1	99	70-130	04/06/2020 0813
1,1,1-Trichloroethane	50	47		1	94	70-130	04/06/2020 0813
1,1,2-Trichloroethane	50	48		1	97	70-130	04/06/2020 0813

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: VQ50080-002
Batch: 50080
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	48		1	96	70-130	04/06/2020 0813
Trichlorofluoromethane	50	48		1	95	70-130	04/06/2020 0813
Vinyl chloride	50	49		1	98	70-130	04/06/2020 0813
Xylenes (total)	100	100		1	101	70-130	04/06/2020 0813

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		92	70-130
1,2-Dichloroethane-d4		87	70-130
Toluene-d8		94	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: VD01033-006MS
Batch: 50080
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	1000	940		10	84	60-140	04/06/2020 1805
Benzene	ND	500	540		10	109	70-130	04/06/2020 1805
Bromodichloromethane	ND	500	530		10	106	70-130	04/06/2020 1805
Bromoform	ND	500	530		10	106	70-130	04/06/2020 1805
Bromomethane (Methyl bromide)	ND	500	450		10	90	70-130	04/06/2020 1805
2-Butanone (MEK)	ND	1000	940		10	93	70-130	04/06/2020 1805
Carbon disulfide	ND	500	460		10	91	70-130	04/06/2020 1805
Carbon tetrachloride	ND	500	530		10	107	70-130	04/06/2020 1805
Chlorobenzene	ND	500	530		10	106	70-130	04/06/2020 1805
Chloroethane	ND	500	530		10	106	70-130	04/06/2020 1805
Chloroform	ND	500	490		10	98	70-130	04/06/2020 1805
Chloromethane (Methyl chloride)	ND	500	490		10	98	60-140	04/06/2020 1805
Cyclohexane	ND	500	460		10	93	70-130	04/06/2020 1805
1,2-Dibromo-3-chloropropane (DBCP)	ND	500	460		10	92	70-130	04/06/2020 1805
Dibromochloromethane	ND	500	530		10	107	70-130	04/06/2020 1805
1,2-Dibromoethane (EDB)	ND	500	540		10	108	70-130	04/06/2020 1805
1,2-Dichlorobenzene	ND	500	510		10	101	70-130	04/06/2020 1805
1,3-Dichlorobenzene	ND	500	520		10	103	70-130	04/06/2020 1805
1,4-Dichlorobenzene	ND	500	500		10	100	70-130	04/06/2020 1805
Dichlorodifluoromethane	ND	500	530		10	107	60-140	04/06/2020 1805
1,1-Dichloroethane	ND	500	500		10	99	70-130	04/06/2020 1805
1,2-Dichloroethane	ND	500	510		10	102	70-130	04/06/2020 1805
1,1-Dichloroethene	ND	500	540		10	109	70-130	04/06/2020 1805
cis-1,2-Dichloroethene	ND	500	490		10	98	70-130	04/06/2020 1805
trans-1,2-Dichloroethene	ND	500	520		10	105	70-130	04/06/2020 1805
1,2-Dichloropropane	ND	500	540		10	107	70-130	04/06/2020 1805
cis-1,3-Dichloropropene	ND	500	520		10	104	70-130	04/06/2020 1805
trans-1,3-Dichloropropene	ND	500	540		10	107	70-130	04/06/2020 1805
Ethylbenzene	610	500	1200		10	112	70-130	04/06/2020 1805
2-Hexanone	ND	1000	1100		10	112	70-130	04/06/2020 1805
Isopropylbenzene	ND	500	590		10	118	70-130	04/06/2020 1805
Methyl acetate	ND	500	480		10	95	70-130	04/06/2020 1805
Methyl tertiary butyl ether (MTBE)	ND	500	470		10	95	70-130	04/06/2020 1805
4-Methyl-2-pentanone	ND	1000	1100		10	106	70-130	04/06/2020 1805
Methylcyclohexane	ND	500	520		10	103	70-130	04/06/2020 1805
Methylene chloride	ND	500	470		10	93	70-130	04/06/2020 1805
Styrene	12	500	580		10	114	70-130	04/06/2020 1805
1,1,2,2-Tetrachloroethane	ND	500	540		10	109	70-130	04/06/2020 1805
Tetrachloroethene	ND	500	600		10	120	70-130	04/06/2020 1805
Toluene	ND	500	580		10	115	70-130	04/06/2020 1805
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	500	500		10	100	70-130	04/06/2020 1805
1,2,4-Trichlorobenzene	ND	500	500		10	99	70-130	04/06/2020 1805
1,1,1-Trichloroethane	ND	500	510		10	103	70-130	04/06/2020 1805
1,1,2-Trichloroethane	ND	500	540		10	108	70-130	04/06/2020 1805

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: VD01033-006MS
Batch: 50080
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	ND	500	550		10	110	70-130	04/06/2020 1805
Trichlorofluoromethane	ND	500	520		10	104	70-130	04/06/2020 1805
Vinyl chloride	ND	500	490		10	98	70-130	04/06/2020 1805
Xylenes (total)	2000	1000	3200		10	113	70-130	04/06/2020 1805

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		93	70-130
1,2-Dichloroethane-d4		88	70-130
Toluene-d8		97	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MSD

Sample ID: VD01033-006MD
Batch: 50080
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	100	1000	1000		10	90	5.8	60-140	20	04/06/2020 1828
Benzene	ND	500	540		10	108	0.76	70-130	20	04/06/2020 1828
Bromodichloromethane	ND	500	530		10	106	0.56	70-130	20	04/06/2020 1828
Bromoform	ND	500	540		10	109	2.8	70-130	20	04/06/2020 1828
Bromomethane (Methyl bromide)	ND	500	460		10	91	1.5	70-130	20	04/06/2020 1828
2-Butanone (MEK)	ND	1000	980		10	97	3.9	70-130	20	04/06/2020 1828
Carbon disulfide	ND	500	450		10	90	1.3	70-130	20	04/06/2020 1828
Carbon tetrachloride	ND	500	530		10	107	0.087	70-130	20	04/06/2020 1828
Chlorobenzene	ND	500	540		10	108	1.3	70-130	20	04/06/2020 1828
Chloroethane	ND	500	530		10	107	0.69	70-130	20	04/06/2020 1828
Chloroform	ND	500	500		10	100	1.7	70-130	20	04/06/2020 1828
Chloromethane (Methyl chloride)	ND	500	490		10	97	1.4	60-140	20	04/06/2020 1828
Cyclohexane	ND	500	450		10	90	3.1	70-130	20	04/06/2020 1828
1,2-Dibromo-3-chloropropane (DBCP)	ND	500	490		10	99	6.9	70-130	20	04/06/2020 1828
Dibromochloromethane	ND	500	550		10	110	2.7	70-130	20	04/06/2020 1828
1,2-Dibromoethane (EDB)	ND	500	550		10	111	2.9	70-130	20	04/06/2020 1828
1,2-Dichlorobenzene	ND	500	520		10	104	3.0	70-130	20	04/06/2020 1828
1,3-Dichlorobenzene	ND	500	530		10	106	2.9	70-130	20	04/06/2020 1828
1,4-Dichlorobenzene	ND	500	510		10	103	2.3	70-130	20	04/06/2020 1828
Dichlorodifluoromethane	ND	500	530		10	107	0.047	60-140	20	04/06/2020 1828
1,1-Dichloroethane	ND	500	510		10	101	2.2	70-130	20	04/06/2020 1828
1,2-Dichloroethane	ND	500	510		10	103	0.63	70-130	20	04/06/2020 1828
1,1-Dichloroethene	ND	500	540		10	108	0.33	70-130	20	04/06/2020 1828
cis-1,2-Dichloroethene	ND	500	500		10	99	1.3	70-130	20	04/06/2020 1828
trans-1,2-Dichloroethene	ND	500	530		10	106	1.7	70-130	20	04/06/2020 1828
1,2-Dichloropropane	ND	500	540		10	108	0.53	70-130	20	04/06/2020 1828
cis-1,3-Dichloropropene	ND	500	520		10	104	0.46	70-130	20	04/06/2020 1828
trans-1,3-Dichloropropene	ND	500	550		10	109	2.0	70-130	20	04/06/2020 1828
Ethylbenzene	610	500	1200		10	113	0.48	70-130	20	04/06/2020 1828
2-Hexanone	ND	1000	1200		10	117	4.4	70-130	20	04/06/2020 1828
Isopropylbenzene	ND	500	580		10	116	1.3	70-130	20	04/06/2020 1828
Methyl acetate	ND	500	500		10	100	4.3	70-130	20	04/06/2020 1828
Methyl tertiary butyl ether (MTBE)	ND	500	480		10	96	1.5	70-130	20	04/06/2020 1828
4-Methyl-2-pentanone	ND	1000	1100		10	108	2.2	70-130	20	04/06/2020 1828
Methylcyclohexane	ND	500	510		10	100	2.1	70-130	20	04/06/2020 1828
Methylene chloride	ND	500	470		10	93	0.78	70-130	20	04/06/2020 1828
Styrene	12	500	580		10	113	0.86	70-130	20	04/06/2020 1828
1,1,2,2-Tetrachloroethane	ND	500	580		10	116	6.3	70-130	20	04/06/2020 1828
Tetrachloroethene	ND	500	600		10	118	1.0	70-130	20	04/06/2020 1828
Toluene	ND	500	580		10	116	0.22	70-130	20	04/06/2020 1828
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	500	480		10	96	4.0	70-130	20	04/06/2020 1828
1,2,4-Trichlorobenzene	ND	500	520		10	104	4.4	70-130	20	04/06/2020 1828
1,1,1-Trichloroethane	ND	500	520		10	104	0.92	70-130	20	04/06/2020 1828
1,1,2-Trichloroethane	ND	500	550		10	111	2.4	70-130	20	04/06/2020 1828

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MSD

Sample ID: VD01033-006MD
Batch: 50080
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Trichloroethene	ND	500	550		10	110	0.24	70-130	20	04/06/2020 1828
Trichlorofluoromethane	ND	500	520		10	105	0.77	70-130	20	04/06/2020 1828
Vinyl chloride	ND	500	490		10	98	0.029	70-130	20	04/06/2020 1828
Xylenes (total)	2000	1000	3200		10	112	0.13	70-130	20	04/06/2020 1828

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		92	70-130
1,2-Dichloroethane-d4		87	70-130
Toluene-d8		97	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Chain of Custody

and

Miscellaneous Documents

SHEALY ENVIRONMENTAL SERVICES, INC.
106 Vantage Point Drive • West Columbia, SC 29172
Telephone No. 803-791-9700 Fax No. 803-791-9111
www.shealylab.com

Chain of Custody Record

Number 82490

Client: TRC	Report to Contact: Lisa Clark	Telephone No. / E-mail:	Quote No.:
Address: 50 International Dr Suite 150	Sampler's Signature: X	Analysis (Attach list if more space is needed)	Page 1 of 1
City: Greenville	State: SC	Zip Code: 29681	Printed Name: Benjamin Medlin
Project Name: WPH Clemson			
Project No.: 300688.0.0.11	P.O. No.:		

Sample ID / Description (Containers for each sample may be combined on one line.)	Date 2020	Time	Grab (G) or Composite (C)	Matrix: Aqueous	Solid	Non-Aqueous	No. of Containers by Preservative Type: Unpres.	H2SO4	HNO3	HCl	NaOH	5035 Kit	TSP	VOCs	Cl, SO4, Br	NO3	Diss. Gases	Remarks / Cooler I.D.
TBLK-20114	/	/	G	x						2				x				
RBLK-20101	3.31	1010	G				2			3				x	x	x		
RMW-20B	3.31	1100	G	x			2			3			3	x	x	x	x	
RMW-18A	3.31	1245	G	x			2			3			3	x	x	x	x	
RMW-27	3.31	1405	G	x			2			3			3	x	x	x	x	
RMW-02	3.31	1605	G	x			2			3			3	x	x	x	x	

VD01033

LJO

Remarks / Cooler I.D.

Turn Around Time Required (Prior lab approval required for expedited TAT.): ☐ Standard ☐ Rush (Specify)

Sample Disposal: ☐ Return to Client ☐ Disposal by Lab

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

QC Requirements (Specify):

	Date	Time		Date	Time
1. Relinquished by	3.31.20	1805	1. Received by: TRC SS	3.31.20	1805
2. Relinquished by	4.1.20	0855	2. Received by	4.1.20	0855
3. Relinquished by	4.1.20	1423	3. Received by	Date	Time
4. Relinquished by	Date	Time	4. Laboratory received by	4/1/2020	1423

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on Ice (Circle) (Yes) No Ice Pack

Receipt Temp 1.7 °C

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Client Copy

Document Number: F-AD-133 Effective Date: 08-01-2014

Shealy Environmental Services, Inc.
Document Number: MB00188C-14

Page 1 of 1
Effective Date: 8/2/2018

Sample Receipt Checklist (SRC)

Client: TRC Cooler Inspected by/date: JSH / 04/01/2020 Lot #: VD01033

Means of receipt: ☑ SESI ☐ Client ☐ UPS ☐ FedEx ☐ Other:

☐ Yes	☑ No		1. Were custody seals present on the cooler?
☐ Yes	☐ No	☑ NA	2. If custody seals were present, were they intact and unbroken?

pH Strip ID: NA Chlorine Strip ID: NA Tested by: NA

Original temperature upon receipt / Derived (Corrected) temperature upon receipt %Solid Snap-Cup ID: NA

1.7 / 1.7 °C NA / NA °C NA / NA °C NA / NA °C

Method: ☑ Temperature Blank ☐ Against Bottles IR Gun ID: 5 IR Gun Correction Factor: 0 °C

Method of coolant: ☑ Wet Ice ☐ Ice Packs ☐ Dry Ice ☐ None

☐ Yes	☐ No	☑ NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).
☐ Yes	☐ No	☑ NA	4. Is the commercial courier's packing slip attached to this form?
☑ Yes	☐ No		5. Were proper custody procedures (relinquished/received) followed?
☑ Yes	☐ No		6. Were sample IDs listed on the COC?
☑ Yes	☐ No		7. Were sample IDs listed on all sample containers?
☑ Yes	☐ No		8. Was collection date & time listed on the COC?
☑ Yes	☐ No		9. Was collection date & time listed on all sample containers?
☑ Yes	☐ No		10. Did all container label information (ID, date, time) agree with the COC?
☑ Yes	☐ No		11. Were tests to be performed listed on the COC?
☑ Yes	☐ No		12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)?
☑ Yes	☐ No		13. Was adequate sample volume available?
☐ Yes	☑ No		14. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
☐ Yes	☑ No		15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
☑ Yes	☐ No	☐ NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (¼"or 6mm in diameter) in any of the VOA vials?
☐ Yes	☐ No	☑ NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?
☐ Yes	☐ No	☑ NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
☐ Yes	☐ No	☐ NA	19. Were all applicable NH_3/TKN/cyanide/phenol/625 (< 0.5mg/L) samples free of residual chlorine?
☐ Yes	☐ No	☑ NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc…) correctly transcribed from the COC into the comment section in LIMS?
☐ Yes	☑ No		21. Was the quote number listed on the container label? If yes, Quote # NA

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) NA were received incorrectly preserved and were adjusted accordingly in sample receiving with NA mL of circle one: H_2SO_4, HNO_3, HCl, NaOH using SR # NA. Time of preservation NA. If more than one preservative is needed, please note in the comments below.

Sample(s) VD01033-003(2), -006(1) were received with bubbles >6 mm in diameter.

Samples(s) NA were received with TRC > 0.5 mg/L (If #19 is *no*) and were adjusted accordingly in sample receiving with sodium thiosulfate ($Na_2S_2O_3$) with Shealy ID: NA.

SR barcode labels applied by: JSH Date: 04/01/2020

Comments:

Pace Analytical Energy Services LLC
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

April 15, 2020

Lucas Odom
Pace Analytical Services South Carolina
106 Vantage Point Drive
West Columbia, SC 29172

RE: **WPH CLEMSON / TRC**

Pace Workorder: 33410

Dear Lucas Odom:

Enclosed are the analytical results for sample(s) received by the laboratory on Friday, April 03, 2020. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Ruth Welsh 04/15/2020
Ruth.Welsh@pacelabs.com

Customer Service Representative

Enclosures

As a valued client we would appreciate your comments on our service.
Please email PAESfeedback@pacelabs.com.

Total Number of Pages 16

CERTIFICATE OF ANALYSIS

Laboratory Data Quality Review Notes

Project Name: WPH-Clemson, SC

Project Number: 300688.0000.0000 Phase 4

Lab Report: **33410** Pace Analytical Energy Services LLC; Pittsburgh, PA
This lab report is the subcontracted job related to **VD01033**.

Samples and Analyses: Four groundwater samples, collected 31-Mar-2020 and analyzed for dissolved hydrocarbon gases (methane, ethane, ethene)

Chain of Custody, Sample Temperature, Sample Preservation: Chain of custody was signed (sample transfer from Pace Analytical, Columbia, to Pace Analytical, Pittsburgh); sample temperature was <6 ^{o}C upon arrival at the laboratory; samples were preserved properly. Headspace was noted in some of the vials; however, no validation action was required on this basis.

Hold Time: Sample analyses were performed within acceptable hold time.

Surrogates: Surrogate recoveries are not applicable to dissolved hydrocarbon gas analyses.

Method Blank: Target analytes were not detected in the laboratory method blank.

Trip Blank: A trip blank was not analyzed with these samples.

Field Blank: A field blank was not collected with these samples.

Equipment Rinse Blank: The rinsate blank was not analyzed for dissolved gases.

LCS/LCSD: LCS and LCSD recoveries and LCS/LCSD RPDs are within the laboratory QC limits.

MS/MSD: MS/MSD analyses were performed using a sample from another data set; results are not relevant to this review.

Duplicates: No laboratory duplicates were included with these analyses. No field duplicate sample was collected with this data set.

Dilutions: No dilutions were performed with these sample analyses.

No data qualifiers were assigned in this review.

Data reviewer: Amy Bass; TRC Environmental Corporation; 02-Oct-2020

Pace Analytical Energy Services LLC
220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

LABORATORY ACCREDITATIONS & CERTIFICATIONS

Accreditor:	Pennsylvania Department of Environmental Protection, Bureau of Laboratories
Accreditation ID:	02-00538
Scope:	NELAP Non-Potable Water
Accreditor:	West Virginia Department of Environmental Protection, Division of Water and Waste Management
Accreditation ID:	395
Scope:	Non-Potable Water
Accreditor:	South Carolina Department of Health and Environmental Control, Office of Environmental Laboratory Certification
Accreditation ID:	89009003
Scope:	Clean Water Act (CWA); Resource Conservation and Recovery Act (RCRA)
Accreditor:	State of Virginia
Accreditation ID:	460201
Scope:	Non-Potable Water
Accreditor:	NELAP: New Jersey, Department of Environmental Protection
Accreditation ID:	PA026
Scope:	Non-Potable Water
Accreditor:	NELAP: New York, Department of Health Wadsworth Center
Accreditation ID:	11815
Scope:	Non-Potable Water
Accreditor:	State of Connecticut, Department of Public Health, Division of Environmental Health
Accreditation ID:	PH-0263
Scope:	Clean Water Act (CWA) Resource Conservation and Recovery Act (RCRA)
Accreditor:	NELAP: Texas, Commission on Environmental Quality
Accreditation ID:	T104704453-09-TX
Scope:	Non-Potable Water
Accreditor:	State of New Hampshire
Accreditation ID:	299409
Scope:	Non-potable water
Accreditor:	State of Georgia
Accreditation ID:	Chapter 391-3-26
Scope:	As per the Georgia EPD Rules and Regulations for Commercial Laboratories, PAES is accredited by the Pennsylvania Department of Environmental Protection Bureau of Laboratories under the National Environmental Laboratory Approval Program (NELAC).

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SAMPLE SUMMARY

Workorder: 33410 WPH CLEMSON / TRC

Lab ID	Sample ID	Matrix	Date Collected	Date Received
334100001	RMW-20B	Water	3/31/2020 11:00	4/3/2020 10:15
334100002	RMW-18A	Water	3/31/2020 12:45	4/3/2020 10:15
334100003	RMW-27	Water	3/31/2020 14:05	4/3/2020 10:15
334100004	RMW-02	Water	3/31/2020 16:05	4/3/2020 10:15

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ANALYTICAL RESULTS

Workorder: 33410 WPH CLEMSON / TRC

Lab ID: **334100001** Date Received: 4/3/2020 10:15 Matrix: Water

Sample ID: **RMW-20B** Date Collected: 3/31/2020 11:00

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**24000**	ug/l	0.50	0.046	1	4/10/2020 11:21	BW	n
Ethane	**0.39**	ug/l	0.10	0.0050	1	4/10/2020 11:21	BW	n
Ethene	**0.16**	ug/l	0.10	0.0040	1	4/10/2020 11:21	BW	n

CERTIFICATE OF ANALYSIS

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ANALYTICAL RESULTS

Workorder: 33410 WPH CLEMSON / TRC

Lab ID: **334100002** Date Received: 4/3/2020 10:15 Matrix: Water

Sample ID: **RMW-18A** Date Collected: 3/31/2020 12:45

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**55**	ug/l	0.50	0.046	1	4/10/2020 11:31	BW	n
Ethane	**0.36**	ug/l	0.10	0.0050	1	4/10/2020 11:31	BW	n
Ethene	**0.051J**	ug/l	0.10	0.0040	1	4/10/2020 11:31	BW	n

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ANALYTICAL RESULTS

Workorder: 33410 WPH CLEMSON / TRC

Lab ID: **334100003** Date Received: 4/3/2020 10:15 Matrix: Water

Sample ID: **RMW-27** Date Collected: 3/31/2020 14:05

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**10000**	ug/l	0.50	0.023	1	4/14/2020 10:08	BW	n
Ethane	**2.9**	ug/l	0.10	0.010	1	4/14/2020 10:08	BW	n
Ethene	**3.3**	ug/l	0.10	0.0090	1	4/14/2020 10:08	BW	n

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ANALYTICAL RESULTS

Workorder: 33410 WPH CLEMSON / TRC

Lab ID: **334100004** Date Received: 4/3/2020 10:15 Matrix: Water

Sample ID: **RMW-02** Date Collected: 3/31/2020 16:05

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers
RISK - PAES								
Analysis Desc: AM20GAX		Analytical Method: AM20GAX						
Methane	**330**	ug/l	0.50	0.023	1	4/14/2020 10:19	BW	n
Ethane	**0.026J**	ug/l	0.10	0.010	1	4/14/2020 10:19	BW	n
Ethene	**0.13**	ug/l	0.10	0.0090	1	4/14/2020 10:19	BW	n

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ANALYTICAL RESULTS QUALIFIERS

Workorder: 33410 WPH CLEMSON / TRC

DEFINITIONS/QUALIFIERS

MDL	Method Detection Limit. Can be used synonymously with LOD; Limit Of Detection.
PQL	Practical Quanitation Limit. Can be used synonymously with LOQ; Limit Of Quantitation.
ND	Not detected at or above reporting limit.
DF	Dilution Factor.
S	Surrogate.
RPD	Relative Percent Difference.
% Rec	Percent Recovery.
U	Indicates the compound was analyzed for, but not detected at or above the noted concentration.
J	Estimated concentration greater than the set method detection limit (MDL) and less than the set reporting limit (PQL).
n	The laboratory does not hold NELAP/TNI accreditation for this method or analyte.

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QUALITY CONTROL DATA

Workorder: 33410 WPH CLEMSON / TRC

QC Batch: DISG/8200 Analysis Method: AM20GAX

QC Batch Method: AM20GAX

Associated Lab Samples: 334100001, 334100002

METHOD BLANK: 66722

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
RISK				
Methane	ug/l	0.046U	0.046	n
Ethane	ug/l	0.0050U	0.0050	n
Ethene	ug/l	0.0040U	0.0040	n

LABORATORY CONTROL SAMPLE & LCSD: 66723 66724

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Methane	ug/l	750	750	740	100	99	80-120	0.61	20	n
Ethane	ug/l	38	39	40	102	105	80-120	2.4	20	n
Ethene	ug/l	35	36	38	104	107	80-120	3.1	20	n

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 66741 66742 Original: 334030002

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
RISK											
Methane	ug/l	750	750	1700	1500	122	105	70-130	8	20	n
Ethane	ug/l	0.39	38	36	36	95	93	70-130	1.8	20	n
Ethene	ug/l	0.021	35	34	34	97	95	70-130	1.9	20	n

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QUALITY CONTROL DATA

Workorder: 33410 WPH CLEMSON / TRC

QC Batch: DISG/8202 Analysis Method: AM20GAX

QC Batch Method: AM20GAX

Associated Lab Samples: 334100003, 334100004

METHOD BLANK: 66752

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
RISK				
Methane	ug/l	0.023U	0.023	n
Ethane	ug/l	0.010U	0.010	n
Ethene	ug/l	0.0090U	0.0090	n

LABORATORY CONTROL SAMPLE & LCSD: 66753 66754

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
Methane	ug/l	750	740	740	98	99	80-120	0.098	20	n
Ethane	ug/l	38	37	38	98	101	80-120	2.9	20	n
Ethene	ug/l	35	35	36	100	103	80-120	3.6	20	n

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QUALITY CONTROL DATA QUALIFIERS

Workorder: 33410 WPH CLEMSON / TRC

QUALITY CONTROL PARAMETER QUALIFIERS

n	The laboratory does not hold NELAP/TNI accreditation for this method or analyte.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 33410 WPH CLEMSON / TRC

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
334100001	RMW-20B			AM20GAX	DISG/8200
334100002	RMW-18A			AM20GAX	DISG/8200
334100003	RMW-27			AM20GAX	DISG/8202
334100004	RMW-02			AM20GAX	DISG/8202

SHEALY

Chain of Custody Record

33410

Shealy Environmental Services, Inc.
106 Vantage Point Drive
West Columbia, South Carolina 29172
Telephone No. (803) 791-9700 Fax No. (803) 791-9111
www.shealylab.com

Number

Client: Pace Analytical - Columbia	Report to Contact: Lucas Odom
Address: 106 Vantage Point Dr.	Sampler's Signature: X ______ Printed Name
City: West Columbia; State: SC; Zip Code: 29172	
Project Name: WPH Clemson	
Project Number: 300688.0.0.11	P.O No.
Telephone No. / E-mail: 803-206-9537/lodom@shealylab.com	Quote No.
Analysis (Attach list if more space is needed)	Page 1 of 1
Laboratory Lot Number	

Sample ID / Description (Containers for each sample may be combined on one line)	Date	Time	G=Grab C=Composite	Matrix: Aqueous	Solid	Non-Aqueous		Preservative: Unpres.	H2SO4	HNO3	HCl	NaOH	5035 Kit	TSP	Diss. Gasses									Remarks / Cooler I.D.
RMW-20B	3/31/2020	1100	G	x										x	X									VD01033
RMW-18A	3/31/2020	1245	G	x										x	x									
RMW-27	3/31/2020	1405	G	x										x	x									
RMW-02	3/31/2020	1605	G	x										x	x									

Turn Around Time Required (Prior lab approval required for expedited TAT): X Standard ☐ Rush

Sample Disposal: ☐ Return to Client ☒ Disposal by Lab

Possible Hazard Identification (List any known hazards in the remarks): ☐ Non-Hazardous ☐ Flammable ☐ Skin Irritant ☐ SDS provided ☐ Unknown

QC Requirements

Relinquished by	Date	Time	Received by	Date	Time
1. Relinquished by [signature]	4-2-2020	1800	1. Received by		
2. Relinquished by			2. Received by		
3. Relinquished by			3. Received by		
4. Relinquished by			4. Laboratory Received by [signature] PAES	4.3.2020	1015

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on Ice (Check) ☐ Y ☐ N ☐ Ice Pack
Receipt Temp. 1 °C

Document Number: ME002OW-01

Cooler Receipt Form

Client Name: Pace **Project:** WPH Clemson **Lab Work Order:** 33410

A. **Shipping/Container Information** (circle appropriate response)

Courier: (FedEx) UPS USPS Client Other:_____ **Air bill Present:** (Yes) No

Tracking Number: 166334637853

Custody Seal on Cooler/Box Present: (Yes) No **Seals Intact:** (Yes) No

Cooler/Box Packing Material: (Bubble Wrap) Absorbent Foam Other:_____

Type of Ice: (Wet) Blue None **Ice Intact:** (Yes) Melted

Cooler Temperature: 1°C **Radiation Screened:** Yes (No) **Chain of Custody Present:** (Yes) No

Comments:_____

B. **Laboratory Assignment/Log-in** (check appropriate response)

	YES	NO	N/A	Comment Reference non-Conformance
Chain of Custody properly filled out	✓			
Chain of Custody relinquished	✓			
Sampler Name & Signature on COC			✓	
Containers intact	✓			
Were samples in separate bags	✓			
Sample container labels match COC Sample name/date and time collected	✓			
Sufficient volume provided	✓			
PAES containers used	✓			
Are containers properly preserved for the requested testing? (as labeled)	✓			
If an unknown preservation state, were containers checked? Exception: VOA's coliform			✓	If yes, see pH form.
Was volume for dissolved testing field filtered, as noted on the COC? Was volume received in a preserved container?			✓	
Headspace present?	✓			

Comments:_____

Cooler contents examined/received by : LG **Date:** 4.3.2020

Project Manager Review : RW **Date:** 4-3-2020

NON-CONFORMANCE FORM

PAES Work Order #: 33410

Date: 4.3.2020 Time of Receipt: 10:15 Receiver: LY

Client: Pace

REASON FOR NON-CONFORMANCE:

Headspace in all 3 vials of RMW-20B & in 1 vial of RMW-02

ACTION TAKEN:

Client name: Lucas Odom Date: 4-3-2020 Time: 1400

Emailed client

Customer Service Initials: RW Date: 4-3-2020

Ruth Welsh - Re: VD01033 IRWO

From: Ruth Welsh
To: lodom@shealylab.com
Date: 4/2/2020 8:10 AM
Subject: Re: VD01033 IRWO

We received these samples today. I wanted to let you know that there was headspace in all of the vials for sample RMW-20B and in 1 vials for RMW-02

The laboratory is currently suspending Saturday receipts. IF there is an emergency, please contact Customer Service to make arrangements.

Ruth Welsh
Assistant General Manager | Pace Analytical Energy Services, LLC
220 William Pitt Way, Pittsburgh,PA 15238
412-826-2387 (O) |412-209-8995(C) | www.pacelabs.com

>>> Lucas Odom <lodom@shealylab.com> 4/2/2020 8:10 AM >>>
I think this will be the last group for this project!

Thanks,

Lucas Odom
Project Manager
Pace Analytical Services, LLC
Phone: 803-206-9537

Report of Analysis

TRC Companies, Inc.
50 International Dr.
Suite 150
Greenville, SC 29615
Attention: Lisa Clark

Project Name: WPH Clemson

Project Number: 300688.0000.0000.00011

Lot Number:**WC12066**

Date Completed:03/19/2021

03/22/2021 4:33 PM
Approved and released by:
Project Manager II: **Lucas Odom**

The electronic signature above is the equivalent of a handwritten signature.

Pace Analytical Services, LLC (*formerly Shealy Environmental Services, Inc.*)
106 Vantage Point Drive West Columbia, SC 29172
Tel: 803-791-9700 Fax: 803-791-9111 www.pacelabs.com

Laboratory Data Quality Review Notes

Project Name: WPH-Clemson, SC

Project Number: 300688.0000.0000 Phase 11

Lab Report: **WC12066** Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.), West Columbia, SC; subcontracted report: **221031719** Pace Analytical Gulf Coast, Baton Rouge, LA

Samples and Analyses: Six groundwater samples (plus one field duplicate), collected 11-Mar-2021 and analyzed for volatile organic compounds (VOCs), bromide, and sulfate; one trip blank (TB), analyzed for VOCs only. Analysis of the groundwater samples for dissolved hydrocarbon gases (ethane, ethene, methane) was subcontracted and was reported separately (as noted above).

Chain of Custody, Sample Temperature, Sample Preservation: Chain of custody (COC) forms were signed; cooler temperature was ≤6 ^{o}C upon arrival at each laboratory; samples were preserved properly. The following sample receipt anomalies were noted:

- The subcontract laboratory noted that 1 vial (of 3) was received broken for each of two samples: RMW-10 and RMW-10C. Analyses were performed using the 2 remaining vials for each sample.

Holding Time: Sample analyses were performed within acceptable holding times.

Surrogates: VOC surrogate recoveries were within laboratory quality control (QC) limits.

Method Blank: Laboratory method blanks were appropriately associated with all analyses. The following target analytes were detected in the laboratory method blanks:

- Methane (2.5 J µg/L) was detected in the laboratory method blank associated with the analysis of dissolved hydrocarbon gases in all samples. **The positive results for methane in samples RMW-10A, RMW-10B, RMW-28B, and DU-21101 were estimated concentrations below the limit of quantitation (LOQ) (J-qualified by the laboratory) and are therefore potential false positives; these results were qualified "u" (revised to non-detect [ND]) at the laboratory LOQ, based on the associated laboratory method blank contamination.** Qualification was not required for the positive result for methane in sample RMW-10 since this result was significantly higher than (>5×) the method blank concentration, and qualification was not required for the ND results in the remaining samples (RMW-10C and RMW-28A).

Trip Blank: No target analytes were detected in the TB; analyzed for VOCs only.

Field Blank: A field blank was not collected with these samples.

Equipment Rinse Blank: An equipment rinse blank was not collected with these samples.

LCS/LCSD: LCS analyses were performed appropriately for all analyses; the analyses for dissolved hydrocarbon gases also included analysis of LCSD samples. The LCS and LCSD recoveries and LCS/LCSD relative percent differences (RPDs) were within the laboratory QC limits.

MS/MSD: MS/MSD analyses were performed for bromide and sulfate using sample RMW-10A, and MS/MSD analyses were performed for VOCs using sample RMW-10. The MS and MSD recoveries and MS/MSD RPDs were within QC criteria, with the exception of the following:

- The MS and MSD recoveries for bromomethane and vinyl chloride in sample RMW-10 were below the QC limits. **The ND results for bromomethane and vinyl chloride in sample RMW-10 was qualified "uj" (estimated LOQ) due to the low MS/MSD recoveries.**

- The MS/MSD RPD for acetone in sample RMW-10 was above the QC limit. Qualification was not required on this basis since acetone was ND in sample RMW-10.

Duplicates: No laboratory duplicates were included with these analyses. A field duplicate was collected for sample RMW-10C. Duplicate RPDs were calculated for analytes detected above 5× the LOQ in both samples; the absolute difference (AbsD) was used to evaluate analytes detected below 5× the LOQ in one or both samples. RPD values were ≤ 30%, and AbsD values were ≤LOQ; therefore, results are in acceptable agreement.

Dilutions: The following sample analyses were performed with dilution, as indicated:

RMW-10	bromide (5×), sulfate (10×), VOCs (5×)
RMW-10A	VOCs (10×)
RMW-28B	VOCs (50×)
RMW-28A	VOCs (5×)

The laboratory reports did not indicate the dilution reason(s), but the dilutions appear to have been performed in order to bring the concentrations of target (or non-target) analytes into the appropriate instrument calibration range. The ND results in the noted VOC analyses were associated with correspondingly elevated detection limit (DL) and LOQ values. The noted bromide and sulfate dilutions are associated only with positive results (detects).

Validation qualifiers were applied in this review, as summarized in the following table.

Data Reviewer: Amy Bass; TRC Environmental Corporation; 24-Apr-2021

Summary of qualifiers assigned by the data quality reviewer.

WC12066 **Sample ID**	**Analyte**	**Lab Result [LOQ]**	**Qualifier Assigned**	**Qualified Result**	**Basis**
RMW-10A	methane	2.7 J [5.0]	u (@LOQ)	< 5.0	MB
RMW-10B		2.6 J [5.0]	u (@LOQ)	< 5.0	
RMW-28B		4.0 J [5.0]	u (@LOQ)	< 5.0	
DU-21101		2.6 J [5.0]	u (@LOQ)	< 5.0	
RMW-10	bromomethane	ND [10]	uj	< 10 uj	low MS recovery
	vinyl chloride	ND [5.0]	uj	< 5.0 uj	

LOQ: limit of quantitation MB: method blank contamination MS: matrix spike and/or duplicate
ND: non-detect
Validation qualifiers applied: “u” (revised to ND); “uj” (estimated LOQ)

Case Narrative
TRC Companies, Inc.
Lot Number: WC12066

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved The NELAC Institute (TNI) standards, the Pace Analytical Services, LLC ("Pace") Laboratory Quality Manual, standard operating procedures (SOPs), and Pace policies. Any exceptions to the TNI standards, the Laboratory Quality Manual, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Pace Project Manager listed on the cover page.

Bromide

The following sample was diluted due to the nature of the sample matrix: WC12066-002. The LOQ has been elevated to reflect the dilution.

VOCs by GC/MS

The MS/MSD associated with batch 85788 recovered Methyl Bromide and Vinyl Chloride outside of method criteria due to suspected matrix interferences.

Dissolved Gasses

The analysis for Dissolved Gasses has been submitted to Pace Gulf Coast. This data will be submitted on a suplemental report.

Sample Summary
TRC Companies, Inc.
Lot Number: WC12066

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	TBLK-21101	Aqueous	03/11/2021	03/12/2021
002	RMW-10	Aqueous	03/11/2021 1100	03/12/2021
003	RMW-10A	Aqueous	03/11/2021 1115	03/12/2021
004	RMW-10B	Aqueous	03/11/2021 1350	03/12/2021
005	RMW-10C	Aqueous	03/11/2021 1405	03/12/2021
006	RMW-28B	Aqueous	03/11/2021 1520	03/12/2021
007	RMW-28A	Aqueous	03/11/2021 1530	03/12/2021
008	DU-21101	Aqueous	03/11/2021	03/12/2021

(8 samples)

Detection Summary

TRC Companies, Inc.

Lot Number: WC12066

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	TBLK-21101	Aqueous	Xylenes (total)	8260D	0.43	J	ug/L	6
002	RMW-10	Aqueous	Bromide	300.0	0.44	J	mg/L	7
002	RMW-10	Aqueous	Sulfate	300.0	850		mg/L	7
002	RMW-10	Aqueous	cis-1,2-Dichloroethene	8260D	34		ug/L	7
002	RMW-10	Aqueous	Tetrachloroethene	8260D	360		ug/L	8
002	RMW-10	Aqueous	Trichloroethene	8260D	4.8	J	ug/L	8
003	RMW-10A	Aqueous	Sulfate	300.0	1.4		mg/L	9
003	RMW-10A	Aqueous	Tetrachloroethene	8260D	1400		ug/L	10
003	RMW-10A	Aqueous	1,1,2-Trichloro-1,2,2-	8260D	8.9	J	ug/L	10
004	RMW-10B	Aqueous	Bromide	300.0	0.054	J	mg/L	11
004	RMW-10B	Aqueous	Sulfate	300.0	2.0		mg/L	11
004	RMW-10B	Aqueous	Chloromethane (Methyl	8260D	0.58	J	ug/L	11
004	RMW-10B	Aqueous	cis-1,2-Dichloroethene	8260D	21		ug/L	11
004	RMW-10B	Aqueous	Tetrachloroethene	8260D	150		ug/L	12
004	RMW-10B	Aqueous	Trichloroethene	8260D	7.0		ug/L	12
005	RMW-10C	Aqueous	Bromide	300.0	0.051	J	mg/L	13
005	RMW-10C	Aqueous	Sulfate	300.0	1.9		mg/L	13
005	RMW-10C	Aqueous	cis-1,2-Dichloroethene	8260D	2.0		ug/L	13
005	RMW-10C	Aqueous	Tetrachloroethene	8260D	95		ug/L	14
005	RMW-10C	Aqueous	Trichloroethene	8260D	1.2		ug/L	14
006	RMW-28B	Aqueous	Bromide	300.0	0.054	J	mg/L	15
006	RMW-28B	Aqueous	Sulfate	300.0	1.1		mg/L	15
006	RMW-28B	Aqueous	Tetrachloroethene	8260D	9000		ug/L	16
007	RMW-28A	Aqueous	Bromide	300.0	0.12	J	mg/L	17
007	RMW-28A	Aqueous	Sulfate	300.0	4.5		mg/L	17
007	RMW-28A	Aqueous	Tetrachloroethene	8260D	560		ug/L	18
008	DU-21101	Aqueous	Bromide	300.0	0.052	J	mg/L	19
008	DU-21101	Aqueous	Sulfate	300.0	2.0		mg/L	19
008	DU-21101	Aqueous	cis-1,2-Dichloroethene	8260D	2.0		ug/L	19
008	DU-21101	Aqueous	Tetrachloroethene	8260D	91		ug/L	20
008	DU-21101	Aqueous	Trichloroethene	8260D	1.2		ug/L	20

(31 detections)

Client: TRC Companies, Inc.
Description: TBLK-21101
Date Sampled: 03/11/2021
Date Received: 03/12/2021

Laboratory ID: WC12066-001
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/16/2021 0102	CJL2		85788

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	ND		1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Client: TRC Companies, Inc.
Description: TBLK-21101
Date Sampled: 03/11/2021
Date Received: 03/12/2021

Laboratory ID: WC12066-001
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/16/2021 0102	CJL2		85788

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260D	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	0.43	J	1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		94	70-130
1,2-Dichloroethane-d4		84	70-130
Toluene-d8		90	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Client: TRC Companies, Inc.
Description: RMW-10
Date Sampled: 03/11/2021 1100
Date Received: 03/12/2021

Laboratory ID: WC12066-002
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
2		(Bromide) 300.0	5	03/17/2021 1639	AMR		86096
1		(Sulfate) 300.0	10	03/16/2021 2026	AMR		85963

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.44	J	1.0	0.25	mg/L	2
Sulfate		300.0	850		10	2.5	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	5	03/16/2021 0436	CJL2		85788

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		100	25	ug/L	1
Benzene	71-43-2	8260D	ND		5.0	2.0	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		5.0	2.0	ug/L	1
Bromoform	75-25-2	8260D	ND		5.0	2.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		10	2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		50	10	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		5.0	2.0	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		5.0	2.0	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		5.0	2.0	ug/L	1
Chloroethane	75-00-3	8260D	ND		10	2.0	ug/L	1
Chloroform	67-66-3	8260D	ND		5.0	2.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		5.0	2.5	ug/L	1
Cyclohexane	110-82-7	8260D	ND		5.0	2.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		5.0	2.0	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		5.0	2.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		5.0	2.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		5.0	2.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		5.0	2.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		5.0	2.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		10	3.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		5.0	2.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		5.0	2.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		5.0	2.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	34		5.0	2.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		5.0	2.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		5.0	2.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		5.0	2.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		5.0	2.0	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		5.0	2.0	ug/L	1
2-Hexanone	591-78-6	8260D	ND		50	10	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Client: TRC Companies, Inc.
Description: RMW-10
Date Sampled: 03/11/2021 1100
Date Received: 03/12/2021

Laboratory ID: WC12066-002
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	5	03/16/2021 0436	CJL2		85788

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Isopropylbenzene	98-82-8	8260D	ND		5.0	2.0	ug/L	1
Methyl acetate	79-20-9	8260D	ND		5.0	2.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		5.0	2.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		50	10	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		25	2.0	ug/L	1
Methylene chloride	75-09-2	8260D	ND		5.0	2.0	ug/L	1
Styrene	100-42-5	8260D	ND		5.0	2.1	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		5.0	2.0	ug/L	1
Tetrachloroethene	127-18-4	8260D	360		5.0	2.0	ug/L	1
Toluene	108-88-3	8260D	ND		5.0	2.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		5.0	2.1	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		5.0	2.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		5.0	2.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		5.0	2.0	ug/L	1
Trichloroethene	79-01-6	8260D	4.8	J	5.0	2.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		5.0	2.0	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		5.0	2.0	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		5.0	2.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		92	70-130
1,2-Dichloroethane-d4		85	70-130
Toluene-d8		90	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Client: TRC Companies, Inc.
Description: RMW-10A
Date Sampled: 03/11/2021 1115
Date Received: 03/12/2021

Laboratory ID: WC12066-003
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	03/16/2021 2123	AMR		85967
1		(Sulfate) 300.0	1	03/16/2021 2123	AMR		85963

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	ND		0.20	0.050	mg/L	1
Sulfate		300.0	1.4		1.0	0.25	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	10	03/16/2021 0523	CJL2		85788

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		200	50	ug/L	1
Benzene	71-43-2	8260D	ND		10	4.0	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		10	4.0	ug/L	1
Bromoform	75-25-2	8260D	ND		10	4.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		20	4.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		100	20	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		10	4.0	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		10	4.0	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		10	4.0	ug/L	1
Chloroethane	75-00-3	8260D	ND		20	4.0	ug/L	1
Chloroform	67-66-3	8260D	ND		10	4.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		10	5.0	ug/L	1
Cyclohexane	110-82-7	8260D	ND		10	4.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		10	4.0	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		10	4.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		10	4.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		10	4.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		10	4.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		10	4.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		20	6.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		10	4.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		10	4.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		10	4.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		10	4.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		10	4.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		10	4.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		10	4.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		10	4.0	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		10	4.0	ug/L	1
2-Hexanone	591-78-6	8260D	ND		100	20	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Client: TRC Companies, Inc.
Description: RMW-10A
Date Sampled: 03/11/2021 1115
Date Received: 03/12/2021

Laboratory ID: WC12066-003
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	10	03/16/2021 0523	CJL2		85788

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Isopropylbenzene	98-82-8	8260D	ND		10	4.0	ug/L	1
Methyl acetate	79-20-9	8260D	ND		10	4.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		10	4.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		100	20	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		50	4.0	ug/L	1
Methylene chloride	75-09-2	8260D	ND		10	4.0	ug/L	1
Styrene	100-42-5	8260D	ND		10	4.1	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		10	4.0	ug/L	1
Tetrachloroethene	127-18-4	8260D	1400		10	4.0	ug/L	1
Toluene	108-88-3	8260D	ND		10	4.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	8.9	J	10	4.2	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		10	4.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		10	4.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		10	4.0	ug/L	1
Trichloroethene	79-01-6	8260D	ND		10	4.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		10	4.0	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		10	4.0	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		10	4.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		93	70-130
1,2-Dichloroethane-d4		87	70-130
Toluene-d8		90	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Client: TRC Companies, Inc.
Description: RMW-10B
Date Sampled: 03/11/2021 1350
Date Received: 03/12/2021

Laboratory ID: WC12066-004
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	03/16/2021 2220	AMR		85967
1		(Sulfate) 300.0	1	03/16/2021 2220	AMR		85963

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.054	J	0.20	0.050	mg/L	1
Sulfate		300.0	2.0		1.0	0.25	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/16/2021 0325	CJL2		85788

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	0.58	J	1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	21		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Client: TRC Companies, Inc.
Description: RMW-10B
Date Sampled: 03/11/2021 1350
Date Received: 03/12/2021

Laboratory ID: WC12066-004
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/16/2021 0325	CJL2		85788

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	150		1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260D	7.0		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		97	70-130
1,2-Dichloroethane-d4		87	70-130
Toluene-d8		92	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Client: TRC Companies, Inc.
Description: RMW-10C
Date Sampled: 03/11/2021 1405
Date Received: 03/12/2021

Laboratory ID: WC12066-005
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	03/16/2021 2239	AMR		85967
1		(Sulfate) 300.0	1	03/16/2021 2239	AMR		85963

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.051	J	0.20	0.050	mg/L	1
Sulfate		300.0	1.9		1.0	0.25	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/16/2021 0348	CJL2		85788

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	2.0		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Client: TRC Companies, Inc.
Description: RMW-10C
Date Sampled: 03/11/2021 1405
Date Received: 03/12/2021

Laboratory ID: WC12066-005
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/16/2021 0348	CJL2		85788

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	95		1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260D	1.2		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		95	70-130
1,2-Dichloroethane-d4		87	70-130
Toluene-d8		92	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Client: TRC Companies, Inc.
Description: RMW-28B
Date Sampled: 03/11/2021 1520
Date Received: 03/12/2021

Laboratory ID: WC12066-006
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	03/16/2021 2258	AMR		85967
1		(Sulfate) 300.0	1	03/16/2021 2258	AMR		85963

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.054	J	0.20	0.050	mg/L	1
Sulfate		300.0	1.1		1.0	0.25	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	50	03/16/2021 0547	CJL2		85788

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		1000	250	ug/L	1
Benzene	71-43-2	8260D	ND		50	20	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		50	20	ug/L	1
Bromoform	75-25-2	8260D	ND		50	20	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		100	20	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		500	100	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		50	20	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		50	20	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		50	20	ug/L	1
Chloroethane	75-00-3	8260D	ND		100	20	ug/L	1
Chloroform	67-66-3	8260D	ND		50	20	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		50	25	ug/L	1
Cyclohexane	110-82-7	8260D	ND		50	20	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		50	20	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		50	20	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		50	20	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		50	20	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		50	20	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		50	20	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		100	30	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		50	20	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		50	20	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		50	20	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		50	20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		50	20	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		50	20	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		50	20	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		50	20	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		50	20	ug/L	1
2-Hexanone	591-78-6	8260D	ND		500	100	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Client: TRC Companies, Inc.
Description: RMW-28B
Date Sampled: 03/11/2021 1520
Date Received: 03/12/2021

Laboratory ID: WC12066-006
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	50	03/16/2021 0547	CJL2		85788

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Isopropylbenzene	98-82-8	8260D	ND		50	20	ug/L	1
Methyl acetate	79-20-9	8260D	ND		50	20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		50	20	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		500	100	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		250	20	ug/L	1
Methylene chloride	75-09-2	8260D	ND		50	20	ug/L	1
Styrene	100-42-5	8260D	ND		50	21	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		50	20	ug/L	1
Tetrachloroethene	127-18-4	8260D	9000		50	20	ug/L	1
Toluene	108-88-3	8260D	ND		50	20	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		50	21	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		50	20	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		50	20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		50	20	ug/L	1
Trichloroethene	79-01-6	8260D	ND		50	20	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		50	20	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		50	20	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		50	20	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		93	70-130
1,2-Dichloroethane-d4		86	70-130
Toluene-d8		90	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Client: TRC Companies, Inc.
Description: RMW-28A
Date Sampled: 03/11/2021 1530
Date Received: 03/12/2021

Laboratory ID: WC12066-007
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	03/16/2021 2316	AMR		85967
1		(Sulfate) 300.0	1	03/16/2021 2316	AMR		85963

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.12	J	0.20	0.050	mg/L	1
Sulfate		300.0	4.5		1.0	0.25	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	5	03/16/2021 0500	CJL2		85788

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		100	25	ug/L	1
Benzene	71-43-2	8260D	ND		5.0	2.0	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		5.0	2.0	ug/L	1
Bromoform	75-25-2	8260D	ND		5.0	2.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		10	2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		50	10	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		5.0	2.0	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		5.0	2.0	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		5.0	2.0	ug/L	1
Chloroethane	75-00-3	8260D	ND		10	2.0	ug/L	1
Chloroform	67-66-3	8260D	ND		5.0	2.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		5.0	2.5	ug/L	1
Cyclohexane	110-82-7	8260D	ND		5.0	2.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		5.0	2.0	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		5.0	2.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		5.0	2.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		5.0	2.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		5.0	2.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		5.0	2.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		10	3.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		5.0	2.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		5.0	2.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		5.0	2.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		5.0	2.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		5.0	2.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		5.0	2.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		5.0	2.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		5.0	2.0	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		5.0	2.0	ug/L	1
2-Hexanone	591-78-6	8260D	ND		50	10	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Client: TRC Companies, Inc.
Description: RMW-28A
Date Sampled: 03/11/2021 1530
Date Received: 03/12/2021

Laboratory ID: WC12066-007
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	5	03/16/2021 0500	CJL2		85788

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Isopropylbenzene	98-82-8	8260D	ND		5.0	2.0	ug/L	1
Methyl acetate	79-20-9	8260D	ND		5.0	2.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		5.0	2.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		50	10	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		25	2.0	ug/L	1
Methylene chloride	75-09-2	8260D	ND		5.0	2.0	ug/L	1
Styrene	100-42-5	8260D	ND		5.0	2.1	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		5.0	2.0	ug/L	1
Tetrachloroethene	127-18-4	8260D	560		5.0	2.0	ug/L	1
Toluene	108-88-3	8260D	ND		5.0	2.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		5.0	2.1	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		5.0	2.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		5.0	2.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		5.0	2.0	ug/L	1
Trichloroethene	79-01-6	8260D	ND		5.0	2.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		5.0	2.0	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		5.0	2.0	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		5.0	2.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		93	70-130
1,2-Dichloroethane-d4		85	70-130
Toluene-d8		92	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Client: TRC Companies, Inc.
Description: DU-21101
Date Sampled: 03/11/2021
Date Received: 03/12/2021

Laboratory ID: WC12066-008
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	03/16/2021 2335	AMR		85967
1		(Sulfate) 300.0	1	03/16/2021 2335	AMR		85963

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.052	J	0.20	0.050	mg/L	1
Sulfate		300.0	2.0		1.0	0.25	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/16/2021 0412	CJL2		85788

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	2.0		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

Client: TRC Companies, Inc.
Description: DU-21101
Date Sampled: 03/11/2021
Date Received: 03/12/2021

Laboratory ID: WC12066-008
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/16/2021 0412	CJL2		85788

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	91		1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260D	1.2		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		94	70-130
1,2-Dichloroethane-d4		86	70-130
Toluene-d8		91	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL

QC Summary

Inorganic non-metals - MB

Sample ID: WQ85963-001
Batch: 85963
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Sulfate	ND		1	1.0	0.25	mg/L	03/16/2021 1717

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: WQ85963-002
Batch: 85963
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Sulfate	20	20		1	100	90-110	03/16/2021 1755

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Sample ID: WC12066-003MS
Batch: 85963
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Sulfate	1.4	10	11		1	99	90-110	03/16/2021 2142

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: WC12066-003MD
Batch: 85963
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Sulfate	1.4	10	11		1	98	0.64	90-110	20	03/16/2021 2201

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: WQ85967-001
Batch: 85967
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Bromide	ND		1	0.20	0.050	mg/L	03/16/2021 1717

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: WQ85967-002
Batch: 85967
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Bromide	8.0	8.1		1	102	90-110	03/16/2021 1755

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MS

Sample ID: WC12066-003MS
Batch: 85967
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Bromide	ND	4.0	4.0		1	101	90-110	03/16/2021 2142

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: WC12066-003MD
Batch: 85967
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Bromide	ND	4.0	4.0		1	100	1.2	90-110	20	03/16/2021 2201

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Inorganic non-metals - MB

Sample ID: WQ86096-001
Batch: 86096
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Bromide	ND		1	0.20	0.050	mg/L	03/17/2021 1031

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: WQ86096-002
Batch: 86096
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Bromide	8.0	8.2		1	103	90-110	03/17/2021 1109

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: WQ85788-001
Batch: 85788
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Acetone	ND		1	20	5.0	ug/L	03/15/2021 2305
Benzene	ND		1	1.0	0.40	ug/L	03/15/2021 2305
Bromodichloromethane	ND		1	1.0	0.40	ug/L	03/15/2021 2305
Bromoform	ND		1	1.0	0.40	ug/L	03/15/2021 2305
Bromomethane (Methyl bromide)	ND		1	2.0	0.40	ug/L	03/15/2021 2305
2-Butanone (MEK)	ND		1	10	2.0	ug/L	03/15/2021 2305
Carbon disulfide	ND		1	1.0	0.40	ug/L	03/15/2021 2305
Carbon tetrachloride	ND		1	1.0	0.40	ug/L	03/15/2021 2305
Chlorobenzene	ND		1	1.0	0.40	ug/L	03/15/2021 2305
Chloroethane	ND		1	2.0	0.40	ug/L	03/15/2021 2305
Chloroform	ND		1	1.0	0.40	ug/L	03/15/2021 2305
Chloromethane (Methyl chloride)	ND		1	1.0	0.50	ug/L	03/15/2021 2305
Cyclohexane	ND		1	1.0	0.40	ug/L	03/15/2021 2305
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	0.40	ug/L	03/15/2021 2305
Dibromochloromethane	ND		1	1.0	0.40	ug/L	03/15/2021 2305
1,2-Dibromoethane (EDB)	ND		1	1.0	0.40	ug/L	03/15/2021 2305
1,2-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/15/2021 2305
1,3-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/15/2021 2305
1,4-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/15/2021 2305
Dichlorodifluoromethane	ND		1	2.0	0.60	ug/L	03/15/2021 2305
1,1-Dichloroethane	ND		1	1.0	0.40	ug/L	03/15/2021 2305
1,2-Dichloroethane	ND		1	1.0	0.40	ug/L	03/15/2021 2305
1,1-Dichloroethene	ND		1	1.0	0.40	ug/L	03/15/2021 2305
cis-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	03/15/2021 2305
trans-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	03/15/2021 2305
1,2-Dichloropropane	ND		1	1.0	0.40	ug/L	03/15/2021 2305
cis-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	03/15/2021 2305
trans-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	03/15/2021 2305
Ethylbenzene	ND		1	1.0	0.40	ug/L	03/15/2021 2305
2-Hexanone	ND		1	10	2.0	ug/L	03/15/2021 2305
Isopropylbenzene	ND		1	1.0	0.40	ug/L	03/15/2021 2305
Methyl acetate	ND		1	1.0	0.40	ug/L	03/15/2021 2305
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	0.40	ug/L	03/15/2021 2305
4-Methyl-2-pentanone	ND		1	10	2.0	ug/L	03/15/2021 2305
Methylcyclohexane	ND		1	5.0	0.40	ug/L	03/15/2021 2305
Methylene chloride	ND		1	1.0	0.40	ug/L	03/15/2021 2305
Styrene	ND		1	1.0	0.41	ug/L	03/15/2021 2305
1,1,2,2-Tetrachloroethane	ND		1	1.0	0.40	ug/L	03/15/2021 2305
Tetrachloroethene	ND		1	1.0	0.40	ug/L	03/15/2021 2305
Toluene	ND		1	1.0	0.40	ug/L	03/15/2021 2305
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	0.42	ug/L	03/15/2021 2305
1,2,4-Trichlorobenzene	ND		1	1.0	0.40	ug/L	03/15/2021 2305
1,1,1-Trichloroethane	ND		1	1.0	0.40	ug/L	03/15/2021 2305
1,1,2-Trichloroethane	ND		1	1.0	0.40	ug/L	03/15/2021 2305

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: WQ85788-001
Batch: 85788
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Trichloroethene	ND		1	1.0	0.40	ug/L	03/15/2021 2305
Trichlorofluoromethane	ND		1	1.0	0.40	ug/L	03/15/2021 2305
Vinyl chloride	ND		1	1.0	0.40	ug/L	03/15/2021 2305
Xylenes (total)	ND		1	1.0	0.40	ug/L	03/15/2021 2305

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		94	70-130
1,2-Dichloroethane-d4		86	70-130
Toluene-d8		91	70-130

LOQ = Limit of Quantitation
DL = Detection Limit

ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria

N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: WQ85788-002
Batch: 85788
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	100	84		1	84	60-140	03/15/2021 2153
Benzene	50	49		1	97	70-130	03/15/2021 2153
Bromodichloromethane	50	52		1	103	70-130	03/15/2021 2153
Bromoform	50	45		1	91	70-130	03/15/2021 2153
Bromomethane (Methyl bromide)	50	56		1	113	70-130	03/15/2021 2153
2-Butanone (MEK)	100	100		1	100	70-130	03/15/2021 2153
Carbon disulfide	50	52		1	104	70-130	03/15/2021 2153
Carbon tetrachloride	50	48		1	96	70-130	03/15/2021 2153
Chlorobenzene	50	47		1	94	70-130	03/15/2021 2153
Chloroethane	50	56		1	111	70-130	03/15/2021 2153
Chloroform	50	47		1	94	70-130	03/15/2021 2153
Chloromethane (Methyl chloride)	50	39		1	77	60-140	03/15/2021 2153
Cyclohexane	50	44		1	89	70-130	03/15/2021 2153
1,2-Dibromo-3-chloropropane (DBCP)	50	56		1	112	70-130	03/15/2021 2153
Dibromochloromethane	50	52		1	103	70-130	03/15/2021 2153
1,2-Dibromoethane (EDB)	50	51		1	101	70-130	03/15/2021 2153
1,2-Dichlorobenzene	50	46		1	92	70-130	03/15/2021 2153
1,3-Dichlorobenzene	50	45		1	91	70-130	03/15/2021 2153
1,4-Dichlorobenzene	50	45		1	91	70-130	03/15/2021 2153
Dichlorodifluoromethane	50	55		1	110	60-140	03/15/2021 2153
1,1-Dichloroethane	50	48		1	96	70-130	03/15/2021 2153
1,2-Dichloroethane	50	50		1	100	70-130	03/15/2021 2153
1,1-Dichloroethene	50	48		1	95	70-130	03/15/2021 2153
cis-1,2-Dichloroethene	50	46		1	93	70-130	03/15/2021 2153
trans-1,2-Dichloroethene	50	48		1	96	70-130	03/15/2021 2153
1,2-Dichloropropane	50	48		1	97	70-130	03/15/2021 2153
cis-1,3-Dichloropropene	50	53		1	107	70-130	03/15/2021 2153
trans-1,3-Dichloropropene	50	54		1	109	70-130	03/15/2021 2153
Ethylbenzene	50	50		1	100	70-130	03/15/2021 2153
2-Hexanone	100	100		1	102	70-130	03/15/2021 2153
Isopropylbenzene	50	52		1	103	70-130	03/15/2021 2153
Methyl acetate	50	44		1	87	70-130	03/15/2021 2153
Methyl tertiary butyl ether (MTBE)	50	48		1	96	70-130	03/15/2021 2153
4-Methyl-2-pentanone	100	97		1	97	70-130	03/15/2021 2153
Methylcyclohexane	50	49		1	98	70-130	03/15/2021 2153
Methylene chloride	50	47		1	94	70-130	03/15/2021 2153
Styrene	50	52		1	103	70-130	03/15/2021 2153
1,1,2,2-Tetrachloroethane	50	48		1	95	70-130	03/15/2021 2153
Tetrachloroethene	50	50		1	99	70-130	03/15/2021 2153
Toluene	50	50		1	101	70-130	03/15/2021 2153
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	48		1	96	70-130	03/15/2021 2153
1,2,4-Trichlorobenzene	50	60		1	119	70-130	03/15/2021 2153
1,1,1-Trichloroethane	50	50		1	99	70-130	03/15/2021 2153
1,1,2-Trichloroethane	50	48		1	96	70-130	03/15/2021 2153

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: WQ85788-002
Batch: 85788
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	50	52		1	104	70-130	03/15/2021 2153
Trichlorofluoromethane	50	50		1	101	70-130	03/15/2021 2153
Vinyl chloride	50	40		1	81	70-130	03/15/2021 2153
Xylenes (total)	100	100		1	104	70-130	03/15/2021 2153

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		96	70-130
1,2-Dichloroethane-d4		92	70-130
Toluene-d8		96	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: WC12066-002MS
Batch: 85788
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Acetone	ND	500	470		5	94	60-140	03/16/2021 0706
Benzene	ND	250	260		5	103	70-130	03/16/2021 0706
Bromodichloromethane	ND	250	270		5	108	70-130	03/16/2021 0706
Bromoform	ND	250	230		5	91	70-130	03/16/2021 0706
Bromomethane (Methyl bromide)	ND	250	30	N	5	12	70-130	03/16/2021 0706
2-Butanone (MEK)	ND	500	530		5	105	70-130	03/16/2021 0706
Carbon disulfide	ND	250	270		5	109	70-130	03/16/2021 0706
Carbon tetrachloride	ND	250	270		5	108	70-130	03/16/2021 0706
Chlorobenzene	ND	250	250		5	100	70-130	03/16/2021 0706
Chloroethane	ND	250	250		5	100	70-130	03/16/2021 0706
Chloroform	ND	250	250		5	100	70-130	03/16/2021 0706
Chloromethane (Methyl chloride)	ND	250	240		5	95	60-140	03/16/2021 0706
Cyclohexane	ND	250	230		5	94	70-130	03/16/2021 0706
1,2-Dibromo-3-chloropropane (DBCP)	ND	250	280		5	112	70-130	03/16/2021 0706
Dibromochloromethane	ND	250	270		5	108	70-130	03/16/2021 0706
1,2-Dibromoethane (EDB)	ND	250	270		5	107	70-130	03/16/2021 0706
1,2-Dichlorobenzene	ND	250	240		5	94	70-130	03/16/2021 0706
1,3-Dichlorobenzene	ND	250	240		5	96	70-130	03/16/2021 0706
1,4-Dichlorobenzene	ND	250	240		5	96	70-130	03/16/2021 0706
Dichlorodifluoromethane	ND	250	240		5	97	60-140	03/16/2021 0706
1,1-Dichloroethane	ND	250	250		5	101	70-130	03/16/2021 0706
1,2-Dichloroethane	ND	250	250		5	100	70-130	03/16/2021 0706
1,1-Dichloroethene	ND	250	260		5	105	70-130	03/16/2021 0706
cis-1,2-Dichloroethene	34	250	280		5	101	70-130	03/16/2021 0706
trans-1,2-Dichloroethene	ND	250	260		5	104	70-130	03/16/2021 0706
1,2-Dichloropropane	ND	250	250		5	100	70-130	03/16/2021 0706
cis-1,3-Dichloropropene	ND	250	270		5	107	70-130	03/16/2021 0706
trans-1,3-Dichloropropene	ND	250	270		5	110	70-130	03/16/2021 0706
Ethylbenzene	ND	250	270		5	109	70-130	03/16/2021 0706
2-Hexanone	ND	500	530		5	107	70-130	03/16/2021 0706
Isopropylbenzene	ND	250	270		5	110	70-130	03/16/2021 0706
Methyl acetate	ND	250	240		5	95	70-130	03/16/2021 0706
Methyl tertiary butyl ether (MTBE)	ND	250	250		5	98	70-130	03/16/2021 0706
4-Methyl-2-pentanone	ND	500	500		5	100	70-130	03/16/2021 0706
Methylcyclohexane	ND	250	270		5	110	70-130	03/16/2021 0706
Methylene chloride	ND	250	250		5	99	70-130	03/16/2021 0706
Styrene	ND	250	250		5	101	70-130	03/16/2021 0706
1,1,2,2-Tetrachloroethane	ND	250	260		5	103	70-130	03/16/2021 0706
Tetrachloroethene	360	250	630		5	111	70-130	03/16/2021 0706
Toluene	ND	250	270		5	109	70-130	03/16/2021 0706
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	250	270		5	107	70-130	03/16/2021 0706
1,2,4-Trichlorobenzene	ND	250	320		5	127	70-130	03/16/2021 0706
1,1,1-Trichloroethane	ND	250	260		5	105	70-130	03/16/2021 0706
1,1,2-Trichloroethane	ND	250	250		5	101	70-130	03/16/2021 0706

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: WC12066-002MS
Batch: 85788
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% Rec Limit	Analysis Date
Trichloroethene	4.8	250	280		5	111	70-130	03/16/2021 0706
Trichlorofluoromethane	ND	250	230		5	90	70-130	03/16/2021 0706
Vinyl chloride	ND	250	120	N	5	48	70-130	03/16/2021 0706
Xylenes (total)	ND	500	550		5	109	70-130	03/16/2021 0706

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		92	70-130
1,2-Dichloroethane-d4		87	70-130
Toluene-d8		97	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MSD

Sample ID: WC12066-002MD
Batch: 85788
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Acetone	ND	500	370	+	5	73	25	60-140	20	03/16/2021 0731
Benzene	ND	250	250		5	101	2.3	70-130	20	03/16/2021 0731
Bromodichloromethane	ND	250	260		5	105	2.2	70-130	20	03/16/2021 0731
Bromoform	ND	250	220		5	86	4.7	70-130	20	03/16/2021 0731
Bromomethane (Methyl bromide)	ND	250	26	N	5	10	16	70-130	20	03/16/2021 0731
2-Butanone (MEK)	ND	500	510		5	102	3.6	70-130	20	03/16/2021 0731
Carbon disulfide	ND	250	250		5	102	7.1	70-130	20	03/16/2021 0731
Carbon tetrachloride	ND	250	260		5	106	2.3	70-130	20	03/16/2021 0731
Chlorobenzene	ND	250	240		5	97	4.0	70-130	20	03/16/2021 0731
Chloroethane	ND	250	280		5	113	12	70-130	20	03/16/2021 0731
Chloroform	ND	250	240		5	97	2.9	70-130	20	03/16/2021 0731
Chloromethane (Methyl chloride)	ND	250	270		5	109	14	60-140	20	03/16/2021 0731
Cyclohexane	ND	250	230		5	90	4.0	70-130	20	03/16/2021 0731
1,2-Dibromo-3-chloropropane (DBCP)	ND	250	270		5	106	5.2	70-130	20	03/16/2021 0731
Dibromochloromethane	ND	250	260		5	103	4.2	70-130	20	03/16/2021 0731
1,2-Dibromoethane (EDB)	ND	250	260		5	103	4.3	70-130	20	03/16/2021 0731
1,2-Dichlorobenzene	ND	250	230		5	90	4.6	70-130	20	03/16/2021 0731
1,3-Dichlorobenzene	ND	250	230		5	92	4.3	70-130	20	03/16/2021 0731
1,4-Dichlorobenzene	ND	250	230		5	91	5.3	70-130	20	03/16/2021 0731
Dichlorodifluoromethane	ND	250	270		5	109	12	60-140	20	03/16/2021 0731
1,1-Dichloroethane	ND	250	250		5	100	1.4	70-130	20	03/16/2021 0731
1,2-Dichloroethane	ND	250	240		5	97	3.0	70-130	20	03/16/2021 0731
1,1-Dichloroethene	ND	250	260		5	102	2.5	70-130	20	03/16/2021 0731
cis-1,2-Dichloroethene	34	250	280		5	99	1.6	70-130	20	03/16/2021 0731
trans-1,2-Dichloroethene	ND	250	250		5	101	2.9	70-130	20	03/16/2021 0731
1,2-Dichloropropane	ND	250	250		5	98	2.1	70-130	20	03/16/2021 0731
cis-1,3-Dichloropropene	ND	250	260		5	103	3.8	70-130	20	03/16/2021 0731
trans-1,3-Dichloropropene	ND	250	260		5	106	3.6	70-130	20	03/16/2021 0731
Ethylbenzene	ND	250	260		5	104	4.1	70-130	20	03/16/2021 0731
2-Hexanone	ND	500	510		5	102	4.5	70-130	20	03/16/2021 0731
Isopropylbenzene	ND	250	260		5	104	5.4	70-130	20	03/16/2021 0731
Methyl acetate	ND	250	220		5	87	9.6	70-130	20	03/16/2021 0731
Methyl tertiary butyl ether (MTBE)	ND	250	240		5	96	1.9	70-130	20	03/16/2021 0731
4-Methyl-2-pentanone	ND	500	470		5	95	5.3	70-130	20	03/16/2021 0731
Methylcyclohexane	ND	250	260		5	105	3.8	70-130	20	03/16/2021 0731
Methylene chloride	ND	250	240		5	94	4.5	70-130	20	03/16/2021 0731
Styrene	ND	250	210		5	83	19	70-130	20	03/16/2021 0731
1,1,2,2-Tetrachloroethane	ND	250	250		5	98	4.4	70-130	20	03/16/2021 0731
Tetrachloroethene	360	250	600		5	96	5.9	70-130	20	03/16/2021 0731
Toluene	ND	250	260		5	105	3.9	70-130	20	03/16/2021 0731
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	250	260		5	103	4.2	70-130	20	03/16/2021 0731
1,2,4-Trichlorobenzene	ND	250	300		5	118	7.3	70-130	20	03/16/2021 0731
1,1,1-Trichloroethane	ND	250	260		5	102	2.7	70-130	20	03/16/2021 0731
1,1,2-Trichloroethane	ND	250	240		5	96	4.8	70-130	20	03/16/2021 0731

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MSD

Sample ID: WC12066-002MD
Batch: 85788
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	% Rec Limit	% RPD Limit	Analysis Date
Trichloroethene	4.8	250	280		5	109	1.6	70-130	20	03/16/2021 0731
Trichlorofluoromethane	ND	250	270		5	108	18	70-130	20	03/16/2021 0731
Vinyl chloride	ND	250	140	N	5	56	15	70-130	20	03/16/2021 0731
Xylenes (total)	ND	500	520		5	105	4.2	70-130	20	03/16/2021 0731

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		96	70-130
1,2-Dichloroethane-d4		92	70-130
Toluene-d8		100	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Chain of Custody

and

Miscellaneous Documents

PACE ANALYTICAL SERVICES, LLC
106 Vantage Point Drive • West Columbia, SC 29172
Telephone No. 803-791-9700 Fax No. 803-791-9111
www.pacelabs.com

Pace Analytical®

Number 117070

Client: TRC
Address: 50 International Dr Ste 150
City: Greenville State: SC Zip Code: 29615
Project Name: WPH Clemson
Project No.: 300688.0.0.11
P.O. No.:
Report to Contact: Lisa Clark
Sampler's Signature: x [signature]
Printed Name: Aharon Misiunas
Telephone No. / E-mail:
Quote No.:
Page 1 of 1
WC12066
LJD

Analysis (Attach list if more space is needed)

Sample ID / Description (Containers for each sample may be combined on one line.)	Collection Date(s)	Collection Time (Military)	Grab / Composite	Matrix: Aqueous	Matrix: Soil	Matrix: Non-Aqueous	No. of Containers by Preservative Type: Unpres.	[illegible]	HNO3	HCl	NaOH	NaOH/ZnAc	Other	VOCs	Sulfate + Bromide	Dissolved gases (ethene, ethane, methane)	Remarks / Cooler I.D.
TBLK-21101	\	\	G	X						2				X			
RMW-10	3-11	1100	G	X			1	3		3				X	X	X	
RMW-10A	3-11	1115	G	X			1	3		3				X	X	X	
RMW-10B	3-11	1350	G	X			1	3		3				X	X	X	
RMW-10C	3-11	1405	G	X			1	3		3				X	X	X	
RMW-28B	3-11	1520	G	X			1	3		3				X	X	X	
RMW-28A	3-11	1530	G	X			1	3		3				X	X	X	
DU-21101	\	\	G	X			1	3		3				X	X	X	

Turn Around Time Required (Prior lab approval required for expedited TAT.) ☐ Standard ☐ Rush (Specify)

Sample Disposal ☐ Return to Client ☐ Disposal by Lab

Possible Hazard Identification ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

QC Requirements (Specify)

Relinquished by	Date	Time	Received by	Date	Time
1. [signature]	3-11-21	1730	1. TRC SS	3-11-21	1730
2. TRC SS	3/12/21	0800	2. [signature]	3/12/21	0800
3. [signature]	3/12/21	1510	3.		
4.			4. Laboratory received by [signature]	3/12/21	1510

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on Ice (Circle) (Yes) No Ice Pack
Receipt Temp. 3.6 °C
Temp Blank ☑Y ☐N

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Client Copy

Document Number: ME008N2-01

Pace Analytical

Samples Receipt Checklist (SRC) (ME0018C-15)
Issuing Authority: Pace ENV - WCOL

Revised:9/29/2020
Page 1 of 1

Sample Receipt Checklist (SRC)

Client: TRC Cooler Inspected by/date: JRG2 / 03/12/2021 Lot #: WC12066

Means of receipt: ☑ Pace ☐ Client ☐ UPS ☐ FedEx ☐ Other:

☐ Yes	☑ No		1. Were custody seals present on the cooler?
☐ Yes	☐ No	☑ NA	2. If custody seals were present, were they intact and unbroken?

pH Strip ID: NA Chlorine Strip ID: NA Tested by: NA

Original temperature upon receipt / Derived (Corrected) temperature upon receipt %Solid Snap-Cup ID: NA

3.6 / 3.6 °C NA / NA °C NA / NA °C NA / NA °C

Method: ☐ Temperature Blank ☑ Against Bottles IR Gun ID: 6 IR Gun Correction Factor: 0 °C

Method of coolant: ☐ Wet Ice ☐ Ice Packs ☐ Dry Ice ☑ None

☐ Yes	☐ No	☑ NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).
☐ Yes	☐ No	☑ NA	4. Is the commercial courier's packing slip attached to this form?
☑ Yes	☐ No		5. Were proper custody procedures (relinquished/received) followed?
☑ Yes	☐ No		6. Were sample IDs listed on the COC?
☑ Yes	☐ No		7. Were sample IDs listed on all sample containers?
☑ Yes	☐ No		8. Was collection date & time listed on the COC?
☑ Yes	☐ No		9. Was collection date & time listed on all sample containers?
☑ Yes	☐ No		10. Did all container label information (ID, date, time) agree with the COC?
☑ Yes	☐ No		11. Were tests to be performed listed on the COC?
☑ Yes	☐ No		12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)?
☑ Yes	☐ No		13. Was adequate sample volume available?
☐ Yes	☑ No		14. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
☐ Yes	☑ No		15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
☐ Yes	☑ No	☐ NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (¼"or 6mm in diameter) in any of the VOA vials?
☐ Yes	☐ No	☑ NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?
☐ Yes	☐ No	☑ NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
☐ Yes	☐ No	☑ NA	19. Were all applicable NH_3/TKN/cyanide/phenol/625.1/608.3 (< 0.5mg/L) samples free of residual chlorine?
☐ Yes	☐ No	☑ NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc…) correctly transcribed from the COC into the comment section in LIMS?
☑ Yes	☐ No		21. Was the quote number listed on the container label? If yes, Quote # 24503

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) NA were received incorrectly preserved and were adjusted accordingly in sample receiving with NA mL of circle one: H2SO4, HNO3, HCl, NaOH using SR # NA.
Time of preservation NA. If more than one preservative is needed, please note in the comments below.

Sample(s) NA were received with bubbles >6 mm in diameter.

Samples(s) NA were received with TRC > 0.5 mg/l. (If #19 is *no*) and were adjusted accordingly in sample receiving with sodium thiosulfate ($Na_2S_2O_3$) with Shealy ID: NA.

SR barcode labels applied by: JRG2 Date: 03/12/2021

Comments:

LELAP CERTIFICATE NUMBER: 01955
DOD-ELAP ACCREDITATION NUMBER: 74960

ANALYTICAL RESULTS

PERFORMED BY

Pace Analytical Gulf Coast
7979 Innovation Park Dr.
Baton Rouge, LA 70820
(225) 769-4900

Report Date 03/29/2021

Report # 221031719

Project WC12066 WPH Clemson

Deliver To	***Additional Recipients***
Lucas Odom Pace Analytical Services South Carolina 106 Vantage Point Drive West Columbia, SC 29172 803 791 9700	NONE

Laboratory Data Quality Review Notes

Project Name: WPH-Clemson, SC

Project Number: 300688.0000.0000 Phase 11

Lab Report: **WC12066** Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.), West Columbia, SC; subcontracted report: **221031719** Pace Analytical Gulf Coast, Baton Rouge, LA

Samples and Analyses: Six groundwater samples (plus one field duplicate), collected 11-Mar-2021 and analyzed for volatile organic compounds (VOCs), bromide, and sulfate; one trip blank (TB), analyzed for VOCs only. Analysis of the groundwater samples for dissolved hydrocarbon gases (ethane, ethene, methane) was subcontracted and was reported separately (as noted above).

Chain of Custody, Sample Temperature, Sample Preservation: Chain of custody (COC) forms were signed; cooler temperature was ≤6 ^{o}C upon arrival at each laboratory; samples were preserved properly. The following sample receipt anomalies were noted:

- The subcontract laboratory noted that 1 vial (of 3) was received broken for each of two samples: RMW-10 and RMW-10C. Analyses were performed using the 2 remaining vials for each sample.

Holding Time: Sample analyses were performed within acceptable holding times.

Surrogates: VOC surrogate recoveries were within laboratory quality control (QC) limits.

Method Blank: Laboratory method blanks were appropriately associated with all analyses. The following target analytes were detected in the laboratory method blanks:

- Methane (2.5 J µg/L) was detected in the laboratory method blank associated with the analysis of dissolved hydrocarbon gases in all samples. **The positive results for methane in samples RMW-10A, RMW-10B, RMW-28B, and DU-21101 were estimated concentrations below the limit of quantitation (LOQ) (J-qualified by the laboratory) and are therefore potential false positives; these results were qualified "u" (revised to non-detect [ND]) at the laboratory LOQ, based on the associated laboratory method blank contamination.** Qualification was not required for the positive result for methane in sample RMW-10 since this result was significantly higher than (>5×) the method blank concentration, and qualification was not required for the ND results in the remaining samples (RMW-10C and RMW-28A).

Trip Blank: No target analytes were detected in the TB; analyzed for VOCs only.

Field Blank: A field blank was not collected with these samples.

Equipment Rinse Blank: An equipment rinse blank was not collected with these samples.

LCS/LCSD: LCS analyses were performed appropriately for all analyses; the analyses for dissolved hydrocarbon gases also included analysis of LCSD samples. The LCS and LCSD recoveries and LCS/LCSD relative percent differences (RPDs) were within the laboratory QC limits.

MS/MSD: MS/MSD analyses were performed for bromide and sulfate using sample RMW-10A, and MS/MSD analyses were performed for VOCs using sample RMW-10. The MS and MSD recoveries and MS/MSD RPDs were within QC criteria, with the exception of the following:

- The MS and MSD recoveries for bromomethane and vinyl chloride in sample RMW-10 were below the QC limits. **The ND results for bromomethane and vinyl chloride in sample RMW-10 was qualified "uj" (estimated LOQ) due to the low MS/MSD recoveries.**

- The MS/MSD RPD for acetone in sample RMW-10 was above the QC limit. Qualification was not required on this basis since acetone was ND in sample RMW-10.

Duplicates: No laboratory duplicates were included with these analyses. A field duplicate was collected for sample RMW-10C. Duplicate RPDs were calculated for analytes detected above 5× the LOQ in both samples; the absolute difference (AbsD) was used to evaluate analytes detected below 5× the LOQ in one or both samples. RPD values were ≤ 30%, and AbsD values were ≤LOQ; therefore, results are in acceptable agreement.

Dilutions: The following sample analyses were performed with dilution, as indicated:

RMW-10	bromide (5×), sulfate (10×), VOCs (5×)
RMW-10A	VOCs (10×)
RMW-28B	VOCs (50×)
RMW-28A	VOCs (5×)

The laboratory reports did not indicate the dilution reason(s), but the dilutions appear to have been performed in order to bring the concentrations of target (or non-target) analytes into the appropriate instrument calibration range. The ND results in the noted VOC analyses were associated with correspondingly elevated detection limit (DL) and LOQ values. The noted bromide and sulfate dilutions are associated only with positive results (detects).

Validation qualifiers were applied in this review, as summarized in the following table.

Data Reviewer: Amy Bass; TRC Environmental Corporation; 24-Apr-2021

Summary of qualifiers assigned by the data quality reviewer.

WC12066 **Sample ID**	**Analyte**	**Lab Result [LOQ]**	**Qualifier Assigned**	**Qualified Result**	**Basis**
RMW-10A	methane	2.7 J [5.0]	u (@LOQ)	< 5.0	MB
RMW-10B		2.6 J [5.0]	u (@LOQ)	< 5.0	
RMW-28B		4.0 J [5.0]	u (@LOQ)	< 5.0	
DU-21101		2.6 J [5.0]	u (@LOQ)	< 5.0	
RMW-10	bromomethane	ND [10]	uj	< 10 uj	low MS recovery
	vinyl chloride	ND [5.0]	uj	< 5.0 uj	

LOQ: limit of quantitation MB: method blank contamination MS: matrix spike and/or duplicate
ND: non-detect
Validation qualifiers applied: “u” (revised to ND); “uj” (estimated LOQ)

Laboratory Endorsement

Sample analysis was performed in accordance with approved methodologies provided by the Environmental Protection Agency or other recognized agencies. The samples and their corresponding extracts will be maintained for a period of 30 days unless otherwise arranged. Following this retention period the samples will be disposed in accordance with Pace Gulf Coast's Standard Operating Procedures.

Common Abbreviations that may be Utilized in this Report

ND	Indicates the result was Not Detected at the specified reporting limit
NO	Indicates the sample did not ignite when preliminary test performed for EPA Method 1030
DO	Indicates the result was Diluted Out
MI	Indicates the result was subject to Matrix Interference
TNTC	Indicates the result was Too Numerous To Count
SUBC	Indicates the analysis was Sub-Contracted
FLD	Indicates the analysis was performed in the Field
DL	Detection Limit
LOD	Limit of Detection
LOQ	Limit of Quantitation
RE	Re-analysis
CF	HPLC or GC Confirmation
00:01	Reported as a time equivalent to 12:00 AM

Reporting Flags that may be Utilized in this Report

J or I	Indicates the result is between the MDL and LOQ
J	DOD flag on analyte in the parent sample for MS/MSD outside acceptance criteria
U	Indicates the compound was analyzed for but not detected
B or V	Indicates the analyte was detected in the associated Method Blank
Q	Indicates a non-compliant QC Result (See Q Flag Application Report)
*****	Indicates a non-compliant or not applicable QC recovery or RPD – see narrative
E	Organics - The result is estimated because it exceeded the instrument calibration range
E	Metals - % diference for the serial dilution is > 10%
L	Reporting Limits adjusted to meet risk-based limit.
P	RPD between primary and confirmation result is greater than 40
DL	Diluted analysis – when appended to Client Sample ID

Sample receipt at Pace Gulf Coast is documented through the attached chain of custody. In accordance with NELAC, this report shall be reproduced only in full and with the written permission of Pace Gulf Coast. The results contained within this report relate only to the samples reported. The documented results are presented within this report.

This report pertains only to the samples listed in the Report Sample Summary and should be retained as a permanent record thereof. The results contained within this report are intended for the use of the client. Any unauthorized use of the information contained in this report is prohibited.

I certify that this data package is in compliance with The NELAC Institute (TNI) Standard 2009 and terms and conditions of the contract and Statement of Work both technically and for completeness, for other than the conditions in the case narrative. Release of the data contained in this hardcopy data package and in the computer readable data submitted has been authorized by the Quality Assurance Manager or his/her designee, as verified by the following signature.

Estimated uncertainty of measurement is available upon request. This report is in compliance with the DOD QSM as specified in the contract if applicable.

Authorized Signature
Pace Gulf Coast Report 221031719

Certifications

Certification	Certification Number
DOD ELAP	74960
Alabama	01955
Arkansas	88-0655
Colorado	01955
Delaware	01955
Florida	E87854
Georgia	01955
Hawaii	01955
Idaho	01955
Illinois	200048
Indiana	01955
Kansas	E-10354
Kentucky	95
Louisiana	01955
Maryland	01955
Massachusetts	01955
Michigan	01955
Mississippi	01955
Missouri	01955
Montana	N/A
Nebraska	01955
New Mexico	01955
North Carolina	618
North Dakota	R-195
Oklahoma	9403
South Carolina	73006001
South Dakota	01955
Tennessee	01955
Texas	T104704178
Vermont	01955
Virginia	460215
Washington	C929
USDA Soil Permit	P330-16-00234

Case Narrative

Client: Pace Analytical Services South Carolina **Report:** 221031719

Pace Analytical Gulf Coast received and analyzed the sample(s) listed
on the Report Sample Summary page of this report. Receipt of the sample(s) is documented
by the attached chain of custody. This applies only to the sample(s) listed in this report.
No sample integrity or quality control exceptions were identified unless noted below.

No anomalies were found in the analyzed sample(s).

Sample Summary

LAB ID	Client ID	Matrix	Collect Date	Receive Date
22103171901	RMW-10	Water	03/11/2021 11:00	03/17/2021 09:40
22103171902	RMW-10A	Water	03/11/2021 11:15	03/17/2021 09:40
22103171903	RMW-10B	Water	03/11/2021 13:50	03/17/2021 09:40
22103171904	RMW-10C	Water	03/11/2021 14:05	03/17/2021 09:40
22103171905	RMW-28B	Water	03/11/2021 15:20	03/17/2021 09:40
22103171906	RMW-28A	Water	03/11/2021 15:30	03/17/2021 09:40
22103171907	DU-21101	Water	03/11/2021 00:01	03/17/2021 09:40

Detect Summary

LAB ID	Client ID	Method	Parameter	Result	Units
22103171901	RMW-10	AM20GAX	Ethane	1.1	ug/L
22103171901	RMW-10	AM20GAX	Ethene	0.27J	ug/L
22103171901	RMW-10	AM20GAX	Methane	20	ug/L
22103171902	RMW-10A	AM20GAX	Ethene	0.31J	ug/L
22103171902	RMW-10A	AM20GAX	Methane	2.7J	ug/L
22103171903	RMW-10B	AM20GAX	Methane	2.6J	ug/L
22103171905	RMW-28B	AM20GAX	Ethane	0.30J	ug/L
22103171905	RMW-28B	AM20GAX	Methane	4.0J	ug/L
22103171906	RMW-28A	AM20GAX	Ethene	0.14J	ug/L
22103171907	DU-21101	AM20GAX	Methane	2.6J	ug/L

Sample Results

RMW-10

Collect Date	03/11/2021 11:00	LAB ID	22103171901
Receive Date	03/17/2021 09:40	Matrix	Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	03/23/2021 20:55	JCK2	706671

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	**Ethane**	**1.1**	**0.075**	**1.0**	**ug/L**
74-85-1	**Ethene**	**0.27J**	**0.12**	**1.0**	**ug/L**
74-82-8	**Methane**	**20**	**2.5**	**5.0**	**ug/L**

RMW-10A

Collect Date	03/11/2021 11:15	LAB ID	22103171902
Receive Date	03/17/2021 09:40	Matrix	Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	03/23/2021 21:08	JCK2	706671

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	Ethane	0.075U	0.075	1.0	ug/L
74-85-1	**Ethene**	**0.31J**	**0.12**	**1.0**	**ug/L**
74-82-8	**Methane**	**2.7J**	**2.5**	**5.0**	**ug/L**

RMW-10B

Collect Date	03/11/2021 13:50	LAB ID	22103171903
Receive Date	03/17/2021 09:40	Matrix	Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	03/23/2021 21:19	JCK2	706671

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	Ethane	0.075U	0.075	1.0	ug/L
74-85-1	Ethene	0.12U	0.12	1.0	ug/L
74-82-8	**Methane**	**2.6J**	**2.5**	**5.0**	**ug/L**

RMW-10C

Collect Date	03/11/2021 14:05	LAB ID	22103171904
Receive Date	03/17/2021 09:40	Matrix	Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	03/23/2021 21:31	JCK2	706671

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	Ethane	0.075U	0.075	1.0	ug/L
74-85-1	Ethene	0.12U	0.12	1.0	ug/L
74-82-8	Methane	2.5U	2.5	5.0	ug/L

Sample Results

RMW-28B

Collect Date	03/11/2021 15:20	**LAB ID**	22103171905
Receive Date	03/17/2021 09:40	**Matrix**	Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	03/23/2021 21:44	JCK2	706671

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	**Ethane**	**0.30J**	**0.075**	**1.0**	**ug/L**
74-85-1	Ethene	0.12U	0.12	1.0	ug/L
74-82-8	**Methane**	**4.0J**	**2.5**	**5.0**	**ug/L**

RMW-28A

Collect Date	03/11/2021 15:30	**LAB ID**	22103171906
Receive Date	03/17/2021 09:40	**Matrix**	Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	03/23/2021 21:56	JCK2	706671

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	Ethane	0.075U	0.075	1.0	ug/L
74-85-1	**Ethene**	**0.14J**	**0.12**	**1.0**	**ug/L**
74-82-8	Methane	2.5U	2.5	5.0	ug/L

DU-21101

Collect Date	03/11/2021 00:01	**LAB ID**	22103171907
Receive Date	03/17/2021 09:40	**Matrix**	Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	03/23/2021 22:08	JCK2	706671

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	Ethane	0.075U	0.075	1.0	ug/L
74-85-1	Ethene	0.12U	0.12	1.0	ug/L
74-82-8	**Methane**	**2.6J**	**2.5**	**5.0**	**ug/L**

General Chromatography QC Summary

Analytical Batch	Client ID	MB706671		LCS706671				LCSD706671				
706671	LAB ID	2160023		2160024				2160025				
	Sample Type	MB		LCS				LCSD				
	Prep Date											
	Analysis Date	03/23/21 14:59		03/23/21 14:11				03/23/21 14:23				
	Matrix	Water		Water				Water				
AM20GAX		Units Result	ug/L DL	Spike Added	Result	%R	Control Limits%R	Spike Added	Result	%R	RPD	RPD Limit
Ethane	74-84-0	0.075U	0.075	100	95	94	70 - 130	100	95	94	0	20
Ethene	74-85-1	0.12U	0.12	140	140	97	70 - 130	140	140	96	1	20
Methane	74-82-8	2.5J	2.5	490	440	90	70 - 130	490	440	89	1	20

Client ID: Shealy Envir - Pace Analytical Services South Carolina
SDG: 221031719
PM: RWe

Chain of Custody

Pace Analytical

Workorder: WC12066 Workorder Name: WPH Clemson Owner Received Date: 3/12/2021 Results Requested By: 3/25/2021

Report To:	Subcontract To:
Lucas Odom	Project #
Pace Analytical	
106 Vantage Point Drive	Pace Golf Coast
Columbia SC, 29223	7979 Innovation Park Drive,
803-227-2704	Baton Rouge, LA 70820
lucas.odom@pacelabs.com	

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers: TSP	Requested Analysis: Dissolved Gasses (MEE)	LAB USE ONLY
1	RMW-10	G	03/11/21 @1100	WC12066-002				1
2	RMW-10A	G	03/11/21@1115	WC12066-003		x	X	2
3	RMW-10B	G	03/11/21@1350	WC12066-004		x	x	3
4	RMW-10C	G	03/11/21@1405	WC12066-005		x	x	4
5	RMW-28B	G	03/11/21@1520	WC12066-006		x	x	5
6	RMW-28A	G	03/11/21@1530	WC12066-007		x	x	6
7	DU-21101	G	03/11/21@0000	WC12066-008		x	x	7
8								
9								
10								

Transfers	Released By	Date/Time	Received By	Date/Time	Comments
1	[signature]	1800 3/16/21			
2	FedEx	3.17.21 0940	Lauren Heller 3.17.21	0940	
3					

Cooler Temperature on Receipt _____ °C	Custody Seal Y or N	Received on Ice Y or N	Sample Intact Y or N

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC
This chain of custody is considered complete as is since this information is available in the owner laboratory.

SAMPLE RECEIVING CHECKLIST

SAMPLE DELIVERY GROUP 221031719	
Client **PM** RWe Shealy Envir - Pace Analytical Services South Carolina	**Transport Method** FEDEX
Profile Number 290459	**Received By** McCune, Dodie N.
Line Item(s) 1 - MEE	**Receive Date(s)** 03/17/21

CHECKLIST	YES	NO
Samples received with proper thermal preservation?	☑	☐
Radioactivity is <1600 cpm? If no, record cpm value in notes section.	☑	☐
COC relinquished and complete (including sampleIDs, collect times, and sampler)?	☑	☐
All containers received in good condition and within hold time?	☐	☑
All sample labels and containers received match the chain of custody?	☑	☐
Preservative added to any containers?	☐	☑
If received, was headspace for VOC water containers < 6mm?	☑	☐
Samples collected in containers provided by Pace Gulf Coast?	☑	☐

COOLERS

Airbill	Thermometer ID: E26	Temp °C
166334652095		3.1

DISCREPANCIES

Broken Container (Container C - Unassigned):
22103171901 - RMW-10
22103171904 - RMW-10C

LAB PRESERVATIONS

None

NOTES

1 OF 3 VIALS RECEIVED BROKE FOR BOTH SAMPLES

Report of Analysis

TRC Companies, Inc.
50 International Dr.
Suite 150
Greenville, SC 29615
Attention: Lisa Clark

Project Name: WPH Clemson

Project Number: 300688.0000.0000.00011

Lot Number:**WC17120**

Date Completed:03/26/2021

03/29/2021 4:23 PM
Approved and released by:
Project Manager II: **Lucas Odom**

The electronic signature above is the equivalent of a handwritten signature.

Pace Analytical Services, LLC (*formerly Shealy Environmental Services, Inc.*)
106 Vantage Point Drive West Columbia, SC 29172
Tel: 803-791-9700 Fax: 803-791-9111 www.pacelabs.com

Laboratory Data Quality Review Notes

Project Name: WPH-Clemson, SC

Project Number: 300688.0000.0000 Phase 11

Lab Report: **WC17120** Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.), West Columbia, SC; subcontracted report: **221031980** Pace Analytical Gulf Coast, Baton Rouge, LA

Samples and Analyses: Fifteen groundwater samples (plus one field duplicate), collected 12-Mar, 15-Mar, and 16-Mar-2021, and analyzed for volatile organic compounds (VOCs), bromide, and sulfate; one trip blank (TB), analyzed for VOCs only. Analysis of the groundwater samples for dissolved hydrocarbon gases (ethane, ethene, methane) was subcontracted and was reported separately (as noted above).

Chain of Custody, Sample Temperature, Sample Preservation: Chain of custody (COC) forms were signed; cooler temperature was ≤6 ^{o}C upon arrival at each laboratory; samples were preserved properly. The following sample receipt anomalies were noted:

- The subcontract laboratory (relevant to the dissolved hydrocarbon gases analyses) noted low sample volume for the RMW-14C MS and MSD samples. MS/MSD analyses were performed using the noted sample; therefore, the volume was sufficient for the analyses. The MS and MSD results met applicable criteria; therefore, the noted low sample volumes do not appear to have had significant impact on the sample results. No validation action was taken on this basis.

Holding Time: Sample analyses were performed within acceptable holding times.

Surrogates: VOC surrogate recoveries were within laboratory quality control (QC) limits.

Method Blank: Laboratory method blanks were appropriately associated with all analyses. The following target analytes were detected in the laboratory method blanks:

- 1,2,4-Trichlorobenzene (0.42 J µg/L) was detected in the laboratory method blank associated with the VOC analysis in sample TBLK-21102. Qualification was not required on this basis since 1,2,4-trichlorobenzene was non-detect (ND) in this sample.

- Methane was detected in the two (of two) laboratory method blanks (2.8 J µg/L and 2.5 J µg/L) associated with the analysis of dissolved hydrocarbon gases; all samples were associated with one or the other of these two blanks. **The positive results for methane in samples RMW-06, RMW-13, RMW-13A, RMW-14, RMW-14A, and RMW-14B were estimated concentrations below the limit of quantitation (LOQ) (J-qualified by the laboratory) and were therefore potential false positives; these results were qualified "u" (revised to ND) at the laboratory LOQ, based on the associated laboratory method blank contamination. The positive result for methane in sample RMW-17A was > the LOQ but <5× the associated blank concentration; therefore, this result was also considered to be a potential false positive and was qualified "u" (revised to ND), with the LOQ revised to the reported sample concentration.** Qualification was

not required for the positive results for methane in samples RMW-07, RMW-09, RMW-16, RMW-16A, RMW-17, RMW-26, and DU-21102 since these results were significantly higher than (>5×) the method blank concentration, and qualification was not required for the ND results in the remaining samples (RMW-06A and RMW-14C).

Trip Blank: No target analytes were detected in the TB (TBLK-21102); analyzed for VOCs only.

Field Blank: A field blank was not collected with these samples.

Equipment Rinse Blank: An equipment rinse blank was not collected with these samples.

LCS/LCSD: LCS analyses were performed appropriately for all analyses; the analyses for dissolved hydrocarbon gases also included analysis of LCSD samples. The LCS and LCSD recoveries and LCS/LCSD relative percent differences (RPDs) were within the laboratory QC limits.

MS/MSD: MS/MSD analyses were performed for the following analyses using the indicated sample as the associated parent sample:

RMW-06	bromide and sulfate
RMW-14A	VOCs
RMW-14C	bromide, sulfate, VOCs, and dissolved hydrocarbon gases
RMW-16	VOCs (tetrachloroethene only)

The MS and MSD recoveries and MS/MSD RPDs were within QC criteria, with the exception of the following:

- The MS/MSD RPD for acetone in sample RMW-14C was above the QC limit. Qualification was not required on this basis since acetone was ND in sample RMW-14C.

Duplicates: No laboratory duplicates were included with these analyses. A field duplicate was collected for sample RMW-16A. Duplicate RPDs were calculated for analytes detected above 5× the LOQ in both samples; the absolute difference (AbsD) was used to evaluate analytes detected below 5× the LOQ in one or both samples. RPD values were ≤ 30%, and AbsD values were ≤LOQ; therefore, results are in acceptable agreement.

Dilutions: The following sample analyses were performed with dilution, as indicated:

RMW-14A	VOCs (5×)
RMW-17A	VOCs (50×)
RMW-16	VOCs (5×) (tetrachloroethene only)
RMW-16A	VOCs (100×)
DU-21102	VOCs (50×)

The laboratory reports did not indicate the dilution reason(s), but the dilutions appear to have been performed in order to bring the concentrations of target analytes into the appropriate instrument calibration range. With the exception of RMW-16, the ND results in the noted VOC analyses were associated with correspondingly elevated detection limit (DL) and LOQ values.

Validation qualifiers were applied in this review, as summarized in the following table.

Data Reviewer: Amy Bass; TRC Environmental Corporation; 24-Apr-2021

Summary of qualifiers assigned by the data quality reviewer.

WC17120 **Sample ID**	**Analyte**	**Lab Result [LOQ]**	**Qualifier Assigned**	**Qualified Result**	**Basis**
RMW-06	methane	2.7 J [5.0]	u (@LOQ)	< 5.0	MB (sc ≤ LOQ)
RMW-13		3.2 J [5.0]	u (@LOQ)	< 5.0	
RMW-13A		2.5 J [5.0]	u (@LOQ)	< 5.0	
RMW-14		3.4 J [5.0]	u (@LOQ)	< 5.0	
RMW-14A		2.5 J [5.0]	u (@LOQ)	< 5.0	
RMW-14B		2.7 J [5.0]	u (@LOQ)	< 5.0	
RMW-17A	methane	5.2 [5.0]	u (@ sc)	< 5.2	MB (LOQ < sc <5×MB)

LOQ: limit of quantitation MB: method blank contamination ND: non-detect
sc: sample concentration
Validation qualifiers applied: "u" (revised to ND)

Case Narrative
TRC Companies, Inc.
Lot Number: WC17120

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved The NELAC Institute (TNI) standards, the Pace Analytical Services, LLC ("Pace") Laboratory Quality Manual, standard operating procedures (SOPs), and Pace policies. Any exceptions to the TNI standards, the Laboratory Quality Manual, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Pace Project Manager listed on the cover page.

VOCs by GC/MS

The method blank associated with batch 86185 yielded a "J" value detection for 1,2,4-Trichlorobenzene. No corrective action is required as this is an estimated value recovered below the LOQ.

The MSD associated with batch 86561 recovered Acetone above method criteria due to suspected matrix interferences.

Dissolved Gasses

The analysis for Dissolved Gasses has been performed by Pace Gulf Coast. This data is located on a separate report provided by Pace Gulf Coast.

Sample Summary
TRC Companies, Inc.
Lot Number: WC17120

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	TBLK-21102	Aqueous	03/12/2021	03/17/2021
002	RMW-17	Aqueous	03/12/2021 1115	03/17/2021
003	RMW-17A	Aqueous	03/12/2021 1205	03/17/2021
004	RMW-26	Aqueous	03/12/2021 1435	03/17/2021
005	RMW-09	Aqueous	03/12/2021 1600	03/17/2021
006	RMW-07	Aqueous	03/15/2021 1135	03/17/2021
007	RMW-14C	Aqueous	03/15/2021 1430	03/17/2021
008	RMW-14B	Aqueous	03/15/2021 1445	03/17/2021
009	RMW-14A	Aqueous	03/15/2021 1545	03/17/2021
010	RMW-14	Aqueous	03/15/2021 1550	03/17/2021
011	RMW-16	Aqueous	03/16/2021 1100	03/17/2021
012	RMW-16A	Aqueous	03/16/2021 1105	03/17/2021
013	RMW-13	Aqueous	03/16/2021 1505	03/17/2021
014	RMW-13A	Aqueous	03/16/2021 1520	03/17/2021
015	RMW-06	Aqueous	03/16/2021 1620	03/17/2021
016	RMW-06A	Aqueous	03/16/2021 1625	03/17/2021
017	DU-21102	Aqueous	03/12/2021	03/17/2021

(17 samples)

Detection Summary

TRC Companies, Inc.

Lot Number: WC17120

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
002	RMW-17	Aqueous	Bromide	300.0	0.096	J	mg/L	8
002	RMW-17	Aqueous	Sulfate	300.0	43		mg/L	8
002	RMW-17	Aqueous	cis-1,2-Dichloroethene	8260D	11		ug/L	8
002	RMW-17	Aqueous	Tetrachloroethene	8260D	79		ug/L	9
002	RMW-17	Aqueous	Trichloroethene	8260D	7.7		ug/L	9
003	RMW-17A	Aqueous	Bromide	300.0	0.35		mg/L	10
003	RMW-17A	Aqueous	Sulfate	300.0	22		mg/L	10
003	RMW-17A	Aqueous	Tetrachloroethene	8260D	4100		ug/L	11
003	RMW-17A	Aqueous	Trichloroethene	8260D	260		ug/L	11
004	RMW-26	Aqueous	Bromide	300.0	0.98		mg/L	12
004	RMW-26	Aqueous	Sulfate	300.0	9.8		mg/L	12
004	RMW-26	Aqueous	Benzene	8260D	6.4		ug/L	12
004	RMW-26	Aqueous	1,1-Dichloroethane	8260D	2.5		ug/L	12
004	RMW-26	Aqueous	1,1-Dichloroethene	8260D	0.72	J	ug/L	12
004	RMW-26	Aqueous	cis-1,2-Dichloroethene	8260D	1.1		ug/L	12
004	RMW-26	Aqueous	Ethylbenzene	8260D	20		ug/L	12
004	RMW-26	Aqueous	Isopropylbenzene	8260D	2.7		ug/L	13
004	RMW-26	Aqueous	Trichloroethene	8260D	0.51	J	ug/L	13
004	RMW-26	Aqueous	Vinyl chloride	8260D	1.9		ug/L	13
004	RMW-26	Aqueous	Xylenes (total)	8260D	130		ug/L	13
005	RMW-09	Aqueous	Bromide	300.0	0.18	J	mg/L	14
005	RMW-09	Aqueous	Sulfate	300.0	9.8		mg/L	14
005	RMW-09	Aqueous	cis-1,2-Dichloroethene	8260D	7.1		ug/L	14
005	RMW-09	Aqueous	Tetrachloroethene	8260D	160		ug/L	15
005	RMW-09	Aqueous	Trichloroethene	8260D	1.9		ug/L	15
006	RMW-07	Aqueous	Bromide	300.0	0.33		mg/L	16
006	RMW-07	Aqueous	Sulfate	300.0	0.64	J	mg/L	16
006	RMW-07	Aqueous	cis-1,2-Dichloroethene	8260D	23		ug/L	16
006	RMW-07	Aqueous	Tetrachloroethene	8260D	76		ug/L	17
006	RMW-07	Aqueous	1,1,2-Trichloro-1,2,2-	8260D	0.70	J	ug/L	17
006	RMW-07	Aqueous	Trichloroethene	8260D	1.5		ug/L	17
007	RMW-14C	Aqueous	Sulfate	300.0	0.55	J	mg/L	18
007	RMW-14C	Aqueous	Tetrachloroethene	8260D	16		ug/L	19
008	RMW-14B	Aqueous	Sulfate	300.0	0.36	J	mg/L	20
008	RMW-14B	Aqueous	Tetrachloroethene	8260D	4.3		ug/L	21
009	RMW-14A	Aqueous	Sulfate	300.0	140		mg/L	22
009	RMW-14A	Aqueous	Chloroform	8260D	5.2		ug/L	22
009	RMW-14A	Aqueous	1,1-Dichloroethene	8260D	5.0		ug/L	22
009	RMW-14A	Aqueous	Tetrachloroethene	8260D	600		ug/L	23
009	RMW-14A	Aqueous	1,1,2-Trichloro-1,2,2-	8260D	2.2	J	ug/L	23
010	RMW-14	Aqueous	Sulfate	300.0	97		mg/L	24
010	RMW-14	Aqueous	Tetrachloroethene	8260D	22		ug/L	25
011	RMW-16	Aqueous	Bromide	300.0	0.27		mg/L	26
011	RMW-16	Aqueous	Sulfate	300.0	6.8		mg/L	26
011	RMW-16	Aqueous	cis-1,2-Dichloroethene	8260D	21		ug/L	26

Detection Summary (Continued)

Lot Number: WC17120

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
011	RMW-16	Aqueous	Tetrachloroethene	8260D	150		ug/L	27
011	RMW-16	Aqueous	Trichloroethene	8260D	14		ug/L	27
012	RMW-16A	Aqueous	Bromide	300.0	0.089	J	mg/L	28
012	RMW-16A	Aqueous	Sulfate	300.0	2.5		mg/L	28
012	RMW-16A	Aqueous	Tetrachloroethene	8260D	10000		ug/L	29
012	RMW-16A	Aqueous	Trichloroethene	8260D	56	J	ug/L	29
013	RMW-13	Aqueous	Sulfate	300.0	110		mg/L	30
013	RMW-13	Aqueous	Chloroform	8260D	0.53	J	ug/L	30
013	RMW-13	Aqueous	1,2-Dichloroethane	8260D	0.48	J	ug/L	30
013	RMW-13	Aqueous	cis-1,2-Dichloroethene	8260D	0.41	J	ug/L	30
013	RMW-13	Aqueous	Tetrachloroethene	8260D	160		ug/L	31
013	RMW-13	Aqueous	1,1,2-Trichloro-1,2,2-	8260D	0.46	J	ug/L	31
013	RMW-13	Aqueous	Trichloroethene	8260D	0.43	J	ug/L	31
014	RMW-13A	Aqueous	Sulfate	300.0	0.99	J	mg/L	32
015	RMW-06	Aqueous	Bromide	300.0	0.080	J	mg/L	34
015	RMW-06	Aqueous	Sulfate	300.0	16		mg/L	34
015	RMW-06	Aqueous	Tetrachloroethene	8260D	22		ug/L	35
016	RMW-06A	Aqueous	Bromide	300.0	0.055	J	mg/L	36
016	RMW-06A	Aqueous	Chloroform	8260D	0.93	J	ug/L	36
016	RMW-06A	Aqueous	Tetrachloroethene	8260D	150		ug/L	37
016	RMW-06A	Aqueous	Trichlorofluoromethane	8260D	0.88	J	ug/L	37
017	DU-21102	Aqueous	Bromide	300.0	0.088	J	mg/L	38
017	DU-21102	Aqueous	Sulfate	300.0	2.6		mg/L	38
017	DU-21102	Aqueous	Tetrachloroethene	8260D	8900		ug/L	39
017	DU-21102	Aqueous	Trichloroethene	8260D	54		ug/L	39

(70 detections)

Client: TRC Companies, Inc.
Description: TBLK-21102
Date Sampled: 03/12/2021
Date Received: 03/17/2021

Laboratory ID: WC17120-001
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/19/2021 0136	CJL2		86185

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	ND		1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: TBLK-21102
Date Sampled: 03/12/2021
Date Received: 03/17/2021

Laboratory ID: WC17120-001
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/19/2021 0136	CJL2		86185

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260D	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		108	70-130
1,2-Dichloroethane-d4		100	70-130
Toluene-d8		106	70-130

LOQ = Limit of Quantitation	B = Detected in the method blank	E = Quantitation of compound exceeded the calibration range	DL = Detection Limit	Q = Surrogate failure
ND = Not detected at or above the DL	N = Recovery is out of criteria	P = The RPD between two GC columns exceeds 40%	J = Estimated result < LOQ and ≥ DL	L = LCS/LCSD failure
H = Out of holding time	W = Reported on wet weight basis			S = MS/MSD failure

Pace Analytical Services, LLC *(formerly Shealy Environmental Services, Inc.)*
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Client: TRC Companies, Inc.
Description: RMW-17
Date Sampled: 03/12/2021 1115
Date Received: 03/17/2021

Laboratory ID: WC17120-002
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	03/18/2021 1607	AMR		86236
1		(Sulfate) 300.0	1	03/18/2021 1607	AMR		86235

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.096	J	0.20	0.050	mg/L	1
Sulfate		300.0	43		1.0	0.25	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/23/2021 1434	JDF		86626

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	11		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: RMW-17
Date Sampled: 03/12/2021 1115
Date Received: 03/17/2021

Laboratory ID: WC17120-002
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/23/2021 1434	JDF		86626

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	79		1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260D	7.7		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		109	70-130
1,2-Dichloroethane-d4		110	70-130
Toluene-d8		116	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Pace Analytical Services, LLC *(formerly Shealy Environmental Services, Inc.)*
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Client: TRC Companies, Inc.
Description: RMW-17A
Date Sampled: 03/12/2021 1205
Date Received: 03/17/2021

Laboratory ID: WC17120-003
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	03/18/2021 1626	AMR		86236
1		(Sulfate) 300.0	1	03/18/2021 1626	AMR		86235

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.35		0.20	0.050	mg/L	1
Sulfate		300.0	22		1.0	0.25	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	50	03/23/2021 1855	JDF		86626

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		1000	250	ug/L	1
Benzene	71-43-2	8260D	ND		50	20	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		50	20	ug/L	1
Bromoform	75-25-2	8260D	ND		50	20	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		100	20	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		500	100	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		50	20	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		50	20	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		50	20	ug/L	1
Chloroethane	75-00-3	8260D	ND		100	20	ug/L	1
Chloroform	67-66-3	8260D	ND		50	20	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		50	25	ug/L	1
Cyclohexane	110-82-7	8260D	ND		50	20	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		50	20	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		50	20	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		50	20	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		50	20	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		50	20	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		50	20	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		100	30	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		50	20	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		50	20	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		50	20	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		50	20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		50	20	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		50	20	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		50	20	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		50	20	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		50	20	ug/L	1
2-Hexanone	591-78-6	8260D	ND		500	100	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: RMW-17A
Date Sampled: 03/12/2021 1205
Date Received: 03/17/2021

Laboratory ID: WC17120-003
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	50	03/23/2021 1855	JDF		86626

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Isopropylbenzene	98-82-8	8260D	ND		50	20	ug/L	1
Methyl acetate	79-20-9	8260D	ND		50	20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		50	20	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		500	100	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		250	20	ug/L	1
Methylene chloride	75-09-2	8260D	ND		50	20	ug/L	1
Styrene	100-42-5	8260D	ND		50	21	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		50	20	ug/L	1
Tetrachloroethene	127-18-4	8260D	4100		50	20	ug/L	1
Toluene	108-88-3	8260D	ND		50	20	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		50	21	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		50	20	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		50	20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		50	20	ug/L	1
Trichloroethene	79-01-6	8260D	260		50	20	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		50	20	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		50	20	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		50	20	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		109	70-130
1,2-Dichloroethane-d4		108	70-130
Toluene-d8		117	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Pace Analytical Services, LLC *(formerly Shealy Environmental Services, Inc.)*
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Client: TRC Companies, Inc.
Description: RMW-26
Date Sampled: 03/12/2021 1435
Date Received: 03/17/2021

Laboratory ID: WC17120-004
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	03/18/2021 1645	AMR		86236
1		(Sulfate) 300.0	1	03/18/2021 1645	AMR		86235

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.98		0.20	0.050	mg/L	1
Sulfate		300.0	9.8		1.0	0.25	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/23/2021 1458	JDF		86626

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	5.0	ug/L	1
Benzene	71-43-2	8260D	6.4		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	2.5		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	0.72	J	1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	1.1		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	20		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: RMW-26
Date Sampled: 03/12/2021 1435
Date Received: 03/17/2021

Laboratory ID: WC17120-004
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/23/2021 1458	JDF		86626

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Isopropylbenzene	98-82-8	8260D	2.7		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	ND		1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260D	0.51	J	1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	1.9		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	130		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		112	70-130
1,2-Dichloroethane-d4		110	70-130
Toluene-d8		117	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Pace Analytical Services, LLC *(formerly Shealy Environmental Services, Inc.)*
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Client: TRC Companies, Inc.
Description: RMW-09
Date Sampled: 03/12/2021 1600
Date Received: 03/17/2021

Laboratory ID: WC17120-005
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	03/18/2021 2147	AMR		86242
1		(Sulfate) 300.0	1	03/18/2021 2147	AMR		86237

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.18	J	0.20	0.050	mg/L	1
Sulfate		300.0	9.8		1.0	0.25	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/23/2021 1521	JDF		86626

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	7.1		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: RMW-09
Date Sampled: 03/12/2021 1600
Date Received: 03/17/2021

Laboratory ID: WC17120-005
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/23/2021 1521	JDF		86626

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	160		1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260D	1.9		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		106	70-130
1,2-Dichloroethane-d4		112	70-130
Toluene-d8		115	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: RMW-07
Date Sampled: 03/15/2021 1135
Date Received: 03/17/2021

Laboratory ID: WC17120-006
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	03/18/2021 1548	AMR		86236
1		(Sulfate) 300.0	1	03/18/2021 1548	AMR		86235

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.33		0.20	0.050	mg/L	1
Sulfate		300.0	0.64	J	1.0	0.25	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/23/2021 1545	JDF		86626

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	23		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: RMW-07
Date Sampled: 03/15/2021 1135
Date Received: 03/17/2021

Laboratory ID: WC17120-006
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/23/2021 1545	JDF		86626

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	76		1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	0.70	J	1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260D	1.5		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		107	70-130
1,2-Dichloroethane-d4		110	70-130
Toluene-d8		116	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Pace Analytical Services, LLC *(formerly Shealy Environmental Services, Inc.)*
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Client: TRC Companies, Inc.
Description: RMW-14C
Date Sampled: 03/15/2021 1430
Date Received: 03/17/2021

Laboratory ID: WC17120-007
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	03/18/2021 1354	AMR		86236
1		(Sulfate) 300.0	1	03/18/2021 1354	AMR		86235

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	ND		0.20	0.050	mg/L	1
Sulfate		300.0	0.55	J	1.0	0.25	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/23/2021 1159	TML		86561

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND	S	20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: RMW-14C
Date Sampled: 03/15/2021 1430
Date Received: 03/17/2021

Laboratory ID: WC17120-007
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/23/2021 1159	TML		86561

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	16		1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260D	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		100	70-130
1,2-Dichloroethane-d4		89	70-130
Toluene-d8		93	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: RMW-14B
Date Sampled: 03/15/2021 1445
Date Received: 03/17/2021

Laboratory ID: WC17120-008
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	03/18/2021 1704	AMR		86236
1		(Sulfate) 300.0	1	03/18/2021 1704	AMR		86235

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	ND		0.20	0.050	mg/L	1
Sulfate		300.0	0.36	J	1.0	0.25	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/23/2021 1634	JDF		86626

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: RMW-14B
Date Sampled: 03/15/2021 1445
Date Received: 03/17/2021

Laboratory ID: WC17120-008
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/23/2021 1634	JDF		86626

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	4.3		1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260D	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		107	70-130
1,2-Dichloroethane-d4		111	70-130
Toluene-d8		116	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: RMW-14A
Date Sampled: 03/15/2021 1545
Date Received: 03/17/2021

Laboratory ID: WC17120-009
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	03/18/2021 1722	AMR		86236
1		(Sulfate) 300.0	1	03/18/2021 1722	AMR		86235

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	ND		0.20	0.050	mg/L	1
Sulfate		300.0	140		1.0	0.25	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	5	03/24/2021 0625	CJL2		86642

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		100	25	ug/L	1
Benzene	71-43-2	8260D	ND		5.0	2.0	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		5.0	2.0	ug/L	1
Bromoform	75-25-2	8260D	ND		5.0	2.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		10	2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		50	10	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		5.0	2.0	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		5.0	2.0	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		5.0	2.0	ug/L	1
Chloroethane	75-00-3	8260D	ND		10	2.0	ug/L	1
Chloroform	67-66-3	8260D	5.2		5.0	2.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		5.0	2.5	ug/L	1
Cyclohexane	110-82-7	8260D	ND		5.0	2.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		5.0	2.0	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		5.0	2.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		5.0	2.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		5.0	2.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		5.0	2.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		5.0	2.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		10	3.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		5.0	2.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		5.0	2.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	5.0		5.0	2.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		5.0	2.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		5.0	2.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		5.0	2.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		5.0	2.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		5.0	2.0	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		5.0	2.0	ug/L	1
2-Hexanone	591-78-6	8260D	ND		50	10	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: RMW-14A
Date Sampled: 03/15/2021 1545
Date Received: 03/17/2021

Laboratory ID: WC17120-009
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	5	03/24/2021 0625	CJL2		86642

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Isopropylbenzene	98-82-8	8260D	ND		5.0	2.0	ug/L	1
Methyl acetate	79-20-9	8260D	ND		5.0	2.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		5.0	2.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		50	10	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		25	2.0	ug/L	1
Methylene chloride	75-09-2	8260D	ND		5.0	2.0	ug/L	1
Styrene	100-42-5	8260D	ND		5.0	2.1	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		5.0	2.0	ug/L	1
Tetrachloroethene	127-18-4	8260D	600		5.0	2.0	ug/L	1
Toluene	108-88-3	8260D	ND		5.0	2.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	2.2	J	5.0	2.1	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		5.0	2.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		5.0	2.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		5.0	2.0	ug/L	1
Trichloroethene	79-01-6	8260D	ND		5.0	2.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		5.0	2.0	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		5.0	2.0	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		5.0	2.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		106	70-130
1,2-Dichloroethane-d4		96	70-130
Toluene-d8		93	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Pace Analytical Services, LLC *(formerly Shealy Environmental Services, Inc.)*
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Client: TRC Companies, Inc.
Description: RMW-14
Date Sampled: 03/15/2021 1550
Date Received: 03/17/2021

Laboratory ID: WC17120-010
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	03/18/2021 1741	AMR		86236
1		(Sulfate) 300.0	1	03/18/2021 1741	AMR		86235

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	ND		0.20	0.050	mg/L	1
Sulfate		300.0	97		1.0	0.25	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/23/2021 1657	JDF		86626

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: RMW-14
Date Sampled: 03/15/2021 1550
Date Received: 03/17/2021

Laboratory ID: WC17120-010
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/23/2021 1657	JDF		86626

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	22		1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260D	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		106	70-130
1,2-Dichloroethane-d4		113	70-130
Toluene-d8		115	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: RMW-16
Date Sampled: 03/16/2021 1100
Date Received: 03/17/2021

Laboratory ID: WC17120-011
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	03/18/2021 1800	AMR		86236
1		(Sulfate) 300.0	1	03/18/2021 1800	AMR		86235

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.27		0.20	0.050	mg/L	1
Sulfate		300.0	6.8		1.0	0.25	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/23/2021 1721	JDF		86626
2	5030B	8260D	5	03/26/2021 0529	CJL2		86925

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	21		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: RMW-16
Date Sampled: 03/16/2021 1100
Date Received: 03/17/2021

Laboratory ID: WC17120-011
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/23/2021 1721	JDF		86626
2	5030B	8260D	5	03/26/2021 0529	CJL2		86925

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	150		5.0	2.0	ug/L	2
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260D	14		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits	Q	Run 2 % Recovery	Acceptance Limits
Bromofluorobenzene		105	70-130		105	70-130
1,2-Dichloroethane-d4		111	70-130		89	70-130
Toluene-d8		114	70-130		106	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: RMW-16A
Date Sampled: 03/16/2021 1105
Date Received: 03/17/2021

Laboratory ID: WC17120-012
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	03/18/2021 1819	AMR		86236
1		(Sulfate) 300.0	1	03/18/2021 1819	AMR		86235

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.089	J	0.20	0.050	mg/L	1
Sulfate		300.0	2.5		1.0	0.25	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	100	03/23/2021 1918	JDF		86626

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		2000	500	ug/L	1
Benzene	71-43-2	8260D	ND		100	40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		100	40	ug/L	1
Bromoform	75-25-2	8260D	ND		100	40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		200	40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		1000	200	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		100	40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		100	40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		100	40	ug/L	1
Chloroethane	75-00-3	8260D	ND		200	40	ug/L	1
Chloroform	67-66-3	8260D	ND		100	40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		100	50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		100	40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		100	40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		100	40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		100	40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		100	40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		100	40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		100	40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		200	60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		100	40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		100	40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		100	40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		100	40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		100	40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		100	40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		100	40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		100	40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		100	40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		1000	200	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: RMW-16A
Date Sampled: 03/16/2021 1105
Date Received: 03/17/2021

Laboratory ID: WC17120-012
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	100	03/23/2021 1918	JDF		86626

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Isopropylbenzene	98-82-8	8260D	ND		100	40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		100	40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		100	40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		1000	200	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		500	40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		100	40	ug/L	1
Styrene	100-42-5	8260D	ND		100	41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		100	40	ug/L	1
Tetrachloroethene	127-18-4	8260D	10000		100	40	ug/L	1
Toluene	108-88-3	8260D	ND		100	40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		100	42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		100	40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		100	40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		100	40	ug/L	1
Trichloroethene	79-01-6	8260D	56	J	100	40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		100	40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		100	40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		100	40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		107	70-130
1,2-Dichloroethane-d4		109	70-130
Toluene-d8		116	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Pace Analytical Services, LLC *(formerly Shealy Environmental Services, Inc.)*
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Client: TRC Companies, Inc.
Description: RMW-13
Date Sampled: 03/16/2021 1505
Date Received: 03/17/2021

Laboratory ID: WC17120-013
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	03/18/2021 1838	AMR		86236
1		(Sulfate) 300.0	1	03/18/2021 1838	AMR		86235

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	ND		0.20	0.050	mg/L	1
Sulfate		300.0	110		1.0	0.25	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/23/2021 2324	CJL2		86642

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	0.53	J	1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	0.48	J	1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	0.41	J	1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: RMW-13
Date Sampled: 03/16/2021 1505
Date Received: 03/17/2021

Laboratory ID: WC17120-013
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/23/2021 2324	CJL2		86642

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	160		1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	0.46	J	1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260D	0.43	J	1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		105	70-130
1,2-Dichloroethane-d4		97	70-130
Toluene-d8		91	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Pace Analytical Services, LLC *(formerly Shealy Environmental Services, Inc.)*
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Client: TRC Companies, Inc.
Description: RMW-13A
Date Sampled: 03/16/2021 1520
Date Received: 03/17/2021

Laboratory ID: WC17120-014
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	03/18/2021 1935	AMR		86236
1		(Sulfate) 300.0	1	03/18/2021 1935	AMR		86235

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	ND		0.20	0.050	mg/L	1
Sulfate		300.0	0.99	J	1.0	0.25	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/23/2021 2349	CJL2		86642

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: RMW-13A
Date Sampled: 03/16/2021 1520
Date Received: 03/17/2021

Laboratory ID: WC17120-014
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/23/2021 2349	CJL2		86642

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	ND		1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260D	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		105	70-130
1,2-Dichloroethane-d4		94	70-130
Toluene-d8		92	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: RMW-06
Date Sampled: 03/16/2021 1620
Date Received: 03/17/2021

Laboratory ID: WC17120-015
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	03/18/2021 1954	AMR		86236
1		(Sulfate) 300.0	1	03/18/2021 1954	AMR		86235

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.080	J	0.20	0.050	mg/L	1
Sulfate		300.0	16		1.0	0.25	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/24/2021 0014	CJL2		86642

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: RMW-06
Date Sampled: 03/16/2021 1620
Date Received: 03/17/2021

Laboratory ID: WC17120-015
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/24/2021 0014	CJL2		86642

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	22		1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260D	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		103	70-130
1,2-Dichloroethane-d4		95	70-130
Toluene-d8		91	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: RMW-06A
Date Sampled: 03/16/2021 1625
Date Received: 03/17/2021

Laboratory ID: WC17120-016
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	03/18/2021 2050	AMR		86236
1		(Sulfate) 300.0	1	03/18/2021 2050	AMR		86235

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.055	J	0.20	0.050	mg/L	1
Sulfate		300.0	ND		1.0	0.25	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/24/2021 0039	CJL2		86642

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	0.93	J	1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: RMW-06A
Date Sampled: 03/16/2021 1625
Date Received: 03/17/2021

Laboratory ID: WC17120-016
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/24/2021 0039	CJL2		86642

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	150		1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260D	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	0.88	J	1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		106	70-130
1,2-Dichloroethane-d4		95	70-130
Toluene-d8		92	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Pace Analytical Services, LLC *(formerly Shealy Environmental Services, Inc.)*
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Client: TRC Companies, Inc.
Description: DU-21102
Date Sampled: 03/12/2021
Date Received: 03/17/2021

Laboratory ID: WC17120-017
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	03/18/2021 2109	AMR		86236
1		(Sulfate) 300.0	1	03/18/2021 2109	AMR		86235

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.088	J	0.20	0.050	mg/L	1
Sulfate		300.0	2.6		1.0	0.25	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	50	03/24/2021 0650	CJL2		86642

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		1000	250	ug/L	1
Benzene	71-43-2	8260D	ND		50	20	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		50	20	ug/L	1
Bromoform	75-25-2	8260D	ND		50	20	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		100	20	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		500	100	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		50	20	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		50	20	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		50	20	ug/L	1
Chloroethane	75-00-3	8260D	ND		100	20	ug/L	1
Chloroform	67-66-3	8260D	ND		50	20	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		50	25	ug/L	1
Cyclohexane	110-82-7	8260D	ND		50	20	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		50	20	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		50	20	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		50	20	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		50	20	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		50	20	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		50	20	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		100	30	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		50	20	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		50	20	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		50	20	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		50	20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		50	20	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		50	20	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		50	20	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		50	20	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		50	20	ug/L	1
2-Hexanone	591-78-6	8260D	ND		500	100	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: DU-21102
Date Sampled: 03/12/2021
Date Received: 03/17/2021

Laboratory ID: WC17120-017
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	50	03/24/2021 0650	CJL2		86642

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Isopropylbenzene	98-82-8	8260D	ND		50	20	ug/L	1
Methyl acetate	79-20-9	8260D	ND		50	20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		50	20	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		500	100	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		250	20	ug/L	1
Methylene chloride	75-09-2	8260D	ND		50	20	ug/L	1
Styrene	100-42-5	8260D	ND		50	21	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		50	20	ug/L	1
Tetrachloroethene	127-18-4	8260D	8900		50	20	ug/L	1
Toluene	108-88-3	8260D	ND		50	20	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		50	21	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		50	20	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		50	20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		50	20	ug/L	1
Trichloroethene	79-01-6	8260D	54		50	20	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		50	20	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		50	20	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		50	20	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		105	70-130
1,2-Dichloroethane-d4		96	70-130
Toluene-d8		93	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Pace Analytical Services, LLC *(formerly Shealy Environmental Services, Inc.)*
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

QC Summary

Inorganic non-metals - MB

Sample ID: WQ86235-001
Batch: 86235
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Sulfate	ND		1	1.0	0.25	mg/L	03/18/2021 1142

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: WQ86235-002
Batch: 86235
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Sulfate	20	20		1	101	90-110	03/18/2021 1220

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Sample ID: WC17120-007MS
Batch: 86235
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Sulfate	0.55	10	10		1	97	90-110	03/18/2021 1413

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: WC17120-007MD
Batch: 86235
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	%Rec Limit	% RPD Limit	Analysis Date
Sulfate	0.55	10	11		1	102	4.1	90-110	20	03/18/2021 1432

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Sample ID: WC17120-015MS
Batch: 86235
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Sulfate	16	10	26		1	102	90-110	03/18/2021 2012

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: WC17120-015MD
Batch: 86235
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	%Rec Limit	% RPD Limit	Analysis Date
Sulfate	16	10	26		1	104	0.71	90-110	20	03/18/2021 2031

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: WQ86236-001
Batch: 86236
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Bromide	ND		1	0.20	0.050	mg/L	03/18/2021 1142

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: WQ86236-002
Batch: 86236
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Bromide	8.0	8.3		1	103	90-110	03/18/2021 1220

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Sample ID: WC17120-007MS
Batch: 86236
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Bromide	ND	4.0	4.1		1	102	90-110	03/18/2021 1413

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: WC17120-007MD
Batch: 86236
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	%Rec Limit	% RPD Limit	Analysis Date
Bromide	ND	4.0	4.0		1	101	0.86	90-110	20	03/18/2021 1432

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Sample ID: WC17120-015MS
Batch: 86236
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Bromide	0.080	4.0	4.1		1	101	90-110	03/18/2021 2012

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: WC17120-015MD
Batch: 86236
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	%Rec Limit	% RPD Limit	Analysis Date
Bromide	0.080	4.0	4.2		1	102	0.77	90-110	20	03/18/2021 2031

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: WQ86237-001
Batch: 86237
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Sulfate	ND		1	1.0	0.25	mg/L	03/18/2021 1916

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: WQ86237-002
Batch: 86237
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Sulfate	20	21		1	103	90-110	03/18/2021 2128

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: WQ86242-001
Batch: 86242
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Bromide	ND		1	0.20	0.050	mg/L	03/18/2021 1916

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: WQ86242-002
Batch: 86242
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Bromide	8.0	8.4		1	105	90-110	03/18/2021 2128

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: WQ86185-001
Batch: 86185
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Acetone	ND		1	20	5.0	ug/L	03/18/2021 2339
Benzene	ND		1	1.0	0.40	ug/L	03/18/2021 2339
Bromodichloromethane	ND		1	1.0	0.40	ug/L	03/18/2021 2339
Bromoform	ND		1	1.0	0.40	ug/L	03/18/2021 2339
Bromomethane (Methyl bromide)	ND		1	2.0	0.40	ug/L	03/18/2021 2339
2-Butanone (MEK)	ND		1	10	2.0	ug/L	03/18/2021 2339
Carbon disulfide	ND		1	1.0	0.40	ug/L	03/18/2021 2339
Carbon tetrachloride	ND		1	1.0	0.40	ug/L	03/18/2021 2339
Chlorobenzene	ND		1	1.0	0.40	ug/L	03/18/2021 2339
Chloroethane	ND		1	2.0	0.40	ug/L	03/18/2021 2339
Chloroform	ND		1	1.0	0.40	ug/L	03/18/2021 2339
Chloromethane (Methyl chloride)	ND		1	1.0	0.50	ug/L	03/18/2021 2339
Cyclohexane	ND		1	1.0	0.40	ug/L	03/18/2021 2339
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	0.40	ug/L	03/18/2021 2339
Dibromochloromethane	ND		1	1.0	0.40	ug/L	03/18/2021 2339
1,2-Dibromoethane (EDB)	ND		1	1.0	0.40	ug/L	03/18/2021 2339
1,2-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/18/2021 2339
1,3-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/18/2021 2339
1,4-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/18/2021 2339
Dichlorodifluoromethane	ND		1	2.0	0.60	ug/L	03/18/2021 2339
1,1-Dichloroethane	ND		1	1.0	0.40	ug/L	03/18/2021 2339
1,2-Dichloroethane	ND		1	1.0	0.40	ug/L	03/18/2021 2339
1,1-Dichloroethene	ND		1	1.0	0.40	ug/L	03/18/2021 2339
cis-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	03/18/2021 2339
trans-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	03/18/2021 2339
1,2-Dichloropropane	ND		1	1.0	0.40	ug/L	03/18/2021 2339
cis-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	03/18/2021 2339
trans-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	03/18/2021 2339
Ethylbenzene	ND		1	1.0	0.40	ug/L	03/18/2021 2339
2-Hexanone	ND		1	10	2.0	ug/L	03/18/2021 2339
Isopropylbenzene	ND		1	1.0	0.40	ug/L	03/18/2021 2339
Methyl acetate	ND		1	1.0	0.40	ug/L	03/18/2021 2339
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	0.40	ug/L	03/18/2021 2339
4-Methyl-2-pentanone	ND		1	10	2.0	ug/L	03/18/2021 2339
Methylcyclohexane	ND		1	5.0	0.40	ug/L	03/18/2021 2339
Methylene chloride	ND		1	1.0	0.40	ug/L	03/18/2021 2339
Styrene	ND		1	1.0	0.41	ug/L	03/18/2021 2339
1,1,2,2-Tetrachloroethane	ND		1	1.0	0.40	ug/L	03/18/2021 2339
Tetrachloroethene	ND		1	1.0	0.40	ug/L	03/18/2021 2339
Toluene	ND		1	1.0	0.40	ug/L	03/18/2021 2339
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	0.42	ug/L	03/18/2021 2339
1,2,4-Trichlorobenzene	0.42	J	1	1.0	0.40	ug/L	03/18/2021 2339
1,1,1-Trichloroethane	ND		1	1.0	0.40	ug/L	03/18/2021 2339
1,1,2-Trichloroethane	ND		1	1.0	0.40	ug/L	03/18/2021 2339

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: WQ86185-001
Batch: 86185
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Trichloroethene	ND		1	1.0	0.40	ug/L	03/18/2021 2339
Trichlorofluoromethane	ND		1	1.0	0.40	ug/L	03/18/2021 2339
Vinyl chloride	ND		1	1.0	0.40	ug/L	03/18/2021 2339
Xylenes (total)	ND		1	1.0	0.40	ug/L	03/18/2021 2339

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		110	70-130
1,2-Dichloroethane-d4		100	70-130
Toluene-d8		108	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: WQ86185-002
Batch: 86185
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Acetone	100	110		1	106	60-140	03/18/2021 2228
Benzene	50	49		1	98	70-130	03/18/2021 2228
Bromodichloromethane	50	51		1	103	70-130	03/18/2021 2228
Bromoform	50	47		1	94	70-130	03/18/2021 2228
Bromomethane (Methyl bromide)	50	44		1	88	70-130	03/18/2021 2228
2-Butanone (MEK)	100	110		1	107	70-130	03/18/2021 2228
Carbon disulfide	50	53		1	106	70-130	03/18/2021 2228
Carbon tetrachloride	50	52		1	104	70-130	03/18/2021 2228
Chlorobenzene	50	50		1	99	70-130	03/18/2021 2228
Chloroethane	50	46		1	93	70-130	03/18/2021 2228
Chloroform	50	48		1	96	70-130	03/18/2021 2228
Chloromethane (Methyl chloride)	50	49		1	97	60-140	03/18/2021 2228
Cyclohexane	50	51		1	102	70-130	03/18/2021 2228
1,2-Dibromo-3-chloropropane (DBCP)	50	50		1	99	70-130	03/18/2021 2228
Dibromochloromethane	50	47		1	94	70-130	03/18/2021 2228
1,2-Dibromoethane (EDB)	50	52		1	103	70-130	03/18/2021 2228
1,2-Dichlorobenzene	50	49		1	98	70-130	03/18/2021 2228
1,3-Dichlorobenzene	50	51		1	102	70-130	03/18/2021 2228
1,4-Dichlorobenzene	50	50		1	100	70-130	03/18/2021 2228
Dichlorodifluoromethane	50	55		1	109	60-140	03/18/2021 2228
1,1-Dichloroethane	50	48		1	97	70-130	03/18/2021 2228
1,2-Dichloroethane	50	48		1	96	70-130	03/18/2021 2228
1,1-Dichloroethene	50	50		1	99	70-130	03/18/2021 2228
cis-1,2-Dichloroethene	50	50		1	99	70-130	03/18/2021 2228
trans-1,2-Dichloroethene	50	50		1	100	70-130	03/18/2021 2228
1,2-Dichloropropane	50	49		1	98	70-130	03/18/2021 2228
cis-1,3-Dichloropropene	50	48		1	97	70-130	03/18/2021 2228
trans-1,3-Dichloropropene	50	48		1	96	70-130	03/18/2021 2228
Ethylbenzene	50	50		1	101	70-130	03/18/2021 2228
2-Hexanone	100	100		1	104	70-130	03/18/2021 2228
Isopropylbenzene	50	51		1	102	70-130	03/18/2021 2228
Methyl acetate	50	52		1	104	70-130	03/18/2021 2228
Methyl tertiary butyl ether (MTBE)	50	51		1	102	70-130	03/18/2021 2228
4-Methyl-2-pentanone	100	100		1	104	70-130	03/18/2021 2228
Methylcyclohexane	50	50		1	99	70-130	03/18/2021 2228
Methylene chloride	50	49		1	97	70-130	03/18/2021 2228
Styrene	50	47		1	93	70-130	03/18/2021 2228
1,1,2,2-Tetrachloroethane	50	50		1	99	70-130	03/18/2021 2228
Tetrachloroethene	50	50		1	100	70-130	03/18/2021 2228
Toluene	50	50		1	101	70-130	03/18/2021 2228
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	49		1	98	70-130	03/18/2021 2228
1,2,4-Trichlorobenzene	50	49		1	98	70-130	03/18/2021 2228
1,1,1-Trichloroethane	50	51		1	101	70-130	03/18/2021 2228
1,1,2-Trichloroethane	50	48		1	96	70-130	03/18/2021 2228

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: WQ86185-002
Batch: 86185
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Trichloroethene	50	50		1	100	70-130	03/18/2021 2228
Trichlorofluoromethane	50	54		1	108	70-130	03/18/2021 2228
Vinyl chloride	50	48		1	96	70-130	03/18/2021 2228
Xylenes (total)	100	100		1	103	70-130	03/18/2021 2228

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		103	70-130
1,2-Dichloroethane-d4		96	70-130
Toluene-d8		101	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: WQ86561-001
Batch: 86561
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Acetone	ND		1	20	5.0	ug/L	03/23/2021 1124
Benzene	ND		1	1.0	0.40	ug/L	03/23/2021 1124
Bromodichloromethane	ND		1	1.0	0.40	ug/L	03/23/2021 1124
Bromoform	ND		1	1.0	0.40	ug/L	03/23/2021 1124
Bromomethane (Methyl bromide)	ND		1	2.0	0.40	ug/L	03/23/2021 1124
2-Butanone (MEK)	ND		1	10	2.0	ug/L	03/23/2021 1124
Carbon disulfide	ND		1	1.0	0.40	ug/L	03/23/2021 1124
Carbon tetrachloride	ND		1	1.0	0.40	ug/L	03/23/2021 1124
Chlorobenzene	ND		1	1.0	0.40	ug/L	03/23/2021 1124
Chloroethane	ND		1	2.0	0.40	ug/L	03/23/2021 1124
Chloroform	ND		1	1.0	0.40	ug/L	03/23/2021 1124
Chloromethane (Methyl chloride)	ND		1	1.0	0.50	ug/L	03/23/2021 1124
Cyclohexane	ND		1	1.0	0.40	ug/L	03/23/2021 1124
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	0.40	ug/L	03/23/2021 1124
Dibromochloromethane	ND		1	1.0	0.40	ug/L	03/23/2021 1124
1,2-Dibromoethane (EDB)	ND		1	1.0	0.40	ug/L	03/23/2021 1124
1,2-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/23/2021 1124
1,3-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/23/2021 1124
1,4-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/23/2021 1124
Dichlorodifluoromethane	ND		1	2.0	0.60	ug/L	03/23/2021 1124
1,1-Dichloroethane	ND		1	1.0	0.40	ug/L	03/23/2021 1124
1,2-Dichloroethane	ND		1	1.0	0.40	ug/L	03/23/2021 1124
1,1-Dichloroethene	ND		1	1.0	0.40	ug/L	03/23/2021 1124
cis-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	03/23/2021 1124
trans-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	03/23/2021 1124
1,2-Dichloropropane	ND		1	1.0	0.40	ug/L	03/23/2021 1124
cis-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	03/23/2021 1124
trans-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	03/23/2021 1124
Ethylbenzene	ND		1	1.0	0.40	ug/L	03/23/2021 1124
2-Hexanone	ND		1	10	2.0	ug/L	03/23/2021 1124
Isopropylbenzene	ND		1	1.0	0.40	ug/L	03/23/2021 1124
Methyl acetate	ND		1	1.0	0.40	ug/L	03/23/2021 1124
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	0.40	ug/L	03/23/2021 1124
4-Methyl-2-pentanone	ND		1	10	2.0	ug/L	03/23/2021 1124
Methylcyclohexane	ND		1	5.0	0.40	ug/L	03/23/2021 1124
Methylene chloride	ND		1	1.0	0.40	ug/L	03/23/2021 1124
Styrene	ND		1	1.0	0.41	ug/L	03/23/2021 1124
1,1,2,2-Tetrachloroethane	ND		1	1.0	0.40	ug/L	03/23/2021 1124
Tetrachloroethene	ND		1	1.0	0.40	ug/L	03/23/2021 1124
Toluene	ND		1	1.0	0.40	ug/L	03/23/2021 1124
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	0.42	ug/L	03/23/2021 1124
1,2,4-Trichlorobenzene	ND		1	1.0	0.40	ug/L	03/23/2021 1124
1,1,1-Trichloroethane	ND		1	1.0	0.40	ug/L	03/23/2021 1124
1,1,2-Trichloroethane	ND		1	1.0	0.40	ug/L	03/23/2021 1124

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: WQ86561-001
Batch: 86561
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Trichloroethene	ND		1	1.0	0.40	ug/L	03/23/2021 1124
Trichlorofluoromethane	ND		1	1.0	0.40	ug/L	03/23/2021 1124
Vinyl chloride	ND		1	1.0	0.40	ug/L	03/23/2021 1124
Xylenes (total)	ND		1	1.0	0.40	ug/L	03/23/2021 1124

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		115	70-130
1,2-Dichloroethane-d4		92	70-130
Toluene-d8		99	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: WQ86561-002
Batch: 86561
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Acetone	100	110		1	106	60-140	03/23/2021 0918
Benzene	50	46		1	93	70-130	03/23/2021 0918
Bromodichloromethane	50	45		1	90	70-130	03/23/2021 0918
Bromoform	50	47		1	94	70-130	03/23/2021 0918
Bromomethane (Methyl bromide)	50	44		1	89	70-130	03/23/2021 0918
2-Butanone (MEK)	100	87		1	87	70-130	03/23/2021 0918
Carbon disulfide	50	47		1	93	70-130	03/23/2021 0918
Carbon tetrachloride	50	52		1	103	70-130	03/23/2021 0918
Chlorobenzene	50	45		1	91	70-130	03/23/2021 0918
Chloroethane	50	44		1	87	70-130	03/23/2021 0918
Chloroform	50	45		1	90	70-130	03/23/2021 0918
Chloromethane (Methyl chloride)	50	48		1	96	60-140	03/23/2021 0918
Cyclohexane	50	54		1	108	70-130	03/23/2021 0918
1,2-Dibromo-3-chloropropane (DBCP)	50	48		1	97	70-130	03/23/2021 0918
Dibromochloromethane	50	49		1	97	70-130	03/23/2021 0918
1,2-Dibromoethane (EDB)	50	45		1	90	70-130	03/23/2021 0918
1,2-Dichlorobenzene	50	46		1	91	70-130	03/23/2021 0918
1,3-Dichlorobenzene	50	46		1	91	70-130	03/23/2021 0918
1,4-Dichlorobenzene	50	43		1	87	70-130	03/23/2021 0918
Dichlorodifluoromethane	50	49		1	98	60-140	03/23/2021 0918
1,1-Dichloroethane	50	45		1	91	70-130	03/23/2021 0918
1,2-Dichloroethane	50	45		1	90	70-130	03/23/2021 0918
1,1-Dichloroethene	50	46		1	92	70-130	03/23/2021 0918
cis-1,2-Dichloroethene	50	45		1	89	70-130	03/23/2021 0918
trans-1,2-Dichloroethene	50	46		1	91	70-130	03/23/2021 0918
1,2-Dichloropropane	50	44		1	87	70-130	03/23/2021 0918
cis-1,3-Dichloropropene	50	46		1	92	70-130	03/23/2021 0918
trans-1,3-Dichloropropene	50	48		1	96	70-130	03/23/2021 0918
Ethylbenzene	50	46		1	92	70-130	03/23/2021 0918
2-Hexanone	100	87		1	87	70-130	03/23/2021 0918
Isopropylbenzene	50	48		1	95	70-130	03/23/2021 0918
Methyl acetate	50	52		1	103	70-130	03/23/2021 0918
Methyl tertiary butyl ether (MTBE)	50	47		1	95	70-130	03/23/2021 0918
4-Methyl-2-pentanone	100	84		1	84	70-130	03/23/2021 0918
Methylcyclohexane	50	46		1	93	70-130	03/23/2021 0918
Methylene chloride	50	44		1	88	70-130	03/23/2021 0918
Styrene	50	45		1	90	70-130	03/23/2021 0918
1,1,2,2-Tetrachloroethane	50	43		1	86	70-130	03/23/2021 0918
Tetrachloroethene	50	48		1	96	70-130	03/23/2021 0918
Toluene	50	48		1	96	70-130	03/23/2021 0918
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	49		1	98	70-130	03/23/2021 0918
1,2,4-Trichlorobenzene	50	52		1	104	70-130	03/23/2021 0918
1,1,1-Trichloroethane	50	45		1	90	70-130	03/23/2021 0918
1,1,2-Trichloroethane	50	44		1	88	70-130	03/23/2021 0918

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: WQ86561-002
Batch: 86561
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Trichloroethene	50	45		1	89	70-130	03/23/2021 0918
Trichlorofluoromethane	50	47		1	95	70-130	03/23/2021 0918
Vinyl chloride	50	47		1	93	70-130	03/23/2021 0918
Xylenes (total)	100	92		1	92	70-130	03/23/2021 0918

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		90	70-130
1,2-Dichloroethane-d4		85	70-130
Toluene-d8		88	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: WC17120-007MS
Batch: 86561
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Acetone	ND	100	130		1	132	60-140	03/23/2021 2015
Benzene	ND	50	53		1	106	70-130	03/23/2021 2015
Bromodichloromethane	ND	50	47		1	95	70-130	03/23/2021 2015
Bromoform	ND	50	45		1	90	70-130	03/23/2021 2015
Bromomethane (Methyl bromide)	ND	50	49		1	99	70-130	03/23/2021 2015
2-Butanone (MEK)	ND	100	120		1	116	70-130	03/23/2021 2015
Carbon disulfide	ND	50	50		1	99	70-130	03/23/2021 2015
Carbon tetrachloride	ND	50	55		1	111	70-130	03/23/2021 2015
Chlorobenzene	ND	50	50		1	100	70-130	03/23/2021 2015
Chloroethane	ND	50	48		1	97	70-130	03/23/2021 2015
Chloroform	ND	50	48		1	97	70-130	03/23/2021 2015
Chloromethane (Methyl chloride)	ND	50	56		1	113	60-140	03/23/2021 2015
Cyclohexane	ND	50	52		1	104	70-130	03/23/2021 2015
1,2-Dibromo-3-chloropropane (DBCP)	ND	50	50		1	101	70-130	03/23/2021 2015
Dibromochloromethane	ND	50	49		1	98	70-130	03/23/2021 2015
1,2-Dibromoethane (EDB)	ND	50	49		1	97	70-130	03/23/2021 2015
1,2-Dichlorobenzene	ND	50	48		1	95	70-130	03/23/2021 2015
1,3-Dichlorobenzene	ND	50	50		1	101	70-130	03/23/2021 2015
1,4-Dichlorobenzene	ND	50	49		1	99	70-130	03/23/2021 2015
Dichlorodifluoromethane	ND	50	53		1	106	60-140	03/23/2021 2015
1,1-Dichloroethane	ND	50	50		1	100	70-130	03/23/2021 2015
1,2-Dichloroethane	ND	50	48		1	95	70-130	03/23/2021 2015
1,1-Dichloroethene	ND	50	51		1	102	70-130	03/23/2021 2015
cis-1,2-Dichloroethene	ND	50	49		1	99	70-130	03/23/2021 2015
trans-1,2-Dichloroethene	ND	50	49		1	98	70-130	03/23/2021 2015
1,2-Dichloropropane	ND	50	52		1	103	70-130	03/23/2021 2015
cis-1,3-Dichloropropene	ND	50	51		1	102	70-130	03/23/2021 2015
trans-1,3-Dichloropropene	ND	50	50		1	100	70-130	03/23/2021 2015
Ethylbenzene	ND	50	51		1	101	70-130	03/23/2021 2015
2-Hexanone	ND	100	100		1	101	70-130	03/23/2021 2015
Isopropylbenzene	ND	50	50		1	101	70-130	03/23/2021 2015
Methyl acetate	ND	50	51		1	102	70-130	03/23/2021 2015
Methyl tertiary butyl ether (MTBE)	ND	50	52		1	103	70-130	03/23/2021 2015
4-Methyl-2-pentanone	ND	100	110		1	108	70-130	03/23/2021 2015
Methylcyclohexane	ND	50	54		1	108	70-130	03/23/2021 2015
Methylene chloride	ND	50	48		1	97	70-130	03/23/2021 2015
Styrene	ND	50	48		1	96	70-130	03/23/2021 2015
1,1,2,2-Tetrachloroethane	ND	50	54		1	108	70-130	03/23/2021 2015
Tetrachloroethene	16	50	66		1	99	70-130	03/23/2021 2015
Toluene	ND	50	52		1	104	70-130	03/23/2021 2015
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	50	52		1	103	70-130	03/23/2021 2015
1,2,4-Trichlorobenzene	ND	50	42		1	85	70-130	03/23/2021 2015
1,1,1-Trichloroethane	ND	50	50		1	100	70-130	03/23/2021 2015
1,1,2-Trichloroethane	ND	50	48		1	95	70-130	03/23/2021 2015

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: WC17120-007MS
Batch: 86561
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Trichloroethene	ND	50	50		1	100	70-130	03/23/2021 2015
Trichlorofluoromethane	ND	50	53		1	106	70-130	03/23/2021 2015
Vinyl chloride	ND	50	55		1	111	70-130	03/23/2021 2015
Xylenes (total)	ND	100	100		1	100	70-130	03/23/2021 2015

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		101	70-130
1,2-Dichloroethane-d4		93	70-130
Toluene-d8		96	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MSD

Sample ID: WC17120-007MD
Batch: 86561
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	%Rec Limit	% RPD Limit	Analysis Date
Acetone	ND	100	150	N	1	149	12	60-140	20	03/23/2021 2038
Benzene	ND	50	51		1	102	4.4	70-130	20	03/23/2021 2038
Bromodichloromethane	ND	50	50		1	99	4.6	70-130	20	03/23/2021 2038
Bromoform	ND	50	46		1	92	2.2	70-130	20	03/23/2021 2038
Bromomethane (Methyl bromide)	ND	50	50		1	99	0.26	70-130	20	03/23/2021 2038
2-Butanone (MEK)	ND	100	120		1	119	2.3	70-130	20	03/23/2021 2038
Carbon disulfide	ND	50	49		1	99	0.25	70-130	20	03/23/2021 2038
Carbon tetrachloride	ND	50	59		1	117	5.8	70-130	20	03/23/2021 2038
Chlorobenzene	ND	50	49		1	98	2.1	70-130	20	03/23/2021 2038
Chloroethane	ND	50	50		1	100	3.2	70-130	20	03/23/2021 2038
Chloroform	ND	50	50		1	100	3.6	70-130	20	03/23/2021 2038
Chloromethane (Methyl chloride)	ND	50	58		1	116	3.3	60-140	20	03/23/2021 2038
Cyclohexane	ND	50	54		1	109	4.6	70-130	20	03/23/2021 2038
1,2-Dibromo-3-chloropropane (DBCP)	ND	50	54		1	107	5.9	70-130	20	03/23/2021 2038
Dibromochloromethane	ND	50	50		1	100	1.7	70-130	20	03/23/2021 2038
1,2-Dibromoethane (EDB)	ND	50	49		1	97	0.075	70-130	20	03/23/2021 2038
1,2-Dichlorobenzene	ND	50	52		1	105	9.7	70-130	20	03/23/2021 2038
1,3-Dichlorobenzene	ND	50	50		1	99	1.7	70-130	20	03/23/2021 2038
1,4-Dichlorobenzene	ND	50	50		1	99	0.64	70-130	20	03/23/2021 2038
Dichlorodifluoromethane	ND	50	54		1	108	1.5	60-140	20	03/23/2021 2038
1,1-Dichloroethane	ND	50	52		1	104	4.0	70-130	20	03/23/2021 2038
1,2-Dichloroethane	ND	50	51		1	102	7.2	70-130	20	03/23/2021 2038
1,1-Dichloroethene	ND	50	53		1	106	3.1	70-130	20	03/23/2021 2038
cis-1,2-Dichloroethene	ND	50	51		1	103	4.3	70-130	20	03/23/2021 2038
trans-1,2-Dichloroethene	ND	50	52		1	105	6.5	70-130	20	03/23/2021 2038
1,2-Dichloropropane	ND	50	52		1	103	0.088	70-130	20	03/23/2021 2038
cis-1,3-Dichloropropene	ND	50	51		1	103	0.26	70-130	20	03/23/2021 2038
trans-1,3-Dichloropropene	ND	50	49		1	98	1.3	70-130	20	03/23/2021 2038
Ethylbenzene	ND	50	51		1	103	1.4	70-130	20	03/23/2021 2038
2-Hexanone	ND	100	97		1	97	3.5	70-130	20	03/23/2021 2038
Isopropylbenzene	ND	50	51		1	102	1.6	70-130	20	03/23/2021 2038
Methyl acetate	ND	50	53		1	107	4.5	70-130	20	03/23/2021 2038
Methyl tertiary butyl ether (MTBE)	ND	50	55		1	110	6.8	70-130	20	03/23/2021 2038
4-Methyl-2-pentanone	ND	100	110		1	107	0.88	70-130	20	03/23/2021 2038
Methylcyclohexane	ND	50	53		1	105	3.0	70-130	20	03/23/2021 2038
Methylene chloride	ND	50	49		1	97	0.39	70-130	20	03/23/2021 2038
Styrene	ND	50	51		1	103	6.4	70-130	20	03/23/2021 2038
1,1,2,2-Tetrachloroethane	ND	50	50		1	101	7.1	70-130	20	03/23/2021 2038
Tetrachloroethene	16	50	67		1	101	1.3	70-130	20	03/23/2021 2038
Toluene	ND	50	50		1	100	3.8	70-130	20	03/23/2021 2038
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	50	53		1	107	3.5	70-130	20	03/23/2021 2038
1,2,4-Trichlorobenzene	ND	50	50		1	100	17	70-130	20	03/23/2021 2038
1,1,1-Trichloroethane	ND	50	51		1	103	3.2	70-130	20	03/23/2021 2038
1,1,2-Trichloroethane	ND	50	48		1	96	0.97	70-130	20	03/23/2021 2038

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MSD

Sample ID: WC17120-007MD
Batch: 86561
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	%Rec Limit	% RPD Limit	Analysis Date
Trichloroethene	ND	50	50		1	101	0.71	70-130	20	03/23/2021 2038
Trichlorofluoromethane	ND	50	54		1	108	2.4	70-130	20	03/23/2021 2038
Vinyl chloride	ND	50	56		1	113	1.7	70-130	20	03/23/2021 2038
Xylenes (total)	ND	100	100		1	103	3.3	70-130	20	03/23/2021 2038

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		100	70-130
1,2-Dichloroethane-d4		95	70-130
Toluene-d8		95	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: WQ86626-001
Batch: 86626
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Acetone	ND		1	20	5.0	ug/L	03/23/2021 1100
Benzene	ND		1	1.0	0.40	ug/L	03/23/2021 1100
Bromodichloromethane	ND		1	1.0	0.40	ug/L	03/23/2021 1100
Bromoform	ND		1	1.0	0.40	ug/L	03/23/2021 1100
Bromomethane (Methyl bromide)	ND		1	2.0	0.40	ug/L	03/23/2021 1100
2-Butanone (MEK)	ND		1	10	2.0	ug/L	03/23/2021 1100
Carbon disulfide	ND		1	1.0	0.40	ug/L	03/23/2021 1100
Carbon tetrachloride	ND		1	1.0	0.40	ug/L	03/23/2021 1100
Chlorobenzene	ND		1	1.0	0.40	ug/L	03/23/2021 1100
Chloroethane	ND		1	2.0	0.40	ug/L	03/23/2021 1100
Chloroform	ND		1	1.0	0.40	ug/L	03/23/2021 1100
Chloromethane (Methyl chloride)	ND		1	1.0	0.50	ug/L	03/23/2021 1100
Cyclohexane	ND		1	1.0	0.40	ug/L	03/23/2021 1100
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	0.40	ug/L	03/23/2021 1100
Dibromochloromethane	ND		1	1.0	0.40	ug/L	03/23/2021 1100
1,2-Dibromoethane (EDB)	ND		1	1.0	0.40	ug/L	03/23/2021 1100
1,2-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/23/2021 1100
1,3-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/23/2021 1100
1,4-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/23/2021 1100
Dichlorodifluoromethane	ND		1	2.0	0.60	ug/L	03/23/2021 1100
1,1-Dichloroethane	ND		1	1.0	0.40	ug/L	03/23/2021 1100
1,2-Dichloroethane	ND		1	1.0	0.40	ug/L	03/23/2021 1100
1,1-Dichloroethene	ND		1	1.0	0.40	ug/L	03/23/2021 1100
cis-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	03/23/2021 1100
trans-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	03/23/2021 1100
1,2-Dichloropropane	ND		1	1.0	0.40	ug/L	03/23/2021 1100
cis-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	03/23/2021 1100
trans-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	03/23/2021 1100
Ethylbenzene	ND		1	1.0	0.40	ug/L	03/23/2021 1100
2-Hexanone	ND		1	10	2.0	ug/L	03/23/2021 1100
Isopropylbenzene	ND		1	1.0	0.40	ug/L	03/23/2021 1100
Methyl acetate	ND		1	1.0	0.40	ug/L	03/23/2021 1100
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	0.40	ug/L	03/23/2021 1100
4-Methyl-2-pentanone	ND		1	10	2.0	ug/L	03/23/2021 1100
Methylcyclohexane	ND		1	5.0	0.40	ug/L	03/23/2021 1100
Methylene chloride	ND		1	1.0	0.40	ug/L	03/23/2021 1100
Styrene	ND		1	1.0	0.41	ug/L	03/23/2021 1100
1,1,2,2-Tetrachloroethane	ND		1	1.0	0.40	ug/L	03/23/2021 1100
Tetrachloroethene	ND		1	1.0	0.40	ug/L	03/23/2021 1100
Toluene	ND		1	1.0	0.40	ug/L	03/23/2021 1100
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	0.42	ug/L	03/23/2021 1100
1,2,4-Trichlorobenzene	ND		1	1.0	0.40	ug/L	03/23/2021 1100
1,1,1-Trichloroethane	ND		1	1.0	0.40	ug/L	03/23/2021 1100
1,1,2-Trichloroethane	ND		1	1.0	0.40	ug/L	03/23/2021 1100

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: WQ86626-001
Batch: 86626
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Trichloroethene	ND		1	1.0	0.40	ug/L	03/23/2021 1100
Trichlorofluoromethane	ND		1	1.0	0.40	ug/L	03/23/2021 1100
Vinyl chloride	ND		1	1.0	0.40	ug/L	03/23/2021 1100
Xylenes (total)	ND		1	1.0	0.40	ug/L	03/23/2021 1100

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		108	70-130
1,2-Dichloroethane-d4		108	70-130
Toluene-d8		117	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: WQ86626-002
Batch: 86626
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Acetone	100	94		1	94	60-140	03/23/2021 0954
Benzene	50	52		1	104	70-130	03/23/2021 0954
Bromodichloromethane	50	53		1	107	70-130	03/23/2021 0954
Bromoform	50	47		1	94	70-130	03/23/2021 0954
Bromomethane (Methyl bromide)	50	47		1	94	70-130	03/23/2021 0954
2-Butanone (MEK)	100	100		1	104	70-130	03/23/2021 0954
Carbon disulfide	50	54		1	108	70-130	03/23/2021 0954
Carbon tetrachloride	50	58		1	115	70-130	03/23/2021 0954
Chlorobenzene	50	52		1	104	70-130	03/23/2021 0954
Chloroethane	50	47		1	94	70-130	03/23/2021 0954
Chloroform	50	50		1	100	70-130	03/23/2021 0954
Chloromethane (Methyl chloride)	50	57		1	114	60-140	03/23/2021 0954
Cyclohexane	50	50		1	99	70-130	03/23/2021 0954
1,2-Dibromo-3-chloropropane (DBCP)	50	51		1	101	70-130	03/23/2021 0954
Dibromochloromethane	50	48		1	96	70-130	03/23/2021 0954
1,2-Dibromoethane (EDB)	50	52		1	104	70-130	03/23/2021 0954
1,2-Dichlorobenzene	50	51		1	102	70-130	03/23/2021 0954
1,3-Dichlorobenzene	50	53		1	107	70-130	03/23/2021 0954
1,4-Dichlorobenzene	50	52		1	104	70-130	03/23/2021 0954
Dichlorodifluoromethane	50	47		1	94	60-140	03/23/2021 0954
1,1-Dichloroethane	50	51		1	101	70-130	03/23/2021 0954
1,2-Dichloroethane	50	50		1	101	70-130	03/23/2021 0954
1,1-Dichloroethene	50	52		1	104	70-130	03/23/2021 0954
cis-1,2-Dichloroethene	50	52		1	103	70-130	03/23/2021 0954
trans-1,2-Dichloroethene	50	52		1	104	70-130	03/23/2021 0954
1,2-Dichloropropane	50	52		1	104	70-130	03/23/2021 0954
cis-1,3-Dichloropropene	50	50		1	101	70-130	03/23/2021 0954
trans-1,3-Dichloropropene	50	49		1	99	70-130	03/23/2021 0954
Ethylbenzene	50	53		1	106	70-130	03/23/2021 0954
2-Hexanone	100	100		1	102	70-130	03/23/2021 0954
Isopropylbenzene	50	53		1	107	70-130	03/23/2021 0954
Methyl acetate	50	50		1	100	70-130	03/23/2021 0954
Methyl tertiary butyl ether (MTBE)	50	52		1	103	70-130	03/23/2021 0954
4-Methyl-2-pentanone	100	100		1	103	70-130	03/23/2021 0954
Methylcyclohexane	50	54		1	108	70-130	03/23/2021 0954
Methylene chloride	50	50		1	101	70-130	03/23/2021 0954
Styrene	50	48		1	97	70-130	03/23/2021 0954
1,1,2,2-Tetrachloroethane	50	51		1	102	70-130	03/23/2021 0954
Tetrachloroethene	50	54		1	107	70-130	03/23/2021 0954
Toluene	50	54		1	108	70-130	03/23/2021 0954
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	51		1	102	70-130	03/23/2021 0954
1,2,4-Trichlorobenzene	50	55		1	109	70-130	03/23/2021 0954
1,1,1-Trichloroethane	50	54		1	109	70-130	03/23/2021 0954
1,1,2-Trichloroethane	50	49		1	99	70-130	03/23/2021 0954

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: WQ86626-002
Batch: 86626
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Trichloroethene	50	53		1	105	70-130	03/23/2021 0954
Trichlorofluoromethane	50	53		1	106	70-130	03/23/2021 0954
Vinyl chloride	50	55		1	109	70-130	03/23/2021 0954
Xylenes (total)	100	110		1	107	70-130	03/23/2021 0954

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		101	70-130
1,2-Dichloroethane-d4		100	70-130
Toluene-d8		107	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: WQ86642-001
Batch: 86642
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Acetone	ND		1	20	5.0	ug/L	03/23/2021 2209
Benzene	ND		1	1.0	0.40	ug/L	03/23/2021 2209
Bromodichloromethane	ND		1	1.0	0.40	ug/L	03/23/2021 2209
Bromoform	ND		1	1.0	0.40	ug/L	03/23/2021 2209
Bromomethane (Methyl bromide)	ND		1	2.0	0.40	ug/L	03/23/2021 2209
2-Butanone (MEK)	ND		1	10	2.0	ug/L	03/23/2021 2209
Carbon disulfide	ND		1	1.0	0.40	ug/L	03/23/2021 2209
Carbon tetrachloride	ND		1	1.0	0.40	ug/L	03/23/2021 2209
Chlorobenzene	ND		1	1.0	0.40	ug/L	03/23/2021 2209
Chloroethane	ND		1	2.0	0.40	ug/L	03/23/2021 2209
Chloroform	ND		1	1.0	0.40	ug/L	03/23/2021 2209
Chloromethane (Methyl chloride)	ND		1	1.0	0.50	ug/L	03/23/2021 2209
Cyclohexane	ND		1	1.0	0.40	ug/L	03/23/2021 2209
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	0.40	ug/L	03/23/2021 2209
Dibromochloromethane	ND		1	1.0	0.40	ug/L	03/23/2021 2209
1,2-Dibromoethane (EDB)	ND		1	1.0	0.40	ug/L	03/23/2021 2209
1,2-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/23/2021 2209
1,3-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/23/2021 2209
1,4-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/23/2021 2209
Dichlorodifluoromethane	ND		1	2.0	0.60	ug/L	03/23/2021 2209
1,1-Dichloroethane	ND		1	1.0	0.40	ug/L	03/23/2021 2209
1,2-Dichloroethane	ND		1	1.0	0.40	ug/L	03/23/2021 2209
1,1-Dichloroethene	ND		1	1.0	0.40	ug/L	03/23/2021 2209
cis-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	03/23/2021 2209
trans-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	03/23/2021 2209
1,2-Dichloropropane	ND		1	1.0	0.40	ug/L	03/23/2021 2209
cis-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	03/23/2021 2209
trans-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	03/23/2021 2209
Ethylbenzene	ND		1	1.0	0.40	ug/L	03/23/2021 2209
2-Hexanone	ND		1	10	2.0	ug/L	03/23/2021 2209
Isopropylbenzene	ND		1	1.0	0.40	ug/L	03/23/2021 2209
Methyl acetate	ND		1	1.0	0.40	ug/L	03/23/2021 2209
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	0.40	ug/L	03/23/2021 2209
4-Methyl-2-pentanone	ND		1	10	2.0	ug/L	03/23/2021 2209
Methylcyclohexane	ND		1	5.0	0.40	ug/L	03/23/2021 2209
Methylene chloride	ND		1	1.0	0.40	ug/L	03/23/2021 2209
Styrene	ND		1	1.0	0.41	ug/L	03/23/2021 2209
1,1,2,2-Tetrachloroethane	ND		1	1.0	0.40	ug/L	03/23/2021 2209
Tetrachloroethene	ND		1	1.0	0.40	ug/L	03/23/2021 2209
Toluene	ND		1	1.0	0.40	ug/L	03/23/2021 2209
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	0.42	ug/L	03/23/2021 2209
1,2,4-Trichlorobenzene	ND		1	1.0	0.40	ug/L	03/23/2021 2209
1,1,1-Trichloroethane	ND		1	1.0	0.40	ug/L	03/23/2021 2209
1,1,2-Trichloroethane	ND		1	1.0	0.40	ug/L	03/23/2021 2209

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: WQ86642-001
Batch: 86642
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Trichloroethene	ND		1	1.0	0.40	ug/L	03/23/2021 2209
Trichlorofluoromethane	ND		1	1.0	0.40	ug/L	03/23/2021 2209
Vinyl chloride	ND		1	1.0	0.40	ug/L	03/23/2021 2209
Xylenes (total)	ND		1	1.0	0.40	ug/L	03/23/2021 2209

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		106	70-130
1,2-Dichloroethane-d4		93	70-130
Toluene-d8		93	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: WQ86642-002
Batch: 86642
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Acetone	100	100		1	104	60-140	03/23/2021 2101
Benzene	50	46		1	93	70-130	03/23/2021 2101
Bromodichloromethane	50	50		1	100	70-130	03/23/2021 2101
Bromoform	50	46		1	91	70-130	03/23/2021 2101
Bromomethane (Methyl bromide)	50	42		1	85	70-130	03/23/2021 2101
2-Butanone (MEK)	100	110		1	111	70-130	03/23/2021 2101
Carbon disulfide	50	46		1	92	70-130	03/23/2021 2101
Carbon tetrachloride	50	45		1	90	70-130	03/23/2021 2101
Chlorobenzene	50	46		1	93	70-130	03/23/2021 2101
Chloroethane	50	45		1	90	70-130	03/23/2021 2101
Chloroform	50	46		1	92	70-130	03/23/2021 2101
Chloromethane (Methyl chloride)	50	44		1	88	60-140	03/23/2021 2101
Cyclohexane	50	43		1	87	70-130	03/23/2021 2101
1,2-Dibromo-3-chloropropane (DBCP)	50	47		1	94	70-130	03/23/2021 2101
Dibromochloromethane	50	46		1	92	70-130	03/23/2021 2101
1,2-Dibromoethane (EDB)	50	51		1	103	70-130	03/23/2021 2101
1,2-Dichlorobenzene	50	48		1	97	70-130	03/23/2021 2101
1,3-Dichlorobenzene	50	48		1	97	70-130	03/23/2021 2101
1,4-Dichlorobenzene	50	47		1	93	70-130	03/23/2021 2101
Dichlorodifluoromethane	50	42		1	84	60-140	03/23/2021 2101
1,1-Dichloroethane	50	47		1	93	70-130	03/23/2021 2101
1,2-Dichloroethane	50	49		1	97	70-130	03/23/2021 2101
1,1-Dichloroethene	50	46		1	91	70-130	03/23/2021 2101
cis-1,2-Dichloroethene	50	47		1	94	70-130	03/23/2021 2101
trans-1,2-Dichloroethene	50	46		1	91	70-130	03/23/2021 2101
1,2-Dichloropropane	50	50		1	99	70-130	03/23/2021 2101
cis-1,3-Dichloropropene	50	52		1	103	70-130	03/23/2021 2101
trans-1,3-Dichloropropene	50	44		1	89	70-130	03/23/2021 2101
Ethylbenzene	50	47		1	95	70-130	03/23/2021 2101
2-Hexanone	100	100		1	101	70-130	03/23/2021 2101
Isopropylbenzene	50	48		1	95	70-130	03/23/2021 2101
Methyl acetate	50	54		1	109	70-130	03/23/2021 2101
Methyl tertiary butyl ether (MTBE)	50	52		1	103	70-130	03/23/2021 2101
4-Methyl-2-pentanone	100	110		1	113	70-130	03/23/2021 2101
Methylcyclohexane	50	45		1	89	70-130	03/23/2021 2101
Methylene chloride	50	47		1	94	70-130	03/23/2021 2101
Styrene	50	51		1	102	70-130	03/23/2021 2101
1,1,2,2-Tetrachloroethane	50	52		1	104	70-130	03/23/2021 2101
Tetrachloroethene	50	44		1	88	70-130	03/23/2021 2101
Toluene	50	47		1	93	70-130	03/23/2021 2101
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	44		1	89	70-130	03/23/2021 2101
1,2,4-Trichlorobenzene	50	51		1	102	70-130	03/23/2021 2101
1,1,1-Trichloroethane	50	47		1	93	70-130	03/23/2021 2101
1,1,2-Trichloroethane	50	49		1	98	70-130	03/23/2021 2101

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: WQ86642-002
Batch: 86642
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Trichloroethene	50	45		1	90	70-130	03/23/2021 2101
Trichlorofluoromethane	50	44		1	89	70-130	03/23/2021 2101
Vinyl chloride	50	44		1	89	70-130	03/23/2021 2101
Xylenes (total)	100	96		1	96	70-130	03/23/2021 2101

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		89	70-130
1,2-Dichloroethane-d4		92	70-130
Toluene-d8		87	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: WC17120-009MS
Batch: 86642
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Acetone	ND	500	510		5	102	60-140	03/24/2021 0715
Benzene	ND	250	270		5	106	70-130	03/24/2021 0715
Bromodichloromethane	ND	250	270		5	109	70-130	03/24/2021 0715
Bromoform	ND	250	220		5	89	70-130	03/24/2021 0715
Bromomethane (Methyl bromide)	ND	250	240		5	97	70-130	03/24/2021 0715
2-Butanone (MEK)	ND	500	570		5	114	70-130	03/24/2021 0715
Carbon disulfide	ND	250	280		5	111	70-130	03/24/2021 0715
Carbon tetrachloride	ND	250	280		5	114	70-130	03/24/2021 0715
Chlorobenzene	ND	250	260		5	103	70-130	03/24/2021 0715
Chloroethane	ND	250	270		5	109	70-130	03/24/2021 0715
Chloroform	5.2	250	260		5	104	70-130	03/24/2021 0715
Chloromethane (Methyl chloride)	ND	250	260		5	105	60-140	03/24/2021 0715
Cyclohexane	ND	250	290		5	117	70-130	03/24/2021 0715
1,2-Dibromo-3-chloropropane (DBCP)	ND	250	230		5	90	70-130	03/24/2021 0715
Dibromochloromethane	ND	250	240		5	94	70-130	03/24/2021 0715
1,2-Dibromoethane (EDB)	ND	250	270		5	107	70-130	03/24/2021 0715
1,2-Dichlorobenzene	ND	250	260		5	103	70-130	03/24/2021 0715
1,3-Dichlorobenzene	ND	250	260		5	105	70-130	03/24/2021 0715
1,4-Dichlorobenzene	ND	250	250		5	101	70-130	03/24/2021 0715
Dichlorodifluoromethane	ND	250	270		5	107	60-140	03/24/2021 0715
1,1-Dichloroethane	ND	250	280		5	111	70-130	03/24/2021 0715
1,2-Dichloroethane	ND	250	260		5	103	70-130	03/24/2021 0715
1,1-Dichloroethene	5.0	250	280		5	111	70-130	03/24/2021 0715
cis-1,2-Dichloroethene	ND	250	270		5	107	70-130	03/24/2021 0715
trans-1,2-Dichloroethene	ND	250	280		5	110	70-130	03/24/2021 0715
1,2-Dichloropropane	ND	250	270		5	109	70-130	03/24/2021 0715
cis-1,3-Dichloropropene	ND	250	280		5	111	70-130	03/24/2021 0715
trans-1,3-Dichloropropene	ND	250	240		5	95	70-130	03/24/2021 0715
Ethylbenzene	ND	250	270		5	109	70-130	03/24/2021 0715
2-Hexanone	ND	500	500		5	99	70-130	03/24/2021 0715
Isopropylbenzene	ND	250	280		5	112	70-130	03/24/2021 0715
Methyl acetate	ND	250	270		5	109	70-130	03/24/2021 0715
Methyl tertiary butyl ether (MTBE)	ND	250	270		5	110	70-130	03/24/2021 0715
4-Methyl-2-pentanone	ND	500	560		5	111	70-130	03/24/2021 0715
Methylcyclohexane	ND	250	290		5	115	70-130	03/24/2021 0715
Methylene chloride	ND	250	250		5	100	70-130	03/24/2021 0715
Styrene	ND	250	280		5	113	70-130	03/24/2021 0715
1,1,2,2-Tetrachloroethane	ND	250	270		5	107	70-130	03/24/2021 0715
Tetrachloroethene	600	250	830		5	92	70-130	03/24/2021 0715
Toluene	ND	250	260		5	106	70-130	03/24/2021 0715
1,1,2-Trichloro-1,2,2-Trifluoroethane	2.2	250	290		5	116	70-130	03/24/2021 0715
1,2,4-Trichlorobenzene	ND	250	260		5	105	70-130	03/24/2021 0715
1,1,1-Trichloroethane	ND	250	280		5	114	70-130	03/24/2021 0715
1,1,2-Trichloroethane	ND	250	260		5	103	70-130	03/24/2021 0715

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: WC17120-009MS
Batch: 86642
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Trichloroethene	ND	250	260		5	105	70-130	03/24/2021 0715
Trichlorofluoromethane	ND	250	280		5	114	70-130	03/24/2021 0715
Vinyl chloride	ND	250	280		5	112	70-130	03/24/2021 0715
Xylenes (total)	ND	500	540		5	109	70-130	03/24/2021 0715

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		99	70-130
1,2-Dichloroethane-d4		97	70-130
Toluene-d8		99	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MSD

Sample ID: WC17120-009MD
Batch: 86642
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	%Rec Limit	% RPD Limit	Analysis Date
Acetone	ND	500	520		5	105	2.6	60-140	20	03/24/2021 0740
Benzene	ND	250	270		5	109	3.1	70-130	20	03/24/2021 0740
Bromodichloromethane	ND	250	280		5	112	2.6	70-130	20	03/24/2021 0740
Bromoform	ND	250	230		5	91	2.2	70-130	20	03/24/2021 0740
Bromomethane (Methyl bromide)	ND	250	250		5	99	2.3	70-130	20	03/24/2021 0740
2-Butanone (MEK)	ND	500	580		5	115	1.0	70-130	20	03/24/2021 0740
Carbon disulfide	ND	250	290		5	117	5.2	70-130	20	03/24/2021 0740
Carbon tetrachloride	ND	250	290		5	117	2.6	70-130	20	03/24/2021 0740
Chlorobenzene	ND	250	260		5	106	2.8	70-130	20	03/24/2021 0740
Chloroethane	ND	250	280		5	111	1.3	70-130	20	03/24/2021 0740
Chloroform	5.2	250	280		5	108	4.3	70-130	20	03/24/2021 0740
Chloromethane (Methyl chloride)	ND	250	260		5	104	1.1	60-140	20	03/24/2021 0740
Cyclohexane	ND	250	290		5	118	1.1	70-130	20	03/24/2021 0740
1,2-Dibromo-3-chloropropane (DBCP)	ND	250	230		5	93	2.9	70-130	20	03/24/2021 0740
Dibromochloromethane	ND	250	250		5	99	4.7	70-130	20	03/24/2021 0740
1,2-Dibromoethane (EDB)	ND	250	270		5	109	2.2	70-130	20	03/24/2021 0740
1,2-Dichlorobenzene	ND	250	260		5	106	2.4	70-130	20	03/24/2021 0740
1,3-Dichlorobenzene	ND	250	270		5	107	2.5	70-130	20	03/24/2021 0740
1,4-Dichlorobenzene	ND	250	260		5	102	1.6	70-130	20	03/24/2021 0740
Dichlorodifluoromethane	ND	250	270		5	108	1.1	60-140	20	03/24/2021 0740
1,1-Dichloroethane	ND	250	290		5	114	3.0	70-130	20	03/24/2021 0740
1,2-Dichloroethane	ND	250	270		5	106	2.8	70-130	20	03/24/2021 0740
1,1-Dichloroethene	5.0	250	290		5	115	3.3	70-130	20	03/24/2021 0740
cis-1,2-Dichloroethene	ND	250	270		5	110	2.1	70-130	20	03/24/2021 0740
trans-1,2-Dichloroethene	ND	250	280		5	113	2.2	70-130	20	03/24/2021 0740
1,2-Dichloropropane	ND	250	280		5	112	2.4	70-130	20	03/24/2021 0740
cis-1,3-Dichloropropene	ND	250	290		5	115	3.1	70-130	20	03/24/2021 0740
trans-1,3-Dichloropropene	ND	250	250		5	98	3.8	70-130	20	03/24/2021 0740
Ethylbenzene	ND	250	280		5	111	1.7	70-130	20	03/24/2021 0740
2-Hexanone	ND	500	510		5	101	1.8	70-130	20	03/24/2021 0740
Isopropylbenzene	ND	250	290		5	115	2.5	70-130	20	03/24/2021 0740
Methyl acetate	ND	250	280		5	111	2.3	70-130	20	03/24/2021 0740
Methyl tertiary butyl ether (MTBE)	ND	250	280		5	111	1.2	70-130	20	03/24/2021 0740
4-Methyl-2-pentanone	ND	500	570		5	114	2.1	70-130	20	03/24/2021 0740
Methylcyclohexane	ND	250	300		5	119	3.6	70-130	20	03/24/2021 0740
Methylene chloride	ND	250	260		5	105	4.3	70-130	20	03/24/2021 0740
Styrene	ND	250	290		5	116	2.5	70-130	20	03/24/2021 0740
1,1,2,2-Tetrachloroethane	ND	250	270		5	109	2.3	70-130	20	03/24/2021 0740
Tetrachloroethene	600	250	870		5	106	4.2	70-130	20	03/24/2021 0740
Toluene	ND	250	270		5	109	3.3	70-130	20	03/24/2021 0740
1,1,2-Trichloro-1,2,2-Trifluoroethane	2.2	250	300		5	119	2.4	70-130	20	03/24/2021 0740
1,2,4-Trichlorobenzene	ND	250	270		5	109	3.9	70-130	20	03/24/2021 0740
1,1,1-Trichloroethane	ND	250	290		5	115	1.3	70-130	20	03/24/2021 0740
1,1,2-Trichloroethane	ND	250	260		5	106	2.7	70-130	20	03/24/2021 0740

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MSD

Sample ID: WC17120-009MD
Batch: 86642
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	%Rec Limit	% RPD Limit	Analysis Date
Trichloroethene	ND	250	270		5	107	2.6	70-130	20	03/24/2021 0740
Trichlorofluoromethane	ND	250	290		5	117	3.0	70-130	20	03/24/2021 0740
Vinyl chloride	ND	250	280		5	110	1.4	70-130	20	03/24/2021 0740
Xylenes (total)	ND	500	560		5	111	2.4	70-130	20	03/24/2021 0740

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		101	70-130
1,2-Dichloroethane-d4		100	70-130
Toluene-d8		101	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: WQ86925-001
Batch: 86925
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Tetrachloroethene	ND		1	1.0	0.40	ug/L	03/25/2021 2229

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		106	70-130
1,2-Dichloroethane-d4		89	70-130
Toluene-d8		107	70-130

LOQ = Limit of Quantitation
DL = Detection Limit

ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria

N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: WQ86925-002
Batch: 86925
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Tetrachloroethene	50	44		1	88	70-130	03/25/2021 2140

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		96	70-130
1,2-Dichloroethane-d4		84	70-130
Toluene-d8		96	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: WC17120-011MS
Batch: 86925
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Tetrachloroethene	150	250	400		5	97	70-130	03/26/2021 0643

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		103	70-130
1,2-Dichloroethane-d4		85	70-130
Toluene-d8		103	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MSD

Sample ID: WC17120-011MD
Batch: 86925
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	%Rec Limit	% RPD Limit	Analysis Date
Tetrachloroethene	150	250	390		5	96	0.39	70-130	20	03/26/2021 0708

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		92	70-130
1,2-Dichloroethane-d4		79	70-130
Toluene-d8		94	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Chain of Custody

and

Miscellaneous Documents

PACE ANALYTICAL SERVICES, LLC
106 Vantage Point Drive • West Columbia, SC 29172
Telephone No. 803-791-9700 Fax No. 803-791-9111
www.pacelabs.com

Number 117071

Client	Report to Contact	Telephone No. / E-mail	Quote No.
TRC	Lisa Clark		
Address: 50 International Dr Ste 150	Sampler's Signature: x	Analysis (Attach list if more space is needed)	Page 1 of 2
City: Greenville / State: SC / Zip Code: 29615	Printed Name: Aharon Misiunas		WC17120
Project Name: WPH Clemson			L.O.
Project No.: 300688.0.0.11	P.O. No.		Remarks / Cooler I.D.

Sample ID / Description (Containers for each sample may be combined on one line.)	Date	Collection Date(s)	Collection Time (Military)	Soil/Lab Composite	Matrix: Aqueous	Solid	Wipe	Air	TSP — No. of Containers by Preservative Type: Unpres.	H2SO4	HNO3	HCl	NaOH	Na2S2O3	ZnAc/NaOH	VOCs	Sulfate + Bromide	Dissolved Gases
TBLK-21102				G	X							2				X		
RMW-17		3.12	1115	G	X				1	3		3				X	X	X
RMW-17A		3.12	1205	G	X				1	3		3				X	X	X
RMW-26		3.12	1435	G	X				1	3		3				X	X	X
RMW-09		3.12	1600	G	X				1	3		3				X	X	X
RMW-07		3.15	1135	G	X				1	3		3				X	X	X
RMW-14C/RMW-14C/MS/MSD		3.15	1430	G	X				2	6		6				X	X	X
RMW-14B		3.15	1445	G	X				1	3		3				X	X	X
RMW-14A		3.15	1545	G	X				1	3		3				X	X	X
RMW-14		3.15	1650	G	X				1	3		3				X	X	X

Turn Around Time Required (Prior lab approval required for expedited TAT): ☐ Standard ☐ Rush (Specify)

Sample Disposal: ☐ Return to Client ☐ Disposal by Lab

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished by	3.16.21	1815	1. Received by: TRC SS	3.16.21	1815
2. Relinquished by (TRC SS)	3.17.21	0950	2. Received by	3/17/21	0950
3. Relinquished by	3/17/21	1531	3. Received by	Date	Time
4. Relinquished by	Date	Time	4. Laboratory received by	3/17/21	1531

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY — Received on ice (Circle) (Yes) No Ice Pack — Receipt Temp 1.9 °C — Temp Blank ☑ Y ☐ N

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Client Copy

Document Number: ME603N2-01

PACE ANALYTICAL SERVICES, LLC

Pace Analytical

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106 Vantage Point Drive • West Columbia, SC 29172
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www.pacelabs.com

Number L17072

Client	Report to Contact	Telephone No. / E-mail	Quote No.
TRC	Lisa Clark		
Address 50 International Dr Ste 150	**Sampler's Signature** X	**Analysis (Attach list if more space is needed)**	Page 2 of 2
City Greenville **State** SC **Zip Code** 29615	**Printed Name** Aharon Misiunas		WC17120
Project Name WPH Clemson			
Project No. 300688.0.0.11	**P.O. No.**		Remarks / Cooler I.D.

Sample ID / Description (Containers for each sample may be combined on one line.)	Collection Date(s)	Collection Time (Military)	Composite (C) or Grab (G)	Matrix: Aqueous	Soil	Non-Aqueous	No. of Containers by Preservative Type: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnOAc/NaOH	Field Filtered	VOCs	Sulfate & Bromide	Dissolved Gases
RMW-16	3-16	1100	G	X			1	3		3				X	X	X
RMW-16A	3-16	1105	G	X			1	3		3				X	X	X
RMW-13	3-16	1505	G	X			1	3		3				X	X	X
RMW-13A	3-16	1520	G	X			1	3		3				X	X	X
RMW-06	3-16	1620	G	X			1	3		3				X	X	X
RMW-06A	3-16	1625	G	X			1	3		3				X	X	X
DU-21102	\	\	G	X			1	3		3				X	X	X

Turn Around Time Required (Prior lab approval required for expedited TAT.) ☐ Standard ☐ Rush (Specify)

Sample Disposal ☐ Return to Client ☐ Disposal by Lab

Possible Hazard Identification ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished by	3-16-21	1815	1. Received by TRC SS	3-16-21	1815
2. Relinquished by (TRC SS)	3-17-21	0950	2. Received by	3/17/21	0950
3. Relinquished by	3/17/21	1531	3. Received by	Date	Time
4. Relinquished by	Date	Time	4. Laboratory received by	3/17/21	1531

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY Received on Ice (Circle) (Yes) No Ice Pack Receipt Temp 1.9 °C Temp Blank ☒ Y ☐ N

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Client Copy

Document Number: ME009N2-01

Pace Analytical

Samples Receipt Checklist (SRC) (ME0018C-15)
Issuing Authority: Pace ENV - WCOL

Revised:9/29/2020
Page 1 of 1

Sample Receipt Checklist (SRC)

Client: TRC Cooler Inspected by/date: JRG2 / 03/17/2021 Lot #: WC17120

Means of receipt: ☑ Pace ☐ Client ☐ UPS ☐ FedEx ☐ Other: _____

☐ Yes	☑ No		1. Were custody seals present on the cooler?
☐ Yes	☐ No	☑ NA	2. If custody seals were present, were they intact and unbroken?

pH Strip ID: NA Chlorine Strip ID: NA Tested by: NA

Original temperature upon receipt / Derived (Corrected) temperature upon receipt %Solid Snap-Cup ID: NA

1.9 / 1.9 °C NA / NA °C NA / NA °C NA / NA °C

Method: ☑ Temperature Blank ☐ Against Bottles IR Gun ID: 6 IR Gun Correction Factor: 0 °C

Method of coolant: ☑ Wet Ice ☐ Ice Packs ☐ Dry Ice ☐ None

☐ Yes	☐ No	☑ NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).
☐ Yes	☐ No	☑ NA	4. Is the commercial courier's packing slip attached to this form?
☑ Yes	☐ No		5. Were proper custody procedures (relinquished/received) followed?
☑ Yes	☐ No		6. Were sample IDs listed on the COC?
☑ Yes	☐ No		7. Were sample IDs listed on all sample containers?
☑ Yes	☐ No		8. Was collection date & time listed on the COC?
☑ Yes	☐ No		9. Was collection date & time listed on all sample containers?
☑ Yes	☐ No		10. Did all container label information (ID, date, time) agree with the COC?
☑ Yes	☐ No		11. Were tests to be performed listed on the COC?
☑ Yes	☐ No		12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)? _____
☑ Yes	☐ No		13. Was adequate sample volume available?
☑ Yes	☐ No		14. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
☐ Yes	☑ No		15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
☐ Yes	☑ No	☐ NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (¼"or 6mm in diameter) in any of the VOA vials?
☐ Yes	☐ No	☑ NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?
☐ Yes	☐ No	☑ NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
☐ Yes	☐ No	☑ NA	19. Were all applicable NH_3/TKN/cyanide/phenol/625.1/608.3 (< 0.5mg/L) samples free of residual chlorine?
☐ Yes	☐ No	☑ NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc…) correctly transcribed from the COC into the comment section in LIMS?
☐ Yes	☑ No		21. Was the quote number listed on the container label? If yes, Quote # NA

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) NA _____ were received incorrectly preserved and were adjusted accordingly in sample receiving with NA mL of circle one: H2SO4, HNO3, HCl, NaOH using SR # NA.

Time of preservation NA. If more than one preservative is needed, please note in the comments below.

Sample(s) NA _____ were received with bubbles >6 mm in diameter.

Samples(s) NA _____ were received with TRC > 0.5 mg/L (If #19 is ***no***) and were adjusted accordingly in sample receiving with sodium thiosulfate ($Na_2S_2O_3$) with Shealy ID: NA.

SR barcode labels applied by: JRG2 Date: 03/17/2021

Comments:

LELAP CERTIFICATE NUMBER: 01955
DOD-ELAP ACCREDITATION NUMBER: 74960

ANALYTICAL RESULTS

PERFORMED BY

Pace Analytical Gulf Coast
7979 Innovation Park Dr.
Baton Rouge, LA 70820
(225) 769-4900

Report Date 03/29/2021

Report # 221031980

Project WC17120 WPH Clemson

Deliver To	***Additional Recipients***
Lucas Odom Pace Analytical Services South Carolina 106 Vantage Point Drive West Columbia, SC 29172 803 791 9700	NONE

Laboratory Data Quality Review Notes

Project Name: WPH-Clemson, SC

Project Number: 300688.0000.0000 Phase 11

Lab Report: **WC17120** Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.), West Columbia, SC; subcontracted report: **221031980** Pace Analytical Gulf Coast, Baton Rouge, LA

Samples and Analyses: Fifteen groundwater samples (plus one field duplicate), collected 12-Mar, 15-Mar, and 16-Mar-2021, and analyzed for volatile organic compounds (VOCs), bromide, and sulfate; one trip blank (TB), analyzed for VOCs only. Analysis of the groundwater samples for dissolved hydrocarbon gases (ethane, ethene, methane) was subcontracted and was reported separately (as noted above).

Chain of Custody, Sample Temperature, Sample Preservation: Chain of custody (COC) forms were signed; cooler temperature was ≤6 ^{o}C upon arrival at each laboratory; samples were preserved properly. The following sample receipt anomalies were noted:

- The subcontract laboratory (relevant to the dissolved hydrocarbon gases analyses) noted low sample volume for the RMW-14C MS and MSD samples. MS/MSD analyses were performed using the noted sample; therefore, the volume was sufficient for the analyses. The MS and MSD results met applicable criteria; therefore, the noted low sample volumes do not appear to have had significant impact on the sample results. No validation action was taken on this basis.

Holding Time: Sample analyses were performed within acceptable holding times.

Surrogates: VOC surrogate recoveries were within laboratory quality control (QC) limits.

Method Blank: Laboratory method blanks were appropriately associated with all analyses. The following target analytes were detected in the laboratory method blanks:

- 1,2,4-Trichlorobenzene (0.42 J µg/L) was detected in the laboratory method blank associated with the VOC analysis in sample TBLK-21102. Qualification was not required on this basis since 1,2,4-trichlorobenzene was non-detect (ND) in this sample.

- Methane was detected in the two (of two) laboratory method blanks (2.8 J µg/L and 2.5 J µg/L) associated with the analysis of dissolved hydrocarbon gases; all samples were associated with one or the other of these two blanks. **The positive results for methane in samples RMW-06, RMW-13, RMW-13A, RMW-14, RMW-14A, and RMW-14B were estimated concentrations below the limit of quantitation (LOQ) (J-qualified by the laboratory) and were therefore potential false positives; these results were qualified "u" (revised to ND) at the laboratory LOQ, based on the associated laboratory method blank contamination. The positive result for methane in sample RMW-17A was > the LOQ but <5× the associated blank concentration; therefore, this result was also considered to be a potential false positive and was qualified "u" (revised to ND), with the LOQ revised to the reported sample concentration.** Qualification was

not required for the positive results for methane in samples RMW-07, RMW-09, RMW-16, RMW-16A, RMW-17, RMW-26, and DU-21102 since these results were significantly higher than (>5×) the method blank concentration, and qualification was not required for the ND results in the remaining samples (RMW-06A and RMW-14C).

Trip Blank: No target analytes were detected in the TB (TBLK-21102); analyzed for VOCs only.

Field Blank: A field blank was not collected with these samples.

Equipment Rinse Blank: An equipment rinse blank was not collected with these samples.

LCS/LCSD: LCS analyses were performed appropriately for all analyses; the analyses for dissolved hydrocarbon gases also included analysis of LCSD samples. The LCS and LCSD recoveries and LCS/LCSD relative percent differences (RPDs) were within the laboratory QC limits.

MS/MSD: MS/MSD analyses were performed for the following analyses using the indicated sample as the associated parent sample:

RMW-06	bromide and sulfate
RMW-14A	VOCs
RMW-14C	bromide, sulfate, VOCs, and dissolved hydrocarbon gases
RMW-16	VOCs (tetrachloroethene only)

The MS and MSD recoveries and MS/MSD RPDs were within QC criteria, with the exception of the following:

- The MS/MSD RPD for acetone in sample RMW-14C was above the QC limit. Qualification was not required on this basis since acetone was ND in sample RMW-14C.

Duplicates: No laboratory duplicates were included with these analyses. A field duplicate was collected for sample RMW-16A. Duplicate RPDs were calculated for analytes detected above 5× the LOQ in both samples; the absolute difference (AbsD) was used to evaluate analytes detected below 5× the LOQ in one or both samples. RPD values were ≤ 30%, and AbsD values were ≤LOQ; therefore, results are in acceptable agreement.

Dilutions: The following sample analyses were performed with dilution, as indicated:

RMW-14A	VOCs (5×)
RMW-17A	VOCs (50×)
RMW-16	VOCs (5×) (tetrachloroethene only)
RMW-16A	VOCs (100×)
DU-21102	VOCs (50×)

The laboratory reports did not indicate the dilution reason(s), but the dilutions appear to have been performed in order to bring the concentrations of target analytes into the appropriate instrument calibration range. With the exception of RMW-16, the ND results in the noted VOC analyses were associated with correspondingly elevated detection limit (DL) and LOQ values.

Validation qualifiers were applied in this review, as summarized in the following table.

Data Reviewer: Amy Bass; TRC Environmental Corporation; 24-Apr-2021

Summary of qualifiers assigned by the data quality reviewer.

WC17120 **Sample ID**	**Analyte**	**Lab Result [LOQ]**	**Qualifier Assigned**	**Qualified Result**	**Basis**
RMW-06	methane	2.7 J [5.0]	u (@LOQ)	< 5.0	MB (sc ≤ LOQ)
RMW-13		3.2 J [5.0]	u (@LOQ)	< 5.0	
RMW-13A		2.5 J [5.0]	u (@LOQ)	< 5.0	
RMW-14		3.4 J [5.0]	u (@LOQ)	< 5.0	
RMW-14A		2.5 J [5.0]	u (@LOQ)	< 5.0	
RMW-14B		2.7 J [5.0]	u (@LOQ)	< 5.0	
RMW-17A	methane	5.2 [5.0]	u (@ sc)	< 5.2	MB (LOQ < sc <5×MB)

LOQ: limit of quantitation MB: method blank contamination ND: non-detect
sc: sample concentration
Validation qualifiers applied: "u" (revised to ND)

Laboratory Endorsement

Sample analysis was performed in accordance with approved methodologies provided by the Environmental Protection Agency or other recognized agencies. The samples and their corresponding extracts will be maintained for a period of 30 days unless otherwise arranged. Following this retention period the samples will be disposed in accordance with Pace Gulf Coast's Standard Operating Procedures.

Common Abbreviations that may be Utilized in this Report

ND	Indicates the result was Not Detected at the specified reporting limit
NO	Indicates the sample did not ignite when preliminary test performed for EPA Method 1030
DO	Indicates the result was Diluted Out
MI	Indicates the result was subject to Matrix Interference
TNTC	Indicates the result was Too Numerous To Count
SUBC	Indicates the analysis was Sub-Contracted
FLD	Indicates the analysis was performed in the Field
DL	Detection Limit
LOD	Limit of Detection
LOQ	Limit of Quantitation
RE	Re-analysis
CF	HPLC or GC Confirmation
00:01	Reported as a time equivalent to 12:00 AM

Reporting Flags that may be Utilized in this Report

J or I	Indicates the result is between the MDL and LOQ
J	DOD flag on analyte in the parent sample for MS/MSD outside acceptance criteria
U	Indicates the compound was analyzed for but not detected
B or V	Indicates the analyte was detected in the associated Method Blank
Q	Indicates a non-compliant QC Result (See Q Flag Application Report)
*****	Indicates a non-compliant or not applicable QC recovery or RPD – see narrative
E	Organics - The result is estimated because it exceeded the instrument calibration range
E	Metals - % diference for the serial dilution is > 10%
L	Reporting Limits adjusted to meet risk-based limit.
P	RPD between primary and confirmation result is greater than 40
DL	Diluted analysis – when appended to Client Sample ID

Sample receipt at Pace Gulf Coast is documented through the attached chain of custody. In accordance with NELAC, this report shall be reproduced only in full and with the written permission of Pace Gulf Coast. The results contained within this report relate only to the samples reported. The documented results are presented within this report.

This report pertains only to the samples listed in the Report Sample Summary and should be retained as a permanent record thereof. The results contained within this report are intended for the use of the client. Any unauthorized use of the information contained in this report is prohibited.

I certify that this data package is in compliance with The NELAC Institute (TNI) Standard 2009 and terms and conditions of the contract and Statement of Work both technically and for completeness, for other than the conditions in the case narrative. Release of the data contained in this hardcopy data package and in the computer readable data submitted has been authorized by the Quality Assurance Manager or his/her designee, as verified by the following signature.

Estimated uncertainty of measurement is available upon request. This report is in compliance with the DOD QSM as specified in the contract if applicable.

Authorized Signature
Pace Gulf Coast Report 221031980

Certifications

Certification	Certification Number
DOD ELAP	74960
Alabama	01955
Arkansas	88-0655
Colorado	01955
Delaware	01955
Florida	E87854
Georgia	01955
Hawaii	01955
Idaho	01955
Illinois	200048
Indiana	01955
Kansas	E-10354
Kentucky	95
Louisiana	01955
Maryland	01955
Massachusetts	01955
Michigan	01955
Mississippi	01955
Missouri	01955
Montana	N/A
Nebraska	01955
New Mexico	01955
North Carolina	618
North Dakota	R-195
Oklahoma	9403
South Carolina	73006001
South Dakota	01955
Tennessee	01955
Texas	T104704178
Vermont	01955
Virginia	460215
Washington	C929
USDA Soil Permit	P330-16-00234

Case Narrative

Client: Pace Analytical Services South Carolina **Report:** 221031980

Pace Analytical Gulf Coast received and analyzed the sample(s) listed
on the Report Sample Summary page of this report. Receipt of the sample(s) is documented
by the attached chain of custody. This applies only to the sample(s) listed in this report.
No sample integrity or quality control exceptions were identified unless noted below.

MISCELLANEOUS

Sample 22103198007 (RMW-14C-MS) was received with a minimal volume of sample.

Sample 22103198008 (RMW-14C-MSD) was received with a minimal volume of sample.

Sample Summary

LAB ID	Client ID	Matrix	Collect Date	Receive Date
22103198001	RMW-17	Water	03/12/2021 11:15	03/19/2021 12:00
22103198002	RMW-17A	Water	03/12/2021 12:05	03/19/2021 12:00
22103198003	RMW-26	Water	03/12/2021 14:35	03/19/2021 12:00
22103198004	RMW-09	Water	03/12/2021 16:00	03/19/2021 12:00
22103198005	RMW-07	Water	03/15/2021 11:35	03/19/2021 12:00
22103198006	RMW-14C	Water	03/15/2021 14:30	03/19/2021 12:00
22103198007	RMW-14C-MS	Water	03/15/2021 14:30	03/19/2021 12:00
22103198008	RMW-14C-MSD	Water	03/15/2021 14:30	03/19/2021 12:00
22103198009	RMW-14B	Water	03/15/2021 14:45	03/19/2021 12:00
22103198010	RMW-14A	Water	03/15/2021 15:45	03/19/2021 12:00
22103198011	RMW-14	Water	03/15/2021 15:50	03/19/2021 12:00
22103198012	RMW-16	Water	03/16/2021 11:00	03/19/2021 12:00
22103198013	RMW-16A	Water	03/16/2021 11:05	03/19/2021 12:00
22103198014	RMW-13	Water	03/16/2021 15:05	03/19/2021 12:00
22103198015	RMW-13A	Water	03/16/2021 15:20	03/19/2021 12:00
22103198016	RMW-06	Water	03/16/2021 16:20	03/19/2021 12:00
22103198017	RMW-06A	Water	03/16/2021 16:25	03/19/2021 12:00
22103198018	DU-21102	Water	03/12/2021 00:01	03/19/2021 12:00

Detect Summary

LAB ID	Client ID	Method	Parameter	Result	Units
22103198001	RMW-17	AM20GAX	Ethane	0.34J	ug/L
22103198001	RMW-17	AM20GAX	Methane	3200	ug/L
22103198002	RMW-17A	AM20GAX	Ethane	0.10J	ug/L
22103198002	RMW-17A	AM20GAX	Methane	5.2	ug/L
22103198003	RMW-26	AM20GAX	Ethene	0.91J	ug/L
22103198003	RMW-26	AM20GAX	Methane	460	ug/L
22103198004	RMW-09	AM20GAX	Ethane	0.36J	ug/L
22103198004	RMW-09	AM20GAX	Methane	79	ug/L
22103198005	RMW-07	AM20GAX	Ethane	2.4	ug/L
22103198005	RMW-07	AM20GAX	Ethene	0.16J	ug/L
22103198005	RMW-07	AM20GAX	Methane	100	ug/L
22103198006	RMW-14C	AM20GAX	Ethene	0.14J	ug/L
22103198009	RMW-14B	AM20GAX	Ethene	0.24J	ug/L
22103198009	RMW-14B	AM20GAX	Methane	2.7J	ug/L
22103198010	RMW-14A	AM20GAX	Methane	2.5J	ug/L
22103198011	RMW-14	AM20GAX	Ethene	0.23J	ug/L
22103198011	RMW-14	AM20GAX	Methane	3.4J	ug/L
22103198012	RMW-16	AM20GAX	Ethane	0.22J	ug/L
22103198012	RMW-16	AM20GAX	Methane	5800	ug/L
22103198013	RMW-16A	AM20GAX	Methane	36	ug/L
22103198014	RMW-13	AM20GAX	Ethene	0.68J	ug/L
22103198014	RMW-13	AM20GAX	Methane	3.2J	ug/L
22103198015	RMW-13A	AM20GAX	Methane	2.5J	ug/L
22103198016	RMW-06	AM20GAX	Methane	2.7J	ug/L
22103198018	DU-21102	AM20GAX	Methane	34	ug/L

Sample Results

RMW-17

Collect Date	03/12/2021 11:15	LAB ID	22103198001
Receive Date	03/19/2021 12:00	Matrix	Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	03/26/2021 13:18	JCK2	706972

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	**Ethane**	**0.34J**	**0.075**	**1.0**	**ug/L**
74-85-1	Ethene	0.12U	0.12	1.0	ug/L
74-82-8	**Methane**	**3200**	**2.5**	**5.0**	**ug/L**

RMW-17A

Collect Date	03/12/2021 12:05	LAB ID	22103198002
Receive Date	03/19/2021 12:00	Matrix	Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	03/26/2021 13:30	JCK2	706972

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	**Ethane**	**0.10J**	**0.075**	**1.0**	**ug/L**
74-85-1	Ethene	0.12U	0.12	1.0	ug/L
74-82-8	**Methane**	**5.2**	**2.5**	**5.0**	**ug/L**

RMW-26

Collect Date	03/12/2021 14:35	LAB ID	22103198003
Receive Date	03/19/2021 12:00	Matrix	Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	03/26/2021 13:42	JCK2	706972

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	Ethane	0.075U	0.075	1.0	ug/L
74-85-1	**Ethene**	**0.91J**	**0.12**	**1.0**	**ug/L**
74-82-8	**Methane**	**460**	**2.5**	**5.0**	**ug/L**

RMW-09

Collect Date	03/12/2021 16:00	LAB ID	22103198004
Receive Date	03/19/2021 12:00	Matrix	Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	03/26/2021 13:54	JCK2	706972

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	**Ethane**	**0.36J**	**0.075**	**1.0**	**ug/L**
74-85-1	Ethene	0.12U	0.12	1.0	ug/L
74-82-8	**Methane**	**79**	**2.5**	**5.0**	**ug/L**

Sample Results

RMW-07

Collect Date	03/15/2021 11:35	LAB ID	22103198005
Receive Date	03/19/2021 12:00	Matrix	Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	03/28/2021 19:15	JCK2	707031

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	Ethane	2.4	0.075	1.0	ug/L
74-85-1	Ethene	0.16J	0.12	1.0	ug/L
74-82-8	Methane	100	2.5	5.0	ug/L

RMW-14C

Collect Date	03/15/2021 14:30	LAB ID	22103198006
Receive Date	03/19/2021 12:00	Matrix	Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	03/28/2021 19:27	JCK2	707031

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	Ethane	0.075U	0.075	1.0	ug/L
74-85-1	Ethene	0.14J	0.12	1.0	ug/L
74-82-8	Methane	2.5U	2.5	5.0	ug/L

RMW-14C-MS

Collect Date	03/15/2021 14:30	LAB ID	22103198007
Receive Date	03/19/2021 12:00	Matrix	Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	03/28/2021 19:39	JCK2	707031

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	Ethane	84	0.075	1.0	ug/L
74-85-1	Ethene	130	0.12	1.0	ug/L
74-82-8	Methane	410	2.5	5.0	ug/L

RMW-14C-MSD

Collect Date	03/15/2021 14:30	LAB ID	22103198008
Receive Date	03/19/2021 12:00	Matrix	Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	03/28/2021 19:52	JCK2	707031

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	Ethane	83	0.075	1.0	ug/L
74-85-1	Ethene	120	0.12	1.0	ug/L
74-82-8	Methane	400	2.5	5.0	ug/L

Sample Results

RMW-14B

Collect Date	03/15/2021 14:45	LAB ID	22103198009
Receive Date	03/19/2021 12:00	Matrix	Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	03/28/2021 20:03	JCK2	707031

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	Ethane	0.075U	0.075	1.0	ug/L
74-85-1	**Ethene**	**0.24J**	**0.12**	**1.0**	**ug/L**
74-82-8	**Methane**	**2.7J**	**2.5**	**5.0**	**ug/L**

RMW-14A

Collect Date	03/15/2021 15:45	LAB ID	22103198010
Receive Date	03/19/2021 12:00	Matrix	Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	03/28/2021 20:15	JCK2	707031

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	Ethane	0.075U	0.075	1.0	ug/L
74-85-1	Ethene	0.12U	0.12	1.0	ug/L
74-82-8	**Methane**	**2.5J**	**2.5**	**5.0**	**ug/L**

RMW-14

Collect Date	03/15/2021 15:50	LAB ID	22103198011
Receive Date	03/19/2021 12:00	Matrix	Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	03/28/2021 20:27	JCK2	707031

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	Ethane	0.075U	0.075	1.0	ug/L
74-85-1	**Ethene**	**0.23J**	**0.12**	**1.0**	**ug/L**
74-82-8	**Methane**	**3.4J**	**2.5**	**5.0**	**ug/L**

RMW-16

Collect Date	03/16/2021 11:00	LAB ID	22103198012
Receive Date	03/19/2021 12:00	Matrix	Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	03/28/2021 20:40	JCK2	707031

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	**Ethane**	**0.22J**	**0.075**	**1.0**	**ug/L**
74-85-1	Ethene	0.12U	0.12	1.0	ug/L
74-82-8	**Methane**	**5800**	**2.5**	**5.0**	**ug/L**

Sample Results

RMW-16A

Collect Date 03/16/2021 11:05 **LAB ID** 22103198013
Receive Date 03/19/2021 12:00 **Matrix** Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	03/28/2021 20:52	JCK2	707031

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	Ethane	0.075U	0.075	1.0	ug/L
74-85-1	Ethene	0.12U	0.12	1.0	ug/L
74-82-8	**Methane**	**36**	**2.5**	**5.0**	**ug/L**

RMW-13

Collect Date 03/16/2021 15:05 **LAB ID** 22103198014
Receive Date 03/19/2021 12:00 **Matrix** Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	03/28/2021 21:04	JCK2	707031

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	Ethane	0.075U	0.075	1.0	ug/L
74-85-1	**Ethene**	**0.68J**	**0.12**	**1.0**	**ug/L**
74-82-8	**Methane**	**3.2J**	**2.5**	**5.0**	**ug/L**

RMW-13A

Collect Date 03/16/2021 15:20 **LAB ID** 22103198015
Receive Date 03/19/2021 12:00 **Matrix** Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	03/28/2021 21:16	JCK2	707031

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	Ethane	0.075U	0.075	1.0	ug/L
74-85-1	Ethene	0.12U	0.12	1.0	ug/L
74-82-8	**Methane**	**2.5J**	**2.5**	**5.0**	**ug/L**

RMW-06

Collect Date 03/16/2021 16:20 **LAB ID** 22103198016
Receive Date 03/19/2021 12:00 **Matrix** Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	03/28/2021 21:28	JCK2	707031

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	Ethane	0.075U	0.075	1.0	ug/L
74-85-1	Ethene	0.12U	0.12	1.0	ug/L
74-82-8	**Methane**	**2.7J**	**2.5**	**5.0**	**ug/L**

Sample Results

RMW-06A

Collect Date	03/16/2021 16:25	**LAB ID**	22103198017
Receive Date	03/19/2021 12:00	**Matrix**	Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	03/28/2021 21:40	JCK2	707031

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	Ethane	0.075U	0.075	1.0	ug/L
74-85-1	Ethene	0.12U	0.12	1.0	ug/L
74-82-8	Methane	2.5U	2.5	5.0	ug/L

DU-21102

Collect Date	03/12/2021 00:01	**LAB ID**	22103198018
Receive Date	03/19/2021 12:00	**Matrix**	Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	03/26/2021 14:06	JCK2	706972

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	Ethane	0.075U	0.075	1.0	ug/L
74-85-1	Ethene	0.12U	0.12	1.0	ug/L
74-82-8	**Methane**	**34**	**2.5**	**5.0**	**ug/L**

General Chromatography QC Summary

Analytical Batch 706972	Client ID	MB706972		LCS706972				LCSD706972				
	LAB ID	2161600		2161601				2161602				
	Sample Type	MB		LCS				LCSD				
	Prep Date											
	Analysis Date	03/26/21 10:02		03/26/21 09:15				03/26/21 09:27				
	Matrix	Water		Water				Water				
AM20GAX		Units Result	ug/L DL	Spike Added	Result	%R	Control Limits%R	Spike Added	Result	%R	RPD	RPD Limit
Ethane	74-84-0	0.075U	0.075	100	110	107	70 - 130	100	110	109	2	20
Ethene	74-85-1	0.12U	0.12	140	150	108	70 - 130	140	160	110	2	20
Methane	74-82-8	2.8J	2.5	490	510	103	70 - 130	490	510	104	1	20

Analytical Batch 707031	Client ID	MB707031		LCS707031				LCSD707031				
	LAB ID	2162062		2162063				2162064				
	Sample Type	MB		LCS				LCSD				
	Prep Date											
	Analysis Date	03/28/21 19:03		03/28/21 18:14				03/28/21 18:26				
	Matrix	Water		Water				Water				
AM20GAX		Units Result	ug/L DL	Spike Added	Result	%R	Control Limits%R	Spike Added	Result	%R	RPD	RPD Limit
Ethane	74-84-0	0.075U	0.075	100	96	95	70 - 130	100	91	90	6	20
Ethene	74-85-1	0.12U	0.12	140	140	99	70 - 130	140	130	94	5	20
Methane	74-82-8	2.5J	2.5	490	450	92	70 - 130	490	430	87	5	20

Analytical Batch 707031	Client ID	RMW-14C		RMW-14C-MS				RMW-14C-MSD				
	LAB ID	22103198006		22103198007				22103198008				
	Sample Type	SAMPLE		MS				MSD				
	Prep Date	NA										
	Analysis Date	03/28/2021 19:27		03/28/21 19:39				03/28/21 19:52				
	Matrix	Water		Water				Water				
AM20GAX		Units Result	ug/L DL	Spike Added	Result	%R	Control Limits%R	Spike Added	Result	%R	RPD	RPD Limit
Ethane	74-84-0	0.0	0.075	100	84	83	70 - 130	100	83	83	1	20
Ethene	74-85-1	0.14	0.12	140	130	89	70 - 130	140	120	88	2	20
Methane	74-82-8	2.4	2.5	490	410	83	70 - 130	490	400	82	1	20

Chain of Custody

Pace Analytical
www.pacelabs.com

Workorder: WC17120 Workorder Name: WPH Clemson Owner Received Date: 3/17/2021 Results Requested By: 3/29/2021

Report To:	Subcontract To:
Lucas Odom	Project # 300688.0000.0000.00011
Pace Analytical	
106 Vantage Point Drive	Pace Golf Coast
Columbia SC, 29223	7979 Innovation Park Drive,
803-227-2704	Baton Rouge, LA 70820
lucas.odom@pacelabs.com	

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers: TSP	Requested Analysis: Dissolved Gasses (MEE)	LAB USE ONLY
1	RMW-17	G	03/12/21@1115	WC17120-002				2
2	RMW-17A	G	03/12/21@1205	WC17120-003		x	X	3
3	RMW-26	G	03/12/21@1435	WC17120-004		x	x	4
4	RMW-09	G	03/12/21@1600	WC17120-005		x	x	5
5	RMW-07	G	03/15/21@1135	WC17120-006		x	x	6,7,8
6	RMW-14C (MS/MSD)	G	03/15/21@1430	WC17120-007		x	x	9
7	RMW-14B	G	03/15/21@1445	WC17120-008		x	x	10
8	RMW-14A	G	03/15/21@1545	WC17120-009		x	x	11
9	RMW-14	G	03/15/21@1550	WC17120-010		x	x	12
10	RMW-16	G	03/16/21@1100	WC17120-011		x	x	

Transfers	Released By	Date/Time	Reveived By	Date/Time	Comments
1	MHaney	3/18/21 1800			
2	FedEx	3-19-21 12:00	DocuMCCure	3-19-21 12:00	1163 3465 2371 0.9 Edv 33LPM
3					

Cooler Temperature on Receipt	Custody Seal Y or N	Received on Ice Y or N	Sample Intact Y or N

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC
This chain of custody is considered complete as is since this information is available in the owner laboratory.

Friday, June 17, 2016 11:01:34 AM FMT-ALL-C-002rev.00 2

Client ID: Shealy Envir - Pace Analytical Services South Carolina
SDG: 221031980
PM: RWe

Chain of Custody

Pace Analytical
www.pacelabs.com

Workorder: WC17120 Workorder Name: WPH Clemson Owner Received Date: 3/17/2021 Results Requested By: 3/29/2021

Report To:	Subcontract To:
Lucas Odom	Project # 300688.0000.0000.00011
Pace Analytical	
106 Vantage Point Drive	Pace Golf Coast
Columbia SC, 29223	7979 Innovation Park Drive,
803-227-2704	Baton Rouge, LA 70820
lucas.odom@pacelabs.com	

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers: TSP	Requested Analysis: Dissolved Gasses (MEE)	LAB USE ONLY
1	RMW-16A	G	03/16/21@1105	WC17120-012				13
2	RMW-13	G	03/16/21@1505	WC17120-013		x	X	14
3	RMW-13A	G	03/16/21@1520	WC17120-014		x	x	15
4	RMW-06	G	03/16/21@1620	WC17120-015		x	x	16
5	RMW-06A	G	03/16/21@1625	WC17120-016		x	x	17
6	DU-21102	G	3/12/2021@0000	WC17120-017		x	x	18
7								
8								
9								
10								

Transfers	Released By	Date/Time	Reveived By	Date/Time	Comments
1					
2	FedEX	3-19-21 12:00	DoddeMcClure	3-19-2112:00	1Z1633H65 7371 09E6
3					33LAM

Cooler Temperature on Receipt _____ °C	Custody Seal Y or N	Received on Ice Y or N	Sample Intact Y or N

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC
This chain of custody is considered complete as is since this information is available in the owner laboratory.

Friday, June 17, 2016 11:01:34 AM FMT-ALL-C-002rev.0

Client ID: Shealy Envir - Pace Analytical Services South Carolina
SDG: 221031980
PM: RWe

SAMPLE RECEIVING CHECKLIST

SAMPLE DELIVERY GROUP 221031980	
Client **PM** RWe Shealy Envir - Pace Analytical Services South Carolina	**Transport Method** FEDEX
Profile Number 290459	**Received By** McCune, Dodie N.
Line Item(s) 1 - MEE	**Receive Date(s)** 03/19/21

CHECKLIST	YES	NO
Samples received with proper thermal preservation?	☑	☐
Radioactivity is <1600 cpm? If no, record cpm value in notes section.	☑	☐
COC relinquished and complete (including sampleIDs, collect times, and sampler)?	☑	☐
All containers received in good condition and within hold time?	☑	☐
All sample labels and containers received match the chain of custody?	☑	☐
Preservative added to any containers?	☐	☑
If received, was headspace for VOC water containers < 6mm?	☑	☐
Samples collected in containers provided by Pace Gulf Coast?	☑	☐

COOLERS

Airbill	Thermometer ID: E26	Temp °C
166334652371		0.9

DISCREPANCIES

Low sample volume:
22103198007 - RMW-14C-MS
22103198008 - RMW-14C-MSD

LAB PRESERVATIONS

None

NOTES

Revision 1.6

Report of Analysis

TRC Companies, Inc.
50 International Dr.
Suite 150
Greenville, SC 29615
Attention: Lisa Clark

Project Name: WPH Clemson

Project Number: 300688.0000.0000.00011

Lot Number:**WC19051**

Date Completed:03/28/2021

03/30/2021 2:01 PM
Approved and released by:
Project Manager II: **Lucas Odom**

Laboratory Data Quality Review Notes

Project Name: WPH-Clemson, SC

Project Number: 300688.0000.0000 Phase 11

Lab Report: **WC19051** Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.), West Columbia, SC; subcontracted report: **221032458** Pace Analytical Gulf Coast, Baton Rouge, LA

Samples and Analyses: Six groundwater samples, collected 18-Mar-2021, and analyzed for volatile organic compounds (VOCs), bromide, and sulfate; one trip blank (TB), analyzed for VOCs only. Analysis of the groundwater samples for dissolved hydrocarbon gases (ethane, ethene, methane) was subcontracted and was reported separately (as noted above).

Chain of Custody, Sample Temperature, Sample Preservation: Chain of custody (COC) forms were signed; cooler temperature was ≤6 ^{o}C upon arrival at each laboratory; samples were preserved properly. The following sample receipt anomalies were noted:

- The subcontract laboratory (relevant to the dissolved hydrocarbon gases analyses) noted low sample volume for the RMW-23-MS and -MSD samples. MS/MSD analyses were performed using the noted sample; therefore, the volume was sufficient for the analyses.
- The subcontract laboratory noted some type of discrepancy between the sample labels / containers and the COC, but no further information was provided. The listed sample IDs, etc., agreed with those reported on the COC, so no action was required.

Holding Time: Sample analyses were performed within acceptable holding times.

Surrogates: VOC surrogate recoveries were within laboratory quality control (QC) limits.

Method Blank: Laboratory method blanks were appropriately associated with all analyses. The following target analytes were detected in the laboratory method blanks:

- Methane was detected (2.9 J µg/L) in the laboratory method blank associated with the analysis of dissolved hydrocarbon gases (associated with all samples). Qualification was not required on this basis since the positive results for methane in all samples were significantly higher than (>5×) the method blank concentration.

Trip Blank: No target analytes were detected in the TB (TBLK-21103); analyzed for VOCs only.

Field Blank: A field blank was not collected with these samples.

Equipment Rinse Blank: An equipment rinse blank was not collected with these samples.

LCS/LCSD: LCS analyses were performed appropriately for all analyses; the analyses for dissolved hydrocarbon gases also included analysis of LCSD samples. The LCS and LCSD recoveries and LCS/LCSD relative percent differences (RPDs) were within the laboratory QC limits.

MS/MSD: MS/MSD analyses were performed for bromide, sulfate, VOCs, and dissolved hydrocarbon gases using sample RMW-23 as the associated parent sample. The MS and MSD recoveries and MS/MSD RPDs were within QC criteria, with the exception of the following:

- The MS and MSD recoveries for sulfate in sample RMW-23 (analysis batch 86597) were below the QC limits. The laboratory re-ran the MS/MSD analysis (batch 86728), using the same parent sample, and the recoveries in this analysis were both within the QC limits. Since the recoveries met criteria with the second analysis, profession judgement was used, and no validation action was taken on this basis.
- The MS and MSD recoveries for 3 VOCs were below the QC limits in sample RMW-23. **Therefore, the positive result for acetone in sample RMW-23 was qualified "j-" (estimated, with a potential low bias), and the non-detect (ND) results for 2-butanone and methyl acetate in this sample were qualified "uj" (estimated limit of quantitation [LOQ]).**
- The MS recovery for methane in sample RMW-23 was above the QC limits. The parent sample concentration of methane was >4× the MS spike amount; therefore, the MS recovery is considered unreliable, and the results are not usable for sample qualification. No validation action was taken on this basis.

Duplicates: No laboratory duplicates were included with these analyses. A field duplicate was not collected with this sample set.

Dilutions: The following sample analyses were performed with dilution, as indicated:

RMW-23B	VOCs (20×) (cis-1,2-dichloroethene and tetrachloroethene only)
RMW-23C	VOCs (20×) (cis-1,2-dichloroethene and tetrachloroethene only)

The laboratory reports did not indicate the dilution reason(s), but the dilutions appear to have been performed in order to bring the concentrations of target analytes into the appropriate instrument calibration range. In the case of both dilutions listed above, the ND results in these samples were not associated with the dilution runs and were, therefore, not associated with elevated detection limit and LOQ values.

Validation qualifiers were applied in this review, as summarized in the following table.

Data Reviewer: Amy Bass; TRC Environmental Corporation; 26-Apr-2021

Summary of qualifiers assigned by the data quality reviewer.

WC19051 **Sample ID**	**Analyte**	**Lab Result [LOQ]**	**Qualifier Assigned**	**Qualified Result**	**Basis**
RMW-23	acetone	18 [20]	j-	18 J-	low MS recovery
	2-butanone	ND [10]	uj	< 10 UJ	
	methyl acetate	ND [1.0]	uj	< 1.0 UJ	

LOQ: limit of quantitation MS: matrix spike and/or duplicate ND: non-detect

Validation qualifiers applied: “j-“ (estimated, with a potential low bias); “uj” (estimated LOQ)

Case Narrative
TRC Companies, Inc.
Lot Number: WC19051

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved The NELAC Institute (TNI) standards, the Pace Analytical Services, LLC ("Pace") Laboratory Quality Manual, standard operating procedures (SOPs), and Pace policies. Any exceptions to the TNI standards, the Laboratory Quality Manual, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Pace Project Manager listed on the cover page.

Inorganic Non-Metals

Due to suspected matrix interferences, the MS/MSD associated with batch 86597 recovered Sulfate marginally outside of method criteria. Associated samples have been qualified with a "S".

VOCs by GC/MS

Due to suspected matrix interferences, the MS/MSD associated with batch 86597 recovered three compounds marginally outside of method criteria. Associated samples have been qualified with "S".

Subcontracted Analysis

The analysis of Dissolved Gasses has been performed by Pace Gulf Coast. This data is located on a separate report provided by them.

Sample Summary

TRC Companies, Inc.

Lot Number: WC19051

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	TBLK-21103	Aqueous	03/18/2021	03/19/2021
002	RMW-23	Aqueous	03/18/2021 1110	03/19/2021
003	RMW-23A	Aqueous	03/18/2021 1115	03/19/2021
004	RMW-23B	Aqueous	03/18/2021 1430	03/19/2021
005	RMW-23C	Aqueous	03/18/2021 1435	03/19/2021
006	RMW-22A	Aqueous	03/18/2021 1550	03/19/2021
007	RMW-22	Aqueous	03/18/2021 1610	03/19/2021

(7 samples)

Detection Summary

TRC Companies, Inc.

Lot Number: WC19051

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
002	RMW-23	Aqueous	Bromide	300.0	0.065	J	mg/L	7
002	RMW-23	Aqueous	Sulfate	300.0	5.9		mg/L	7
002	RMW-23	Aqueous	Acetone	8260D	18	JS	ug/L	7
002	RMW-23	Aqueous	cis-1,2-Dichloroethene	8260D	2.3		ug/L	7
002	RMW-23	Aqueous	Tetrachloroethene	8260D	0.62	J	ug/L	8
003	RMW-23A	Aqueous	Bromide	300.0	0.41		mg/L	9
003	RMW-23A	Aqueous	Chloroethane	8260D	0.92	J	ug/L	9
003	RMW-23A	Aqueous	cis-1,2-Dichloroethene	8260D	130		ug/L	9
003	RMW-23A	Aqueous	Methyl acetate	8260D	11		ug/L	10
003	RMW-23A	Aqueous	Tetrachloroethene	8260D	0.59	J	ug/L	10
003	RMW-23A	Aqueous	Vinyl chloride	8260D	2.2		ug/L	10
004	RMW-23B	Aqueous	Bromide	300.0	0.10	J	mg/L	11
004	RMW-23B	Aqueous	Sulfate	300.0	0.46	J	mg/L	11
004	RMW-23B	Aqueous	1,1-Dichloroethene	8260D	1.2		ug/L	11
004	RMW-23B	Aqueous	cis-1,2-Dichloroethene	8260D	680		ug/L	11
004	RMW-23B	Aqueous	trans-1,2-Dichloroethene	8260D	2.4		ug/L	11
004	RMW-23B	Aqueous	Tetrachloroethene	8260D	390		ug/L	12
004	RMW-23B	Aqueous	Trichloroethene	8260D	8.4		ug/L	12
004	RMW-23B	Aqueous	Vinyl chloride	8260D	0.96	J	ug/L	12
005	RMW-23C	Aqueous	Bromide	300.0	0.090	J	mg/L	13
005	RMW-23C	Aqueous	Sulfate	300.0	0.34	J	mg/L	13
005	RMW-23C	Aqueous	1,1-Dichloroethene	8260D	0.99	J	ug/L	13
005	RMW-23C	Aqueous	cis-1,2-Dichloroethene	8260D	820		ug/L	13
005	RMW-23C	Aqueous	trans-1,2-Dichloroethene	8260D	2.6		ug/L	13
005	RMW-23C	Aqueous	Tetrachloroethene	8260D	290		ug/L	14
005	RMW-23C	Aqueous	Trichloroethene	8260D	9.3		ug/L	14
005	RMW-23C	Aqueous	Vinyl chloride	8260D	2.6		ug/L	14
006	RMW-22A	Aqueous	Bromide	300.0	0.12	J	mg/L	15
006	RMW-22A	Aqueous	Acetone	8260D	5.8	J	ug/L	15
006	RMW-22A	Aqueous	2-Butanone (MEK)	8260D	25		ug/L	15
006	RMW-22A	Aqueous	cis-1,2-Dichloroethene	8260D	46		ug/L	15
006	RMW-22A	Aqueous	Tetrachloroethene	8260D	91		ug/L	16
006	RMW-22A	Aqueous	Trichloroethene	8260D	1.8		ug/L	16
007	RMW-22	Aqueous	Bromide	300.0	0.60		mg/L	17
007	RMW-22	Aqueous	Sulfate	300.0	5.8		mg/L	17
007	RMW-22	Aqueous	Acetone	8260D	11	J	ug/L	17
007	RMW-22	Aqueous	cis-1,2-Dichloroethene	8260D	83		ug/L	17
007	RMW-22	Aqueous	Tetrachloroethene	8260D	54		ug/L	18
007	RMW-22	Aqueous	Trichloroethene	8260D	11		ug/L	18
007	RMW-22	Aqueous	Vinyl chloride	8260D	0.64	J	ug/L	18

(40 detections)

Client: TRC Companies, Inc.
Description: TBLK-21103
Date Sampled: 03/18/2021
Date Received: 03/19/2021

Laboratory ID: WC19051-001
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/24/2021 2036	DJG		86780

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	ND		1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: TBLK-21103
Date Sampled: 03/18/2021
Date Received: 03/19/2021

Laboratory ID: WC19051-001
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/24/2021 2036	DJG		86780

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260D	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		110	70-130
1,2-Dichloroethane-d4		105	70-130
Toluene-d8		116	70-130

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ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
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S = MS/MSD failure

Pace Analytical Services, LLC *(formerly Shealy Environmental Services, Inc.)*
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Client: TRC Companies, Inc.
Description: RMW-23
Date Sampled: 03/18/2021 1110
Date Received: 03/19/2021

Laboratory ID: WC19051-002
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	03/22/2021 1930	AMR		86598
2		(Sulfate) 300.0	1	03/23/2021 1907	AMR		86728

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.065	J	0.20	0.050	mg/L	1
Sulfate		300.0	5.9		1.0	0.25	mg/L	2

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/24/2021 2100	DJG		86780

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	18	JS	20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND	S	10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	2.3		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: RMW-23
Date Sampled: 03/18/2021 1110
Date Received: 03/19/2021

Laboratory ID: WC19051-002
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/24/2021 2100	DJG		86780

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND	S	1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	0.62	J	1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260D	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		111	70-130
1,2-Dichloroethane-d4		98	70-130
Toluene-d8		116	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Pace Analytical Services, LLC *(formerly Shealy Environmental Services, Inc.)*
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Client: TRC Companies, Inc.
Description: RMW-23A
Date Sampled: 03/18/2021 1115
Date Received: 03/19/2021

Laboratory ID: WC19051-003
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	03/22/2021 2105	AMR		86598
1		(Sulfate) 300.0	1	03/22/2021 2105	AMR		86597

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.41		0.20	0.050	mg/L	1
Sulfate		300.0	ND		1.0	0.25	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/24/2021 2124	DJG		86780

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	0.92	J	2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	130		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: RMW-23A
Date Sampled: 03/18/2021 1115
Date Received: 03/19/2021

Laboratory ID: WC19051-003
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/24/2021 2124	DJG		86780

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	11		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	0.59	J	1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260D	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	2.2		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		114	70-130
1,2-Dichloroethane-d4		105	70-130
Toluene-d8		116	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

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Client: TRC Companies, Inc.
Description: RMW-23B
Date Sampled: 03/18/2021 1430
Date Received: 03/19/2021

Laboratory ID: WC19051-004
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	03/22/2021 2124	AMR		86598
1		(Sulfate) 300.0	1	03/22/2021 2124	AMR		86597

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.10	J	0.20	0.050	mg/L	1
Sulfate		300.0	0.46	J	1.0	0.25	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/24/2021 2148	DJG		86780
2	5030B	8260D	20	03/26/2021 0554	CJL2		86925

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	1.2		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	680		20	8.0	ug/L	2
trans-1,2-Dichloroethene	156-60-5	8260D	2.4		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: RMW-23B
Date Sampled: 03/18/2021 1430
Date Received: 03/19/2021

Laboratory ID: WC19051-004
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/24/2021 2148	DJG		86780
2	5030B	8260D	20	03/26/2021 0554	CJL2		86925

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	390		20	8.0	ug/L	2
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260D	8.4		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	0.96	J	1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Run 1 Acceptance Limits	Q	Run 2 % Recovery	Run 2 Acceptance Limits
Bromofluorobenzene		110	70-130		104	70-130
1,2-Dichloroethane-d4		104	70-130		92	70-130
Toluene-d8		116	70-130		109	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

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Client: TRC Companies, Inc.
Description: RMW-23C
Date Sampled: 03/18/2021 1435
Date Received: 03/19/2021

Laboratory ID: WC19051-005
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	03/22/2021 2143	AMR		86598
1		(Sulfate) 300.0	1	03/22/2021 2143	AMR		86597

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.090	J	0.20	0.050	mg/L	1
Sulfate		300.0	0.34	J	1.0	0.25	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/24/2021 2212	DJG		86780
2	5030B	8260D	20	03/26/2021 0619	CJL2		86925

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	0.99	J	1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	820		20	8.0	ug/L	2
trans-1,2-Dichloroethene	156-60-5	8260D	2.6		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: RMW-23C
Date Sampled: 03/18/2021 1435
Date Received: 03/19/2021

Laboratory ID: WC19051-005
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/24/2021 2212	DJG		86780
2	5030B	8260D	20	03/26/2021 0619	CJL2		86925

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	290		20	8.0	ug/L	2
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260D	9.3		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	2.6		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits	Q	Run 2 % Recovery	Acceptance Limits
Bromofluorobenzene		110	70-130		106	70-130
1,2-Dichloroethane-d4		109	70-130		92	70-130
Toluene-d8		114	70-130		107	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

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Client: TRC Companies, Inc.
Description: RMW-22A
Date Sampled: 03/18/2021 1550
Date Received: 03/19/2021

Laboratory ID: WC19051-006
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	03/22/2021 2202	AMR		86598
1		(Sulfate) 300.0	1	03/22/2021 2202	AMR		86597

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.12	J	0.20	0.050	mg/L	1
Sulfate		300.0	ND		1.0	0.25	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/24/2021 2235	DJG		86780
2	5030B	8260D	1	03/26/2021 0144	CJL2		86925

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	5.8	J	20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	25		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	46		1.0	0.40	ug/L	2
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: RMW-22A
Date Sampled: 03/18/2021 1550
Date Received: 03/19/2021

Laboratory ID: WC19051-006
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/24/2021 2235	DJG		86780
2	5030B	8260D	1	03/26/2021 0144	CJL2		86925

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	91		1.0	0.40	ug/L	2
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260D	1.8		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits	Q	Run 2 % Recovery	Acceptance Limits
Bromofluorobenzene		109	70-130		104	70-130
1,2-Dichloroethane-d4		111	70-130		87	70-130
Toluene-d8		114	70-130		104	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
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N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: RMW-22
Date Sampled: 03/18/2021 1610
Date Received: 03/19/2021

Laboratory ID: WC19051-007
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	03/22/2021 2221	AMR		86598
1		(Sulfate) 300.0	1	03/22/2021 2221	AMR		86597

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.60		0.20	0.050	mg/L	1
Sulfate		300.0	5.8		1.0	0.25	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/24/2021 2259	DJG		86780

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	11	J	20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	83		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: RMW-22
Date Sampled: 03/18/2021 1610
Date Received: 03/19/2021

Laboratory ID: WC19051-007
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/24/2021 2259	DJG		86780

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	54		1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260D	11		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	0.64	J	1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		110	70-130
1,2-Dichloroethane-d4		106	70-130
Toluene-d8		113	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

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QC Summary

Inorganic non-metals - MB

Sample ID: WQ86597-001
Batch: 86597
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Sulfate	ND		1	1.0	0.25	mg/L	03/22/2021 1659

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: WQ86597-002
Batch: 86597
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Sulfate	20	19		1	96	90-110	03/22/2021 1737

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MS

Sample ID: WC19051-002MS
Batch: 86597
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Sulfate	4.6	10	13	N	1	87	90-110	03/22/2021 1949

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: WC19051-002MD
Batch: 86597
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	%Rec Limit	% RPD Limit	Analysis Date
Sulfate	4.6	10	14	N	1	89	1.6	90-110	20	03/22/2021 2008

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: WQ86598-001
Batch: 86598
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Bromide	ND		1	0.20	0.050	mg/L	03/22/2021 1659

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: WQ86598-002
Batch: 86598
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Bromide	8.0	8.0		1	100	90-110	03/22/2021 1737

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MS

Sample ID: WC19051-002MS
Batch: 86598
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Bromide	0.065	4.0	4.0		1	98	90-110	03/22/2021 1949

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: WC19051-002MD
Batch: 86598
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	%Rec Limit	% RPD Limit	Analysis Date
Bromide	0.065	4.0	4.1		1	100	1.8	90-110	20	03/22/2021 2008

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: WQ86728-001
Batch: 86728
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Sulfate	ND		1	1.0	0.25	mg/L	03/23/2021 1655

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: WQ86728-002
Batch: 86728
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Sulfate	20	19		1	96	90-110	03/23/2021 1732

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MS

Sample ID: WC19051-002MS
Batch: 86728
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Sulfate	5.9	10	15		1	94	90-110	03/23/2021 1926

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: WC19051-002MD
Batch: 86728
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	%Rec Limit	% RPD Limit	Analysis Date
Sulfate	5.9	10	15		1	93	0.78	90-110	20	03/23/2021 1945

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: WQ86780-001
Batch: 86780
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Acetone	ND		1	20	5.0	ug/L	03/24/2021 1942
Benzene	ND		1	1.0	0.40	ug/L	03/24/2021 1942
Bromodichloromethane	ND		1	1.0	0.40	ug/L	03/24/2021 1942
Bromoform	ND		1	1.0	0.40	ug/L	03/24/2021 1942
Bromomethane (Methyl bromide)	ND		1	2.0	0.40	ug/L	03/24/2021 1942
2-Butanone (MEK)	ND		1	10	2.0	ug/L	03/24/2021 1942
Carbon disulfide	ND		1	1.0	0.40	ug/L	03/24/2021 1942
Carbon tetrachloride	ND		1	1.0	0.40	ug/L	03/24/2021 1942
Chlorobenzene	ND		1	1.0	0.40	ug/L	03/24/2021 1942
Chloroethane	ND		1	2.0	0.40	ug/L	03/24/2021 1942
Chloroform	ND		1	1.0	0.40	ug/L	03/24/2021 1942
Chloromethane (Methyl chloride)	ND		1	1.0	0.50	ug/L	03/24/2021 1942
Cyclohexane	ND		1	1.0	0.40	ug/L	03/24/2021 1942
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	0.40	ug/L	03/24/2021 1942
Dibromochloromethane	ND		1	1.0	0.40	ug/L	03/24/2021 1942
1,2-Dibromoethane (EDB)	ND		1	1.0	0.40	ug/L	03/24/2021 1942
1,2-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/24/2021 1942
1,3-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/24/2021 1942
1,4-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/24/2021 1942
Dichlorodifluoromethane	ND		1	2.0	0.60	ug/L	03/24/2021 1942
1,1-Dichloroethane	ND		1	1.0	0.40	ug/L	03/24/2021 1942
1,2-Dichloroethane	ND		1	1.0	0.40	ug/L	03/24/2021 1942
1,1-Dichloroethene	ND		1	1.0	0.40	ug/L	03/24/2021 1942
cis-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	03/24/2021 1942
trans-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	03/24/2021 1942
1,2-Dichloropropane	ND		1	1.0	0.40	ug/L	03/24/2021 1942
cis-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	03/24/2021 1942
trans-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	03/24/2021 1942
Ethylbenzene	ND		1	1.0	0.40	ug/L	03/24/2021 1942
2-Hexanone	ND		1	10	2.0	ug/L	03/24/2021 1942
Isopropylbenzene	ND		1	1.0	0.40	ug/L	03/24/2021 1942
Methyl acetate	ND		1	1.0	0.40	ug/L	03/24/2021 1942
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	0.40	ug/L	03/24/2021 1942
4-Methyl-2-pentanone	ND		1	10	2.0	ug/L	03/24/2021 1942
Methylcyclohexane	ND		1	5.0	0.40	ug/L	03/24/2021 1942
Methylene chloride	ND		1	1.0	0.40	ug/L	03/24/2021 1942
Styrene	ND		1	1.0	0.41	ug/L	03/24/2021 1942
1,1,2,2-Tetrachloroethane	ND		1	1.0	0.40	ug/L	03/24/2021 1942
Tetrachloroethene	ND		1	1.0	0.40	ug/L	03/24/2021 1942
Toluene	ND		1	1.0	0.40	ug/L	03/24/2021 1942
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	0.42	ug/L	03/24/2021 1942
1,2,4-Trichlorobenzene	ND		1	1.0	0.40	ug/L	03/24/2021 1942
1,1,1-Trichloroethane	ND		1	1.0	0.40	ug/L	03/24/2021 1942
1,1,2-Trichloroethane	ND		1	1.0	0.40	ug/L	03/24/2021 1942

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: WQ86780-001
Batch: 86780
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Trichloroethene	ND		1	1.0	0.40	ug/L	03/24/2021 1942
Trichlorofluoromethane	ND		1	1.0	0.40	ug/L	03/24/2021 1942
Vinyl chloride	ND		1	1.0	0.40	ug/L	03/24/2021 1942
Xylenes (total)	ND		1	1.0	0.40	ug/L	03/24/2021 1942

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		113	70-130
1,2-Dichloroethane-d4		108	70-130
Toluene-d8		115	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: WQ86780-002
Batch: 86780
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Acetone	100	74		1	74	60-140	03/24/2021 1836
Benzene	50	49		1	99	70-130	03/24/2021 1836
Bromodichloromethane	50	52		1	104	70-130	03/24/2021 1836
Bromoform	50	46		1	92	70-130	03/24/2021 1836
Bromomethane (Methyl bromide)	50	48		1	96	70-130	03/24/2021 1836
2-Butanone (MEK)	100	100		1	100	70-130	03/24/2021 1836
Carbon disulfide	50	47		1	94	70-130	03/24/2021 1836
Carbon tetrachloride	50	54		1	108	70-130	03/24/2021 1836
Chlorobenzene	50	50		1	99	70-130	03/24/2021 1836
Chloroethane	50	49		1	98	70-130	03/24/2021 1836
Chloroform	50	49		1	98	70-130	03/24/2021 1836
Chloromethane (Methyl chloride)	50	57		1	114	60-140	03/24/2021 1836
Cyclohexane	50	48		1	97	70-130	03/24/2021 1836
1,2-Dibromo-3-chloropropane (DBCP)	50	56		1	113	70-130	03/24/2021 1836
Dibromochloromethane	50	46		1	93	70-130	03/24/2021 1836
1,2-Dibromoethane (EDB)	50	52		1	104	70-130	03/24/2021 1836
1,2-Dichlorobenzene	50	50		1	101	70-130	03/24/2021 1836
1,3-Dichlorobenzene	50	50		1	101	70-130	03/24/2021 1836
1,4-Dichlorobenzene	50	50		1	99	70-130	03/24/2021 1836
Dichlorodifluoromethane	50	49		1	98	60-140	03/24/2021 1836
1,1-Dichloroethane	50	45		1	90	70-130	03/24/2021 1836
1,2-Dichloroethane	50	48		1	96	70-130	03/24/2021 1836
1,1-Dichloroethene	50	47		1	93	70-130	03/24/2021 1836
cis-1,2-Dichloroethene	50	50		1	100	70-130	03/24/2021 1836
trans-1,2-Dichloroethene	50	45		1	91	70-130	03/24/2021 1836
1,2-Dichloropropane	50	50		1	101	70-130	03/24/2021 1836
cis-1,3-Dichloropropene	50	48		1	96	70-130	03/24/2021 1836
trans-1,3-Dichloropropene	50	47		1	95	70-130	03/24/2021 1836
Ethylbenzene	50	49		1	99	70-130	03/24/2021 1836
2-Hexanone	100	110		1	106	70-130	03/24/2021 1836
Isopropylbenzene	50	51		1	101	70-130	03/24/2021 1836
Methyl acetate	50	41		1	82	70-130	03/24/2021 1836
Methyl tertiary butyl ether (MTBE)	50	51		1	101	70-130	03/24/2021 1836
4-Methyl-2-pentanone	100	100		1	102	70-130	03/24/2021 1836
Methylcyclohexane	50	50		1	100	70-130	03/24/2021 1836
Methylene chloride	50	50		1	100	70-130	03/24/2021 1836
Styrene	50	47		1	93	70-130	03/24/2021 1836
1,1,2,2-Tetrachloroethane	50	49		1	98	70-130	03/24/2021 1836
Tetrachloroethene	50	50		1	99	70-130	03/24/2021 1836
Toluene	50	50		1	101	70-130	03/24/2021 1836
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	48		1	96	70-130	03/24/2021 1836
1,2,4-Trichlorobenzene	50	63		1	127	70-130	03/24/2021 1836
1,1,1-Trichloroethane	50	51		1	102	70-130	03/24/2021 1836
1,1,2-Trichloroethane	50	48		1	96	70-130	03/24/2021 1836

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: WQ86780-002
Batch: 86780
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Trichloroethene	50	50		1	100	70-130	03/24/2021 1836
Trichlorofluoromethane	50	49		1	99	70-130	03/24/2021 1836
Vinyl chloride	50	52		1	104	70-130	03/24/2021 1836
Xylenes (total)	100	100		1	102	70-130	03/24/2021 1836

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		101	70-130
1,2-Dichloroethane-d4		96	70-130
Toluene-d8		101	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: WC19051-002MS
Batch: 86780
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Acetone	18	100	40	N	1	22	60-140	03/25/2021 0430
Benzene	ND	50	54		1	109	70-130	03/25/2021 0430
Bromodichloromethane	ND	50	52		1	105	70-130	03/25/2021 0430
Bromoform	ND	50	44		1	86	70-130	03/25/2021 0430
Bromomethane (Methyl bromide)	ND	50	43		1	85	70-130	03/25/2021 0430
2-Butanone (MEK)	ND	100	62	N	1	62	70-130	03/25/2021 0430
Carbon disulfide	ND	50	58		1	117	70-130	03/25/2021 0430
Carbon tetrachloride	ND	50	61		1	123	70-130	03/25/2021 0430
Chlorobenzene	ND	50	54		1	107	70-130	03/25/2021 0430
Chloroethane	ND	50	47		1	94	70-130	03/25/2021 0430
Chloroform	ND	50	52		1	104	70-130	03/25/2021 0430
Chloromethane (Methyl chloride)	ND	50	59		1	118	60-140	03/25/2021 0430
Cyclohexane	ND	50	57		1	113	70-130	03/25/2021 0430
1,2-Dibromo-3-chloropropane (DBCP)	ND	50	45		1	89	70-130	03/25/2021 0430
Dibromochloromethane	ND	50	46		1	92	70-130	03/25/2021 0430
1,2-Dibromoethane (EDB)	ND	50	51		1	102	70-130	03/25/2021 0430
1,2-Dichlorobenzene	ND	50	50		1	99	70-130	03/25/2021 0430
1,3-Dichlorobenzene	ND	50	52		1	105	70-130	03/25/2021 0430
1,4-Dichlorobenzene	ND	50	51		1	103	70-130	03/25/2021 0430
Dichlorodifluoromethane	ND	50	53		1	106	60-140	03/25/2021 0430
1,1-Dichloroethane	ND	50	52		1	104	70-130	03/25/2021 0430
1,2-Dichloroethane	ND	50	48		1	95	70-130	03/25/2021 0430
1,1-Dichloroethene	ND	50	57		1	114	70-130	03/25/2021 0430
cis-1,2-Dichloroethene	2.3	50	54		1	104	70-130	03/25/2021 0430
trans-1,2-Dichloroethene	ND	50	55		1	110	70-130	03/25/2021 0430
1,2-Dichloropropane	ND	50	51		1	101	70-130	03/25/2021 0430
cis-1,3-Dichloropropene	ND	50	46		1	93	70-130	03/25/2021 0430
trans-1,3-Dichloropropene	ND	50	46		1	92	70-130	03/25/2021 0430
Ethylbenzene	ND	50	55		1	110	70-130	03/25/2021 0430
2-Hexanone	ND	100	96		1	96	70-130	03/25/2021 0430
Isopropylbenzene	ND	50	55		1	110	70-130	03/25/2021 0430
Methyl acetate	ND	50	28	N	1	56	70-130	03/25/2021 0430
Methyl tertiary butyl ether (MTBE)	ND	50	46		1	91	70-130	03/25/2021 0430
4-Methyl-2-pentanone	ND	100	86		1	86	70-130	03/25/2021 0430
Methylcyclohexane	ND	50	61		1	121	70-130	03/25/2021 0430
Methylene chloride	ND	50	50		1	100	70-130	03/25/2021 0430
Styrene	ND	50	50		1	99	70-130	03/25/2021 0430
1,1,2,2-Tetrachloroethane	ND	50	48		1	96	70-130	03/25/2021 0430
Tetrachloroethene	0.62	50	58		1	115	70-130	03/25/2021 0430
Toluene	ND	50	56		1	113	70-130	03/25/2021 0430
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	50	59		1	118	70-130	03/25/2021 0430
1,2,4-Trichlorobenzene	ND	50	56		1	113	70-130	03/25/2021 0430
1,1,1-Trichloroethane	ND	50	58		1	117	70-130	03/25/2021 0430
1,1,2-Trichloroethane	ND	50	48		1	97	70-130	03/25/2021 0430

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: WC19051-002MS
Batch: 86780
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Trichloroethene	ND	50	56		1	113	70-130	03/25/2021 0430
Trichlorofluoromethane	ND	50	60		1	119	70-130	03/25/2021 0430
Vinyl chloride	ND	50	61		1	122	70-130	03/25/2021 0430
Xylenes (total)	ND	100	110		1	109	70-130	03/25/2021 0430

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		103	70-130
1,2-Dichloroethane-d4		92	70-130
Toluene-d8		109	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MSD

Sample ID: WC19051-002MD
Batch: 86780
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	%Rec Limit	% RPD Limit	Analysis Date
Acetone	18	100	38	N	1	20	6.1	60-140	20	03/25/2021 0454
Benzene	ND	50	53		1	106	2.4	70-130	20	03/25/2021 0454
Bromodichloromethane	ND	50	51		1	101	3.5	70-130	20	03/25/2021 0454
Bromoform	ND	50	43		1	83	3.0	70-130	20	03/25/2021 0454
Bromomethane (Methyl bromide)	ND	50	42		1	83	2.5	70-130	20	03/25/2021 0454
2-Butanone (MEK)	ND	100	64	N	1	64	3.1	70-130	20	03/25/2021 0454
Carbon disulfide	ND	50	59		1	118	0.78	70-130	20	03/25/2021 0454
Carbon tetrachloride	ND	50	59		1	118	3.9	70-130	20	03/25/2021 0454
Chlorobenzene	ND	50	52		1	105	2.4	70-130	20	03/25/2021 0454
Chloroethane	ND	50	47		1	93	0.27	70-130	20	03/25/2021 0454
Chloroform	ND	50	50		1	99	4.9	70-130	20	03/25/2021 0454
Chloromethane (Methyl chloride)	ND	50	57		1	115	2.7	60-140	20	03/25/2021 0454
Cyclohexane	ND	50	55		1	111	2.0	70-130	20	03/25/2021 0454
1,2-Dibromo-3-chloropropane (DBCP)	ND	50	42		1	83	7.0	70-130	20	03/25/2021 0454
Dibromochloromethane	ND	50	44		1	88	4.0	70-130	20	03/25/2021 0454
1,2-Dibromoethane (EDB)	ND	50	49		1	99	2.9	70-130	20	03/25/2021 0454
1,2-Dichlorobenzene	ND	50	48		1	95	4.2	70-130	20	03/25/2021 0454
1,3-Dichlorobenzene	ND	50	51		1	102	2.8	70-130	20	03/25/2021 0454
1,4-Dichlorobenzene	ND	50	50		1	100	2.7	70-130	20	03/25/2021 0454
Dichlorodifluoromethane	ND	50	60		1	119	12	60-140	20	03/25/2021 0454
1,1-Dichloroethane	ND	50	50		1	100	4.0	70-130	20	03/25/2021 0454
1,2-Dichloroethane	ND	50	44		1	87	8.9	70-130	20	03/25/2021 0454
1,1-Dichloroethene	ND	50	57		1	113	1.1	70-130	20	03/25/2021 0454
cis-1,2-Dichloroethene	2.3	50	53		1	102	2.3	70-130	20	03/25/2021 0454
trans-1,2-Dichloroethene	ND	50	54		1	109	1.5	70-130	20	03/25/2021 0454
1,2-Dichloropropane	ND	50	49		1	98	3.2	70-130	20	03/25/2021 0454
cis-1,3-Dichloropropene	ND	50	46		1	91	1.6	70-130	20	03/25/2021 0454
trans-1,3-Dichloropropene	ND	50	46		1	92	0.38	70-130	20	03/25/2021 0454
Ethylbenzene	ND	50	54		1	107	1.9	70-130	20	03/25/2021 0454
2-Hexanone	ND	100	96		1	96	0.44	70-130	20	03/25/2021 0454
Isopropylbenzene	ND	50	53		1	106	2.9	70-130	20	03/25/2021 0454
Methyl acetate	ND	50	23	N	1	46	19	70-130	20	03/25/2021 0454
Methyl tertiary butyl ether (MTBE)	ND	50	43		1	87	5.0	70-130	20	03/25/2021 0454
4-Methyl-2-pentanone	ND	100	82		1	82	4.3	70-130	20	03/25/2021 0454
Methylcyclohexane	ND	50	61		1	123	1.0	70-130	20	03/25/2021 0454
Methylene chloride	ND	50	48		1	96	3.5	70-130	20	03/25/2021 0454
Styrene	ND	50	48		1	97	2.4	70-130	20	03/25/2021 0454
1,1,2,2-Tetrachloroethane	ND	50	46		1	91	4.7	70-130	20	03/25/2021 0454
Tetrachloroethene	0.62	50	57		1	114	1.4	70-130	20	03/25/2021 0454
Toluene	ND	50	55		1	110	2.6	70-130	20	03/25/2021 0454
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	50	59		1	118	0.30	70-130	20	03/25/2021 0454
1,2,4-Trichlorobenzene	ND	50	53		1	106	5.9	70-130	20	03/25/2021 0454
1,1,1-Trichloroethane	ND	50	57		1	114	2.7	70-130	20	03/25/2021 0454
1,1,2-Trichloroethane	ND	50	47		1	94	2.7	70-130	20	03/25/2021 0454

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MSD

Sample ID: WC19051-002MD
Batch: 86780
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	%Rec Limit	% RPD Limit	Analysis Date
Trichloroethene	ND	50	57		1	113	0.40	70-130	20	03/25/2021 0454
Trichlorofluoromethane	ND	50	60		1	120	0.69	70-130	20	03/25/2021 0454
Vinyl chloride	ND	50	59		1	117	4.3	70-130	20	03/25/2021 0454
Xylenes (total)	ND	100	110		1	107	1.9	70-130	20	03/25/2021 0454

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		103	70-130
1,2-Dichloroethane-d4		85	70-130
Toluene-d8		108	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: WQ86925-001
Batch: 86925
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
cis-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	03/25/2021 2229
Tetrachloroethene	ND		1	1.0	0.40	ug/L	03/25/2021 2229

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		106	70-130
1,2-Dichloroethane-d4		89	70-130
Toluene-d8		107	70-130

LOQ = Limit of Quantitation
DL = Detection Limit

ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria

N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: WQ86925-002
Batch: 86925
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
cis-1,2-Dichloroethene	50	47		1	95	70-130	03/25/2021 2140
Tetrachloroethene	50	44		1	88	70-130	03/25/2021 2140

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		96	70-130
1,2-Dichloroethane-d4		84	70-130
Toluene-d8		96	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Pace Analytical Services, LLC *(formerly Shealy Environmental Services, Inc.)*
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Chain of Custody

and

Miscellaneous Documents

Pace Analytical®

PACE ANALYTICAL SERVICES, LLC
106 Vantage Point Drive • West Columbia, SC 29172
Telephone No. 803-791-9700 Fax No. 803-791-9111
www.pacelabs.com

Number L17073

Client	Report to Contact	Telephone No. / E-mail	Quote No.
TRC	Lisa Clark		
Address 50 International Dr Ste 150	**Sampler's Signature** X	**Analysis (Attach list if more space is needed)**	Page 1 of 1
City Greenville **State** SC **Zip Code** 29615	**Printed Name** Aharon Missuna		
Project Name WPH Clemson			WC19051 LJD
Project No. 300688.0.0.11	**P.O. No.**		Remarks / Cooler I.D.

Sample ID / Description (Containers for each sample may be combined on one line.)	Collection Date(s)	Collection Time (Military)	Sample Type (G=Grab C=Composite)	Matrix: Air/Water, Solid, Non-Aqueous	No. of Containers by Preservative Type: Unpres., Methanol, HNO3, HCl, NaOH, Soda Lime, Field Filtered	VOCs	Sulfate & Bromide	Dissolved Gases
TBLK-21103	-	-	G	X	2	X		
RMW-23/RMW23/MS/MSD	3-18	1110	G	X	2 6 6	X	X	X
RMW-23A	3-18	1115	G	X	1 3 3	X	X	X
RMW-23B	3-18	1430	G	X	1 3 3	X	X	X
RMW-23C	3-18	1435	G	X	1 3 3	X	X	X
RMW-22A	3-18	1550	G	X	1 3 3	X	X	X
RMW-22	3-18	1610	G	X	1 3 3	X	X	X

Turn Around Time Required (Prior lab approval required for expedited TAT.) — ☐ Standard ☐ Rush (Specify)

Sample Disposal — ☐ Return to Client ☐ Disposal by Lab

Possible Hazard Identification — ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished by	3/19/21	1810	1. Received by TRC SS	3-18-21	1810
2. Relinquished by TRC SS	3/19/21	0825	2. Received by	3/19/21	0825
3. Relinquished by	3/19/21	1535	3. Received by	Date	Time
4. Relinquished by	Date	Time	4. Laboratory received by	3/19/21	1535

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY — Received on Ice (Circle) Yes No Ice Pack — Receipt Temp 5-5 °C — Temp Blank ☑ Y ☐ N

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Client Copy

Document Number: MF003N2-01

PaceAnalytical

Samples Receipt Checklist (SRC) (ME0018C-15)
Issuing Authority: Pace ENV - WCOL

Revised:9/29/2020
Page 1 of 1

Sample Receipt Checklist (SRC)

Client: TRC Cooler Inspected by/date: MEH / 03/19/2021 Lot #: WC19051

Means of receipt: ☑ Pace ☐ Client ☐ UPS ☐ FedEx ☐ Other:

☐ Yes	☑ No		1. Were custody seals present on the cooler?
☐ Yes	☐ No	☑ NA	2. If custody seals were present, were they intact and unbroken?

pH Strip ID: NA Chlorine Strip ID: NA Tested by: NA

Original temperature upon receipt / Derived (Corrected) temperature upon receipt: %Solid Snap-Cup ID: NA

5.5 / 5.5 °C NA / NA °C NA / NA °C NA / NA °C

Method: ☑ Temperature Blank ☐ Against Bottles IR Gun ID: 6 IR Gun Correction Factor: 0 °C

Method of coolant: ☑ Wet Ice ☐ Ice Packs ☐ Dry Ice ☐ None

☐ Yes	☐ No	☑ NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).
☐ Yes	☐ No	☑ NA	4. Is the commercial courier's packing slip attached to this form?
☑ Yes	☐ No		5. Were proper custody procedures (relinquished/received) followed?
☑ Yes	☐ No		6. Were sample IDs listed on the COC?
☑ Yes	☐ No		7. Were sample IDs listed on all sample containers?
☑ Yes	☐ No		8. Was collection date & time listed on the COC?
☑ Yes	☐ No		9. Was collection date & time listed on all sample containers?
☑ Yes	☐ No		10. Did all container label information (ID, date, time) agree with the COC?
☑ Yes	☐ No		11. Were tests to be performed listed on the COC?
☑ Yes	☐ No		12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)?
☑ Yes	☐ No		13. Was adequate sample volume available?
☑ Yes	☐ No		14. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
☐ Yes	☑ No		15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
☐ Yes	☑ No	☐ NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (¼"or 6mm in diameter) in any of the VOA vials?
☐ Yes	☐ No	☑ NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?
☐ Yes	☐ No	☑ NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
☐ Yes	☐ No	☑ NA	19. Were all applicable NH_3/TKN/cyanide/phenol/625.1/608.3 (< 0.5mg/L) samples free of residual chlorine?
☐ Yes	☐ No	☑ NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc…) correctly transcribed from the COC into the comment section in LIMS?
☐ Yes	☑ No		21. Was the quote number listed on the container label? If yes, Quote #

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) NA were received incorrectly preserved and were adjusted accordingly in sample receiving with NA mL of circle one: H2SO4, HNO3, HCl, NaOH using SR # NA.
Time of preservation NA. If more than one preservative is needed, please note in the comments below.

Sample(s) NA were received with bubbles >6 mm in diameter.

Samples(s) NA were received with TRC > 0.5 mg/L (If #19 is *no*) and were adjusted accordingly in sample receiving with sodium thiosulfate ($Na_2S_2O_3$) with Shealy ID: NA.

SR barcode labels applied by: MEH Date: 03/19/2021

Comments:

LELAP CERTIFICATE NUMBER: 01955
DOD-ELAP ACCREDITATION NUMBER: 74960

ANALYTICAL RESULTS

PERFORMED BY

Pace Analytical Gulf Coast
7979 Innovation Park Dr.
Baton Rouge, LA 70820
(225) 769-4900

Report Date 04/01/2021

Report # 221032458

Project WC19051 WPH Clemson

Deliver To	***Additional Recipients***
Lucas Odom Pace Analytical Services South Carolina 106 Vantage Point Drive West Columbia, SC 29172 803 791 9700	NONE

Laboratory Data Quality Review Notes

Project Name: WPH-Clemson, SC

Project Number: 300688.0000.0000 Phase 11

Lab Report: **WC19051** Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.), West Columbia, SC; subcontracted report: **221032458** Pace Analytical Gulf Coast, Baton Rouge, LA

Samples and Analyses: Six groundwater samples, collected 18-Mar-2021, and analyzed for volatile organic compounds (VOCs), bromide, and sulfate; one trip blank (TB), analyzed for VOCs only. Analysis of the groundwater samples for dissolved hydrocarbon gases (ethane, ethene, methane) was subcontracted and was reported separately (as noted above).

Chain of Custody, Sample Temperature, Sample Preservation: Chain of custody (COC) forms were signed; cooler temperature was ≤6 ^{o}C upon arrival at each laboratory; samples were preserved properly. The following sample receipt anomalies were noted:

- The subcontract laboratory (relevant to the dissolved hydrocarbon gases analyses) noted low sample volume for the RMW-23-MS and -MSD samples. MS/MSD analyses were performed using the noted sample; therefore, the volume was sufficient for the analyses.
- The subcontract laboratory noted some type of discrepancy between the sample labels / containers and the COC, but no further information was provided. The listed sample IDs, etc., agreed with those reported on the COC, so no action was required.

Holding Time: Sample analyses were performed within acceptable holding times.

Surrogates: VOC surrogate recoveries were within laboratory quality control (QC) limits.

Method Blank: Laboratory method blanks were appropriately associated with all analyses. The following target analytes were detected in the laboratory method blanks:

- Methane was detected (2.9 J µg/L) in the laboratory method blank associated with the analysis of dissolved hydrocarbon gases (associated with all samples). Qualification was not required on this basis since the positive results for methane in all samples were significantly higher than (>5×) the method blank concentration.

Trip Blank: No target analytes were detected in the TB (TBLK-21103); analyzed for VOCs only.

Field Blank: A field blank was not collected with these samples.

Equipment Rinse Blank: An equipment rinse blank was not collected with these samples.

LCS/LCSD: LCS analyses were performed appropriately for all analyses; the analyses for dissolved hydrocarbon gases also included analysis of LCSD samples. The LCS and LCSD recoveries and LCS/LCSD relative percent differences (RPDs) were within the laboratory QC limits.

MS/MSD: MS/MSD analyses were performed for bromide, sulfate, VOCs, and dissolved hydrocarbon gases using sample RMW-23 as the associated parent sample. The MS and MSD recoveries and MS/MSD RPDs were within QC criteria, with the exception of the following:

- The MS and MSD recoveries for sulfate in sample RMW-23 (analysis batch 86597) were below the QC limits. The laboratory re-ran the MS/MSD analysis (batch 86728), using the same parent sample, and the recoveries in this analysis were both within the QC limits. Since the recoveries met criteria with the second analysis, profession judgement was used, and no validation action was taken on this basis.
- The MS and MSD recoveries for 3 VOCs were below the QC limits in sample RMW-23. **Therefore, the positive result for acetone in sample RMW-23 was qualified "j-" (estimated, with a potential low bias), and the non-detect (ND) results for 2-butanone and methyl acetate in this sample were qualified "uj" (estimated limit of quantitation [LOQ]).**
- The MS recovery for methane in sample RMW-23 was above the QC limits. The parent sample concentration of methane was >4× the MS spike amount; therefore, the MS recovery is considered unreliable, and the results are not usable for sample qualification. No validation action was taken on this basis.

Duplicates: No laboratory duplicates were included with these analyses. A field duplicate was not collected with this sample set.

Dilutions: The following sample analyses were performed with dilution, as indicated:

RMW-23B	VOCs (20×) (cis-1,2-dichloroethene and tetrachloroethene only)
RMW-23C	VOCs (20×) (cis-1,2-dichloroethene and tetrachloroethene only)

The laboratory reports did not indicate the dilution reason(s), but the dilutions appear to have been performed in order to bring the concentrations of target analytes into the appropriate instrument calibration range. In the case of both dilutions listed above, the ND results in these samples were not associated with the dilution runs and were, therefore, not associated with elevated detection limit and LOQ values.

Validation qualifiers were applied in this review, as summarized in the following table.

Data Reviewer: Amy Bass; TRC Environmental Corporation; 26-Apr-2021

Summary of qualifiers assigned by the data quality reviewer.

WC19051 **Sample ID**	**Analyte**	**Lab Result [LOQ]**	**Qualifier Assigned**	**Qualified Result**	**Basis**
RMW-23	acetone	18 [20]	j-	18 J-	low MS recovery
	2-butanone	ND [10]	uj	< 10 UJ	
	methyl acetate	ND [1.0]	uj	< 1.0 UJ	

LOQ: limit of quantitation MS: matrix spike and/or duplicate ND: non-detect

Validation qualifiers applied: “j-“ (estimated, with a potential low bias); “uj” (estimated LOQ)

Laboratory Endorsement

Sample analysis was performed in accordance with approved methodologies provided by the Environmental Protection Agency or other recognized agencies. The samples and their corresponding extracts will be maintained for a period of 30 days unless otherwise arranged. Following this retention period the samples will be disposed in accordance with Pace Gulf Coast's Standard Operating Procedures.

Common Abbreviations that may be Utilized in this Report

ND	Indicates the result was Not Detected at the specified reporting limit
NO	Indicates the sample did not ignite when preliminary test performed for EPA Method 1030
DO	Indicates the result was Diluted Out
MI	Indicates the result was subject to Matrix Interference
TNTC	Indicates the result was Too Numerous To Count
SUBC	Indicates the analysis was Sub-Contracted
FLD	Indicates the analysis was performed in the Field
DL	Detection Limit
LOD	Limit of Detection
LOQ	Limit of Quantitation
RE	Re-analysis
CF	HPLC or GC Confirmation
00:01	Reported as a time equivalent to 12:00 AM

Reporting Flags that may be Utilized in this Report

J or I	Indicates the result is between the MDL and LOQ
J	DOD flag on analyte in the parent sample for MS/MSD outside acceptance criteria
U	Indicates the compound was analyzed for but not detected
B or V	Indicates the analyte was detected in the associated Method Blank
Q	Indicates a non-compliant QC Result (See Q Flag Application Report)
*****	Indicates a non-compliant or not applicable QC recovery or RPD – see narrative
E	Organics - The result is estimated because it exceeded the instrument calibration range
E	Metals - % diference for the serial dilution is > 10%
L	Reporting Limits adjusted to meet risk-based limit.
P	RPD between primary and confirmation result is greater than 40
DL	Diluted analysis – when appended to Client Sample ID

Sample receipt at Pace Gulf Coast is documented through the attached chain of custody. In accordance with NELAC, this report shall be reproduced only in full and with the written permission of Pace Gulf Coast. The results contained within this report relate only to the samples reported. The documented results are presented within this report.

This report pertains only to the samples listed in the Report Sample Summary and should be retained as a permanent record thereof. The results contained within this report are intended for the use of the client. Any unauthorized use of the information contained in this report is prohibited.

I certify that this data package is in compliance with The NELAC Institute (TNI) Standard 2009 and terms and conditions of the contract and Statement of Work both technically and for completeness, for other than the conditions in the case narrative. Release of the data contained in this hardcopy data package and in the computer readable data submitted has been authorized by the Quality Assurance Manager or his/her designee, as verified by the following signature.

Estimated uncertainty of measurement is available upon request. This report is in compliance with the DOD QSM as specified in the contract if applicable.

Authorized Signature
Pace Gulf Coast Report 221032458

Certifications

Certification	Certification Number
DOD ELAP	74960
Alabama	01955
Arkansas	88-0655
Colorado	01955
Delaware	01955
Florida	E87854
Georgia	01955
Hawaii	01955
Idaho	01955
Illinois	200048
Indiana	01955
Kansas	E-10354
Kentucky	95
Louisiana	01955
Maryland	01955
Massachusetts	01955
Michigan	01955
Mississippi	01955
Missouri	01955
Montana	N/A
Nebraska	01955
New Mexico	01955
North Carolina	618
North Dakota	R-195
Oklahoma	9403
South Carolina	73006001
South Dakota	01955
Tennessee	01955
Texas	T104704178
Vermont	01955
Virginia	460215
Washington	C929
USDA Soil Permit	P330-16-00234

Case Narrative

Client: Pace Analytical Services South Carolina **Report:** 221032458

Pace Analytical Gulf Coast received and analyzed the sample(s) listed
on the Report Sample Summary page of this report. Receipt of the sample(s) is documented
by the attached chain of custody. This applies only to the sample(s) listed in this report.
No sample integrity or quality control exceptions were identified unless noted below.

VOLATILES GAS CHROMATOGRAPHY

In the AM20GAX analysis for analytical batch 707373, the MS/MSD recoveries are not applicable to Methane due to the high concentration of this analyte in the parent sample. The LCS/LCSD recoveries are acceptable.

Sample Summary

LAB ID	Client ID	Matrix	Collect Date	Receive Date
22103245801	RMW-23	Water	03/18/2021 11:10	03/24/2021 09:50
22103245802	RMW-23A	Water	03/18/2021 11:15	03/24/2021 09:50
22103245803	RMW-23B	Water	03/18/2021 14:30	03/24/2021 09:50
22103245804	RMW-23C	Water	03/18/2021 14:35	03/24/2021 09:50
22103245805	RMW-22A	Water	03/18/2021 15:50	03/24/2021 09:50
22103245806	RMW-22	Water	03/18/2021 16:10	03/24/2021 09:50
22103245807	RMW-23-MS	Water	03/18/2021 11:10	03/24/2021 09:50
22103245808	RMW-23-MSD	Water	03/18/2021 11:10	03/24/2021 09:50

Detect Summary

LAB ID	Client ID	Method	Parameter	Result	Units
22103245801	RMW-23	AM20GAX	Ethane	0.54J	ug/L
22103245801	RMW-23	AM20GAX	Ethene	0.18J	ug/L
22103245801	RMW-23	AM20GAX	Methane	20000	ug/L
22103245802	RMW-23A	AM20GAX	Ethane	210	ug/L
22103245802	RMW-23A	AM20GAX	Ethene	23	ug/L
22103245802	RMW-23A	AM20GAX	Methane	15000	ug/L
22103245803	RMW-23B	AM20GAX	Ethane	0.25J	ug/L
22103245803	RMW-23B	AM20GAX	Ethene	1.4	ug/L
22103245803	RMW-23B	AM20GAX	Methane	3400	ug/L
22103245804	RMW-23C	AM20GAX	Ethane	2.4	ug/L
22103245804	RMW-23C	AM20GAX	Ethene	3.6	ug/L
22103245804	RMW-23C	AM20GAX	Methane	16000	ug/L
22103245805	RMW-22A	AM20GAX	Ethane	2.1	ug/L
22103245805	RMW-22A	AM20GAX	Ethene	1.8	ug/L
22103245805	RMW-22A	AM20GAX	Methane	11000	ug/L
22103245806	RMW-22	AM20GAX	Ethane	3.2	ug/L
22103245806	RMW-22	AM20GAX	Ethene	0.38J	ug/L
22103245806	RMW-22	AM20GAX	Methane	5600	ug/L

Sample Results

RMW-23

Collect Date	03/18/2021 11:10	LAB ID	22103245801
Receive Date	03/24/2021 09:50	Matrix	Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	03/31/2021 21:09	JCK2	707373

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	Ethane	0.54J	0.075	1.0	ug/L
74-85-1	Ethene	0.18J	0.12	1.0	ug/L
74-82-8	Methane	20000	2.5	5.0	ug/L

RMW-23A

Collect Date	03/18/2021 11:15	LAB ID	22103245802
Receive Date	03/24/2021 09:50	Matrix	Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	03/31/2021 21:21	JCK2	707373

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	Ethane	210	0.075	1.0	ug/L
74-85-1	Ethene	23	0.12	1.0	ug/L
74-82-8	Methane	15000	2.5	5.0	ug/L

RMW-23B

Collect Date	03/18/2021 14:30	LAB ID	22103245803
Receive Date	03/24/2021 09:50	Matrix	Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	03/31/2021 21:33	JCK2	707373

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	Ethane	0.25J	0.075	1.0	ug/L
74-85-1	Ethene	1.4	0.12	1.0	ug/L
74-82-8	Methane	3400	2.5	5.0	ug/L

RMW-23C

Collect Date	03/18/2021 14:35	LAB ID	22103245804
Receive Date	03/24/2021 09:50	Matrix	Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	03/31/2021 21:45	JCK2	707373

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	Ethane	2.4	0.075	1.0	ug/L
74-85-1	Ethene	3.6	0.12	1.0	ug/L
74-82-8	Methane	16000	2.5	5.0	ug/L

Sample Results

RMW-22A

Collect Date	03/18/2021 15:50	LAB ID	22103245805
Receive Date	03/24/2021 09:50	Matrix	Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	03/31/2021 21:57	JCK2	707373

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	Ethane	2.1	0.075	1.0	ug/L
74-85-1	Ethene	1.8	0.12	1.0	ug/L
74-82-8	Methane	11000	2.5	5.0	ug/L

RMW-22

Collect Date	03/18/2021 16:10	LAB ID	22103245806
Receive Date	03/24/2021 09:50	Matrix	Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	03/31/2021 22:09	JCK2	707373

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	Ethane	3.2	0.075	1.0	ug/L
74-85-1	Ethene	0.38J	0.12	1.0	ug/L
74-82-8	Methane	5600	2.5	5.0	ug/L

RMW-23-MS

Collect Date	03/18/2021 11:10	LAB ID	22103245807
Receive Date	03/24/2021 09:50	Matrix	Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	03/31/2021 22:21	JCK2	707373

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	Ethane	79	0.075	1.0	ug/L
74-85-1	Ethene	120	0.12	1.0	ug/L
74-82-8	Methane	21000	2.5	5.0	ug/L

RMW-23-MSD

Collect Date	03/18/2021 11:10	LAB ID	22103245808
Receive Date	03/24/2021 09:50	Matrix	Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	03/31/2021 22:33	JCK2	707373

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	Ethane	82	0.075	1.0	ug/L
74-85-1	Ethene	120	0.12	1.0	ug/L
74-82-8	Methane	20000	2.5	5.0	ug/L

General Chromatography QC Summary

Analytical Batch 707373	Client ID	MB707373		LCS707373				LCSD707373				
	LAB ID	2163761		2163762				2163763				
	Sample Type	MB		LCS				LCSD				
	Prep Date											
	Analysis Date	03/31/21 20:57		03/31/21 20:09				03/31/21 20:21				
	Matrix	Water		Water				Water				
AM20GAX		Units Result	ug/L DL	Spike Added	Result	%R	Control Limits%R	Spike Added	Result	%R	RPD	RPD Limit
Ethane	74-84-0	0.075U	0.075	100	110	107	70 - 130	100	110	111	4	20
Ethene	74-85-1	0.12U	0.12	140	150	108	70 - 130	140	160	112	4	20
Methane	74-82-8	2.9J	2.5	490	500	101	70 - 130	490	520	106	4	20

Analytical Batch 707373	Client ID	RMW-23		RMW-23-MS				RMW-23-MSD				
	LAB ID	22103245801		22103245807				22103245808				
	Sample Type	SAMPLE		MS				MSD				
	Prep Date	NA										
	Analysis Date	03/31/2021 21:09		03/31/21 22:21				03/31/21 22:33				
	Matrix	Water		Water				Water				
AM20GAX		Units Result	ug/L DL	Spike Added	Result	%R	Control Limits%R	Spike Added	Result	%R	RPD	RPD Limit
Ethane	74-84-0	0.54	0.075	100	79	78	70 - 130	100	82	80	3	20
Ethene	74-85-1	0.18	0.12	140	120	83	70 - 130	140	120	85	3	20
Methane	74-82-8	20000	2.5	490	21000	**163***	70 - 130	490	20000	122	1	20

Chain of Custody

Pace Analytical

Workorder: WC19051 Workorder Name: WPH Clemson Owner Received Date: 3/19/2021 Results Requested By: 3/31/2021

Report To:	Subcontract To:
Lucas Odom	Project # 300688.0000.0000.00011
Pace Analytical	
106 Vantage Point Drive	Pace Gulf Coast
Columbia SC, 29223	7979 Innovation Park Drive,
803-227-2704	Baton Rouge, LA 70820
lucas.odom@pacelabs.com	

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers: TSP	Requested Analysis: Dissolved Gasses (MEE)												LAB USE ONLY
																		1	
1	RMW-23	G	03/18/21 @ 1110	WC19051-002	A													2	X
2	RMW-23A	G	03/18/21 @ 1115	WC19051-003	A	x	X											3	2
3	RMW-23B	G	03/18/21 @ 1430	WC19051-004	A	x	x											4	3
4	RMW-23C	G	03/18/21 @ 1435	WC19051-005	A	x	x											5	4
5	RMW-22A	G	03/18/21 @ 1550	WC19051-006	A	x	x											6	5
6	RMW-22	G	03/18/21 @ 1610	WC19051-007	A	x	x												6
7																			
8																			
9																			
10																			

Transfers	Released By	Date/Time	Received By	Date/Time	Comments
1		3/23/21 1800			
2	FedEx 3.24.21	950	Lauren Heller 3.24.21 950		
3					

Cooler Temperature on Receipt _____ °C	Custody Seal Y or N	Received on Ice Y or N	Sample Intact Y or N

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC

This chain of custody is considered complete as is since this information is available in the owner laboratory

Client ID: Shealy Envir - Pace Analytical Services South Carolina
SDG: 221032458
PM: RWe

Friday, June 17, 2016 11:01:34 AM FMT-ALL-C-002rev.00

1 Lel3 3465 2485 3.4E26 34CPM

SAMPLE RECEIVING CHECKLIST

SAMPLE DELIVERY GROUP 221032458	
Client **PM** RWe Shealy Envir - Pace Analytical Services South Carolina	**Transport Method** FEDEX
Profile Number 290459	**Received By** McCune, Dodie N.
Line Item(s) 1 - MEE	**Receive Date(s)** 03/24/21

CHECKLIST	YES	NO
Samples received with proper thermal preservation?	☑	☐
Radioactivity is <1600 cpm? If no, record cpm value in notes section.	☑	☐
COC relinquished and complete (including sampleIDs, collect times, and sampler)?	☑	☐
All containers received in good condition and within hold time?	☑	☐
All sample labels and containers received match the chain of custody?	☐	☑
Preservative added to any containers?	☐	☑
If received, was headspace for VOC water containers < 6mm?	☑	☐
Samples collected in containers provided by Pace Gulf Coast?	☑	☐

COOLERS

Airbill	Thermometer ID: E26	Temp °C
166334652485		3.4

DISCREPANCIES

Low sample volume:
22103245807 - RMW-23-MS
22103245808 - RMW-23-MSD

LAB PRESERVATIONS

None

NOTES

MS/MSD RECEIVED NOT LISTED ON COC

2-VIALS FOR MS
1-VIAL FOR MSD

Report of Analysis

TRC Companies, Inc.
50 International Dr.
Suite 150
Greenville, SC 29615
Attention: Lisa Clark

Project Name: WPH Clemson

Project Number: 300688.0000.0000.00011

Lot Number:**WC24065**

Date Completed:04/01/2021

04/05/2021 1:56 PM
Approved and released by:
Project Manager II: **Lucas Odom**

The electronic signature above is the equivalent of a handwritten signature.

Pace Analytical Services, LLC (*formerly Shealy Environmental Services, Inc.*)
106 Vantage Point Drive West Columbia, SC 29172
Tel: 803-791-9700 Fax: 803-791-9111 www.pacelabs.com

Laboratory Data Quality Review Notes

Project Name: WPH-Clemson, SC

Project Number: 300688.0000.0000 Phase 11

Lab Report: **WC24065** Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.), West Columbia, SC; subcontracted report: **221033041** Pace Analytical Gulf Coast, Baton Rouge, LA

Samples and Analyses: Eighteen groundwater samples (plus one field duplicate), collected 19-Mar, 22-Mar, and 23-Mar-2021, and analyzed for volatile organic compounds (VOCs), bromide, and sulfate; one trip blank (TB), analyzed for VOCs only. Analysis of the groundwater samples for dissolved hydrocarbon gases (ethane, ethene, methane) was subcontracted and was reported separately (as noted above).

Chain of Custody, Sample Temperature, Sample Preservation: Chain of custody (COC) forms were signed; cooler temperature was ≤6 ^{o}C upon arrival at each laboratory; samples were preserved properly. No sample receipt anomalies were noted.

Holding Time: Sample analyses were performed within acceptable holding times.

Surrogates: VOC surrogate recoveries were within laboratory quality control (QC) limits.

Method Blank: Laboratory method blanks were appropriately associated with all analyses. The following target analytes were detected in the laboratory method blanks:

- Sulfate (0.25 J mg/L) was detected in the laboratory method blank associated with all groundwater samples. **The positive results for sulfate in samples RMW-05A and RMW-05B were estimated concentrations below the limit of quantitation (LOQ) (J-qualified by the laboratory) and were therefore potential false positives; these results were qualified "u" (revised to ND) at the laboratory LOQ, based on the associated laboratory method blank contamination. The positive results for sulfate in samples MG-05 and RMW-20C were > the LOQ but <5× the associated blank concentration; therefore, these results were qualified "j+" (estimated, with a potential high bias)**. Qualification was not required for the sulfate in the remaining samples since these results were ND or were significantly higher than (>5×) the method blank concentration.
- Methane (2.9 J µg/L) was detected in one of the laboratory method blanks associated with the analysis of dissolved hydrocarbon gases. **The positive results for methane in samples RMW-05A, RMW-19, and RMW-19A were > the LOQ but <5× the associated blank concentration; therefore, these results were considered to be potential false positives and were qualified "u" (revised to ND), with the LOQ for each revised to the reported sample concentration.** The positive result for methane in sample DU-21103 was also in this concentration range (>LOQ and <5× the blank); however, this sample is a field duplicate of sample RMW-27B, which reported a higher methane concentration (17 µg/L > 5× blank). Professional judgment was exercised in this

case, and no qualifier was applied to the DU-21103 methane result on the basis of method blank contamination. Qualification was not required for the positive results for methane in the remaining associated samples (RMW-05B, RMW-21, and RMW-21A) since these results were significantly higher than (>5×) the method blank concentration.

Trip Blank: No target analytes were detected in the TB (TBLK-21103); analyzed for VOCs only.

Field Blank: A field blank was not collected with these samples.

Equipment Rinse Blank: An equipment rinse blank was not collected with these samples.

LCS/LCSD: LCS analyses were performed appropriately for all analyses; the analyses for dissolved hydrocarbon gases also included analysis of LCSD samples. The LCS and LCSD recoveries and LCS/LCSD relative percent differences (RPDs) were within the laboratory QC limits.

MS/MSD: MS/MSD analyses were performed for the following analyses using the indicated sample as the associated parent sample:

MG-05A	VOCs
RMW-20A	bromide, sulfate, VOCs, and dissolved hydrocarbon gases
RMW-21A	bromide, sulfate, VOCs, and dissolved hydrocarbon gases
RMW-16	VOCs (tetrachloroethene only)

The MS and MSD recoveries and MS/MSD RPDs were within QC criteria, with the exception of the following:

- Two VOC MS/MSD analyses were performed using sample RMW-20A. In the first set of MS/MSD analyses, the MS and MSD recoveries for cis-1,2-dichloroethene were outside the QC limits; however, the parent (RMW-20A) concentration for this analyte was over 4× the MS/MSD spike concentration. In this situation, MS/MSD recoveries are considered unreliable and are not usable for sample qualification. The MSD recovery for acetone in this analysis was below the QC limits. It is noted that the stated parent sample concentrations for acetone and cis-1,2-dichloroethene in this MS/MSD analysis did not match the concentrations reported in the sample analysis summary because these 2 analytes were reported from a dilution run (Run 2) for this sample.

  A second set of MS/MSD analyses was performed using sample RMW-20A, but with this analysis, only acetone and cis-1,2-dichloroethene were reported, since these analytes were reported from Run 2 for this sample. In this MS/MSD analysis, the reported parent concentrations agreed with the sample analysis summary, and the spike concentration applied for cis-1,2-dichloroethene was comparable to the parent concentration; recoveries for both analytes were within QC limits. Based on these results, no validation action was taken for acetone or cis-1,2-dichloroethene in sample RMW-20A.

  The MS and MSD recoveries in sample RMW-20A for methyl acetate (only reported in the first MS/MSD analysis) were above the QC limits. **Therefore, the positive result for methyl acetate in sample RMW-20A was qualified "j+" (estimated, with a potential high bias).**

- In the VOCs MS/MSD analysis using sample RMW-21A, the MS recoveries for acetone, 2-butanone, and tetrachloroethene were below the QC limits. The MSD recoveries for all analytes were within the QC limits, but the MS/MSD RPDs for acetone, 2-butanone, methyl acetate, and 1,2,4-trichlorobenzene were above the QC limit. **The ND result for acetone in sample RMW-21A was qualified "uj" (estimated LOQ) based on the low MS recovery. The positive result for tetrachloroethene in this sample was qualified "j-" (estimated, with a potential low bias) based on the low MS recovery, the positive result for 2-butanone was qualified "j" (estimated) based on the low MS recovery and the elevated MS/MSD RPD, and the positive result for methyl acetate was qualified "j" (estimated) based on the elevated MS/MSD RPD.** Qualification was not required for 1,2,4-trichlorobenzene on the basis of the elevated MS/MSD RPD since this analyte was ND in sample RMW-21A.

- The MS and MSD recoveries for sulfate in sample RMW-20A were below the QC limits. **Therefore, the ND result for sulfate in sample RMW-20A was qualified "uj" (estimated LOQ).**

- The MSD recovery for sulfate in sample RMW-21A was below the QC limits; however, the parent (RMW-21A) concentration for this analyte was over 4× the MS/MSD spike concentration. In this situation, MS/MSD recoveries are considered unreliable and are not usable for sample qualification. No validation action was taken on this basis.

- The MS and MSD recoveries for methane in sample RMW-20A were outside the QC limits; however, the parent (RMW-20A) concentration for this analyte was over 4× the MS/MSD spike concentration. In this situation, MS/MSD recoveries are considered unreliable and are not usable for sample qualification. No validation action was taken on this basis.

- The MSD recoveries for ethane and methane in sample RMW-21A were below the QC limits. **The positive results for ethane and methane in sample RMW-21A were qualified "j-" (estimated, with a potential low bias) based on the low MSD recoveries.**

Duplicates: No laboratory duplicates were included with these analyses. A field duplicate (DU-21103) was collected for sample RMW-27B. Duplicate RPDs were calculated for analytes detected above 5× the LOQ in both samples; the absolute difference (AbsD) was used to evaluate analytes detected below 5× the LOQ in one or both samples. RPD values were ≤ 30%, and AbsD values were ≤LOQ, with the exception of the following:

- The AbsD (8.4 µg/L) for the methane results in samples RMW-27B and DU-21103 exceeded the LOQ of 5.0 µg/L. **Therefore, the positive results for methane in samples RMW-27B and DU-21103 were qualified "j" (estimated).**

Dilutions: The following sample analyses were performed with dilution, as indicated:

RMW-19A	VOCs (10×)
RMW-21A	VOCs (20×)
RMW-08A	VOCs (5×)
RMW-20A	VOCs (50×) (acetone and cis-1,2-dichlroethene only)
MG-05A	VOCs (5×)
RMW-27B	VOCs (5×)

RMW-27 VOCs (10×)

DU-21102 VOCs (5×)

The laboratory reports did not indicate the dilution reason(s), but the dilutions appear to have been performed in order to bring the concentrations of target analytes into the appropriate instrument calibration range. With the exception of RMW-20A, the ND results in the noted VOC analyses were associated with correspondingly elevated detection limit (DL) and LOQ values.

Validation qualifiers were applied in this review, as summarized in the following table.

Data Reviewer: Amy Bass; TRC Environmental Corporation; 26-Apr-2021

Summary of qualifiers assigned by the data quality reviewer.

WC24065 **Sample ID**	**Analyte**	**Lab Result [LOQ]**	**Qualifier Assigned**	**Qualified Result**	**Basis**
RMW-05A	sulfate	0.71 J [1.0]	u (@LOQ)	< 1.0	MB (sc ≤ LOQ)
RMW-05B		0.51 J [1.0]	u (@LOQ)	< 1.0	
MG-05	sulfate	2.9 [1.0]	j+	2.9 J+	MB (LOQ< sc <5×MB)
RMW-20C		1.1 [1.0]	j+	1.1 J+	
RMW-05A	methane	8.4 [5.0]	u (@ sc)	< 8.4	MB (LOQ< sc <5×MB)
RMW-19		5.2 [5.0]		< 5.2	
RMW-19A		5.9 [5.0]		< 5.9	
RMW-20A	methyl acetate	10 [1.0]	j+	10 J+	high MS recovery
RMW-21A	acetone	ND [400]	uj	< 400 UJ	low MS recovery
RMW-21A	tetrachloroethene	2000 [20]	j-	2000 J-	low MS recovery
RMW-21A	2-butanone	110 J [200]	j	110 J	low MS recovery, RPD (MS)
RMW-21A	methyl acetate	9.7 J [20]	j	9.7 J	RPD (MS)
RMW-20A	sulfate	ND [1.0]	uj	< 1.0 UJ	low MS recovery
RMW-21A	ethane	1.6 [1.0]	j-	1.6 J-	low MS recovery
	methane	210 [5.0]	j-	210 J-	
RMW-27B	methane	17 [5.0]	j	17 J	FD comparison
DU-21103		8.6 [5.0]	j	8.6 J	

FD: field duplicate LOQ: limit of quantitation MB: method blank contamination MS: matrix spike and/or duplicate ND: non-detect RPD (MS): MS/MSD RPD sc: sample concentration

Validation qualifiers applied: "j" (estimated), "j-" / "j+" (estimated, with a potential low / high bias), "u" (revised to ND), "uj" (estimated LOQ)

Case Narrative
TRC Companies, Inc.
Lot Number: WC24065

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved The NELAC Institute (TNI) standards, the Pace Analytical Services, LLC ("Pace") Laboratory Quality Manual, standard operating procedures (SOPs), and Pace policies. Any exceptions to the TNI standards, the Laboratory Quality Manual, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Pace Project Manager listed on the cover page.

Inorganic Non-Metals

The method blank associated with batch 87161 yielded a "J" value detection for Sulfate. No corrective action is required as this is an estimated value recovered below the LOQ. Associated detections have been qualified with a "B". The associated MS and MSD recovered this compound marginally below method criteria due to suspected matrix interferences. Associated samples have been qualified with a "S".

VOCs by GC/MS

The MS/MSD associated with batch 87247 and 87249 recovered multiple compounds outside of method criteria. Associated samples have been qualified with a "S".

Subcontracted Analysis

The analysis for Dissolved Gasses has been performed by Pace Gulf Coast. This data is located on a seperate report provided by them.

Sample Summary
TRC Companies, Inc.
Lot Number: WC24065

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	TBLK-21104	Aqueous	03/19/2021	03/24/2021
002	RMW-05B	Aqueous	03/19/2021 1145	03/24/2021
003	RMW-05A	Aqueous	03/19/2021 1155	03/24/2021
004	RMW-19A	Aqueous	03/19/2021 1435	03/24/2021
005	RMW-19	Aqueous	03/19/2021 1440	03/24/2021
006	RMW-21	Aqueous	03/19/2021 1535	03/24/2021
007	RMW-21A	Aqueous	03/19/2021 1540	03/24/2021
008	RMW-08	Aqueous	03/22/2021 1130	03/24/2021
009	RMW-08A	Aqueous	03/22/2021 1135	03/24/2021
010	RMW-20	Aqueous	03/22/2021 1450	03/24/2021
011	RMW-20A	Aqueous	03/22/2021 1455	03/24/2021
012	MG-05A	Aqueous	03/22/2021 1635	03/24/2021
013	MG-05	Aqueous	03/22/2021 1640	03/24/2021
014	RMW-27A	Aqueous	03/23/2021 1100	03/24/2021
015	RMW-27B	Aqueous	03/23/2021 1110	03/24/2021
016	RMW-18A	Aqueous	03/23/2021 1345	03/24/2021
017	RMW-27	Aqueous	03/23/2021 1350	03/24/2021
018	RMW-20B	Aqueous	03/23/2021 1500	03/24/2021
019	RMW-20C	Aqueous	03/23/2021 1530	03/24/2021
020	DU-21103	Aqueous	03/19/2021	03/24/2021

(20 samples)

Detection Summary

TRC Companies, Inc.

Lot Number: WC24065

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
002	RMW-05B	Aqueous	Sulfate	300.0	0.51	BJ	mg/L	8
002	RMW-05B	Aqueous	Chloroform	8260D	12		ug/L	8
003	RMW-05A	Aqueous	Sulfate	300.0	0.71	BJ	mg/L	10
003	RMW-05A	Aqueous	Chloroform	8260D	11		ug/L	10
004	RMW-19A	Aqueous	Bromide	300.0	0.056	J	mg/L	12
004	RMW-19A	Aqueous	Chloroform	8260D	7.5	J	ug/L	12
004	RMW-19A	Aqueous	Tetrachloroethene	8260D	1200		ug/L	13
005	RMW-19	Aqueous	Bromide	300.0	0.22		mg/L	14
005	RMW-19	Aqueous	Sulfate	300.0	29	B	mg/L	14
005	RMW-19	Aqueous	Tetrachloroethene	8260D	7.3		ug/L	15
005	RMW-19	Aqueous	Trichlorofluoromethane	8260D	3.4		ug/L	15
006	RMW-21	Aqueous	Bromide	300.0	0.16	J	mg/L	16
006	RMW-21	Aqueous	Sulfate	300.0	11	B	mg/L	16
006	RMW-21	Aqueous	cis-1,2-Dichloroethene	8260D	2.4		ug/L	16
006	RMW-21	Aqueous	Tetrachloroethene	8260D	110		ug/L	17
006	RMW-21	Aqueous	Trichloroethene	8260D	1.7		ug/L	17
007	RMW-21A	Aqueous	Bromide	300.0	0.32		mg/L	18
007	RMW-21A	Aqueous	Sulfate	300.0	61	BS	mg/L	18
007	RMW-21A	Aqueous	2-Butanone (MEK)	8260D	110	JS	ug/L	18
007	RMW-21A	Aqueous	Carbon disulfide	8260D	11	J	ug/L	18
007	RMW-21A	Aqueous	cis-1,2-Dichloroethene	8260D	23		ug/L	18
007	RMW-21A	Aqueous	Methyl acetate	8260D	9.7	J	ug/L	19
007	RMW-21A	Aqueous	Tetrachloroethene	8260D	2000	S	ug/L	19
007	RMW-21A	Aqueous	Trichloroethene	8260D	20		ug/L	19
008	RMW-08	Aqueous	Bromide	300.0	0.19	J	mg/L	20
008	RMW-08	Aqueous	Sulfate	300.0	4.9	B	mg/L	20
008	RMW-08	Aqueous	cis-1,2-Dichloroethene	8260D	13		ug/L	20
008	RMW-08	Aqueous	Tetrachloroethene	8260D	170		ug/L	21
008	RMW-08	Aqueous	Trichloroethene	8260D	2.8		ug/L	21
009	RMW-08A	Aqueous	Bromide	300.0	0.51		mg/L	22
009	RMW-08A	Aqueous	Acetone	8260D	150		ug/L	22
009	RMW-08A	Aqueous	2-Butanone (MEK)	8260D	340		ug/L	22
009	RMW-08A	Aqueous	Carbon disulfide	8260D	2.4	J	ug/L	22
009	RMW-08A	Aqueous	cis-1,2-Dichloroethene	8260D	880		ug/L	22
009	RMW-08A	Aqueous	Tetrachloroethene	8260D	250		ug/L	23
009	RMW-08A	Aqueous	Trichloroethene	8260D	21		ug/L	23
010	RMW-20	Aqueous	Bromide	300.0	0.15	J	mg/L	24
010	RMW-20	Aqueous	Sulfate	300.0	66	B	mg/L	24
010	RMW-20	Aqueous	cis-1,2-Dichloroethene	8260D	0.78	J	ug/L	24
010	RMW-20	Aqueous	Tetrachloroethene	8260D	19		ug/L	25
011	RMW-20A	Aqueous	2-Butanone (MEK)	8260D	180		ug/L	26
011	RMW-20A	Aqueous	1,2-Dichlorobenzene	8260D	0.54	J	ug/L	26
011	RMW-20A	Aqueous	1,1-Dichloroethene	8260D	2.7		ug/L	26
011	RMW-20A	Aqueous	cis-1,2-Dichloroethene	8260D	2600		ug/L	26
011	RMW-20A	Aqueous	trans-1,2-Dichloroethene	8260D	1.3		ug/L	26

Detection Summary (Continued)

Lot Number: WC24065

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
011	RMW-20A	Aqueous	Methyl acetate	8260D	10	S	ug/L	27
011	RMW-20A	Aqueous	Methylene chloride	8260D	0.62	J	ug/L	27
011	RMW-20A	Aqueous	Tetrachloroethene	8260D	26		ug/L	27
011	RMW-20A	Aqueous	Trichloroethene	8260D	7.4		ug/L	27
011	RMW-20A	Aqueous	Vinyl chloride	8260D	16		ug/L	27
012	MG-05A	Aqueous	Bromide	300.0	0.064	J	mg/L	28
012	MG-05A	Aqueous	Sulfate	300.0	1.2	B	mg/L	28
012	MG-05A	Aqueous	Tetrachloroethene	8260D	310		ug/L	29
013	MG-05	Aqueous	Bromide	300.0	0.47		mg/L	30
013	MG-05	Aqueous	Sulfate	300.0	2.9	B	mg/L	30
013	MG-05	Aqueous	cis-1,2-Dichloroethene	8260D	5.2		ug/L	30
013	MG-05	Aqueous	Tetrachloroethene	8260D	140		ug/L	31
013	MG-05	Aqueous	Trichloroethene	8260D	10		ug/L	31
014	RMW-27A	Aqueous	Bromide	300.0	0.051	J	mg/L	32
015	RMW-27B	Aqueous	Bromide	300.0	0.050	J	mg/L	34
015	RMW-27B	Aqueous	Sulfate	300.0	3.2	B	mg/L	34
015	RMW-27B	Aqueous	Tetrachloroethene	8260D	280		ug/L	35
016	RMW-18A	Aqueous	Sulfate	300.0	120	B	mg/L	36
016	RMW-18A	Aqueous	Tetrachloroethene	8260D	15		ug/L	37
017	RMW-27	Aqueous	Bromide	300.0	0.37		mg/L	38
017	RMW-27	Aqueous	Sulfate	300.0	63	B	mg/L	38
017	RMW-27	Aqueous	cis-1,2-Dichloroethene	8260D	370		ug/L	38
017	RMW-27	Aqueous	Tetrachloroethene	8260D	900		ug/L	39
017	RMW-27	Aqueous	Trichloroethene	8260D	120		ug/L	39
018	RMW-20B	Aqueous	Bromide	300.0	0.051	J	mg/L	40
019	RMW-20C	Aqueous	Bromide	300.0	0.050	J	mg/L	42
019	RMW-20C	Aqueous	Sulfate	300.0	1.1	B	mg/L	42
019	RMW-20C	Aqueous	2-Butanone (MEK)	8260D	3.2	J	ug/L	42
019	RMW-20C	Aqueous	Tetrachloroethene	8260D	3.0		ug/L	43
020	DU-21103	Aqueous	Bromide	300.0	0.052	J	mg/L	44
020	DU-21103	Aqueous	Sulfate	300.0	3.0		mg/L	44
020	DU-21103	Aqueous	Tetrachloroethene	8260D	260		ug/L	45

(77 detections)

Client: TRC Companies, Inc.
Description: TBLK-21104
Date Sampled: 03/19/2021
Date Received: 03/24/2021

Laboratory ID: WC24065-001
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/30/2021 0145	CJL2		87249
2	5030B	8260D	1	03/30/2021 2336	CJL2		87395

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	2
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: TBLK-21104
Date Sampled: 03/19/2021
Date Received: 03/24/2021

Laboratory ID: WC24065-001
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/30/2021 0145	CJL2		87249
2	5030B	8260D	1	03/30/2021 2336	CJL2		87395

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	2
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260D	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Run 1 Acceptance Limits	Q	Run 2 % Recovery	Run 2 Acceptance Limits
Bromofluorobenzene		107	70-130		105	70-130
1,2-Dichloroethane-d4		101	70-130		95	70-130
Toluene-d8		106	70-130		101	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Pace Analytical Services, LLC *(formerly Shealy Environmental Services, Inc.)*
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Client: TRC Companies, Inc.
Description: RMW-05B
Date Sampled: 03/19/2021 1145
Date Received: 03/24/2021

Laboratory ID: WC24065-002
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	03/26/2021 1821	AMR		87162
1		(Sulfate) 300.0	1	03/26/2021 1821	AMR		87161

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	ND		0.20	0.050	mg/L	1
Sulfate		300.0	0.51	BJ	1.0	0.25	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/30/2021 0252	CJL2		87249

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	12		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: RMW-05B
Date Sampled: 03/19/2021 1145
Date Received: 03/24/2021

Laboratory ID: WC24065-002
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/30/2021 0252	CJL2		87249

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	ND		1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260D	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		102	70-130
1,2-Dichloroethane-d4		101	70-130
Toluene-d8		105	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: RMW-05A
Date Sampled: 03/19/2021 1155
Date Received: 03/24/2021

Laboratory ID: WC24065-003
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	03/26/2021 1840	AMR		87162
1		(Sulfate) 300.0	1	03/26/2021 1840	AMR		87161

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	ND		0.20	0.050	mg/L	1
Sulfate		300.0	0.71	BJ	1.0	0.25	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/30/2021 0314	CJL2		87249

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	11		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: RMW-05A
Date Sampled: 03/19/2021 1155
Date Received: 03/24/2021

Laboratory ID: WC24065-003
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/30/2021 0314	CJL2		87249

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	ND		1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260D	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		105	70-130
1,2-Dichloroethane-d4		100	70-130
Toluene-d8		104	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Pace Analytical Services, LLC *(formerly Shealy Environmental Services, Inc.)*
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Client: TRC Companies, Inc.
Description: RMW-19A
Date Sampled: 03/19/2021 1435
Date Received: 03/24/2021

Laboratory ID: WC24065-004
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	03/26/2021 1859	AMR		87162
1		(Sulfate) 300.0	1	03/26/2021 1859	AMR		87161

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.056	J	0.20	0.050	mg/L	1
Sulfate		300.0	ND		1.0	0.25	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	10	03/30/2021 0536	CJL2		87247

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		200	50	ug/L	1
Benzene	71-43-2	8260D	ND		10	4.0	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		10	4.0	ug/L	1
Bromoform	75-25-2	8260D	ND		10	4.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		20	4.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		100	20	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		10	4.0	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		10	4.0	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		10	4.0	ug/L	1
Chloroethane	75-00-3	8260D	ND		20	4.0	ug/L	1
Chloroform	67-66-3	8260D	7.5	J	10	4.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		10	5.0	ug/L	1
Cyclohexane	110-82-7	8260D	ND		10	4.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		10	4.0	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		10	4.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		10	4.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		10	4.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		10	4.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		10	4.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		20	6.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		10	4.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		10	4.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		10	4.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		10	4.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		10	4.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		10	4.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		10	4.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		10	4.0	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		10	4.0	ug/L	1
2-Hexanone	591-78-6	8260D	ND		100	20	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: RMW-19A
Date Sampled: 03/19/2021 1435
Date Received: 03/24/2021

Laboratory ID: WC24065-004
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	10	03/30/2021 0536	CJL2		87247

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Isopropylbenzene	98-82-8	8260D	ND		10	4.0	ug/L	1
Methyl acetate	79-20-9	8260D	ND		10	4.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		10	4.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		100	20	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		50	4.0	ug/L	1
Methylene chloride	75-09-2	8260D	ND		10	4.0	ug/L	1
Styrene	100-42-5	8260D	ND		10	4.1	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		10	4.0	ug/L	1
Tetrachloroethene	127-18-4	8260D	1200		10	4.0	ug/L	1
Toluene	108-88-3	8260D	ND		10	4.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		10	4.2	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		10	4.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		10	4.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		10	4.0	ug/L	1
Trichloroethene	79-01-6	8260D	ND		10	4.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		10	4.0	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		10	4.0	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		10	4.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		106	70-130
1,2-Dichloroethane-d4		85	70-130
Toluene-d8		94	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Pace Analytical Services, LLC *(formerly Shealy Environmental Services, Inc.)*
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Client: TRC Companies, Inc.
Description: RMW-19
Date Sampled: 03/19/2021 1440
Date Received: 03/24/2021

Laboratory ID: WC24065-005
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	03/26/2021 1918	AMR		87162
1		(Sulfate) 300.0	1	03/26/2021 1918	AMR		87161

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.22		0.20	0.050	mg/L	1
Sulfate		300.0	29	B	1.0	0.25	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/30/2021 0337	CJL2		87249

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: RMW-19
Date Sampled: 03/19/2021 1440
Date Received: 03/24/2021

Laboratory ID: WC24065-005
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/30/2021 0337	CJL2		87249

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	7.3		1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260D	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	3.4		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		102	70-130
1,2-Dichloroethane-d4		99	70-130
Toluene-d8		100	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: RMW-21
Date Sampled: 03/19/2021 1535
Date Received: 03/24/2021

Laboratory ID: WC24065-006
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	03/26/2021 1936	AMR		87162
1		(Sulfate) 300.0	1	03/26/2021 1936	AMR		87161

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.16	J	0.20	0.050	mg/L	1
Sulfate		300.0	11	B	1.0	0.25	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/30/2021 0359	CJL2		87249

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	2.4		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: RMW-21
Date Sampled: 03/19/2021 1535
Date Received: 03/24/2021

Laboratory ID: WC24065-006
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/30/2021 0359	CJL2		87249

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	110		1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260D	1.7		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		110	70-130
1,2-Dichloroethane-d4		100	70-130
Toluene-d8		102	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Pace Analytical Services, LLC *(formerly Shealy Environmental Services, Inc.)*
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Client: TRC Companies, Inc.
Description: RMW-21A
Date Sampled: 03/19/2021 1540
Date Received: 03/24/2021

Laboratory ID: WC24065-007
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	03/26/2021 1955	AMR		87162
1		(Sulfate) 300.0	1	03/26/2021 1955	AMR		87161

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.32		0.20	0.050	mg/L	1
Sulfate		300.0	61	BS	1.0	0.25	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	20	03/30/2021 0721	CJL2		87249

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND	S	400	100	ug/L	1
Benzene	71-43-2	8260D	ND		20	8.0	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		20	8.0	ug/L	1
Bromoform	75-25-2	8260D	ND		20	8.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		40	8.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	110	JS	200	40	ug/L	1
Carbon disulfide	75-15-0	8260D	11	J	20	8.0	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		20	8.0	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		20	8.0	ug/L	1
Chloroethane	75-00-3	8260D	ND		40	8.0	ug/L	1
Chloroform	67-66-3	8260D	ND		20	8.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		20	10	ug/L	1
Cyclohexane	110-82-7	8260D	ND		20	8.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		20	8.0	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		20	8.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		20	8.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		20	8.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		20	8.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		20	8.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		40	12	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		20	8.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		20	8.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		20	8.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	23		20	8.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		20	8.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		20	8.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		20	8.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		20	8.0	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		20	8.0	ug/L	1
2-Hexanone	591-78-6	8260D	ND		200	40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: RMW-21A
Date Sampled: 03/19/2021 1540
Date Received: 03/24/2021

Laboratory ID: WC24065-007
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	20	03/30/2021 0721	CJL2		87249

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Isopropylbenzene	98-82-8	8260D	ND		20	8.0	ug/L	1
Methyl acetate	79-20-9	8260D	9.7	J	20	8.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		20	8.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		200	40	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		100	8.0	ug/L	1
Methylene chloride	75-09-2	8260D	ND		20	8.0	ug/L	1
Styrene	100-42-5	8260D	ND		20	8.2	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		20	8.0	ug/L	1
Tetrachloroethene	127-18-4	8260D	2000	S	20	8.0	ug/L	1
Toluene	108-88-3	8260D	ND		20	8.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		20	8.4	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		20	8.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		20	8.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		20	8.0	ug/L	1
Trichloroethene	79-01-6	8260D	20		20	8.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		20	8.0	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		20	8.0	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		20	8.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		95	70-130
1,2-Dichloroethane-d4		92	70-130
Toluene-d8		105	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Pace Analytical Services, LLC *(formerly Shealy Environmental Services, Inc.)*
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Client: TRC Companies, Inc.
Description: RMW-08
Date Sampled: 03/22/2021 1130
Date Received: 03/24/2021

Laboratory ID: WC24065-008
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	03/26/2021 2130	AMR		87162
1		(Sulfate) 300.0	1	03/26/2021 2130	AMR		87161

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.19	J	0.20	0.050	mg/L	1
Sulfate		300.0	4.9	B	1.0	0.25	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/30/2021 0422	CJL2		87249

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	13		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: RMW-08
Date Sampled: 03/22/2021 1130
Date Received: 03/24/2021

Laboratory ID: WC24065-008
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/30/2021 0422	CJL2		87249

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	170		1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260D	2.8		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		109	70-130
1,2-Dichloroethane-d4		98	70-130
Toluene-d8		101	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: RMW-08A
Date Sampled: 03/22/2021 1135
Date Received: 03/24/2021

Laboratory ID: WC24065-009
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	03/26/2021 2149	AMR		87162
1		(Sulfate) 300.0	1	03/26/2021 2149	AMR		87161

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.51		0.20	0.050	mg/L	1
Sulfate		300.0	ND		1.0	0.25	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	5	03/30/2021 0512	CJL2		87247
2	5030B	8260D	5	04/01/2021 0438	CJL2		87528

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	150		100	25	ug/L	2
Benzene	71-43-2	8260D	ND		5.0	2.0	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		5.0	2.0	ug/L	1
Bromoform	75-25-2	8260D	ND		5.0	2.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		10	2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	340		50	10	ug/L	1
Carbon disulfide	75-15-0	8260D	2.4	J	5.0	2.0	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		5.0	2.0	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		5.0	2.0	ug/L	1
Chloroethane	75-00-3	8260D	ND		10	2.0	ug/L	1
Chloroform	67-66-3	8260D	ND		5.0	2.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		5.0	2.5	ug/L	1
Cyclohexane	110-82-7	8260D	ND		5.0	2.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		5.0	2.0	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		5.0	2.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		5.0	2.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		5.0	2.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		5.0	2.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		5.0	2.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		10	3.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		5.0	2.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		5.0	2.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		5.0	2.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	880		5.0	2.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		5.0	2.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		5.0	2.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		5.0	2.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		5.0	2.0	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		5.0	2.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: RMW-08A
Date Sampled: 03/22/2021 1135
Date Received: 03/24/2021

Laboratory ID: WC24065-009
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	5	03/30/2021 0512	CJL2		87247
2	5030B	8260D	5	04/01/2021 0438	CJL2		87528

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
2-Hexanone	591-78-6	8260D	ND		50	10	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		5.0	2.0	ug/L	1
Methyl acetate	79-20-9	8260D	ND		5.0	2.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		5.0	2.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		50	10	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		25	2.0	ug/L	1
Methylene chloride	75-09-2	8260D	ND		5.0	2.0	ug/L	1
Styrene	100-42-5	8260D	ND		5.0	2.1	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		5.0	2.0	ug/L	1
Tetrachloroethene	127-18-4	8260D	250		5.0	2.0	ug/L	1
Toluene	108-88-3	8260D	ND		5.0	2.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		5.0	2.1	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		5.0	2.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		5.0	2.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		5.0	2.0	ug/L	1
Trichloroethene	79-01-6	8260D	21		5.0	2.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		5.0	2.0	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		5.0	2.0	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		5.0	2.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits	Q	Run 2 % Recovery	Acceptance Limits
Bromofluorobenzene		107	70-130		103	70-130
1,2-Dichloroethane-d4		85	70-130		94	70-130
Toluene-d8		93	70-130		108	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: RMW-20
Date Sampled: 03/22/2021 1450
Date Received: 03/24/2021

Laboratory ID: WC24065-010
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	03/26/2021 2208	AMR		87162
1		(Sulfate) 300.0	1	03/26/2021 2208	AMR		87161

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.15	J	0.20	0.050	mg/L	1
Sulfate		300.0	66	B	1.0	0.25	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/30/2021 0444	CJL2		87249

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	0.78	J	1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: RMW-20
Date Sampled: 03/22/2021 1450
Date Received: 03/24/2021

Laboratory ID: WC24065-010
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/30/2021 0444	CJL2		87249

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	19		1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260D	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		108	70-130
1,2-Dichloroethane-d4		101	70-130
Toluene-d8		103	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Pace Analytical Services, LLC *(formerly Shealy Environmental Services, Inc.)*
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Client: TRC Companies, Inc.
Description: RMW-20A
Date Sampled: 03/22/2021 1455
Date Received: 03/24/2021

Laboratory ID: WC24065-011
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	03/26/2021 2227	AMR		87162
1		(Sulfate) 300.0	1	03/26/2021 2227	AMR		87161

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	ND		0.20	0.050	mg/L	1
Sulfate		300.0	ND	S	1.0	0.25	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/30/2021 0218	CJL2		87247
2	5030B	8260D	50	04/01/2021 0528	CJL2		87528

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		1000	250	ug/L	2
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	180		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	0.54	J	1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	2.7		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	2600		50	20	ug/L	2
trans-1,2-Dichloroethene	156-60-5	8260D	1.3		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: RMW-20A
Date Sampled: 03/22/2021 1455
Date Received: 03/24/2021

Laboratory ID: WC24065-011
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/30/2021 0218	CJL2		87247
2	5030B	8260D	50	04/01/2021 0528	CJL2		87528

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	10	S	1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	0.62	J	1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	26		1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260D	7.4		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	16		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits	Q	Run 2 % Recovery	Acceptance Limits
Bromofluorobenzene		109	70-130		102	70-130
1,2-Dichloroethane-d4		85	70-130		92	70-130
Toluene-d8		94	70-130		106	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: MG-05A
Date Sampled: 03/22/2021 1635
Date Received: 03/24/2021

Laboratory ID: WC24065-012
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	03/26/2021 2323	AMR		87162
1		(Sulfate) 300.0	1	03/26/2021 2323	AMR		87161

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.064	J	0.20	0.050	mg/L	1
Sulfate		300.0	1.2	B	1.0	0.25	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	5	03/31/2021 0559	CJL2		87395

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		100	25	ug/L	1
Benzene	71-43-2	8260D	ND		5.0	2.0	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		5.0	2.0	ug/L	1
Bromoform	75-25-2	8260D	ND		5.0	2.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		10	2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		50	10	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		5.0	2.0	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		5.0	2.0	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		5.0	2.0	ug/L	1
Chloroethane	75-00-3	8260D	ND		10	2.0	ug/L	1
Chloroform	67-66-3	8260D	ND		5.0	2.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		5.0	2.5	ug/L	1
Cyclohexane	110-82-7	8260D	ND		5.0	2.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		5.0	2.0	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		5.0	2.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		5.0	2.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		5.0	2.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		5.0	2.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		5.0	2.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		10	3.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		5.0	2.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		5.0	2.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		5.0	2.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		5.0	2.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		5.0	2.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		5.0	2.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		5.0	2.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		5.0	2.0	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		5.0	2.0	ug/L	1
2-Hexanone	591-78-6	8260D	ND		50	10	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: MG-05A
Date Sampled: 03/22/2021 1635
Date Received: 03/24/2021

Laboratory ID: WC24065-012
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	5	03/31/2021 0559	CJL2		87395

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Isopropylbenzene	98-82-8	8260D	ND		5.0	2.0	ug/L	1
Methyl acetate	79-20-9	8260D	ND		5.0	2.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		5.0	2.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		50	10	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		25	2.0	ug/L	1
Methylene chloride	75-09-2	8260D	ND		5.0	2.0	ug/L	1
Styrene	100-42-5	8260D	ND		5.0	2.1	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		5.0	2.0	ug/L	1
Tetrachloroethene	127-18-4	8260D	310		5.0	2.0	ug/L	1
Toluene	108-88-3	8260D	ND		5.0	2.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		5.0	2.1	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		5.0	2.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		5.0	2.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		5.0	2.0	ug/L	1
Trichloroethene	79-01-6	8260D	ND		5.0	2.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		5.0	2.0	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		5.0	2.0	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		5.0	2.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		113	70-130
1,2-Dichloroethane-d4		104	70-130
Toluene-d8		109	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

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Client: TRC Companies, Inc.
Description: MG-05
Date Sampled: 03/22/2021 1640
Date Received: 03/24/2021

Laboratory ID: WC24065-013
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	03/26/2021 2342	AMR		87162
1		(Sulfate) 300.0	1	03/26/2021 2342	AMR		87161

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.47		0.20	0.050	mg/L	1
Sulfate		300.0	2.9	B	1.0	0.25	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/30/2021 0243	CJL2		87247
2	5030B	8260D	1	03/31/2021 2159	CJL2		87528

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	5.2		1.0	0.40	ug/L	2
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: MG-05
Date Sampled: 03/22/2021 1640
Date Received: 03/24/2021

Laboratory ID: WC24065-013
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/30/2021 0243	CJL2		87247
2	5030B	8260D	1	03/31/2021 2159	CJL2		87528

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	140		1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260D	10		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits	Q	Run 2 % Recovery	Acceptance Limits
Bromofluorobenzene		105	70-130		98	70-130
1,2-Dichloroethane-d4		84	70-130		88	70-130
Toluene-d8		94	70-130		103	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: RMW-27A
Date Sampled: 03/23/2021 1100
Date Received: 03/24/2021

Laboratory ID: WC24065-014
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	03/27/2021 0039	AMR		87162
1		(Sulfate) 300.0	1	03/27/2021 0039	AMR		87161

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.051	J	0.20	0.050	mg/L	1
Sulfate		300.0	ND		1.0	0.25	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/30/2021 0308	CJL2		87247
2	5030B	8260D	1	03/31/2021 2224	CJL2		87528

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		1.0	0.40	ug/L	2
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: RMW-27A
Date Sampled: 03/23/2021 1100
Date Received: 03/24/2021

Laboratory ID: WC24065-014
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/30/2021 0308	CJL2		87247
2	5030B	8260D	1	03/31/2021 2224	CJL2		87528

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	ND		1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260D	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits	Q	Run 2 % Recovery	Acceptance Limits
Bromofluorobenzene		106	70-130		101	70-130
1,2-Dichloroethane-d4		84	70-130		93	70-130
Toluene-d8		93	70-130		105	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: RMW-27B
Date Sampled: 03/23/2021 1110
Date Received: 03/24/2021

Laboratory ID: WC24065-015
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	03/27/2021 0058	AMR		87162
1		(Sulfate) 300.0	1	03/27/2021 0058	AMR		87161

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.050	J	0.20	0.050	mg/L	1
Sulfate		300.0	3.2	B	1.0	0.25	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	5	03/31/2021 0623	CJL2		87395

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		100	25	ug/L	1
Benzene	71-43-2	8260D	ND		5.0	2.0	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		5.0	2.0	ug/L	1
Bromoform	75-25-2	8260D	ND		5.0	2.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		10	2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		50	10	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		5.0	2.0	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		5.0	2.0	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		5.0	2.0	ug/L	1
Chloroethane	75-00-3	8260D	ND		10	2.0	ug/L	1
Chloroform	67-66-3	8260D	ND		5.0	2.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		5.0	2.5	ug/L	1
Cyclohexane	110-82-7	8260D	ND		5.0	2.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		5.0	2.0	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		5.0	2.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		5.0	2.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		5.0	2.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		5.0	2.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		5.0	2.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		10	3.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		5.0	2.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		5.0	2.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		5.0	2.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		5.0	2.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		5.0	2.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		5.0	2.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		5.0	2.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		5.0	2.0	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		5.0	2.0	ug/L	1
2-Hexanone	591-78-6	8260D	ND		50	10	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: RMW-27B
Date Sampled: 03/23/2021 1110
Date Received: 03/24/2021

Laboratory ID: WC24065-015
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	5	03/31/2021 0623	CJL2		87395

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Isopropylbenzene	98-82-8	8260D	ND		5.0	2.0	ug/L	1
Methyl acetate	79-20-9	8260D	ND		5.0	2.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		5.0	2.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		50	10	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		25	2.0	ug/L	1
Methylene chloride	75-09-2	8260D	ND		5.0	2.0	ug/L	1
Styrene	100-42-5	8260D	ND		5.0	2.1	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		5.0	2.0	ug/L	1
Tetrachloroethene	127-18-4	8260D	280		5.0	2.0	ug/L	1
Toluene	108-88-3	8260D	ND		5.0	2.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		5.0	2.1	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		5.0	2.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		5.0	2.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		5.0	2.0	ug/L	1
Trichloroethene	79-01-6	8260D	ND		5.0	2.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		5.0	2.0	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		5.0	2.0	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		5.0	2.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		108	70-130
1,2-Dichloroethane-d4		101	70-130
Toluene-d8		110	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
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DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Pace Analytical Services, LLC *(formerly Shealy Environmental Services, Inc.)*
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Client: TRC Companies, Inc.
Description: RMW-18A
Date Sampled: 03/23/2021 1345
Date Received: 03/24/2021

Laboratory ID: WC24065-016
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	03/27/2021 0117	AMR		87162
1		(Sulfate) 300.0	1	03/27/2021 0117	AMR		87161

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	ND		0.20	0.050	mg/L	1
Sulfate		300.0	120	B	1.0	0.25	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/30/2021 0332	CJL2		87247
2	5030B	8260D	1	03/31/2021 2249	CJL2		87528

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		1.0	0.40	ug/L	2
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: RMW-18A
Date Sampled: 03/23/2021 1345
Date Received: 03/24/2021

Laboratory ID: WC24065-016
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/30/2021 0332	CJL2		87247
2	5030B	8260D	1	03/31/2021 2249	CJL2		87528

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	15		1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260D	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits	Q	Run 2 % Recovery	Acceptance Limits
Bromofluorobenzene		104	70-130		107	70-130
1,2-Dichloroethane-d4		85	70-130		94	70-130
Toluene-d8		92	70-130		108	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: RMW-27
Date Sampled: 03/23/2021 1350
Date Received: 03/24/2021

Laboratory ID: WC24065-017
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	03/27/2021 0136	AMR		87162
1		(Sulfate) 300.0	1	03/27/2021 0136	AMR		87161

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.37		0.20	0.050	mg/L	1
Sulfate		300.0	63	B	1.0	0.25	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	10	03/30/2021 0601	CJL2		87247

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		200	50	ug/L	1
Benzene	71-43-2	8260D	ND		10	4.0	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		10	4.0	ug/L	1
Bromoform	75-25-2	8260D	ND		10	4.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		20	4.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		100	20	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		10	4.0	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		10	4.0	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		10	4.0	ug/L	1
Chloroethane	75-00-3	8260D	ND		20	4.0	ug/L	1
Chloroform	67-66-3	8260D	ND		10	4.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		10	5.0	ug/L	1
Cyclohexane	110-82-7	8260D	ND		10	4.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		10	4.0	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		10	4.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		10	4.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		10	4.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		10	4.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		10	4.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		20	6.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		10	4.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		10	4.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		10	4.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	370		10	4.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		10	4.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		10	4.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		10	4.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		10	4.0	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		10	4.0	ug/L	1
2-Hexanone	591-78-6	8260D	ND		100	20	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: RMW-27
Date Sampled: 03/23/2021 1350
Date Received: 03/24/2021

Laboratory ID: WC24065-017
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	10	03/30/2021 0601	CJL2		87247

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Isopropylbenzene	98-82-8	8260D	ND		10	4.0	ug/L	1
Methyl acetate	79-20-9	8260D	ND		10	4.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		10	4.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		100	20	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		50	4.0	ug/L	1
Methylene chloride	75-09-2	8260D	ND		10	4.0	ug/L	1
Styrene	100-42-5	8260D	ND		10	4.1	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		10	4.0	ug/L	1
Tetrachloroethene	127-18-4	8260D	900		10	4.0	ug/L	1
Toluene	108-88-3	8260D	ND		10	4.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		10	4.2	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		10	4.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		10	4.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		10	4.0	ug/L	1
Trichloroethene	79-01-6	8260D	120		10	4.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		10	4.0	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		10	4.0	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		10	4.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		107	70-130
1,2-Dichloroethane-d4		84	70-130
Toluene-d8		94	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Pace Analytical Services, LLC *(formerly Shealy Environmental Services, Inc.)*
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Client: TRC Companies, Inc.
Description: RMW-20B
Date Sampled: 03/23/2021 1500
Date Received: 03/24/2021

Laboratory ID: WC24065-018
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	03/27/2021 0155	AMR		87162
1		(Sulfate) 300.0	1	03/27/2021 0155	AMR		87161

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.051	J	0.20	0.050	mg/L	1
Sulfate		300.0	ND		1.0	0.25	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/30/2021 0357	CJL2		87247

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: RMW-20B
Date Sampled: 03/23/2021 1500
Date Received: 03/24/2021

Laboratory ID: WC24065-018
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/30/2021 0357	CJL2		87247

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	ND		1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260D	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		107	70-130
1,2-Dichloroethane-d4		86	70-130
Toluene-d8		93	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Pace Analytical Services, LLC *(formerly Shealy Environmental Services, Inc.)*
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Client: TRC Companies, Inc.
Description: RMW-20C
Date Sampled: 03/23/2021 1530
Date Received: 03/24/2021

Laboratory ID: WC24065-019
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	03/27/2021 0214	AMR		87162
1		(Sulfate) 300.0	1	03/27/2021 0214	AMR		87161

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.050	J	0.20	0.050	mg/L	1
Sulfate		300.0	1.1	B	1.0	0.25	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/30/2021 0422	CJL2		87247

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	3.2	J	10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: RMW-20C
Date Sampled: 03/23/2021 1530
Date Received: 03/24/2021

Laboratory ID: WC24065-019
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	03/30/2021 0422	CJL2		87247

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	3.0		1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260D	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		108	70-130
1,2-Dichloroethane-d4		85	70-130
Toluene-d8		94	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

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Client: TRC Companies, Inc.
Description: DU-21103
Date Sampled: 03/19/2021
Date Received: 03/24/2021

Laboratory ID: WC24065-020
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	03/29/2021 1629	AMR		87314
1		(Sulfate) 300.0	1	03/29/2021 1629	AMR		87313

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.052	J	0.20	0.050	mg/L	1
Sulfate		300.0	3.0		1.0	0.25	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	5	03/31/2021 0648	CJL2		87395

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		100	25	ug/L	1
Benzene	71-43-2	8260D	ND		5.0	2.0	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		5.0	2.0	ug/L	1
Bromoform	75-25-2	8260D	ND		5.0	2.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		10	2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		50	10	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		5.0	2.0	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		5.0	2.0	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		5.0	2.0	ug/L	1
Chloroethane	75-00-3	8260D	ND		10	2.0	ug/L	1
Chloroform	67-66-3	8260D	ND		5.0	2.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		5.0	2.5	ug/L	1
Cyclohexane	110-82-7	8260D	ND		5.0	2.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		5.0	2.0	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		5.0	2.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		5.0	2.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		5.0	2.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		5.0	2.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		5.0	2.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		10	3.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		5.0	2.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		5.0	2.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		5.0	2.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		5.0	2.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		5.0	2.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		5.0	2.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		5.0	2.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		5.0	2.0	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		5.0	2.0	ug/L	1
2-Hexanone	591-78-6	8260D	ND		50	10	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: DU-21103
Date Sampled: 03/19/2021
Date Received: 03/24/2021

Laboratory ID: WC24065-020
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	5	03/31/2021 0648	CJL2		87395

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Isopropylbenzene	98-82-8	8260D	ND		5.0	2.0	ug/L	1
Methyl acetate	79-20-9	8260D	ND		5.0	2.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		5.0	2.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		50	10	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		25	2.0	ug/L	1
Methylene chloride	75-09-2	8260D	ND		5.0	2.0	ug/L	1
Styrene	100-42-5	8260D	ND		5.0	2.1	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		5.0	2.0	ug/L	1
Tetrachloroethene	127-18-4	8260D	260		5.0	2.0	ug/L	1
Toluene	108-88-3	8260D	ND		5.0	2.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		5.0	2.1	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		5.0	2.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		5.0	2.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		5.0	2.0	ug/L	1
Trichloroethene	79-01-6	8260D	ND		5.0	2.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		5.0	2.0	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		5.0	2.0	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		5.0	2.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		108	70-130
1,2-Dichloroethane-d4		101	70-130
Toluene-d8		110	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

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QC Summary

Inorganic non-metals - MB

Sample ID: WQ87161-001
Batch: 87161
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Sulfate	0.25	J	1	1.0	0.25	mg/L	03/26/2021 1643

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: WQ87161-002
Batch: 87161
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Sulfate	20	19		1	96	90-110	03/26/2021 1724

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Sample ID: WC24065-007MS
Batch: 87161
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Sulfate	61	10	70		1	95	90-110	03/26/2021 2052

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: WC24065-007MD
Batch: 87161
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	%Rec Limit	% RPD Limit	Analysis Date
Sulfate	61	10	69	N	1	86	1.2	90-110	20	03/26/2021 2111

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Sample ID: WC24065-011MS
Batch: 87161
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Sulfate	ND	10	8.4	N	1	84	90-110	03/26/2021 2246

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: WC24065-011MD
Batch: 87161
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	%Rec Limit	% RPD Limit	Analysis Date
Sulfate	ND	10	8.3	N	1	83	0.99	90-110	20	03/26/2021 2305

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: WQ87162-001
Batch: 87162
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Bromide	ND		1	0.20	0.050	mg/L	03/26/2021 1643

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: WQ87162-002
Batch: 87162
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Bromide	8.0	8.1		1	101	90-110	03/26/2021 1724

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MS

Sample ID: WC24065-007MS
Batch: 87162
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Bromide	0.32	4.0	4.1		1	94	90-110	03/26/2021 2052

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: WC24065-007MD
Batch: 87162
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	%Rec Limit	% RPD Limit	Analysis Date
Bromide	0.32	4.0	4.1		1	95	0.44	90-110	20	03/26/2021 2111

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Sample ID: WC24065-011MS
Batch: 87162
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Bromide	ND	4.0	3.8		1	94	90-110	03/26/2021 2246

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: WC24065-011MD
Batch: 87162
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	%Rec Limit	% RPD Limit	Analysis Date
Bromide	ND	4.0	3.7		1	93	0.86	90-110	20	03/26/2021 2305

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: WQ87313-001
Batch: 87313
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Sulfate	ND		1	1.0	0.25	mg/L	03/29/2021 1532

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: WQ87313-002
Batch: 87313
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Sulfate	20	19		1	97	90-110	03/29/2021 1610

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: WQ87314-001
Batch: 87314
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Bromide	ND		1	0.20	0.050	mg/L	03/29/2021 1532

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: WQ87314-002
Batch: 87314
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Bromide	8.0	8.4		1	105	90-110	03/29/2021 1610

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: WQ87247-001
Batch: 87247
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Acetone	ND		1	20	5.0	ug/L	03/29/2021 2359
Benzene	ND		1	1.0	0.40	ug/L	03/29/2021 2359
Bromodichloromethane	ND		1	1.0	0.40	ug/L	03/29/2021 2359
Bromoform	ND		1	1.0	0.40	ug/L	03/29/2021 2359
Bromomethane (Methyl bromide)	ND		1	2.0	0.40	ug/L	03/29/2021 2359
2-Butanone (MEK)	ND		1	10	2.0	ug/L	03/29/2021 2359
Carbon disulfide	ND		1	1.0	0.40	ug/L	03/29/2021 2359
Carbon tetrachloride	ND		1	1.0	0.40	ug/L	03/29/2021 2359
Chlorobenzene	ND		1	1.0	0.40	ug/L	03/29/2021 2359
Chloroethane	ND		1	2.0	0.40	ug/L	03/29/2021 2359
Chloroform	ND		1	1.0	0.40	ug/L	03/29/2021 2359
Chloromethane (Methyl chloride)	ND		1	1.0	0.50	ug/L	03/29/2021 2359
Cyclohexane	ND		1	1.0	0.40	ug/L	03/29/2021 2359
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	0.40	ug/L	03/29/2021 2359
Dibromochloromethane	ND		1	1.0	0.40	ug/L	03/29/2021 2359
1,2-Dibromoethane (EDB)	ND		1	1.0	0.40	ug/L	03/29/2021 2359
1,2-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/29/2021 2359
1,3-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/29/2021 2359
1,4-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/29/2021 2359
Dichlorodifluoromethane	ND		1	2.0	0.60	ug/L	03/29/2021 2359
1,1-Dichloroethane	ND		1	1.0	0.40	ug/L	03/29/2021 2359
1,2-Dichloroethane	ND		1	1.0	0.40	ug/L	03/29/2021 2359
1,1-Dichloroethene	ND		1	1.0	0.40	ug/L	03/29/2021 2359
cis-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	03/29/2021 2359
trans-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	03/29/2021 2359
1,2-Dichloropropane	ND		1	1.0	0.40	ug/L	03/29/2021 2359
cis-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	03/29/2021 2359
trans-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	03/29/2021 2359
Ethylbenzene	ND		1	1.0	0.40	ug/L	03/29/2021 2359
2-Hexanone	ND		1	10	2.0	ug/L	03/29/2021 2359
Isopropylbenzene	ND		1	1.0	0.40	ug/L	03/29/2021 2359
Methyl acetate	ND		1	1.0	0.40	ug/L	03/29/2021 2359
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	0.40	ug/L	03/29/2021 2359
4-Methyl-2-pentanone	ND		1	10	2.0	ug/L	03/29/2021 2359
Methylcyclohexane	ND		1	5.0	0.40	ug/L	03/29/2021 2359
Methylene chloride	ND		1	1.0	0.40	ug/L	03/29/2021 2359
Styrene	ND		1	1.0	0.41	ug/L	03/29/2021 2359
1,1,2,2-Tetrachloroethane	ND		1	1.0	0.40	ug/L	03/29/2021 2359
Tetrachloroethene	ND		1	1.0	0.40	ug/L	03/29/2021 2359
Toluene	ND		1	1.0	0.40	ug/L	03/29/2021 2359
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	0.42	ug/L	03/29/2021 2359
1,2,4-Trichlorobenzene	ND		1	1.0	0.40	ug/L	03/29/2021 2359
1,1,1-Trichloroethane	ND		1	1.0	0.40	ug/L	03/29/2021 2359
1,1,2-Trichloroethane	ND		1	1.0	0.40	ug/L	03/29/2021 2359

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: WQ87247-001
Batch: 87247
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Trichloroethene	ND		1	1.0	0.40	ug/L	03/29/2021 2359
Trichlorofluoromethane	ND		1	1.0	0.40	ug/L	03/29/2021 2359
Vinyl chloride	ND		1	1.0	0.40	ug/L	03/29/2021 2359
Xylenes (total)	ND		1	1.0	0.40	ug/L	03/29/2021 2359

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		102	70-130
1,2-Dichloroethane-d4		84	70-130
Toluene-d8		90	70-130

LOQ = Limit of Quantitation
DL = Detection Limit

ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria

N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: WQ87247-002
Batch: 87247
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Acetone	100	130		1	125	60-140	03/29/2021 2310
Benzene	50	47		1	94	70-130	03/29/2021 2310
Bromodichloromethane	50	47		1	94	70-130	03/29/2021 2310
Bromoform	50	46		1	92	70-130	03/29/2021 2310
Bromomethane (Methyl bromide)	50	44		1	87	70-130	03/29/2021 2310
2-Butanone (MEK)	100	120		1	117	70-130	03/29/2021 2310
Carbon disulfide	50	48		1	96	70-130	03/29/2021 2310
Carbon tetrachloride	50	45		1	90	70-130	03/29/2021 2310
Chlorobenzene	50	47		1	95	70-130	03/29/2021 2310
Chloroethane	50	47		1	93	70-130	03/29/2021 2310
Chloroform	50	43		1	86	70-130	03/29/2021 2310
Chloromethane (Methyl chloride)	50	41		1	82	60-140	03/29/2021 2310
Cyclohexane	50	41		1	81	70-130	03/29/2021 2310
1,2-Dibromo-3-chloropropane (DBCP)	50	43		1	86	70-130	03/29/2021 2310
Dibromochloromethane	50	45		1	90	70-130	03/29/2021 2310
1,2-Dibromoethane (EDB)	50	50		1	99	70-130	03/29/2021 2310
1,2-Dichlorobenzene	50	48		1	97	70-130	03/29/2021 2310
1,3-Dichlorobenzene	50	49		1	97	70-130	03/29/2021 2310
1,4-Dichlorobenzene	50	47		1	94	70-130	03/29/2021 2310
Dichlorodifluoromethane	50	47		1	94	60-140	03/29/2021 2310
1,1-Dichloroethane	50	44		1	88	70-130	03/29/2021 2310
1,2-Dichloroethane	50	42		1	84	70-130	03/29/2021 2310
1,1-Dichloroethene	50	48		1	96	70-130	03/29/2021 2310
cis-1,2-Dichloroethene	50	46		1	93	70-130	03/29/2021 2310
trans-1,2-Dichloroethene	50	47		1	94	70-130	03/29/2021 2310
1,2-Dichloropropane	50	47		1	94	70-130	03/29/2021 2310
cis-1,3-Dichloropropene	50	51		1	102	70-130	03/29/2021 2310
trans-1,3-Dichloropropene	50	43		1	86	70-130	03/29/2021 2310
Ethylbenzene	50	49		1	99	70-130	03/29/2021 2310
2-Hexanone	100	89		1	89	70-130	03/29/2021 2310
Isopropylbenzene	50	51		1	101	70-130	03/29/2021 2310
Methyl acetate	50	48		1	96	70-130	03/29/2021 2310
Methyl tertiary butyl ether (MTBE)	50	45		1	89	70-130	03/29/2021 2310
4-Methyl-2-pentanone	100	94		1	94	70-130	03/29/2021 2310
Methylcyclohexane	50	50		1	101	70-130	03/29/2021 2310
Methylene chloride	50	45		1	90	70-130	03/29/2021 2310
Styrene	50	52		1	105	70-130	03/29/2021 2310
1,1,2,2-Tetrachloroethane	50	49		1	98	70-130	03/29/2021 2310
Tetrachloroethene	50	49		1	99	70-130	03/29/2021 2310
Toluene	50	48		1	95	70-130	03/29/2021 2310
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	47		1	95	70-130	03/29/2021 2310
1,2,4-Trichlorobenzene	50	53		1	105	70-130	03/29/2021 2310
1,1,1-Trichloroethane	50	44		1	89	70-130	03/29/2021 2310
1,1,2-Trichloroethane	50	47		1	95	70-130	03/29/2021 2310

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: WQ87247-002
Batch: 87247
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Trichloroethene	50	48		1	95	70-130	03/29/2021 2310
Trichlorofluoromethane	50	48		1	96	70-130	03/29/2021 2310
Vinyl chloride	50	45		1	89	70-130	03/29/2021 2310
Xylenes (total)	100	100		1	101	70-130	03/29/2021 2310

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		92	70-130
1,2-Dichloroethane-d4		82	70-130
Toluene-d8		91	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: WC24065-011MS
Batch: 87247
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Acetone	31	100	91		1	61	60-140	03/30/2021 0626
Benzene	ND	50	47		1	94	70-130	03/30/2021 0626
Bromodichloromethane	ND	50	45		1	89	70-130	03/30/2021 0626
Bromoform	ND	50	37		1	75	70-130	03/30/2021 0626
Bromomethane (Methyl bromide)	ND	50	43		1	85	70-130	03/30/2021 0626
2-Butanone (MEK)	180	100	260		1	78	70-130	03/30/2021 0626
Carbon disulfide	ND	50	46		1	92	70-130	03/30/2021 0626
Carbon tetrachloride	ND	50	45		1	90	70-130	03/30/2021 0626
Chlorobenzene	ND	50	47		1	94	70-130	03/30/2021 0626
Chloroethane	ND	50	47		1	94	70-130	03/30/2021 0626
Chloroform	ND	50	41		1	82	70-130	03/30/2021 0626
Chloromethane (Methyl chloride)	ND	50	41		1	81	60-140	03/30/2021 0626
Cyclohexane	ND	50	42		1	85	70-130	03/30/2021 0626
1,2-Dibromo-3-chloropropane (DBCP)	ND	50	37		1	73	70-130	03/30/2021 0626
Dibromochloromethane	ND	50	41		1	82	70-130	03/30/2021 0626
1,2-Dibromoethane (EDB)	ND	50	47		1	95	70-130	03/30/2021 0626
1,2-Dichlorobenzene	0.54	50	48		1	94	70-130	03/30/2021 0626
1,3-Dichlorobenzene	ND	50	49		1	97	70-130	03/30/2021 0626
1,4-Dichlorobenzene	ND	50	46		1	93	70-130	03/30/2021 0626
Dichlorodifluoromethane	ND	50	48		1	97	60-140	03/30/2021 0626
1,1-Dichloroethane	ND	50	43		1	86	70-130	03/30/2021 0626
1,2-Dichloroethane	ND	50	41		1	81	70-130	03/30/2021 0626
1,1-Dichloroethene	2.7	50	50		1	95	70-130	03/30/2021 0626
cis-1,2-Dichloroethene	1800	50	1800	N	1	-40	70-130	03/30/2021 0626
trans-1,2-Dichloroethene	1.3	50	47		1	92	70-130	03/30/2021 0626
1,2-Dichloropropane	ND	50	47		1	95	70-130	03/30/2021 0626
cis-1,3-Dichloropropene	ND	50	46		1	92	70-130	03/30/2021 0626
trans-1,3-Dichloropropene	ND	50	38		1	76	70-130	03/30/2021 0626
Ethylbenzene	ND	50	49		1	97	70-130	03/30/2021 0626
2-Hexanone	ND	100	79		1	79	70-130	03/30/2021 0626
Isopropylbenzene	ND	50	49		1	99	70-130	03/30/2021 0626
Methyl acetate	10	50	150	N	1	278	70-130	03/30/2021 0626
Methyl tertiary butyl ether (MTBE)	ND	50	41		1	82	70-130	03/30/2021 0626
4-Methyl-2-pentanone	ND	100	88		1	88	70-130	03/30/2021 0626
Methylcyclohexane	ND	50	49		1	99	70-130	03/30/2021 0626
Methylene chloride	0.62	50	43		1	85	70-130	03/30/2021 0626
Styrene	ND	50	51		1	102	70-130	03/30/2021 0626
1,1,2,2-Tetrachloroethane	ND	50	48		1	97	70-130	03/30/2021 0626
Tetrachloroethene	26	50	70		1	89	70-130	03/30/2021 0626
Toluene	ND	50	48		1	96	70-130	03/30/2021 0626
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	50	48		1	96	70-130	03/30/2021 0626
1,2,4-Trichlorobenzene	ND	50	46		1	91	70-130	03/30/2021 0626
1,1,1-Trichloroethane	ND	50	45		1	89	70-130	03/30/2021 0626
1,1,2-Trichloroethane	ND	50	47		1	93	70-130	03/30/2021 0626

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: WC24065-011MS
Batch: 87247
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Trichloroethene	7.4	50	53		1	91	70-130	03/30/2021 0626
Trichlorofluoromethane	ND	50	48		1	95	70-130	03/30/2021 0626
Vinyl chloride	16	50	60		1	88	70-130	03/30/2021 0626
Xylenes (total)	ND	100	98		1	98	70-130	03/30/2021 0626

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		97	70-130
1,2-Dichloroethane-d4		85	70-130
Toluene-d8		100	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MSD

Sample ID: WC24065-011MD
Batch: 87247
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	%Rec Limit	% RPD Limit	Analysis Date
Acetone	31	100	88	N	1	58	3.2	60-140	20	03/30/2021 0651
Benzene	ND	50	48		1	97	2.8	70-130	20	03/30/2021 0651
Bromodichloromethane	ND	50	47		1	94	4.7	70-130	20	03/30/2021 0651
Bromoform	ND	50	39		1	77	3.3	70-130	20	03/30/2021 0651
Bromomethane (Methyl bromide)	ND	50	43		1	86	0.42	70-130	20	03/30/2021 0651
2-Butanone (MEK)	180	100	250		1	76	0.93	70-130	20	03/30/2021 0651
Carbon disulfide	ND	50	48		1	97	4.6	70-130	20	03/30/2021 0651
Carbon tetrachloride	ND	50	46		1	91	1.5	70-130	20	03/30/2021 0651
Chlorobenzene	ND	50	49		1	97	3.0	70-130	20	03/30/2021 0651
Chloroethane	ND	50	46		1	93	0.95	70-130	20	03/30/2021 0651
Chloroform	ND	50	43		1	86	4.3	70-130	20	03/30/2021 0651
Chloromethane (Methyl chloride)	ND	50	40		1	80	2.2	60-140	20	03/30/2021 0651
Cyclohexane	ND	50	43		1	86	1.2	70-130	20	03/30/2021 0651
1,2-Dibromo-3-chloropropane (DBCP)	ND	50	37		1	74	1.3	70-130	20	03/30/2021 0651
Dibromochloromethane	ND	50	42		1	85	3.1	70-130	20	03/30/2021 0651
1,2-Dibromoethane (EDB)	ND	50	49		1	98	3.2	70-130	20	03/30/2021 0651
1,2-Dichlorobenzene	0.54	50	48		1	94	0.16	70-130	20	03/30/2021 0651
1,3-Dichlorobenzene	ND	50	49		1	98	0.51	70-130	20	03/30/2021 0651
1,4-Dichlorobenzene	ND	50	46		1	93	0.27	70-130	20	03/30/2021 0651
Dichlorodifluoromethane	ND	50	46		1	91	5.6	60-140	20	03/30/2021 0651
1,1-Dichloroethane	ND	50	45		1	91	5.0	70-130	20	03/30/2021 0651
1,2-Dichloroethane	ND	50	42		1	84	3.3	70-130	20	03/30/2021 0651
1,1-Dichloroethene	2.7	50	52		1	99	4.4	70-130	20	03/30/2021 0651
cis-1,2-Dichloroethene	1800	50	1800	N	1	-96	1.6	70-130	20	03/30/2021 0651
trans-1,2-Dichloroethene	1.3	50	50		1	97	5.3	70-130	20	03/30/2021 0651
1,2-Dichloropropane	ND	50	49		1	97	2.8	70-130	20	03/30/2021 0651
cis-1,3-Dichloropropene	ND	50	48		1	97	5.3	70-130	20	03/30/2021 0651
trans-1,3-Dichloropropene	ND	50	41		1	82	7.0	70-130	20	03/30/2021 0651
Ethylbenzene	ND	50	50		1	99	2.5	70-130	20	03/30/2021 0651
2-Hexanone	ND	100	80		1	80	1.3	70-130	20	03/30/2021 0651
Isopropylbenzene	ND	50	50		1	100	1.3	70-130	20	03/30/2021 0651
Methyl acetate	10	50	160	N	1	295	5.3	70-130	20	03/30/2021 0651
Methyl tertiary butyl ether (MTBE)	ND	50	42		1	84	3.3	70-130	20	03/30/2021 0651
4-Methyl-2-pentanone	ND	100	89		1	89	1.1	70-130	20	03/30/2021 0651
Methylcyclohexane	ND	50	51		1	101	2.8	70-130	20	03/30/2021 0651
Methylene chloride	0.62	50	45		1	88	3.7	70-130	20	03/30/2021 0651
Styrene	ND	50	52		1	105	2.8	70-130	20	03/30/2021 0651
1,1,2,2-Tetrachloroethane	ND	50	48		1	95	1.4	70-130	20	03/30/2021 0651
Tetrachloroethene	26	50	74		1	96	5.0	70-130	20	03/30/2021 0651
Toluene	ND	50	49		1	99	3.1	70-130	20	03/30/2021 0651
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	50	50		1	99	3.6	70-130	20	03/30/2021 0651
1,2,4-Trichlorobenzene	ND	50	45		1	90	1.5	70-130	20	03/30/2021 0651
1,1,1-Trichloroethane	ND	50	47		1	93	4.2	70-130	20	03/30/2021 0651
1,1,2-Trichloroethane	ND	50	48		1	96	2.7	70-130	20	03/30/2021 0651

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MSD

Sample ID: WC24065-011MD
Batch: 87247
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	%Rec Limit	% RPD Limit	Analysis Date
Trichloroethene	7.4	50	55		1	95	4.3	70-130	20	03/30/2021 0651
Trichlorofluoromethane	ND	50	47		1	95	0.93	70-130	20	03/30/2021 0651
Vinyl chloride	16	50	59		1	86	1.5	70-130	20	03/30/2021 0651
Xylenes (total)	ND	100	100		1	100	2.0	70-130	20	03/30/2021 0651

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		97	70-130
1,2-Dichloroethane-d4		85	70-130
Toluene-d8		100	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: WQ87249-001
Batch: 87249
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Acetone	ND		1	20	5.0	ug/L	03/29/2021 2143
Benzene	ND		1	1.0	0.40	ug/L	03/29/2021 2143
Bromodichloromethane	ND		1	1.0	0.40	ug/L	03/29/2021 2143
Bromoform	ND		1	1.0	0.40	ug/L	03/29/2021 2143
Bromomethane (Methyl bromide)	ND		1	2.0	0.40	ug/L	03/29/2021 2143
2-Butanone (MEK)	ND		1	10	2.0	ug/L	03/29/2021 2143
Carbon disulfide	ND		1	1.0	0.40	ug/L	03/29/2021 2143
Carbon tetrachloride	ND		1	1.0	0.40	ug/L	03/29/2021 2143
Chlorobenzene	ND		1	1.0	0.40	ug/L	03/29/2021 2143
Chloroethane	ND		1	2.0	0.40	ug/L	03/29/2021 2143
Chloroform	ND		1	1.0	0.40	ug/L	03/29/2021 2143
Chloromethane (Methyl chloride)	ND		1	1.0	0.50	ug/L	03/29/2021 2143
Cyclohexane	ND		1	1.0	0.40	ug/L	03/29/2021 2143
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	0.40	ug/L	03/29/2021 2143
Dibromochloromethane	ND		1	1.0	0.40	ug/L	03/29/2021 2143
1,2-Dibromoethane (EDB)	ND		1	1.0	0.40	ug/L	03/29/2021 2143
1,2-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/29/2021 2143
1,3-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/29/2021 2143
1,4-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/29/2021 2143
Dichlorodifluoromethane	ND		1	2.0	0.60	ug/L	03/29/2021 2143
1,1-Dichloroethane	ND		1	1.0	0.40	ug/L	03/29/2021 2143
1,2-Dichloroethane	ND		1	1.0	0.40	ug/L	03/29/2021 2143
1,1-Dichloroethene	ND		1	1.0	0.40	ug/L	03/29/2021 2143
cis-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	03/29/2021 2143
trans-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	03/29/2021 2143
1,2-Dichloropropane	ND		1	1.0	0.40	ug/L	03/29/2021 2143
cis-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	03/29/2021 2143
trans-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	03/29/2021 2143
Ethylbenzene	ND		1	1.0	0.40	ug/L	03/29/2021 2143
2-Hexanone	ND		1	10	2.0	ug/L	03/29/2021 2143
Isopropylbenzene	ND		1	1.0	0.40	ug/L	03/29/2021 2143
Methyl acetate	ND		1	1.0	0.40	ug/L	03/29/2021 2143
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	0.40	ug/L	03/29/2021 2143
4-Methyl-2-pentanone	ND		1	10	2.0	ug/L	03/29/2021 2143
Methylcyclohexane	ND		1	5.0	0.40	ug/L	03/29/2021 2143
Methylene chloride	ND		1	1.0	0.40	ug/L	03/29/2021 2143
Styrene	ND		1	1.0	0.41	ug/L	03/29/2021 2143
1,1,2,2-Tetrachloroethane	ND		1	1.0	0.40	ug/L	03/29/2021 2143
Tetrachloroethene	ND		1	1.0	0.40	ug/L	03/29/2021 2143
Toluene	ND		1	1.0	0.40	ug/L	03/29/2021 2143
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	0.42	ug/L	03/29/2021 2143
1,2,4-Trichlorobenzene	ND		1	1.0	0.40	ug/L	03/29/2021 2143
1,1,1-Trichloroethane	ND		1	1.0	0.40	ug/L	03/29/2021 2143
1,1,2-Trichloroethane	ND		1	1.0	0.40	ug/L	03/29/2021 2143

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: WQ87249-001
Batch: 87249
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Trichloroethene	ND		1	1.0	0.40	ug/L	03/29/2021 2143
Trichlorofluoromethane	ND		1	1.0	0.40	ug/L	03/29/2021 2143
Vinyl chloride	ND		1	1.0	0.40	ug/L	03/29/2021 2143
Xylenes (total)	ND		1	1.0	0.40	ug/L	03/29/2021 2143

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		111	70-130
1,2-Dichloroethane-d4		105	70-130
Toluene-d8		110	70-130

LOQ = Limit of Quantitation
DL = Detection Limit

ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria

N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: WQ87249-002
Batch: 87249
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Acetone	100	140		1	137	60-140	03/29/2021 2024
Benzene	50	50		1	99	70-130	03/29/2021 2024
Bromodichloromethane	50	51		1	101	70-130	03/29/2021 2024
Bromoform	50	56		1	112	70-130	03/29/2021 2024
Bromomethane (Methyl bromide)	50	48		1	95	70-130	03/29/2021 2024
2-Butanone (MEK)	100	95		1	95	70-130	03/29/2021 2024
Carbon disulfide	50	51		1	101	70-130	03/29/2021 2024
Carbon tetrachloride	50	50		1	100	70-130	03/29/2021 2024
Chlorobenzene	50	49		1	98	70-130	03/29/2021 2024
Chloroethane	50	50		1	100	70-130	03/29/2021 2024
Chloroform	50	50		1	99	70-130	03/29/2021 2024
Chloromethane (Methyl chloride)	50	47		1	94	60-140	03/29/2021 2024
Cyclohexane	50	46		1	92	70-130	03/29/2021 2024
1,2-Dibromo-3-chloropropane (DBCP)	50	54		1	108	70-130	03/29/2021 2024
Dibromochloromethane	50	53		1	106	70-130	03/29/2021 2024
1,2-Dibromoethane (EDB)	50	50		1	100	70-130	03/29/2021 2024
1,2-Dichlorobenzene	50	51		1	101	70-130	03/29/2021 2024
1,3-Dichlorobenzene	50	48		1	96	70-130	03/29/2021 2024
1,4-Dichlorobenzene	50	48		1	96	70-130	03/29/2021 2024
Dichlorodifluoromethane	50	53		1	105	60-140	03/29/2021 2024
1,1-Dichloroethane	50	49		1	99	70-130	03/29/2021 2024
1,2-Dichloroethane	50	49		1	98	70-130	03/29/2021 2024
1,1-Dichloroethene	50	48		1	97	70-130	03/29/2021 2024
cis-1,2-Dichloroethene	50	49		1	97	70-130	03/29/2021 2024
trans-1,2-Dichloroethene	50	49		1	97	70-130	03/29/2021 2024
1,2-Dichloropropane	50	49		1	99	70-130	03/29/2021 2024
cis-1,3-Dichloropropene	50	42		1	84	70-130	03/29/2021 2024
trans-1,3-Dichloropropene	50	43		1	86	70-130	03/29/2021 2024
Ethylbenzene	50	48		1	97	70-130	03/29/2021 2024
2-Hexanone	100	100		1	103	70-130	03/29/2021 2024
Isopropylbenzene	50	51		1	102	70-130	03/29/2021 2024
Methyl acetate	50	51		1	103	70-130	03/29/2021 2024
Methyl tertiary butyl ether (MTBE)	50	50		1	101	70-130	03/29/2021 2024
4-Methyl-2-pentanone	100	100		1	103	70-130	03/29/2021 2024
Methylcyclohexane	50	46		1	91	70-130	03/29/2021 2024
Methylene chloride	50	49		1	99	70-130	03/29/2021 2024
Styrene	50	50		1	101	70-130	03/29/2021 2024
1,1,2,2-Tetrachloroethane	50	50		1	99	70-130	03/29/2021 2024
Tetrachloroethene	50	49		1	98	70-130	03/29/2021 2024
Toluene	50	50		1	99	70-130	03/29/2021 2024
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	47		1	94	70-130	03/29/2021 2024
1,2,4-Trichlorobenzene	50	45		1	90	70-130	03/29/2021 2024
1,1,1-Trichloroethane	50	52		1	103	70-130	03/29/2021 2024
1,1,2-Trichloroethane	50	49		1	98	70-130	03/29/2021 2024

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: WQ87249-002
Batch: 87249
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Trichloroethene	50	50		1	99	70-130	03/29/2021 2024
Trichlorofluoromethane	50	51		1	102	70-130	03/29/2021 2024
Vinyl chloride	50	50		1	100	70-130	03/29/2021 2024
Xylenes (total)	100	98		1	98	70-130	03/29/2021 2024

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		105	70-130
1,2-Dichloroethane-d4		96	70-130
Toluene-d8		95	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: WC24065-007MS
Batch: 87249
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Acetone	ND	2000	1200	N	20	58	60-140	03/30/2021 0743
Benzene	ND	1000	1100		20	107	70-130	03/30/2021 0743
Bromodichloromethane	ND	1000	1000		20	102	70-130	03/30/2021 0743
Bromoform	ND	1000	870		20	87	70-130	03/30/2021 0743
Bromomethane (Methyl bromide)	ND	1000	980		20	98	70-130	03/30/2021 0743
2-Butanone (MEK)	110	2000	1400	N	20	65	70-130	03/30/2021 0743
Carbon disulfide	11	1000	1100		20	105	70-130	03/30/2021 0743
Carbon tetrachloride	ND	1000	1100		20	110	70-130	03/30/2021 0743
Chlorobenzene	ND	1000	1100		20	107	70-130	03/30/2021 0743
Chloroethane	ND	1000	1000		20	103	70-130	03/30/2021 0743
Chloroform	ND	1000	1000		20	103	70-130	03/30/2021 0743
Chloromethane (Methyl chloride)	ND	1000	960		20	96	60-140	03/30/2021 0743
Cyclohexane	ND	1000	1100		20	109	70-130	03/30/2021 0743
1,2-Dibromo-3-chloropropane (DBCP)	ND	1000	940		20	94	70-130	03/30/2021 0743
Dibromochloromethane	ND	1000	1000		20	100	70-130	03/30/2021 0743
1,2-Dibromoethane (EDB)	ND	1000	1100		20	108	70-130	03/30/2021 0743
1,2-Dichlorobenzene	ND	1000	1200		20	117	70-130	03/30/2021 0743
1,3-Dichlorobenzene	ND	1000	1100		20	112	70-130	03/30/2021 0743
1,4-Dichlorobenzene	ND	1000	1100		20	114	70-130	03/30/2021 0743
Dichlorodifluoromethane	ND	1000	1200		20	116	60-140	03/30/2021 0743
1,1-Dichloroethane	ND	1000	1000		20	103	70-130	03/30/2021 0743
1,2-Dichloroethane	ND	1000	1000		20	102	70-130	03/30/2021 0743
1,1-Dichloroethene	ND	1000	1100		20	108	70-130	03/30/2021 0743
cis-1,2-Dichloroethene	23	1000	1000		20	100	70-130	03/30/2021 0743
trans-1,2-Dichloroethene	ND	1000	1100		20	107	70-130	03/30/2021 0743
1,2-Dichloropropane	ND	1000	1100		20	107	70-130	03/30/2021 0743
cis-1,3-Dichloropropene	ND	1000	970		20	97	70-130	03/30/2021 0743
trans-1,3-Dichloropropene	ND	1000	1000		20	104	70-130	03/30/2021 0743
Ethylbenzene	ND	1000	1100		20	108	70-130	03/30/2021 0743
2-Hexanone	ND	2000	2000		20	102	70-130	03/30/2021 0743
Isopropylbenzene	ND	1000	1100		20	109	70-130	03/30/2021 0743
Methyl acetate	9.7	1000	750		20	74	70-130	03/30/2021 0743
Methyl tertiary butyl ether (MTBE)	ND	1000	980		20	98	70-130	03/30/2021 0743
4-Methyl-2-pentanone	ND	2000	1900		20	93	70-130	03/30/2021 0743
Methylcyclohexane	ND	1000	1100		20	113	70-130	03/30/2021 0743
Methylene chloride	ND	1000	980		20	98	70-130	03/30/2021 0743
Styrene	ND	1000	1100		20	106	70-130	03/30/2021 0743
1,1,2,2-Tetrachloroethane	ND	1000	1100		20	112	70-130	03/30/2021 0743
Tetrachloroethene	2000	1000	3400	N	20	139	70-130	03/30/2021 0743
Toluene	ND	1000	1100		20	114	70-130	03/30/2021 0743
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	1000	1200		20	116	70-130	03/30/2021 0743
1,2,4-Trichlorobenzene	ND	1000	1100		20	112	70-130	03/30/2021 0743
1,1,1-Trichloroethane	ND	1000	1100		20	111	70-130	03/30/2021 0743
1,1,2-Trichloroethane	ND	1000	1000		20	104	70-130	03/30/2021 0743

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: WC24065-007MS
Batch: 87249
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Trichloroethene	20	1000	1100		20	111	70-130	03/30/2021 0743
Trichlorofluoromethane	ND	1000	1100		20	112	70-130	03/30/2021 0743
Vinyl chloride	ND	1000	1100		20	111	70-130	03/30/2021 0743
Xylenes (total)	ND	2000	2100		20	107	70-130	03/30/2021 0743

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		112	70-130
1,2-Dichloroethane-d4		100	70-130
Toluene-d8		114	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MSD

Sample ID: WC24065-007MD
Batch: 87249
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	%Rec Limit	% RPD Limit	Analysis Date
Acetone	ND	2000	1900	+	20	96	49	60-140	20	03/30/2021 0806
Benzene	ND	1000	1000		20	100	6.4	70-130	20	03/30/2021 0806
Bromodichloromethane	ND	1000	990		20	99	3.7	70-130	20	03/30/2021 0806
Bromoform	ND	1000	910		20	91	4.4	70-130	20	03/30/2021 0806
Bromomethane (Methyl bromide)	ND	1000	930		20	93	5.2	70-130	20	03/30/2021 0806
2-Butanone (MEK)	110	2000	1900	+	20	92	32	70-130	20	03/30/2021 0806
Carbon disulfide	11	1000	1000		20	100	5.3	70-130	20	03/30/2021 0806
Carbon tetrachloride	ND	1000	1000		20	105	4.8	70-130	20	03/30/2021 0806
Chlorobenzene	ND	1000	1000		20	102	5.0	70-130	20	03/30/2021 0806
Chloroethane	ND	1000	990		20	99	4.0	70-130	20	03/30/2021 0806
Chloroform	ND	1000	1000		20	101	2.2	70-130	20	03/30/2021 0806
Chloromethane (Methyl chloride)	ND	1000	920		20	92	4.1	60-140	20	03/30/2021 0806
Cyclohexane	ND	1000	1000		20	102	6.6	70-130	20	03/30/2021 0806
1,2-Dibromo-3-chloropropane (DBCP)	ND	1000	960		20	96	1.2	70-130	20	03/30/2021 0806
Dibromochloromethane	ND	1000	990		20	99	0.59	70-130	20	03/30/2021 0806
1,2-Dibromoethane (EDB)	ND	1000	1000		20	104	3.6	70-130	20	03/30/2021 0806
1,2-Dichlorobenzene	ND	1000	1100		20	106	9.9	70-130	20	03/30/2021 0806
1,3-Dichlorobenzene	ND	1000	1000		20	103	8.6	70-130	20	03/30/2021 0806
1,4-Dichlorobenzene	ND	1000	1000		20	105	8.7	70-130	20	03/30/2021 0806
Dichlorodifluoromethane	ND	1000	1100		20	110	5.0	60-140	20	03/30/2021 0806
1,1-Dichloroethane	ND	1000	1000		20	101	2.2	70-130	20	03/30/2021 0806
1,2-Dichloroethane	ND	1000	980		20	98	3.6	70-130	20	03/30/2021 0806
1,1-Dichloroethene	ND	1000	1000		20	103	5.4	70-130	20	03/30/2021 0806
cis-1,2-Dichloroethene	23	1000	1000		20	98	2.7	70-130	20	03/30/2021 0806
trans-1,2-Dichloroethene	ND	1000	990		20	99	7.8	70-130	20	03/30/2021 0806
1,2-Dichloropropane	ND	1000	1000		20	101	5.8	70-130	20	03/30/2021 0806
cis-1,3-Dichloropropene	ND	1000	930		20	93	4.4	70-130	20	03/30/2021 0806
trans-1,3-Dichloropropene	ND	1000	990		20	99	4.3	70-130	20	03/30/2021 0806
Ethylbenzene	ND	1000	1000		20	103	5.4	70-130	20	03/30/2021 0806
2-Hexanone	ND	2000	2100		20	106	3.4	70-130	20	03/30/2021 0806
Isopropylbenzene	ND	1000	1100		20	107	1.8	70-130	20	03/30/2021 0806
Methyl acetate	9.7	1000	930	+	20	92	21	70-130	20	03/30/2021 0806
Methyl tertiary butyl ether (MTBE)	ND	1000	950		20	95	2.5	70-130	20	03/30/2021 0806
4-Methyl-2-pentanone	ND	2000	2000		20	98	5.4	70-130	20	03/30/2021 0806
Methylcyclohexane	ND	1000	1100		20	108	4.5	70-130	20	03/30/2021 0806
Methylene chloride	ND	1000	960		20	96	2.1	70-130	20	03/30/2021 0806
Styrene	ND	1000	1000		20	103	2.9	70-130	20	03/30/2021 0806
1,1,2,2-Tetrachloroethane	ND	1000	1100		20	111	1.4	70-130	20	03/30/2021 0806
Tetrachloroethene	2000	1000	3200		20	116	7.0	70-130	20	03/30/2021 0806
Toluene	ND	1000	1100		20	108	5.7	70-130	20	03/30/2021 0806
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	1000	1000		20	105	9.7	70-130	20	03/30/2021 0806
1,2,4-Trichlorobenzene	ND	1000	900	+	20	90	22	70-130	20	03/30/2021 0806
1,1,1-Trichloroethane	ND	1000	1100		20	105	5.0	70-130	20	03/30/2021 0806
1,1,2-Trichloroethane	ND	1000	1000		20	105	1.0	70-130	20	03/30/2021 0806

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MSD

Sample ID: WC24065-007MD
Batch: 87249
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	%Rec Limit	% RPD Limit	Analysis Date
Trichloroethene	20	1000	1100		20	107	4.1	70-130	20	03/30/2021 0806
Trichlorofluoromethane	ND	1000	1100		20	107	4.5	70-130	20	03/30/2021 0806
Vinyl chloride	ND	1000	1000		20	104	6.7	70-130	20	03/30/2021 0806
Xylenes (total)	ND	2000	2100		20	103	3.9	70-130	20	03/30/2021 0806

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		112	70-130
1,2-Dichloroethane-d4		101	70-130
Toluene-d8		111	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: WQ87395-001
Batch: 87395
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Acetone	ND		1	20	5.0	ug/L	03/30/2021 2202
Benzene	ND		1	1.0	0.40	ug/L	03/30/2021 2202
Bromodichloromethane	ND		1	1.0	0.40	ug/L	03/30/2021 2202
Bromoform	ND		1	1.0	0.40	ug/L	03/30/2021 2202
Bromomethane (Methyl bromide)	ND		1	2.0	0.40	ug/L	03/30/2021 2202
2-Butanone (MEK)	ND		1	10	2.0	ug/L	03/30/2021 2202
Carbon disulfide	ND		1	1.0	0.40	ug/L	03/30/2021 2202
Carbon tetrachloride	ND		1	1.0	0.40	ug/L	03/30/2021 2202
Chlorobenzene	ND		1	1.0	0.40	ug/L	03/30/2021 2202
Chloroethane	ND		1	2.0	0.40	ug/L	03/30/2021 2202
Chloroform	ND		1	1.0	0.40	ug/L	03/30/2021 2202
Chloromethane (Methyl chloride)	ND		1	1.0	0.50	ug/L	03/30/2021 2202
Cyclohexane	ND		1	1.0	0.40	ug/L	03/30/2021 2202
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	0.40	ug/L	03/30/2021 2202
Dibromochloromethane	ND		1	1.0	0.40	ug/L	03/30/2021 2202
1,2-Dibromoethane (EDB)	ND		1	1.0	0.40	ug/L	03/30/2021 2202
1,2-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/30/2021 2202
1,3-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/30/2021 2202
1,4-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/30/2021 2202
Dichlorodifluoromethane	ND		1	2.0	0.60	ug/L	03/30/2021 2202
1,1-Dichloroethane	ND		1	1.0	0.40	ug/L	03/30/2021 2202
1,2-Dichloroethane	ND		1	1.0	0.40	ug/L	03/30/2021 2202
1,1-Dichloroethene	ND		1	1.0	0.40	ug/L	03/30/2021 2202
cis-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	03/30/2021 2202
trans-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	03/30/2021 2202
1,2-Dichloropropane	ND		1	1.0	0.40	ug/L	03/30/2021 2202
cis-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	03/30/2021 2202
trans-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	03/30/2021 2202
Ethylbenzene	ND		1	1.0	0.40	ug/L	03/30/2021 2202
2-Hexanone	ND		1	10	2.0	ug/L	03/30/2021 2202
Isopropylbenzene	ND		1	1.0	0.40	ug/L	03/30/2021 2202
Methyl acetate	ND		1	1.0	0.40	ug/L	03/30/2021 2202
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	0.40	ug/L	03/30/2021 2202
4-Methyl-2-pentanone	ND		1	10	2.0	ug/L	03/30/2021 2202
Methylcyclohexane	ND		1	5.0	0.40	ug/L	03/30/2021 2202
Methylene chloride	ND		1	1.0	0.40	ug/L	03/30/2021 2202
Styrene	ND		1	1.0	0.41	ug/L	03/30/2021 2202
1,1,2,2-Tetrachloroethane	ND		1	1.0	0.40	ug/L	03/30/2021 2202
Tetrachloroethene	ND		1	1.0	0.40	ug/L	03/30/2021 2202
Toluene	ND		1	1.0	0.40	ug/L	03/30/2021 2202
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	0.42	ug/L	03/30/2021 2202
1,2,4-Trichlorobenzene	ND		1	1.0	0.40	ug/L	03/30/2021 2202
1,1,1-Trichloroethane	ND		1	1.0	0.40	ug/L	03/30/2021 2202
1,1,2-Trichloroethane	ND		1	1.0	0.40	ug/L	03/30/2021 2202

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: WQ87395-001
Batch: 87395
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Trichloroethene	ND		1	1.0	0.40	ug/L	03/30/2021 2202
Trichlorofluoromethane	ND		1	1.0	0.40	ug/L	03/30/2021 2202
Vinyl chloride	ND		1	1.0	0.40	ug/L	03/30/2021 2202
Xylenes (total)	ND		1	1.0	0.40	ug/L	03/30/2021 2202

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		112	70-130
1,2-Dichloroethane-d4		93	70-130
Toluene-d8		101	70-130

LOQ = Limit of Quantitation
DL = Detection Limit

ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria

N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: WQ87395-002
Batch: 87395
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Acetone	100	87		1	87	60-140	03/30/2021 2046
Benzene	50	51		1	102	70-130	03/30/2021 2046
Bromodichloromethane	50	50		1	100	70-130	03/30/2021 2046
Bromoform	50	44		1	88	70-130	03/30/2021 2046
Bromomethane (Methyl bromide)	50	45		1	91	70-130	03/30/2021 2046
2-Butanone (MEK)	100	110		1	107	70-130	03/30/2021 2046
Carbon disulfide	50	49		1	98	70-130	03/30/2021 2046
Carbon tetrachloride	50	48		1	96	70-130	03/30/2021 2046
Chlorobenzene	50	51		1	103	70-130	03/30/2021 2046
Chloroethane	50	50		1	101	70-130	03/30/2021 2046
Chloroform	50	47		1	93	70-130	03/30/2021 2046
Chloromethane (Methyl chloride)	50	44		1	89	60-140	03/30/2021 2046
Cyclohexane	50	45		1	91	70-130	03/30/2021 2046
1,2-Dibromo-3-chloropropane (DBCP)	50	44		1	89	70-130	03/30/2021 2046
Dibromochloromethane	50	47		1	93	70-130	03/30/2021 2046
1,2-Dibromoethane (EDB)	50	54		1	107	70-130	03/30/2021 2046
1,2-Dichlorobenzene	50	53		1	105	70-130	03/30/2021 2046
1,3-Dichlorobenzene	50	54		1	107	70-130	03/30/2021 2046
1,4-Dichlorobenzene	50	52		1	103	70-130	03/30/2021 2046
Dichlorodifluoromethane	50	54		1	108	60-140	03/30/2021 2046
1,1-Dichloroethane	50	49		1	97	70-130	03/30/2021 2046
1,2-Dichloroethane	50	45		1	90	70-130	03/30/2021 2046
1,1-Dichloroethene	50	51		1	101	70-130	03/30/2021 2046
cis-1,2-Dichloroethene	50	50		1	101	70-130	03/30/2021 2046
trans-1,2-Dichloroethene	50	51		1	102	70-130	03/30/2021 2046
1,2-Dichloropropane	50	52		1	103	70-130	03/30/2021 2046
cis-1,3-Dichloropropene	50	54		1	107	70-130	03/30/2021 2046
trans-1,3-Dichloropropene	50	45		1	91	70-130	03/30/2021 2046
Ethylbenzene	50	53		1	105	70-130	03/30/2021 2046
2-Hexanone	100	92		1	92	70-130	03/30/2021 2046
Isopropylbenzene	50	54		1	108	70-130	03/30/2021 2046
Methyl acetate	50	52		1	104	70-130	03/30/2021 2046
Methyl tertiary butyl ether (MTBE)	50	47		1	94	70-130	03/30/2021 2046
4-Methyl-2-pentanone	100	100		1	100	70-130	03/30/2021 2046
Methylcyclohexane	50	53		1	106	70-130	03/30/2021 2046
Methylene chloride	50	48		1	95	70-130	03/30/2021 2046
Styrene	50	57		1	113	70-130	03/30/2021 2046
1,1,2,2-Tetrachloroethane	50	54		1	109	70-130	03/30/2021 2046
Tetrachloroethene	50	52		1	104	70-130	03/30/2021 2046
Toluene	50	52		1	103	70-130	03/30/2021 2046
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	51		1	102	70-130	03/30/2021 2046
1,2,4-Trichlorobenzene	50	56		1	111	70-130	03/30/2021 2046
1,1,1-Trichloroethane	50	48		1	96	70-130	03/30/2021 2046
1,1,2-Trichloroethane	50	51		1	103	70-130	03/30/2021 2046

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: WQ87395-002
Batch: 87395
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Trichloroethene	50	50		1	100	70-130	03/30/2021 2046
Trichlorofluoromethane	50	51		1	102	70-130	03/30/2021 2046
Vinyl chloride	50	47		1	95	70-130	03/30/2021 2046
Xylenes (total)	100	110		1	108	70-130	03/30/2021 2046

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		98	70-130
1,2-Dichloroethane-d4		86	70-130
Toluene-d8		97	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: WC24065-012MS
Batch: 87395
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Acetone	ND	500	420		5	84	60-140	03/31/2021 0828
Benzene	ND	250	250		5	102	70-130	03/31/2021 0828
Bromodichloromethane	ND	250	240		5	98	70-130	03/31/2021 0828
Bromoform	ND	250	220		5	87	70-130	03/31/2021 0828
Bromomethane (Methyl bromide)	ND	250	220		5	87	70-130	03/31/2021 0828
2-Butanone (MEK)	ND	500	530		5	105	70-130	03/31/2021 0828
Carbon disulfide	ND	250	240		5	98	70-130	03/31/2021 0828
Carbon tetrachloride	ND	250	250		5	100	70-130	03/31/2021 0828
Chlorobenzene	ND	250	250		5	100	70-130	03/31/2021 0828
Chloroethane	ND	250	250		5	101	70-130	03/31/2021 0828
Chloroform	ND	250	230		5	91	70-130	03/31/2021 0828
Chloromethane (Methyl chloride)	ND	250	220		5	90	60-140	03/31/2021 0828
Cyclohexane	ND	250	240		5	94	70-130	03/31/2021 0828
1,2-Dibromo-3-chloropropane (DBCP)	ND	250	200		5	82	70-130	03/31/2021 0828
Dibromochloromethane	ND	250	220		5	90	70-130	03/31/2021 0828
1,2-Dibromoethane (EDB)	ND	250	260		5	103	70-130	03/31/2021 0828
1,2-Dichlorobenzene	ND	250	250		5	101	70-130	03/31/2021 0828
1,3-Dichlorobenzene	ND	250	260		5	102	70-130	03/31/2021 0828
1,4-Dichlorobenzene	ND	250	240		5	97	70-130	03/31/2021 0828
Dichlorodifluoromethane	ND	250	290		5	115	60-140	03/31/2021 0828
1,1-Dichloroethane	ND	250	240		5	95	70-130	03/31/2021 0828
1,2-Dichloroethane	ND	250	220		5	88	70-130	03/31/2021 0828
1,1-Dichloroethene	ND	250	260		5	102	70-130	03/31/2021 0828
cis-1,2-Dichloroethene	ND	250	250		5	99	70-130	03/31/2021 0828
trans-1,2-Dichloroethene	ND	250	250		5	101	70-130	03/31/2021 0828
1,2-Dichloropropane	ND	250	260		5	104	70-130	03/31/2021 0828
cis-1,3-Dichloropropene	ND	250	250		5	100	70-130	03/31/2021 0828
trans-1,3-Dichloropropene	ND	250	210		5	83	70-130	03/31/2021 0828
Ethylbenzene	ND	250	270		5	106	70-130	03/31/2021 0828
2-Hexanone	ND	500	450		5	90	70-130	03/31/2021 0828
Isopropylbenzene	ND	250	270		5	108	70-130	03/31/2021 0828
Methyl acetate	ND	250	240		5	97	70-130	03/31/2021 0828
Methyl tertiary butyl ether (MTBE)	ND	250	230		5	90	70-130	03/31/2021 0828
4-Methyl-2-pentanone	ND	500	500		5	101	70-130	03/31/2021 0828
Methylcyclohexane	ND	250	280		5	110	70-130	03/31/2021 0828
Methylene chloride	ND	250	230		5	90	70-130	03/31/2021 0828
Styrene	ND	250	280		5	111	70-130	03/31/2021 0828
1,1,2,2-Tetrachloroethane	ND	250	260		5	104	70-130	03/31/2021 0828
Tetrachloroethene	310	250	560		5	100	70-130	03/31/2021 0828
Toluene	ND	250	260		5	103	70-130	03/31/2021 0828
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	250	260		5	105	70-130	03/31/2021 0828
1,2,4-Trichlorobenzene	ND	250	260		5	104	70-130	03/31/2021 0828
1,1,1-Trichloroethane	ND	250	240		5	98	70-130	03/31/2021 0828
1,1,2-Trichloroethane	ND	250	250		5	100	70-130	03/31/2021 0828

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: WC24065-012MS
Batch: 87395
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Trichloroethene	ND	250	250		5	101	70-130	03/31/2021 0828
Trichlorofluoromethane	ND	250	260		5	102	70-130	03/31/2021 0828
Vinyl chloride	ND	250	240		5	95	70-130	03/31/2021 0828
Xylenes (total)	ND	500	530		5	107	70-130	03/31/2021 0828

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		95	70-130
1,2-Dichloroethane-d4		84	70-130
Toluene-d8		96	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MSD

Sample ID: WC24065-012MD
Batch: 87395
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	%Rec Limit	% RPD Limit	Analysis Date
Acetone	ND	500	430		5	86	3.0	60-140	20	03/31/2021 0853
Benzene	ND	250	260		5	104	2.2	70-130	20	03/31/2021 0853
Bromodichloromethane	ND	250	260		5	102	4.5	70-130	20	03/31/2021 0853
Bromoform	ND	250	230		5	91	5.0	70-130	20	03/31/2021 0853
Bromomethane (Methyl bromide)	ND	250	230		5	92	5.4	70-130	20	03/31/2021 0853
2-Butanone (MEK)	ND	500	530		5	105	0.34	70-130	20	03/31/2021 0853
Carbon disulfide	ND	250	260		5	103	5.4	70-130	20	03/31/2021 0853
Carbon tetrachloride	ND	250	250		5	99	1.2	70-130	20	03/31/2021 0853
Chlorobenzene	ND	250	260		5	104	4.2	70-130	20	03/31/2021 0853
Chloroethane	ND	250	260		5	106	4.5	70-130	20	03/31/2021 0853
Chloroform	ND	250	240		5	95	3.9	70-130	20	03/31/2021 0853
Chloromethane (Methyl chloride)	ND	250	230		5	92	2.9	60-140	20	03/31/2021 0853
Cyclohexane	ND	250	240		5	94	0.093	70-130	20	03/31/2021 0853
1,2-Dibromo-3-chloropropane (DBCP)	ND	250	220		5	89	8.0	70-130	20	03/31/2021 0853
Dibromochloromethane	ND	250	230		5	94	4.2	70-130	20	03/31/2021 0853
1,2-Dibromoethane (EDB)	ND	250	270		5	108	4.7	70-130	20	03/31/2021 0853
1,2-Dichlorobenzene	ND	250	270		5	108	6.9	70-130	20	03/31/2021 0853
1,3-Dichlorobenzene	ND	250	270		5	109	6.7	70-130	20	03/31/2021 0853
1,4-Dichlorobenzene	ND	250	260		5	104	6.7	70-130	20	03/31/2021 0853
Dichlorodifluoromethane	ND	250	290		5	116	0.31	60-140	20	03/31/2021 0853
1,1-Dichloroethane	ND	250	250		5	101	5.3	70-130	20	03/31/2021 0853
1,2-Dichloroethane	ND	250	230		5	92	4.0	70-130	20	03/31/2021 0853
1,1-Dichloroethene	ND	250	260		5	105	2.9	70-130	20	03/31/2021 0853
cis-1,2-Dichloroethene	ND	250	260		5	102	3.5	70-130	20	03/31/2021 0853
trans-1,2-Dichloroethene	ND	250	260		5	106	4.9	70-130	20	03/31/2021 0853
1,2-Dichloropropane	ND	250	270		5	106	2.3	70-130	20	03/31/2021 0853
cis-1,3-Dichloropropene	ND	250	260		5	105	4.7	70-130	20	03/31/2021 0853
trans-1,3-Dichloropropene	ND	250	220		5	88	5.4	70-130	20	03/31/2021 0853
Ethylbenzene	ND	250	270		5	108	2.2	70-130	20	03/31/2021 0853
2-Hexanone	ND	500	440		5	89	0.87	70-130	20	03/31/2021 0853
Isopropylbenzene	ND	250	280		5	110	1.9	70-130	20	03/31/2021 0853
Methyl acetate	ND	250	250		5	98	1.4	70-130	20	03/31/2021 0853
Methyl tertiary butyl ether (MTBE)	ND	250	230		5	91	0.74	70-130	20	03/31/2021 0853
4-Methyl-2-pentanone	ND	500	500		5	99	1.6	70-130	20	03/31/2021 0853
Methylcyclohexane	ND	250	270		5	110	0.71	70-130	20	03/31/2021 0853
Methylene chloride	ND	250	240		5	96	5.5	70-130	20	03/31/2021 0853
Styrene	ND	250	290		5	115	3.2	70-130	20	03/31/2021 0853
1,1,2,2-Tetrachloroethane	ND	250	270		5	109	4.4	70-130	20	03/31/2021 0853
Tetrachloroethene	310	250	550		5	97	1.2	70-130	20	03/31/2021 0853
Toluene	ND	250	270		5	106	2.9	70-130	20	03/31/2021 0853
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	250	260		5	104	0.81	70-130	20	03/31/2021 0853
1,2,4-Trichlorobenzene	ND	250	280		5	112	7.7	70-130	20	03/31/2021 0853
1,1,1-Trichloroethane	ND	250	250		5	101	3.3	70-130	20	03/31/2021 0853
1,1,2-Trichloroethane	ND	250	260		5	102	2.4	70-130	20	03/31/2021 0853

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MSD

Sample ID: WC24065-012MD
Batch: 87395
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	%Rec Limit	% RPD Limit	Analysis Date
Trichloroethene	ND	250	260		5	105	4.4	70-130	20	03/31/2021 0853
Trichlorofluoromethane	ND	250	270		5	108	5.2	70-130	20	03/31/2021 0853
Vinyl chloride	ND	250	250		5	99	3.8	70-130	20	03/31/2021 0853
Xylenes (total)	ND	500	550		5	109	2.4	70-130	20	03/31/2021 0853

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		100	70-130
1,2-Dichloroethane-d4		87	70-130
Toluene-d8		101	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: WQ87528-001
Batch: 87528
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Acetone	ND		1	20	5.0	ug/L	03/31/2021 2024
cis-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	03/31/2021 2024

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		102	70-130
1,2-Dichloroethane-d4		95	70-130
Toluene-d8		106	70-130

LOQ = Limit of Quantitation
DL = Detection Limit

ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria

N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: WQ87528-002
Batch: 87528
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Acetone	100	110		1	111	60-140	03/31/2021 1909
cis-1,2-Dichloroethene	50	52		1	104	70-130	03/31/2021 1909

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		95	70-130
1,2-Dichloroethane-d4		85	70-130
Toluene-d8		98	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: WC24065-011MS
Batch: 87528
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Acetone	ND	5000	5400		50	109	60-140	04/01/2021 0552
cis-1,2-Dichloroethene	2600	2500	5500		50	117	70-130	04/01/2021 0552

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		98	70-130
1,2-Dichloroethane-d4		85	70-130
Toluene-d8		102	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MSD

Sample ID: WC24065-011MD
Batch: 87528
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	%Rec Limit	% RPD Limit	Analysis Date
Acetone	ND	5000	5600		50	111	2.0	60-140	20	04/01/2021 0617
cis-1,2-Dichloroethene	2600	2500	5300		50	108	4.3	70-130	20	04/01/2021 0617

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		98	70-130
1,2-Dichloroethane-d4		84	70-130
Toluene-d8		102	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Chain of Custody

and

Miscellaneous Documents

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Telephone No. 803-791-9700 Fax No. 803-791-9111
www.pacelabs.com

Number L17074

Client	Report to Contact	Telephone No. / E-mail	Quote No.
TRC	Lisa Clark		
Address: 50 International Dr Ste 150	Sampler's Signature: x	Analysis (Attach list if more space is needed)	Page 1 of 2
City: Greenville / State: SC / Zip Code: 29615	Printed Name: Aharon Mishuris		WC24065 LJD
Project Name: WPH Clemson			

Project No.	P.O. No.			Matrix			No. of Containers by Preservative Type											Remarks / Cooler I.D.
Sample ID / Description (Containers for each sample may be combined on one line.)	2021 Collection Date(s)	Collection Time (Military)	Composite (G) or Grab (C)	Aqueous	Solid	Other Matrix	Unpres	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Other (Please)	VOCs	Sulfate + Bromide	Dissolved Gases		
300688.0.0.11																		
TBLK-21104	/	/	G	X						2				X				
RMW-05B	3-19	1145	G	X			1	3		3				X	X	X		
RMW-05A	3-19	1155	G	X			1	3		3				X	X	X		
RMW-19A	3-19	1435	G	X			1	3		3				X	X	X		
RMW-19	3-19	1440	G	X			1	3		3				X	X	X		
RMW-21	3-19	1535	G	X			1	3		3				X	X	X		
RMW-21W/RMW-21WMS/MSD	3-19	1540	G	X			2	6		6				X	X	X		
RMW-08	3-22	1130	G	X			1	3		3				X	X	X		
RMW-08A	3-22	1135	G	X			1	3		3				X	X	X		
RMW-20	3-22	1450	G	X			1	3		3				X	X	X		

Turn Around Time Required (Prior lab approval required for expedited TAT.): ☐ Standard ☐ Rush (Specify)

Sample Disposal: ☐ Return to Client ☐ Disposal by Lab

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished by	3.23.21	1755	1. Received by: TRC/GS	3-23-21	1755
2. Relinquished by: TRC/GS	3.24.21	0834	2. Received by	3.24.21	0834
3. Relinquished by	3.24.21	1354	3. Received by	Date	Time
4. Relinquished by	Date	Time	4. Laboratory received by	3/24/21	1354

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY — Received on Ice (Circle) (Yes) No Ice Pack — Receipt Temp. 3.5 °C — Temp Blank ☐ Y ☒ N

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Client Copy

Document Number: ME003N2-01

PACE ANALYTICAL SERVICES, LLC

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Number L17075

Client	Report to Contact	Telephone No. / E-mail	Quote No.
TRC	Lisa Clark		
Address: 50 International Dr Ste 150	Sampler's Signature:	Analysis (Attach list if more space is needed)	Page 2 of 2
City: Greenville State: SC Zip Code: 29615	Printed Name: Aharon Mishuris		WC24065
Project Name: WPH Clemson			

Project No.	P.O. No.			Matrix			No of Containers by Preservative Type							VOCs	Sulfide + Bromide	Dissolved Gases						Remarks / Cooler I.D.
300688.0.0.11																						
Sample ID / Description (Containers for each sample may be combined on one line.)	2021 Collection Date(s)	Collection Time (Military)	G=Grab C=Composite	Aqueous	Soil	Non-Aqueous	Unpres.	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Field Filtered									
RMW-20A/RMW-20A/MS/MSD	3-22	1455	G	X			2	6		6				X	X	X						
MG-05A	3-22	1635	G	X			1	3		3				X	X	X						
MG-05	3-22	1640	G	X			1	3		3				X	X	X						
RMW-27A	3-23	1100	G	X			1	3		3				X	X	X						
RMW-27B	3-23	1110	G	X			1	3		3				X	X	X						
RMW-18A	3-23	1345	G	X			1	3		3				X	X	X						
RMW-27	3-23	1350	G	X			1	3		3				X	X	X						
RMW-20B	3-23	1500	G	X			1	3		3				X	X	X						
RMW-20C	3-23	1530	G	X			1	3		3				X	X	X						
DU-21103	\	\	G	X			1	3		3				X	X	X						

Turn Around Time Required (Prior lab approval required for expedited TAT.)	Sample Disposal	Possible Hazard Identification	QC Requirements (Specify)
☐ Standard ☐ Rush (Specify)	☐ Return to Client ☐ Disposal by Lab	☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown	

		Date	Time		Date	Time
1. Relinquished by		3-23-21	1755	1. Received by: TRC GS	3-23-21	1755
2. Relinquished by: TRC GS		3-24-21	0834	2. Received by	3-24-21	0834
3. Relinquished by		3-24-21	1354	3. Received by	Date	Time
4. Relinquished by		Date	Time	4. Laboratory received by	3/24/21	1354

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on Ice (Circle) (Yes) No Ice Pack Receipt Temp. 3.5 °C Temp Blank ☐ Y ☐N

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK Field/Client Copy

Document Number: ME005N2-01

PaceAnalytical

Samples Receipt Checklist (SRC) (ME0018C-15)
Issuing Authority: Pace ENV - WCOL

Revised:9/29/2020
Page 1 of 1

Sample Receipt Checklist (SRC)

Client: TRC Cooler Inspected by/date: MEH / 03/24/2021 Lot #: WC24065

Means of receipt: ☑ Pace ☐ Client ☐ UPS ☐ FedEx ☐ Other: _____

☐ Yes	☑ No		1. Were custody seals present on the cooler?
☐ Yes	☐ No	☑ NA	2. If custody seals were present, were they intact and unbroken?

pH Strip ID: NA Chlorine Strip ID: NA Tested by: NA

Original temperature upon receipt / Derived (Corrected) temperature upon receipt %Solid Snap-Cup ID: NA

3.5 / 3.5 °C NA / NA °C NA / NA °C NA / NA °C

Method: ☑ Temperature Blank ☐ Against Bottles IR Gun ID: 6 IR Gun Correction Factor: 0 °C

Method of coolant: ☑ Wet Ice ☐ Ice Packs ☐ Dry Ice ☐ None

☐ Yes	☐ No	☑ NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).
☐ Yes	☐ No	☑ NA	4. Is the commercial courier's packing slip attached to this form?
☑ Yes	☐ No		5. Were proper custody procedures (relinquished/received) followed?
☑ Yes	☐ No		6. Were sample IDs listed on the COC?
☑ Yes	☐ No		7. Were sample IDs listed on all sample containers?
☑ Yes	☐ No		8. Was collection date & time listed on the COC?
☑ Yes	☐ No		9. Was collection date & time listed on all sample containers?
☑ Yes	☐ No		10. Did all container label information (ID, date, time) agree with the COC?
☑ Yes	☐ No		11. Were tests to be performed listed on the COC?
☑ Yes	☐ No		12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)?
☑ Yes	☐ No		13. Was adequate sample volume available?
☑ Yes	☐ No		14. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
☐ Yes	☑ No		15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
☐ Yes	☑ No	☐ NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (¼"or 6mm in diameter) in any of the VOA vials?
☐ Yes	☐ No	☑ NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?
☐ Yes	☐ No	☑ NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
☐ Yes	☐ No	☑ NA	19. Were all applicable NH_3/TKN/cyanide/phenol/625.1/608.3 (< 0.5mg/L) samples free of residual chlorine?
☐ Yes	☐ No	☑ NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc…) correctly transcribed from the COC into the comment section in LIMS?
☐ Yes	☑ No		21. Was the quote number listed on the container label? If yes, Quote #

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) NA were received incorrectly preserved and were adjusted accordingly in sample receiving with NA mL of circle one: H2SO4, HNO3, HCl, NaOH using SR # NA.
Time of preservation NA. If more than one preservative is needed, please note in the comments below.

Sample(s) NA were received with bubbles >6 mm in diameter.

Samples(s) NA were received with TRC > 0.5 mg/L (If #19 is *no*) and were adjusted accordingly in sample receiving with sodium thiosulfate ($Na_2S_2O_3$) with Shealy ID: NA.

SR barcode labels applied by: MEH Date: 03/24/2021

Comments:

LELAP CERTIFICATE NUMBER: 01955
DOD-ELAP ACCREDITATION NUMBER: 74960

ANALYTICAL RESULTS

PERFORMED BY

Pace Analytical Gulf Coast
7979 Innovation Park Dr.
Baton Rouge, LA 70820
(225) 769-4900

Report Date 04/08/2021

Report # 221033041

Project WC24065 WPH Clemson

Deliver To	***Additional Recipients***
Lucas Odom Pace Analytical Services South Carolina 106 Vantage Point Drive West Columbia, SC 29172 803 791 9700	NONE

Laboratory Data Quality Review Notes

Project Name: WPH-Clemson, SC

Project Number: 300688.0000.0000 Phase 11

Lab Report: **WC24065** Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.), West Columbia, SC; subcontracted report: **221033041** Pace Analytical Gulf Coast, Baton Rouge, LA

Samples and Analyses: Eighteen groundwater samples (plus one field duplicate), collected 19-Mar, 22-Mar, and 23-Mar-2021, and analyzed for volatile organic compounds (VOCs), bromide, and sulfate; one trip blank (TB), analyzed for VOCs only. Analysis of the groundwater samples for dissolved hydrocarbon gases (ethane, ethene, methane) was subcontracted and was reported separately (as noted above).

Chain of Custody, Sample Temperature, Sample Preservation: Chain of custody (COC) forms were signed; cooler temperature was ≤6 ^{o}C upon arrival at each laboratory; samples were preserved properly. No sample receipt anomalies were noted.

Holding Time: Sample analyses were performed within acceptable holding times.

Surrogates: VOC surrogate recoveries were within laboratory quality control (QC) limits.

Method Blank: Laboratory method blanks were appropriately associated with all analyses. The following target analytes were detected in the laboratory method blanks:

- Sulfate (0.25 J mg/L) was detected in the laboratory method blank associated with all groundwater samples. **The positive results for sulfate in samples RMW-05A and RMW-05B were estimated concentrations below the limit of quantitation (LOQ) (J-qualified by the laboratory) and were therefore potential false positives; these results were qualified "u" (revised to ND) at the laboratory LOQ, based on the associated laboratory method blank contamination. The positive results for sulfate in samples MG-05 and RMW-20C were > the LOQ but <5× the associated blank concentration; therefore, these results were qualified "j+" (estimated, with a potential high bias)**. Qualification was not required for the sulfate in the remaining samples since these results were ND or were significantly higher than (>5×) the method blank concentration.
- Methane (2.9 J µg/L) was detected in one of the laboratory method blanks associated with the analysis of dissolved hydrocarbon gases. **The positive results for methane in samples RMW-05A, RMW-19, and RMW-19A were > the LOQ but <5× the associated blank concentration; therefore, these results were considered to be potential false positives and were qualified "u" (revised to ND), with the LOQ for each revised to the reported sample concentration.** The positive result for methane in sample DU-21103 was also in this concentration range (>LOQ and <5× the blank); however, this sample is a field duplicate of sample RMW-27B, which reported a higher methane concentration (17 µg/L > 5× blank). Professional judgment was exercised in this

case, and no qualifier was applied to the DU-21103 methane result on the basis of method blank contamination. Qualification was not required for the positive results for methane in the remaining associated samples (RMW-05B, RMW-21, and RMW-21A) since these results were significantly higher than (>5×) the method blank concentration.

Trip Blank: No target analytes were detected in the TB (TBLK-21103); analyzed for VOCs only.

Field Blank: A field blank was not collected with these samples.

Equipment Rinse Blank: An equipment rinse blank was not collected with these samples.

LCS/LCSD: LCS analyses were performed appropriately for all analyses; the analyses for dissolved hydrocarbon gases also included analysis of LCSD samples. The LCS and LCSD recoveries and LCS/LCSD relative percent differences (RPDs) were within the laboratory QC limits.

MS/MSD: MS/MSD analyses were performed for the following analyses using the indicated sample as the associated parent sample:

MG-05A	VOCs
RMW-20A	bromide, sulfate, VOCs, and dissolved hydrocarbon gases
RMW-21A	bromide, sulfate, VOCs, and dissolved hydrocarbon gases
RMW-16	VOCs (tetrachloroethene only)

The MS and MSD recoveries and MS/MSD RPDs were within QC criteria, with the exception of the following:

- Two VOC MS/MSD analyses were performed using sample RMW-20A. In the first set of MS/MSD analyses, the MS and MSD recoveries for cis-1,2-dichloroethene were outside the QC limits; however, the parent (RMW-20A) concentration for this analyte was over 4× the MS/MSD spike concentration. In this situation, MS/MSD recoveries are considered unreliable and are not usable for sample qualification. The MSD recovery for acetone in this analysis was below the QC limits. It is noted that the stated parent sample concentrations for acetone and cis-1,2-dichloroethene in this MS/MSD analysis did not match the concentrations reported in the sample analysis summary because these 2 analytes were reported from a dilution run (Run 2) for this sample.

  A second set of MS/MSD analyses was performed using sample RMW-20A, but with this analysis, only acetone and cis-1,2-dichloroethene were reported, since these analytes were reported from Run 2 for this sample. In this MS/MSD analysis, the reported parent concentrations agreed with the sample analysis summary, and the spike concentration applied for cis-1,2-dichloroethene was comparable to the parent concentration; recoveries for both analytes were within QC limits. Based on these results, no validation action was taken for acetone or cis-1,2-dichloroethene in sample RMW-20A.

  The MS and MSD recoveries in sample RMW-20A for methyl acetate (only reported in the first MS/MSD analysis) were above the QC limits. **Therefore, the positive result for methyl acetate in sample RMW-20A was qualified "j+" (estimated, with a potential high bias).**

- In the VOCs MS/MSD analysis using sample RMW-21A, the MS recoveries for acetone, 2-butanone, and tetrachloroethene were below the QC limits. The MSD recoveries for all analytes were within the QC limits, but the MS/MSD RPDs for acetone, 2-butanone, methyl acetate, and 1,2,4-trichlorobenzene were above the QC limit. **The ND result for acetone in sample RMW-21A was qualified "uj" (estimated LOQ) based on the low MS recovery. The positive result for tetrachloroethene in this sample was qualified "j-" (estimated, with a potential low bias) based on the low MS recovery, the positive result for 2-butanone was qualified "j" (estimated) based on the low MS recovery and the elevated MS/MSD RPD, and the positive result for methyl acetate was qualified "j" (estimated) based on the elevated MS/MSD RPD.** Qualification was not required for 1,2,4-trichlorobenzene on the basis of the elevated MS/MSD RPD since this analyte was ND in sample RMW-21A.

- The MS and MSD recoveries for sulfate in sample RMW-20A were below the QC limits. **Therefore, the ND result for sulfate in sample RMW-20A was qualified "uj" (estimated LOQ).**

- The MSD recovery for sulfate in sample RMW-21A was below the QC limits; however, the parent (RMW-21A) concentration for this analyte was over 4× the MS/MSD spike concentration. In this situation, MS/MSD recoveries are considered unreliable and are not usable for sample qualification. No validation action was taken on this basis.

- The MS and MSD recoveries for methane in sample RMW-20A were outside the QC limits; however, the parent (RMW-20A) concentration for this analyte was over 4× the MS/MSD spike concentration. In this situation, MS/MSD recoveries are considered unreliable and are not usable for sample qualification. No validation action was taken on this basis.

- The MSD recoveries for ethane and methane in sample RMW-21A were below the QC limits. **The positive results for ethane and methane in sample RMW-21A were qualified "j-" (estimated, with a potential low bias) based on the low MSD recoveries.**

Duplicates: No laboratory duplicates were included with these analyses. A field duplicate (DU-21103) was collected for sample RMW-27B. Duplicate RPDs were calculated for analytes detected above 5× the LOQ in both samples; the absolute difference (AbsD) was used to evaluate analytes detected below 5× the LOQ in one or both samples. RPD values were ≤ 30%, and AbsD values were ≤LOQ, with the exception of the following:

- The AbsD (8.4 µg/L) for the methane results in samples RMW-27B and DU-21103 exceeded the LOQ of 5.0 µg/L. **Therefore, the positive results for methane in samples RMW-27B and DU-21103 were qualified "j" (estimated).**

Dilutions: The following sample analyses were performed with dilution, as indicated:

RMW-19A	VOCs (10×)
RMW-21A	VOCs (20×)
RMW-08A	VOCs (5×)
RMW-20A	VOCs (50×) (acetone and cis-1,2-dichlroethene only)
MG-05A	VOCs (5×)
RMW-27B	VOCs (5×)

RMW-27 VOCs (10×)

DU-21102 VOCs (5×)

The laboratory reports did not indicate the dilution reason(s), but the dilutions appear to have been performed in order to bring the concentrations of target analytes into the appropriate instrument calibration range. With the exception of RMW-20A, the ND results in the noted VOC analyses were associated with correspondingly elevated detection limit (DL) and LOQ values.

Validation qualifiers were applied in this review, as summarized in the following table.

Data Reviewer: Amy Bass; TRC Environmental Corporation; 26-Apr-2021

Summary of qualifiers assigned by the data quality reviewer.

WC24065 **Sample ID**	**Analyte**	**Lab Result [LOQ]**	**Qualifier Assigned**	**Qualified Result**	**Basis**
RMW-05A	sulfate	0.71 J [1.0]	u (@LOQ)	< 1.0	MB (sc ≤ LOQ)
RMW-05B		0.51 J [1.0]	u (@LOQ)	< 1.0	
MG-05	sulfate	2.9 [1.0]	j+	2.9 J+	MB (LOQ< sc <5×MB)
RMW-20C		1.1 [1.0]	j+	1.1 J+	
RMW-05A	methane	8.4 [5.0]	u (@ sc)	< 8.4	MB (LOQ< sc <5×MB)
RMW-19		5.2 [5.0]		< 5.2	
RMW-19A		5.9 [5.0]		< 5.9	
RMW-20A	methyl acetate	10 [1.0]	j+	10 J+	high MS recovery
RMW-21A	acetone	ND [400]	uj	< 400 UJ	low MS recovery
RMW-21A	tetrachloroethene	2000 [20]	j-	2000 J-	low MS recovery
RMW-21A	2-butanone	110 J [200]	j	110 J	low MS recovery, RPD (MS)
RMW-21A	methyl acetate	9.7 J [20]	j	9.7 J	RPD (MS)
RMW-20A	sulfate	ND [1.0]	uj	< 1.0 UJ	low MS recovery
RMW-21A	ethane	1.6 [1.0]	j-	1.6 J-	low MS recovery
	methane	210 [5.0]	j-	210 J-	
RMW-27B	methane	17 [5.0]	j	17 J	FD comparison
DU-21103		8.6 [5.0]	j	8.6 J	

FD: field duplicate LOQ: limit of quantitation MB: method blank contamination MS: matrix spike and/or duplicate ND: non-detect RPD (MS): MS/MSD RPD sc: sample concentration

Validation qualifiers applied: "j" (estimated), "j-" / "j+" (estimated, with a potential low / high bias), "u" (revised to ND), "uj" (estimated LOQ)

Laboratory Endorsement

Sample analysis was performed in accordance with approved methodologies provided by the Environmental Protection Agency or other recognized agencies. The samples and their corresponding extracts will be maintained for a period of 30 days unless otherwise arranged. Following this retention period the samples will be disposed in accordance with Pace Gulf Coast's Standard Operating Procedures.

Common Abbreviations that may be Utilized in this Report

ND	Indicates the result was Not Detected at the specified reporting limit
NO	Indicates the sample did not ignite when preliminary test performed for EPA Method 1030
DO	Indicates the result was Diluted Out
MI	Indicates the result was subject to Matrix Interference
TNTC	Indicates the result was Too Numerous To Count
SUBC	Indicates the analysis was Sub-Contracted
FLD	Indicates the analysis was performed in the Field
DL	Detection Limit
LOD	Limit of Detection
LOQ	Limit of Quantitation
RE	Re-analysis
CF	HPLC or GC Confirmation
00:01	Reported as a time equivalent to 12:00 AM

Reporting Flags that may be Utilized in this Report

J or I	Indicates the result is between the MDL and LOQ
J	DOD flag on analyte in the parent sample for MS/MSD outside acceptance criteria
U	Indicates the compound was analyzed for but not detected
B or V	Indicates the analyte was detected in the associated Method Blank
Q	Indicates a non-compliant QC Result (See Q Flag Application Report)
*****	Indicates a non-compliant or not applicable QC recovery or RPD – see narrative
E	Organics - The result is estimated because it exceeded the instrument calibration range
E	Metals - % diference for the serial dilution is > 10%
L	Reporting Limits adjusted to meet risk-based limit.
P	RPD between primary and confirmation result is greater than 40
DL	Diluted analysis – when appended to Client Sample ID

Sample receipt at Pace Gulf Coast is documented through the attached chain of custody. In accordance with NELAC, this report shall be reproduced only in full and with the written permission of Pace Gulf Coast. The results contained within this report relate only to the samples reported. The documented results are presented within this report.

This report pertains only to the samples listed in the Report Sample Summary and should be retained as a permanent record thereof. The results contained within this report are intended for the use of the client. Any unauthorized use of the information contained in this report is prohibited.

I certify that this data package is in compliance with The NELAC Institute (TNI) Standard 2009 and terms and conditions of the contract and Statement of Work both technically and for completeness, for other than the conditions in the case narrative. Release of the data contained in this hardcopy data package and in the computer readable data submitted has been authorized by the Quality Assurance Manager or his/her designee, as verified by the following signature.

Estimated uncertainty of measurement is available upon request. This report is in compliance with the DOD QSM as specified in the contract if applicable.

Authorized Signature
Pace Gulf Coast Report 221033041

Certifications

Certification	Certification Number
DOD ELAP	74960
Alabama	01955
Arkansas	88-0655
Colorado	01955
Delaware	01955
Florida	E87854
Georgia	01955
Hawaii	01955
Idaho	01955
Illinois	200048
Indiana	01955
Kansas	E-10354
Kentucky	95
Louisiana	01955
Maryland	01955
Massachusetts	01955
Michigan	01955
Mississippi	01955
Missouri	01955
Montana	N/A
Nebraska	01955
New Mexico	01955
North Carolina	618
North Dakota	R-195
Oklahoma	9403
South Carolina	73006001
South Dakota	01955
Tennessee	01955
Texas	T104704178
Vermont	01955
Virginia	460215
Washington	C929
USDA Soil Permit	P330-16-00234

Case Narrative

Client: Pace Analytical Services South Carolina **Report:** 221033041

Pace Analytical Gulf Coast received and analyzed the sample(s) listed
on the Report Sample Summary page of this report. Receipt of the sample(s) is documented
by the attached chain of custody. This applies only to the sample(s) listed in this report.
No sample integrity or quality control exceptions were identified unless noted below.

VOLATILES GAS CHROMATOGRAPHY

In the AM20GAX analysis for analytical batch 707373, the MS and/or MSD exhibited recovery failures. All LCS/LCSD recoveries are acceptable.

In the AM20GAX analysis for analytical batch 707570, the MS/MSD recoveries are not applicable to Methane due to the high concentration of this analyte in the parent sample. The LCS/LCSD recoveries are acceptable.

Sample Summary

LAB ID	Client ID	Matrix	Collect Date	Receive Date
22103304101	RMW-05B	Water	03/19/2021 11:45	03/30/2021 10:11
22103304102	RMW-05A	Water	03/19/2021 11:55	03/30/2021 10:11
22103304103	RMW-19A	Water	03/19/2021 14:35	03/30/2021 10:11
22103304104	RMW-19	Water	03/19/2021 14:40	03/30/2021 10:11
22103304105	RMW-21	Water	03/19/2021 15:35	03/30/2021 10:11
22103304106	RMW-21A	Water	03/19/2021 15:40	03/30/2021 10:11
22103304107	RMW-21A-MS	Water	03/19/2021 15:40	03/30/2021 10:11
22103304108	RMW-21A-MSD	Water	03/19/2021 15:40	03/30/2021 10:11
22103304109	RMW-08	Water	03/22/2021 11:30	03/30/2021 10:11
22103304110	RMW-08A	Water	03/22/2021 11:35	03/30/2021 10:11
22103304111	RMW-20	Water	03/22/2021 14:50	03/30/2021 10:11
22103304112	RMW-20A	Water	03/22/2021 14:55	03/30/2021 10:11
22103304113	RMW-20A-MS	Water	03/22/2021 14:55	03/30/2021 10:11
22103304114	RMW-20A-MSD	Water	03/22/2021 14:55	03/30/2021 10:11
22103304115	MG-05A	Water	03/22/2021 16:35	03/30/2021 10:11
22103304116	MG-05	Water	03/22/2021 16:40	03/30/2021 10:11
22103304117	RMW-27A	Water	03/23/2021 11:00	03/30/2021 10:11
22103304118	RMW-27B	Water	03/23/2021 11:10	03/30/2021 10:11
22103304119	RMW-18A	Water	03/23/2021 13:45	03/30/2021 10:11
22103304120	RMW-27	Water	03/23/2021 13:50	03/30/2021 10:11
22103304121	RMW-20B	Water	03/23/2021 15:00	03/30/2021 10:11
22103304122	RMW-20C	Water	03/23/2021 15:30	03/30/2021 10:11
22103304123	DU-21103	Water	03/19/2021 00:01	03/30/2021 10:11

Detect Summary

LAB ID	Client ID	Method	Parameter	Result	Units
22103304101	RMW-05B	AM20GAX	Ethene	0.45J	ug/L
22103304101	RMW-05B	AM20GAX	Methane	17	ug/L
22103304102	RMW-05A	AM20GAX	Methane	8.4	ug/L
22103304103	RMW-19A	AM20GAX	Methane	5.9	ug/L
22103304104	RMW-19	AM20GAX	Methane	5.2	ug/L
22103304105	RMW-21	AM20GAX	Methane	110	ug/L
22103304106	RMW-21A	AM20GAX	Ethane	1.6	ug/L
22103304106	RMW-21A	AM20GAX	Ethene	0.65J	ug/L
22103304106	RMW-21A	AM20GAX	Methane	210	ug/L
22103304109	RMW-08	AM20GAX	Ethane	0.59J	ug/L
22103304109	RMW-08	AM20GAX	Ethene	2.1	ug/L
22103304109	RMW-08	AM20GAX	Methane	130	ug/L
22103304110	RMW-08A	AM20GAX	Ethane	2.7	ug/L
22103304110	RMW-08A	AM20GAX	Ethene	1.4	ug/L
22103304110	RMW-08A	AM20GAX	Methane	5200	ug/L
22103304111	RMW-20	AM20GAX	Ethane	0.25J	ug/L
22103304111	RMW-20	AM20GAX	Ethene	0.45J	ug/L
22103304111	RMW-20	AM20GAX	Methane	1200	ug/L
22103304112	RMW-20A	AM20GAX	Ethane	1.8	ug/L
22103304112	RMW-20A	AM20GAX	Ethene	4.6	ug/L
22103304112	RMW-20A	AM20GAX	Methane	16000	ug/L
22103304115	MG-05A	AM20GAX	Ethene	0.22J	ug/L
22103304115	MG-05A	AM20GAX	Methane	14	ug/L
22103304116	MG-05	AM20GAX	Ethene	0.18J	ug/L
22103304116	MG-05	AM20GAX	Methane	37	ug/L
22103304117	RMW-27A	AM20GAX	Ethane	1.4	ug/L
22103304117	RMW-27A	AM20GAX	Methane	14000	ug/L
22103304118	RMW-27B	AM20GAX	Ethene	0.19J	ug/L
22103304118	RMW-27B	AM20GAX	Methane	17	ug/L
22103304119	RMW-18A	AM20GAX	Methane	340	ug/L
22103304120	RMW-27	AM20GAX	Ethane	3.1	ug/L
22103304120	RMW-27	AM20GAX	Ethene	4.3	ug/L
22103304120	RMW-27	AM20GAX	Methane	8200	ug/L
22103304121	RMW-20B	AM20GAX	Ethane	1.6	ug/L
22103304121	RMW-20B	AM20GAX	Ethene	0.16J	ug/L
22103304121	RMW-20B	AM20GAX	Methane	18000	ug/L
22103304122	RMW-20C	AM20GAX	Ethene	0.69J	ug/L
22103304122	RMW-20C	AM20GAX	Methane	1400	ug/L
22103304123	DU-21103	AM20GAX	Ethene	0.12J	ug/L
22103304123	DU-21103	AM20GAX	Methane	8.6	ug/L

Sample Results

RMW-05B

Collect Date 03/19/2021 11:45 | LAB ID 22103304101
Receive Date 03/30/2021 10:11 | Matrix Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	03/31/2021 22:46	JCK2	707373

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	Ethane	0.075U	0.075	1.0	ug/L
74-85-1	**Ethene**	**0.45J**	**0.12**	**1.0**	**ug/L**
74-82-8	**Methane**	**17**	**2.5**	**5.0**	**ug/L**

RMW-05A

Collect Date 03/19/2021 11:55 | LAB ID 22103304102
Receive Date 03/30/2021 10:11 | Matrix Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	03/31/2021 22:57	JCK2	707373

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	Ethane	0.075U	0.075	1.0	ug/L
74-85-1	Ethene	0.12U	0.12	1.0	ug/L
74-82-8	**Methane**	**8.4**	**2.5**	**5.0**	**ug/L**

RMW-19A

Collect Date 03/19/2021 14:35 | LAB ID 22103304103
Receive Date 03/30/2021 10:11 | Matrix Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	03/31/2021 23:09	JCK2	707373

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	Ethane	0.075U	0.075	1.0	ug/L
74-85-1	Ethene	0.12U	0.12	1.0	ug/L
74-82-8	**Methane**	**5.9**	**2.5**	**5.0**	**ug/L**

RMW-19

Collect Date 03/19/2021 14:40 | LAB ID 22103304104
Receive Date 03/30/2021 10:11 | Matrix Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	03/31/2021 23:21	JCK2	707373

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	Ethane	0.075U	0.075	1.0	ug/L
74-85-1	Ethene	0.12U	0.12	1.0	ug/L
74-82-8	**Methane**	**5.2**	**2.5**	**5.0**	**ug/L**

Sample Results

RMW-21

Collect Date	03/19/2021 15:35	**LAB ID**	22103304105
Receive Date	03/30/2021 10:11	**Matrix**	Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	03/31/2021 23:34	JCK2	707373

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	Ethane	0.075U	0.075	1.0	ug/L
74-85-1	Ethene	0.12U	0.12	1.0	ug/L
74-82-8	**Methane**	**110**	**2.5**	**5.0**	**ug/L**

RMW-21A

Collect Date	03/19/2021 15:40	**LAB ID**	22103304106
Receive Date	03/30/2021 10:11	**Matrix**	Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	03/31/2021 23:45	JCK2	707373

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	**Ethane**	**1.6**	**0.075**	**1.0**	**ug/L**
74-85-1	**Ethene**	**0.65J**	**0.12**	**1.0**	**ug/L**
74-82-8	**Methane**	**210**	**2.5**	**5.0**	**ug/L**

RMW-21A-MS

Collect Date	03/19/2021 15:40	**LAB ID**	22103304107
Receive Date	03/30/2021 10:11	**Matrix**	Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	03/31/2021 23:58	JCK2	707373

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	**Ethane**	**78**	**0.075**	**1.0**	**ug/L**
74-85-1	**Ethene**	**120**	**0.12**	**1.0**	**ug/L**
74-82-8	**Methane**	**590**	**2.5**	**5.0**	**ug/L**

RMW-21A-MSD

Collect Date	03/19/2021 15:40	**LAB ID**	22103304108
Receive Date	03/30/2021 10:11	**Matrix**	Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/01/2021 00:11	JCK2	707373

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	**Ethane**	**71**	**0.075**	**1.0**	**ug/L**
74-85-1	**Ethene**	**110**	**0.12**	**1.0**	**ug/L**
74-82-8	**Methane**	**510**	**2.5**	**5.0**	**ug/L**

Sample Results

RMW-08

Collect Date 03/22/2021 11:30 | LAB ID 22103304109
Receive Date 03/30/2021 10:11 | Matrix Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/02/2021 16:08	JCK2	707570

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	Ethane	0.59J	0.075	1.0	ug/L
74-85-1	Ethene	2.1	0.12	1.0	ug/L
74-82-8	Methane	130	2.5	5.0	ug/L

RMW-08A

Collect Date 03/22/2021 11:35 | LAB ID 22103304110
Receive Date 03/30/2021 10:11 | Matrix Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/02/2021 16:21	JCK2	707570

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	Ethane	2.7	0.075	1.0	ug/L
74-85-1	Ethene	1.4	0.12	1.0	ug/L
74-82-8	Methane	5200	2.5	5.0	ug/L

RMW-20

Collect Date 03/22/2021 14:50 | LAB ID 22103304111
Receive Date 03/30/2021 10:11 | Matrix Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/02/2021 16:33	JCK2	707570

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	Ethane	0.25J	0.075	1.0	ug/L
74-85-1	Ethene	0.45J	0.12	1.0	ug/L
74-82-8	Methane	1200	2.5	5.0	ug/L

RMW-20A

Collect Date 03/22/2021 14:55 | LAB ID 22103304112
Receive Date 03/30/2021 10:11 | Matrix Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/02/2021 16:45	JCK2	707570

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	Ethane	1.8	0.075	1.0	ug/L
74-85-1	Ethene	4.6	0.12	1.0	ug/L
74-82-8	Methane	16000	2.5	5.0	ug/L

Sample Results

RMW-20A-MS

Collect Date 03/22/2021 14:55 **LAB ID** 22103304113
Receive Date 03/30/2021 10:11 **Matrix** Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/02/2021 16:57	JCK2	707570

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	Ethane	76	0.075	1.0	ug/L
74-85-1	Ethene	120	0.12	1.0	ug/L
74-82-8	Methane	15000	2.5	5.0	ug/L

RMW-20A-MSD

Collect Date 03/22/2021 14:55 **LAB ID** 22103304114
Receive Date 03/30/2021 10:11 **Matrix** Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/02/2021 17:09	JCK2	707570

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	Ethane	84	0.075	1.0	ug/L
74-85-1	Ethene	130	0.12	1.0	ug/L
74-82-8	Methane	17000	2.5	5.0	ug/L

MG-05A

Collect Date 03/22/2021 16:35 **LAB ID** 22103304115
Receive Date 03/30/2021 10:11 **Matrix** Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/02/2021 17:21	JCK2	707570

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	Ethane	0.075U	0.075	1.0	ug/L
74-85-1	Ethene	0.22J	0.12	1.0	ug/L
74-82-8	Methane	14	2.5	5.0	ug/L

MG-05

Collect Date 03/22/2021 16:40 **LAB ID** 22103304116
Receive Date 03/30/2021 10:11 **Matrix** Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/02/2021 17:32	JCK2	707570

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	Ethane	0.075U	0.075	1.0	ug/L
74-85-1	Ethene	0.18J	0.12	1.0	ug/L
74-82-8	Methane	37	2.5	5.0	ug/L

Sample Results

RMW-27A

Collect Date	03/23/2021 11:00	**LAB ID**	22103304117
Receive Date	03/30/2021 10:11	**Matrix**	Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/02/2021 17:44	JCK2	707570

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	**Ethane**	**1.4**	**0.075**	**1.0**	**ug/L**
74-85-1	Ethene	0.12U	0.12	1.0	ug/L
74-82-8	**Methane**	**14000**	**2.5**	**5.0**	**ug/L**

RMW-27B

Collect Date	03/23/2021 11:10	**LAB ID**	22103304118
Receive Date	03/30/2021 10:11	**Matrix**	Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/02/2021 17:57	JCK2	707570

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	Ethane	0.075U	0.075	1.0	ug/L
74-85-1	**Ethene**	**0.19J**	**0.12**	**1.0**	**ug/L**
74-82-8	**Methane**	**17**	**2.5**	**5.0**	**ug/L**

RMW-18A

Collect Date	03/23/2021 13:45	**LAB ID**	22103304119
Receive Date	03/30/2021 10:11	**Matrix**	Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/02/2021 18:09	JCK2	707570

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	Ethane	0.075U	0.075	1.0	ug/L
74-85-1	Ethene	0.12U	0.12	1.0	ug/L
74-82-8	**Methane**	**340**	**2.5**	**5.0**	**ug/L**

RMW-27

Collect Date	03/23/2021 13:50	**LAB ID**	22103304120
Receive Date	03/30/2021 10:11	**Matrix**	Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/02/2021 18:21	JCK2	707570

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	**Ethane**	**3.1**	**0.075**	**1.0**	**ug/L**
74-85-1	**Ethene**	**4.3**	**0.12**	**1.0**	**ug/L**
74-82-8	**Methane**	**8200**	**2.5**	**5.0**	**ug/L**

Sample Results

RMW-20B

Collect Date	03/23/2021 15:00	**LAB ID**	22103304121
Receive Date	03/30/2021 10:11	**Matrix**	Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/02/2021 18:33	JCK2	707570

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	**Ethane**	**1.6**	**0.075**	**1.0**	**ug/L**
74-85-1	**Ethene**	**0.16J**	**0.12**	**1.0**	**ug/L**
74-82-8	**Methane**	**18000**	**2.5**	**5.0**	**ug/L**

RMW-20C

Collect Date	03/23/2021 15:30	**LAB ID**	22103304122
Receive Date	03/30/2021 10:11	**Matrix**	Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/02/2021 18:45	JCK2	707570

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	Ethane	0.075U	0.075	1.0	ug/L
74-85-1	**Ethene**	**0.69J**	**0.12**	**1.0**	**ug/L**
74-82-8	**Methane**	**1400**	**2.5**	**5.0**	**ug/L**

DU-21103

Collect Date	03/19/2021 00:01	**LAB ID**	22103304123
Receive Date	03/30/2021 10:11	**Matrix**	Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/01/2021 00:22	JCK2	707373

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	Ethane	0.075U	0.075	1.0	ug/L
74-85-1	**Ethene**	**0.12J**	**0.12**	**1.0**	**ug/L**
74-82-8	**Methane**	**8.6**	**2.5**	**5.0**	**ug/L**

General Chromatography QC Summary

Analytical Batch 707373	Client ID	MB707373		LCS707373				LCSD707373				
	LAB ID	2163761		2163762				2163763				
	Sample Type	MB		LCS				LCSD				
	Prep Date											
	Analysis Date	03/31/21 20:57		03/31/21 20:09				03/31/21 20:21				
	Matrix	Water		Water				Water				
AM20GAX		Units Result	ug/L DL	Spike Added	Result	%R	Control Limits%R	Spike Added	Result	%R	RPD	RPD Limit
Ethane	74-84-0	0.075U	0.075	100	110	107	70 - 130	100	110	111	4	20
Ethene	74-85-1	0.12U	0.12	140	150	108	70 - 130	140	160	112	4	20
Methane	74-82-8	2.9J	2.5	490	500	101	70 - 130	490	520	106	4	20

Analytical Batch 707373	Client ID	RMW-21A		RMW-21A-MS				RMW-21A-MSD				
	LAB ID	22103304106		22103304107				22103304108				
	Sample Type	SAMPLE		MS				MSD				
	Prep Date	NA										
	Analysis Date	03/31/2021 23:45		03/31/21 23:58				04/01/21 00:11				
	Matrix	Water		Water				Water				
AM20GAX		Units Result	ug/L DL	Spike Added	Result	%R	Control Limits%R	Spike Added	Result	%R	RPD	RPD Limit
Ethane	74-84-0	1.6	0.075	100	78	76	70 - 130	100	71	**68***	10	20
Ethene	74-85-1	0.65	0.12	140	120	81	70 - 130	140	110	76	6	20
Methane	74-82-8	210	2.5	490	590	77	70 - 130	490	510	**61***	14	20

Analytical Batch 707570	Client ID	MB707570		LCS707570				LCSD707570				
	LAB ID	2164832		2164833				2164834				
	Sample Type	MB		LCS				LCSD				
	Prep Date											
	Analysis Date	04/02/21 14:18		04/02/21 13:31				04/02/21 13:43				
	Matrix	Water		Water				Water				
AM20GAX		Units Result	ug/L DL	Spike Added	Result	%R	Control Limits%R	Spike Added	Result	%R	RPD	RPD Limit
Ethane	74-84-0	0.075U	0.075	100	100	99	70 - 130	100	100	101	2	20
Ethene	74-85-1	0.12U	0.12	140	140	101	70 - 130	140	140	101	1	20
Methane	74-82-8	2.5U	2.5	490	470	96	70 - 130	490	470	97	1	20

Analytical Batch 707570	Client ID	RMW-20A		RMW-20A-MS				RMW-20A-MSD				
	LAB ID	22103304112		22103304113				22103304114				
	Sample Type	SAMPLE		MS				MSD				
	Prep Date	NA										
	Analysis Date	04/02/2021 16:45		04/02/21 16:57				04/02/21 17:09				
	Matrix	Water		Water				Water				
AM20GAX		Units Result	ug/L DL	Spike Added	Result	%R	Control Limits%R	Spike Added	Result	%R	RPD	RPD Limit
Ethane	74-84-0	1.8	0.075	100	76	73	70 - 130	100	84	81	10	20
Ethene	74-85-1	4.6	0.12	140	120	79	70 - 130	140	130	87	9	20
Methane	74-82-8	16000	2.5	490	15000	**-102***	70 - 130	490	17000	**224***	10	20

Chain of Custody

Pace Analytical

Workorder: WC24065 Workorder Name: WPH Clemson Owner Received Date: 3/24/2021 Results Requested By: 4/5/2021

Report To:	Subcontract To:
Lucas Odom	Project # 300688.0000.0000.00011
Pace Analytical	
106 Vantage Point Drive	Pace Golf Coast
Columbia SC, 29223	7979 Innovation Park Drive,
803-227-2704	Baton Rouge, LA 70820
lucas.odom@pacelabs.com	

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers: TSP	Requested Analysis: Dissolved Gasses (MEE)	LAB USE ONLY
1	RMW-05B	G	03/19/21 @ 1145	WC24065-002				2
2	RMW-05A	G	03/19/21 @ 1155	WC24065-003		x	X	3
3	RMW-19A	G	03/19/21 @ 1435	WC24065-004		x	x	4
4	RMW-19	G	03/19/21 @ 1440	WC24065-005		x	x	5
5	RMW-21	G	03/19/21 @ 1535	WC24065-006		x	x	6
6	RMW-21A (MS/MSD)	G	03/19/21 @ 1540	WC24065-007		x	x	7,8
7	RMW-08	G	03/22/21 @ 1130	WC24065-008		x	x	9
8	RMW-08A	G	03/22/21 @ 1135	WC24065-009		x	x	10
9	RMW-20	G	03/22/21 @ 1450	WC24065-010		x	x	11
10	RMW-20A (MS/MSD)	G	03/22/21 @ 1455	WC24065-011		x	x	12,13,14

Transfers	Released By	Date/Time	Reveived By	Date/Time	Comments
1		3/24/21 1800			0.4E24 60cpm
2		3/30/21 1011	MARK Jenkins	3/30/21 1011	1663 3465 2704
3					

Cooler Temperature on Receipt ____ °C	Custody Seal Y or N	Received on Ice Y or N	Sample Intact Y or N

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC
This chain of custody is considered complete as is since this information is available in the owner laboratory

Client ID: Shealy Envir - Pace Analytical Services South Carolina
SDG: 221033041
PM: RWe

Friday, June 17, 2016 11:01:34 AM FMT-ALL-C-002rev.00

Chain of Custody

Pace Analytical

Workorder: WC24065 Workorder Name: WPH Clemson Owner Received Date: 3/24/2021 Results Requested By: 4/5/2021

Report To:	Subcontract To:
Lucas Odom	Project # 300688.0000.0000.00011
Pace Analytical	
106 Vantage Point Drive	Pace Golf Coast
Columbia SC, 29223	7979 Innovation Park Drive,
803-227-2704	Baton Rouge, LA 70820
lucas.odom@pacelabs.com	

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers: TSP	Requested Analysis: Dissolved Gasses (MEE)	LAB USE ONLY
1	MG-05A	G	03/22/21 @ 1635	WC24065-012				16
2	MG-05	G	03/22/21 @ 1640	WC24065-013		x	X	17
3	RMW-27A	G	03/23/21 @ 1100	WC24065-014		x	x	18
4	RMW-27B	G	03/23/21 @ 1110	WC24065-015		x	x	19
5	RMW-18A	G	03/23/21 @ 1345	WC24065-016		x	x	20
6	RMW-27	G	03/23/21 @ 1350	WC24065-017		x	x	21
7	RMW-20B	G	03/23/21 @ 1500	WC24065-018		x	x	22
8	RMW-20C	G	03/23/21 @ 1530	WC24065-019		x	x	23
9	DU-21103	G	03/19/21 @ 0000	WC24065-020		x	x	
10								

Transfers	Released By	Date/Time	Reveived By	Date/Time	Comments
1		3/29/21 1800			
2					
3					

Cooler Temperature on Receipt _____ °C	Custody Seal Y or N	Received on Ice Y or N	Sample Intact Y or N

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC
This chain of custody is considered complete as is since this information is available in the owner laborator

Friday, June 17, 2016 11:01:34 AM FMT-ALL-C-002rev.0

Client ID: Shealy Envir - Pace Analytical Services South Carolina
SDG: 221033041
PM: RWe

SAMPLE RECEIVING CHECKLIST

SAMPLE DELIVERY GROUP 221033041	
Client **PM** RWe Shealy Envir - Pace Analytical Services South Carolina	**Transport Method** FEDEX
Profile Number 290459	**Received By** McCune, Dodie N.
Line Item(s) 1 - MEE	**Receive Date(s)** 03/30/21

CHECKLIST	YES	NO
Samples received with proper thermal preservation?	☑	☐
Radioactivity is <1600 cpm? If no, record cpm value in notes section.	☑	☐
COC relinquished and complete (including sampleIDs, collect times, and sampler)?	☑	☐
All containers received in good condition and within hold time?	☑	☐
All sample labels and containers received match the chain of custody?	☑	☐
Preservative added to any containers?	☐	☑
If received, was headspace for VOC water containers < 6mm?	☑	☐
Samples collected in containers provided by Pace Gulf Coast?	☑	☐

COOLERS

Airbill	Thermometer ID: E26	Temp °C
166334652706		0.9

DISCREPANCIES

None

LAB PRESERVATIONS

None

NOTES

Report of Analysis

TRC Companies, Inc.
50 International Dr.
Suite 150
Greenville, SC 29615
Attention: Lisa Clark

Project Name: WPH Clemson

Project Number: 300688.0000.0000.00012

Lot Number:**WC25080**

Date Completed:04/06/2021

04/07/2021 9:38 AM
Approved and released by:
Project Manager II: **Lucas Odom**

The electronic signature above is the equivalent of a handwritten signature.

Pace Analytical Services, LLC (*formerly Shealy Environmental Services, Inc.*)
106 Vantage Point Drive West Columbia, SC 29172
Tel: 803-791-9700 Fax: 803-791-9111 www.pacelabs.com

Laboratory Data Quality Review Notes

Project Name: WPH-Clemson, SC

Project Number: 300688.0000.0000 Phase 11

Lab Report: **WC25080** Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.), West Columbia, SC; subcontracted report: **221033043** Pace Analytical Gulf Coast, Baton Rouge, LA

Samples and Analyses: Eighteen groundwater samples (plus one field duplicate), collected 23-Mar and 24-Mar-2021, and analyzed for volatile organic compounds (VOCs), bromide, and sulfate; one trip blank (TB), analyzed for VOCs only. Analysis of the groundwater samples for dissolved hydrocarbon gases (ethane, ethene, methane) was subcontracted and was reported separately (as noted above).

It was noted that the field duplicate sample (DU-21104) was labeled as "DUP-21104" in the subcontract report for dissolved hydrocarbon gases analysis. This discrepancy is noted, but no validation action was taken on this basis.

Chain of Custody, Sample Temperature, Sample Preservation: Chain of custody (COC) forms were signed; cooler temperature was ≤6 ^{o}C upon arrival at each laboratory; samples were preserved properly. No sample receipt anomalies were noted.

Holding Time: Sample analyses were performed within acceptable holding times.

Surrogates: VOC surrogate recoveries were within laboratory quality control (QC) limits.

Method Blank: Laboratory method blanks were appropriately associated with all analyses. The following target analytes were detected in the laboratory method blanks:

- Carbon disulfide (0.44 J µg/L) and 1,2,4-trichlorobenzene (0.64 J µg/L) were detected in one of the VOCs laboratory method blanks. **The positive result for carbon disulfide in the TB sample (TBLK-21110) was an estimated concentration below the limit of quantitation (LOQ) (J-qualified by the laboratory) and was therefore a potential false positive; this result was qualified "u" (revised to non-detect [ND]) at the laboratory LOQ, based on the associated laboratory method blank contamination.** Qualification was not required for the 1,2,4-trichlorobenzene result in the TB or for either analyte in the remaining associated sample (DPT-24) since these results were ND.
- Carbon disulfide (0.42 J µg/L) was detected in one of the other VOCs laboratory method blanks. Qualification was not required on this basis since carbon disulfide was ND in the associated samples (DPT-24, DPT-24B, and DU-21104).
- Methane (2.7 J µg/L) was detected in the laboratory method blank associated with the analysis of dissolved hydrocarbon gases in all samples. **The positive results for methane in samples DPT-27, DPT-27A, DPT-27B, DPT-26A, DPT-25A, and DPT-24A were estimated concentrations**

below the LOQ (J-qualified by the laboratory) and were therefore potential false positives; these results were qualified "u" (revised to ND) at the laboratory LOQ, based on the associated laboratory method blank contamination. The positive results for methane in samples DPT-26B and DPT-25B were > the LOQ but <5× the associated blank concentration; therefore, these results were considered to be potential false positives and were qualified "u" (revised to ND), with the LOQ for each revised to the reported sample concentration. Qualification was not required for the positive results for methane in the remaining samples since these results were significantly higher than (>5×) the method blank concentration.

Trip Blank: No target analytes were detected in the TB (TBLK-21110) (analyzed for VOCs only), with the exception of the following:

- Carbon disulfide (0.52 J µg/L) was detected in the TB; however, this result was qualified "u" (revised to ND) based on associated method blank contamination. No further evaluation of the reported TB contamination was required.

Field Blank: A field blank was not collected with these samples.

Equipment Rinse Blank: An equipment rinse blank was not collected with these samples.

LCS/LCSD: LCS analyses were performed appropriately for all analyses; some analytical or preparation batches also included analysis of LCSD samples. The LCS and LCSD recoveries and LCS/LCSD relative percent differences (RPDs) were within the laboratory QC limits.

MS/MSD: Two MS/MSD analyses were performed for the VOCs using samples DPT-27 and DPT-27B as the associated parent samples. The MS and MSD recoveries and MS/MSD RPDs were within QC criteria.

Duplicates: No laboratory duplicates were included with these analyses. A field duplicate (DU-21104) was collected for sample DPT-24B. Duplicate RPDs were calculated for analytes detected above 5× the LOQ in both samples; the absolute difference (AbsD) was used to evaluate analytes detected below 5× the LOQ in one or both samples. RPD values were ≤ 30%, and AbsD values were ≤LOQ; therefore, the field duplicate results were in acceptable agreement.

Dilutions: The following sample analyses were performed with dilution, as indicated:

DPT-27	VOCs (10×)
DPT-27A	VOCs (10×)
DPT-27B	VOCs (5×)
DPT-26	VOCs (5×) (tetrachloroethene only)
DPT-26A	VOCs (50×)
DPT-26B	VOCs (100×)
DPT-25A	VOCs (5×)
DPT-25B	VOCs (10×)
DPT-24A	VOCs (20×)
DPT-24B	VOCs (5×)

DU-21104 VOCs (5×)

The laboratory reports did not indicate the dilution reason(s), but the dilutions appear to have been performed in order to bring the concentrations of target analytes into the appropriate instrument calibration range. With the exception of DPT-26, the ND results in the noted VOC analyses were associated with correspondingly elevated detection limit (DL) and LOQ values.

Validation qualifiers were applied in this review, as summarized in the following table.

Data Reviewer: Amy Bass; TRC Environmental Corporation; 26-Apr-2021

Summary of qualifiers assigned by the data quality reviewer.

WC25080 **Sample ID**	**Analyte**	**Lab Result [LOQ]**	**Qualifier Assigned**	**Qualified Result**	**Basis**
TBLK-21110	carbon disulfide	0.52 J [1.0]	u (@LOQ)	< 1.0	MB (TB≤ LOQ)
DPT-27	methane	4.8 J [5.0]	u (@LOQ)	< 5.0	MB (sc ≤ LOQ)
DPT-27A		3.5 J [5.0]		< 5.0	
DPT-27B		3.2 J [5.0]		< 5.0	
DPT-26A		4.2 J [5.0]		< 5.0	
DPT-25A		4.9 J [5.0]		< 5.0	
DPT-24A		4.5 J [5.0]		< 5.0	
DPT-26B	methane	10 [5.0]	u (@sc)	< 10	MB (LOQ< sc < 5×MB)
DPT-25B		8.2 [5.0]		< 8.2	

LOQ: limit of quantitation MB: method blank contamination ND: non-detect sc: sample concentration
TB: trip blank
Validation qualifiers applied: “u” (revised to ND)

Case Narrative
TRC Companies, Inc.
Lot Number: WC25080

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved The NELAC Institute (TNI) standards, the Pace Analytical Services, LLC ("Pace") Laboratory Quality Manual, standard operating procedures (SOPs), and Pace policies. Any exceptions to the TNI standards, the Laboratory Quality Manual, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Pace Project Manager listed on the cover page.

VOCs by GC/MS

The method blank associated with analytical batch 87673 yielded "J" value detections for Carbon Disulfide and 1,24-Trichlorobenzene. In addition, the method blank associated with batch 87848 yielded a "J" value detection for 1,2,4-Trichlorobenzen. No corrective action is required as there were no associated detections above the LOQ. Associated samples have been qualified with a "B".

Subcontracted Analysis

The analysis of Dissolved Gasses has been performed by Pace Gulf Coast. This data is on a separate report provided by Pace Gulf Coast.

Sample Summary
TRC Companies, Inc.
Lot Number: WC25080

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	DPT-27	Aqueous	03/23/2021 0830	03/25/2021
002	DPT-27A	Aqueous	03/23/2021 0930	03/25/2021
003	DPT-27B	Aqueous	03/23/2021 1100	03/25/2021
004	DPT-26	Aqueous	03/23/2021 1215	03/25/2021
005	DPT-26A	Aqueous	03/23/2021 1255	03/25/2021
006	DPT-26B	Aqueous	03/23/2021 1350	03/25/2021
007	DPT-25	Aqueous	03/24/2021 0830	03/25/2021
008	DPT-25A	Aqueous	03/24/2021 0920	03/25/2021
009	DPT-25B	Aqueous	03/24/2021 1030	03/25/2021
010	DPT-24	Aqueous	03/24/2021 1210	03/25/2021
011	DPT-24A	Aqueous	03/24/2021 1305	03/25/2021
012	DPT-24B	Aqueous	03/24/2021 1410	03/25/2021
013	DU-21104	Aqueous	03/23/2021	03/25/2021
014	TBLK-21110	Aqueous	03/24/2021	03/25/2021

(14 samples)

Detection Summary

TRC Companies, Inc.

Lot Number: WC25080

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	DPT-27	Aqueous	Bromide	300.0	0.16	J	mg/L	7
001	DPT-27	Aqueous	Sulfate	300.0	170		mg/L	7
001	DPT-27	Aqueous	Tetrachloroethene	8260D	1300		ug/L	8
002	DPT-27A	Aqueous	Sulfate	300.0	42		mg/L	9
002	DPT-27A	Aqueous	Chloroform	8260D	5.5	J	ug/L	9
002	DPT-27A	Aqueous	Tetrachloroethene	8260D	1300		ug/L	10
002	DPT-27A	Aqueous	1,1,2-Trichloro-1,2,2-	8260D	9.1	J	ug/L	10
003	DPT-27B	Aqueous	Sulfate	300.0	12		mg/L	11
003	DPT-27B	Aqueous	Carbon tetrachloride	8260D	2.6	J	ug/L	11
003	DPT-27B	Aqueous	Chloroform	8260D	3.8	J	ug/L	11
003	DPT-27B	Aqueous	Tetrachloroethene	8260D	550		ug/L	12
003	DPT-27B	Aqueous	1,1,2-Trichloro-1,2,2-	8260D	3.1	J	ug/L	12
004	DPT-26	Aqueous	Bromide	300.0	0.30		mg/L	13
004	DPT-26	Aqueous	Sulfate	300.0	9.2		mg/L	13
004	DPT-26	Aqueous	cis-1,2-Dichloroethene	8260D	45		ug/L	13
004	DPT-26	Aqueous	Tetrachloroethene	8260D	340		ug/L	14
004	DPT-26	Aqueous	1,1,2-Trichloro-1,2,2-	8260D	0.79	J	ug/L	14
004	DPT-26	Aqueous	Trichloroethene	8260D	30		ug/L	14
005	DPT-26A	Aqueous	Sulfate	300.0	0.34	J	mg/L	15
005	DPT-26A	Aqueous	Tetrachloroethene	8260D	4500		ug/L	16
006	DPT-26B	Aqueous	Bromide	300.0	0.053	J	mg/L	17
006	DPT-26B	Aqueous	Sulfate	300.0	5.3		mg/L	17
006	DPT-26B	Aqueous	cis-1,2-Dichloroethene	8260D	2200		ug/L	17
006	DPT-26B	Aqueous	Tetrachloroethene	8260D	8700		ug/L	18
006	DPT-26B	Aqueous	Trichloroethene	8260D	210		ug/L	18
007	DPT-25	Aqueous	Bromide	300.0	0.34		mg/L	19
007	DPT-25	Aqueous	Sulfate	300.0	90		mg/L	19
007	DPT-25	Aqueous	cis-1,2-Dichloroethene	8260D	36		ug/L	19
007	DPT-25	Aqueous	Tetrachloroethene	8260D	110		ug/L	20
007	DPT-25	Aqueous	Trichloroethene	8260D	12		ug/L	20
008	DPT-25A	Aqueous	Bromide	300.0	0.053	J	mg/L	21
008	DPT-25A	Aqueous	Sulfate	300.0	1.4		mg/L	21
008	DPT-25A	Aqueous	Chloroform	8260D	10		ug/L	21
008	DPT-25A	Aqueous	Tetrachloroethene	8260D	520		ug/L	22
009	DPT-25B	Aqueous	Sulfate	300.0	2.3		mg/L	23
009	DPT-25B	Aqueous	Tetrachloroethene	8260D	990		ug/L	24
009	DPT-25B	Aqueous	1,1,2-Trichloro-1,2,2-	8260D	5.6	J	ug/L	24
010	DPT-24	Aqueous	Bromide	300.0	0.19	J	mg/L	25
010	DPT-24	Aqueous	Sulfate	300.0	0.52	J	mg/L	25
010	DPT-24	Aqueous	cis-1,2-Dichloroethene	8260D	140		ug/L	25
010	DPT-24	Aqueous	Tetrachloroethene	8260D	73		ug/L	26
010	DPT-24	Aqueous	1,1,2-Trichloro-1,2,2-	8260D	0.49	J	ug/L	26
010	DPT-24	Aqueous	Trichloroethene	8260D	5.1		ug/L	26
010	DPT-24	Aqueous	Vinyl chloride	8260D	1.5		ug/L	26
011	DPT-24A	Aqueous	Sulfate	300.0	1.1		mg/L	27

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
011	DPT-24A	Aqueous	Tetrachloroethene	8260D	3200		ug/L	28
011	DPT-24A	Aqueous	1,1,2-Trichloro-1,2,2-	8260D	21		ug/L	28
011	DPT-24A	Aqueous	Trichloroethene	8260D	12	J	ug/L	28
012	DPT-24B	Aqueous	Bromide	300.0	0.058	J	mg/L	29
012	DPT-24B	Aqueous	Sulfate	300.0	0.57	J	mg/L	29
012	DPT-24B	Aqueous	Acetone	8260D	94	J	ug/L	29
012	DPT-24B	Aqueous	2-Butanone (MEK)	8260D	200		ug/L	29
012	DPT-24B	Aqueous	1,2-Dichlorobenzene	8260D	3.0	J	ug/L	29
012	DPT-24B	Aqueous	Tetrachloroethene	8260D	950		ug/L	30
012	DPT-24B	Aqueous	1,1,2-Trichloro-1,2,2-	8260D	14		ug/L	30
012	DPT-24B	Aqueous	Trichloroethene	8260D	6.9		ug/L	30
013	DU-21104	Aqueous	Bromide	300.0	0.061	J	mg/L	31
013	DU-21104	Aqueous	Sulfate	300.0	0.79	J	mg/L	31
013	DU-21104	Aqueous	Acetone	8260D	100		ug/L	31
013	DU-21104	Aqueous	2-Butanone (MEK)	8260D	190		ug/L	31
013	DU-21104	Aqueous	1,2-Dichlorobenzene	8260D	3.0	J	ug/L	31
013	DU-21104	Aqueous	Tetrachloroethene	8260D	880		ug/L	32
013	DU-21104	Aqueous	1,1,2-Trichloro-1,2,2-	8260D	14		ug/L	32
013	DU-21104	Aqueous	Trichloroethene	8260D	6.8		ug/L	32
014	TBLK-21110	Aqueous	Carbon disulfide	8260D	0.52	BJ	ug/L	33

(65 detections)

Client: TRC Companies, Inc.
Description: DPT-27
Date Sampled: 03/23/2021 0830
Date Received: 03/25/2021

Laboratory ID: WC25080-001
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	03/30/2021 0044	AMR		87314
1		(Sulfate) 300.0	1	03/30/2021 0044	AMR		87313

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.16	J	0.20	0.050	mg/L	1
Sulfate		300.0	170		1.0	0.25	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	10	04/01/2021 0249	DJG		87520
2	5030B	8260D	10	04/03/2021 0248	CJL2		87848

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		200	50	ug/L	1
Benzene	71-43-2	8260D	ND		10	4.0	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		10	4.0	ug/L	1
Bromoform	75-25-2	8260D	ND		10	4.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		20	4.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		100	20	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		10	4.0	ug/L	2
Carbon tetrachloride	56-23-5	8260D	ND		10	4.0	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		10	4.0	ug/L	1
Chloroethane	75-00-3	8260D	ND		20	4.0	ug/L	1
Chloroform	67-66-3	8260D	ND		10	4.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		10	5.0	ug/L	1
Cyclohexane	110-82-7	8260D	ND		10	4.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		10	4.0	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		10	4.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		10	4.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		10	4.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		10	4.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		10	4.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		20	6.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		10	4.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		10	4.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		10	4.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		10	4.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		10	4.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		10	4.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		10	4.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		10	4.0	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		10	4.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: DPT-27
Date Sampled: 03/23/2021 0830
Date Received: 03/25/2021

Laboratory ID: WC25080-001
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	10	04/01/2021 0249	DJG		87520
2	5030B	8260D	10	04/03/2021 0248	CJL2		87848

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
2-Hexanone	591-78-6	8260D	ND		100	20	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		10	4.0	ug/L	1
Methyl acetate	79-20-9	8260D	ND		10	4.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		10	4.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		100	20	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		50	4.0	ug/L	1
Methylene chloride	75-09-2	8260D	ND		10	4.0	ug/L	1
Styrene	100-42-5	8260D	ND		10	4.1	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		10	4.0	ug/L	1
Tetrachloroethene	127-18-4	8260D	1300		10	4.0	ug/L	1
Toluene	108-88-3	8260D	ND		10	4.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		10	4.2	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		10	4.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		10	4.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		10	4.0	ug/L	1
Trichloroethene	79-01-6	8260D	ND		10	4.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		10	4.0	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		10	4.0	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		10	4.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Run 1 Acceptance Limits	Q	Run 2 % Recovery	Run 2 Acceptance Limits
Bromofluorobenzene		109	70-130		111	70-130
1,2-Dichloroethane-d4		105	70-130		98	70-130
Toluene-d8		108	70-130		109	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: DPT-27A
Date Sampled: 03/23/2021 0930
Date Received: 03/25/2021

Laboratory ID: WC25080-002
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	03/30/2021 0103	AMR		87314
1		(Sulfate) 300.0	1	03/30/2021 0103	AMR		87313

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	ND		0.20	0.050	mg/L	1
Sulfate		300.0	42		1.0	0.25	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	10	04/01/2021 0459	DJG		87535

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		200	50	ug/L	1
Benzene	71-43-2	8260D	ND		10	4.0	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		10	4.0	ug/L	1
Bromoform	75-25-2	8260D	ND		10	4.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		20	4.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		100	20	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		10	4.0	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		10	4.0	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		10	4.0	ug/L	1
Chloroethane	75-00-3	8260D	ND		20	4.0	ug/L	1
Chloroform	67-66-3	8260D	5.5	J	10	4.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		10	5.0	ug/L	1
Cyclohexane	110-82-7	8260D	ND		10	4.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		10	4.0	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		10	4.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		10	4.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		10	4.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		10	4.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		10	4.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		20	6.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		10	4.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		10	4.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		10	4.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		10	4.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		10	4.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		10	4.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		10	4.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		10	4.0	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		10	4.0	ug/L	1
2-Hexanone	591-78-6	8260D	ND		100	20	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: DPT-27A
Date Sampled: 03/23/2021 0930
Date Received: 03/25/2021

Laboratory ID: WC25080-002
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	10	04/01/2021 0459	DJG		87535

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Isopropylbenzene	98-82-8	8260D	ND		10	4.0	ug/L	1
Methyl acetate	79-20-9	8260D	ND		10	4.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		10	4.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		100	20	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		50	4.0	ug/L	1
Methylene chloride	75-09-2	8260D	ND		10	4.0	ug/L	1
Styrene	100-42-5	8260D	ND		10	4.1	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		10	4.0	ug/L	1
Tetrachloroethene	127-18-4	8260D	1300		10	4.0	ug/L	1
Toluene	108-88-3	8260D	ND		10	4.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	9.1	J	10	4.2	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		10	4.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		10	4.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		10	4.0	ug/L	1
Trichloroethene	79-01-6	8260D	ND		10	4.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		10	4.0	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		10	4.0	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		10	4.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		99	70-130
1,2-Dichloroethane-d4		101	70-130
Toluene-d8		106	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Pace Analytical Services, LLC *(formerly Shealy Environmental Services, Inc.)*
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Client: TRC Companies, Inc.
Description: DPT-27B
Date Sampled: 03/23/2021 1100
Date Received: 03/25/2021

Laboratory ID: WC25080-003
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	03/30/2021 0122	AMR		87314
1		(Sulfate) 300.0	1	03/30/2021 0122	AMR		87313

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	ND		0.20	0.050	mg/L	1
Sulfate		300.0	12		1.0	0.25	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	5	04/01/2021 0412	DJG		87535

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		100	25	ug/L	1
Benzene	71-43-2	8260D	ND		5.0	2.0	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		5.0	2.0	ug/L	1
Bromoform	75-25-2	8260D	ND		5.0	2.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		10	2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		50	10	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		5.0	2.0	ug/L	1
Carbon tetrachloride	56-23-5	8260D	2.6	J	5.0	2.0	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		5.0	2.0	ug/L	1
Chloroethane	75-00-3	8260D	ND		10	2.0	ug/L	1
Chloroform	67-66-3	8260D	3.8	J	5.0	2.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		5.0	2.5	ug/L	1
Cyclohexane	110-82-7	8260D	ND		5.0	2.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		5.0	2.0	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		5.0	2.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		5.0	2.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		5.0	2.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		5.0	2.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		5.0	2.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		10	3.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		5.0	2.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		5.0	2.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		5.0	2.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		5.0	2.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		5.0	2.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		5.0	2.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		5.0	2.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		5.0	2.0	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		5.0	2.0	ug/L	1
2-Hexanone	591-78-6	8260D	ND		50	10	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: DPT-27B
Date Sampled: 03/23/2021 1100
Date Received: 03/25/2021

Laboratory ID: WC25080-003
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	5	04/01/2021 0412	DJG		87535

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Isopropylbenzene	98-82-8	8260D	ND		5.0	2.0	ug/L	1
Methyl acetate	79-20-9	8260D	ND		5.0	2.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		5.0	2.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		50	10	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		25	2.0	ug/L	1
Methylene chloride	75-09-2	8260D	ND		5.0	2.0	ug/L	1
Styrene	100-42-5	8260D	ND		5.0	2.1	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		5.0	2.0	ug/L	1
Tetrachloroethene	127-18-4	8260D	550		5.0	2.0	ug/L	1
Toluene	108-88-3	8260D	ND		5.0	2.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	3.1	J	5.0	2.1	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		5.0	2.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		5.0	2.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		5.0	2.0	ug/L	1
Trichloroethene	79-01-6	8260D	ND		5.0	2.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		5.0	2.0	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		5.0	2.0	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		5.0	2.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		98	70-130
1,2-Dichloroethane-d4		101	70-130
Toluene-d8		106	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Pace Analytical Services, LLC *(formerly Shealy Environmental Services, Inc.)*
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Client: TRC Companies, Inc.
Description: DPT-26
Date Sampled: 03/23/2021 1215
Date Received: 03/25/2021

Laboratory ID: WC25080-004
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	03/30/2021 0334	AMR		87318
1		(Sulfate) 300.0	1	03/30/2021 0334	AMR		87316

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.30		0.20	0.050	mg/L	1
Sulfate		300.0	9.2		1.0	0.25	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	04/01/2021 0324	DJG		87535
2	5030B	8260D	5	04/03/2021 0119	CJL2		87848

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	45		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: DPT-26
Date Sampled: 03/23/2021 1215
Date Received: 03/25/2021

Laboratory ID: WC25080-004
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	04/01/2021 0324	DJG		87535
2	5030B	8260D	5	04/03/2021 0119	CJL2		87848

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	340		5.0	2.0	ug/L	2
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	0.79	J	1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260D	30		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits	Q	Run 2 % Recovery	Acceptance Limits
Bromofluorobenzene		99	70-130		105	70-130
1,2-Dichloroethane-d4		100	70-130		94	70-130
Toluene-d8		108	70-130		106	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: DPT-26A
Date Sampled: 03/23/2021 1255
Date Received: 03/25/2021

Laboratory ID: WC25080-005
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	03/30/2021 0353	AMR		87318
1		(Sulfate) 300.0	1	03/30/2021 0353	AMR		87316

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	ND		0.20	0.050	mg/L	1
Sulfate		300.0	0.34	J	1.0	0.25	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	50	04/01/2021 0633	DJG		87535

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		1000	250	ug/L	1
Benzene	71-43-2	8260D	ND		50	20	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		50	20	ug/L	1
Bromoform	75-25-2	8260D	ND		50	20	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		100	20	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		500	100	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		50	20	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		50	20	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		50	20	ug/L	1
Chloroethane	75-00-3	8260D	ND		100	20	ug/L	1
Chloroform	67-66-3	8260D	ND		50	20	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		50	25	ug/L	1
Cyclohexane	110-82-7	8260D	ND		50	20	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		50	20	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		50	20	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		50	20	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		50	20	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		50	20	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		50	20	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		100	30	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		50	20	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		50	20	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		50	20	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		50	20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		50	20	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		50	20	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		50	20	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		50	20	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		50	20	ug/L	1
2-Hexanone	591-78-6	8260D	ND		500	100	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: DPT-26A
Date Sampled: 03/23/2021 1255
Date Received: 03/25/2021

Laboratory ID: WC25080-005
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	50	04/01/2021 0633	DJG		87535

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Isopropylbenzene	98-82-8	8260D	ND		50	20	ug/L	1
Methyl acetate	79-20-9	8260D	ND		50	20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		50	20	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		500	100	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		250	20	ug/L	1
Methylene chloride	75-09-2	8260D	ND		50	20	ug/L	1
Styrene	100-42-5	8260D	ND		50	21	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		50	20	ug/L	1
Tetrachloroethene	127-18-4	8260D	4500		50	20	ug/L	1
Toluene	108-88-3	8260D	ND		50	20	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		50	21	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		50	20	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		50	20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		50	20	ug/L	1
Trichloroethene	79-01-6	8260D	ND		50	20	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		50	20	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		50	20	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		50	20	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		98	70-130
1,2-Dichloroethane-d4		101	70-130
Toluene-d8		107	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Pace Analytical Services, LLC *(formerly Shealy Environmental Services, Inc.)*
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Client: TRC Companies, Inc.
Description: DPT-26B
Date Sampled: 03/23/2021 1350
Date Received: 03/25/2021

Laboratory ID: WC25080-006
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	03/30/2021 0412	AMR		87318
1		(Sulfate) 300.0	1	03/30/2021 0412	AMR		87316

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.053	J	0.20	0.050	mg/L	1
Sulfate		300.0	5.3		1.0	0.25	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	100	04/01/2021 0658	DJG		87535

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		2000	500	ug/L	1
Benzene	71-43-2	8260D	ND		100	40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		100	40	ug/L	1
Bromoform	75-25-2	8260D	ND		100	40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		200	40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		1000	200	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		100	40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		100	40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		100	40	ug/L	1
Chloroethane	75-00-3	8260D	ND		200	40	ug/L	1
Chloroform	67-66-3	8260D	ND		100	40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		100	50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		100	40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		100	40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		100	40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		100	40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		100	40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		100	40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		100	40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		200	60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		100	40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		100	40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		100	40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	2200		100	40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		100	40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		100	40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		100	40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		100	40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		100	40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		1000	200	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: DPT-26B
Date Sampled: 03/23/2021 1350
Date Received: 03/25/2021

Laboratory ID: WC25080-006
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	100	04/01/2021 0658	DJG		87535

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Isopropylbenzene	98-82-8	8260D	ND		100	40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		100	40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		100	40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		1000	200	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		500	40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		100	40	ug/L	1
Styrene	100-42-5	8260D	ND		100	41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		100	40	ug/L	1
Tetrachloroethene	127-18-4	8260D	8700		100	40	ug/L	1
Toluene	108-88-3	8260D	ND		100	40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		100	42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		100	40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		100	40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		100	40	ug/L	1
Trichloroethene	79-01-6	8260D	210		100	40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		100	40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		100	40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		100	40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		99	70-130
1,2-Dichloroethane-d4		100	70-130
Toluene-d8		106	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Pace Analytical Services, LLC *(formerly Shealy Environmental Services, Inc.)*
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Client: TRC Companies, Inc.
Description: DPT-25
Date Sampled: 03/24/2021 0830
Date Received: 03/25/2021

Laboratory ID: WC25080-007
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	03/30/2021 0431	AMR		87318
1		(Sulfate) 300.0	1	03/30/2021 0431	AMR		87316

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.34		0.20	0.050	mg/L	1
Sulfate		300.0	90		1.0	0.25	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	04/01/2021 0348	DJG		87535

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	36		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: DPT-25
Date Sampled: 03/24/2021 0830
Date Received: 03/25/2021

Laboratory ID: WC25080-007
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	04/01/2021 0348	DJG		87535

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	110		1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260D	12		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		100	70-130
1,2-Dichloroethane-d4		101	70-130
Toluene-d8		108	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Pace Analytical Services, LLC *(formerly Shealy Environmental Services, Inc.)*
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Client: TRC Companies, Inc.
Description: DPT-25A
Date Sampled: 03/24/2021 0920
Date Received: 03/25/2021

Laboratory ID: WC25080-008
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	03/30/2021 0450	AMR		87318
1		(Sulfate) 300.0	1	03/30/2021 0450	AMR		87316

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.053	J	0.20	0.050	mg/L	1
Sulfate		300.0	1.4		1.0	0.25	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	5	04/01/2021 0436	DJG		87535

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		100	25	ug/L	1
Benzene	71-43-2	8260D	ND		5.0	2.0	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		5.0	2.0	ug/L	1
Bromoform	75-25-2	8260D	ND		5.0	2.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		10	2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		50	10	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		5.0	2.0	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		5.0	2.0	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		5.0	2.0	ug/L	1
Chloroethane	75-00-3	8260D	ND		10	2.0	ug/L	1
Chloroform	67-66-3	8260D	10		5.0	2.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		5.0	2.5	ug/L	1
Cyclohexane	110-82-7	8260D	ND		5.0	2.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		5.0	2.0	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		5.0	2.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		5.0	2.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		5.0	2.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		5.0	2.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		5.0	2.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		10	3.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		5.0	2.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		5.0	2.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		5.0	2.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		5.0	2.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		5.0	2.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		5.0	2.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		5.0	2.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		5.0	2.0	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		5.0	2.0	ug/L	1
2-Hexanone	591-78-6	8260D	ND		50	10	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: DPT-25A
Date Sampled: 03/24/2021 0920
Date Received: 03/25/2021

Laboratory ID: WC25080-008
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	5	04/01/2021 0436	DJG		87535

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Isopropylbenzene	98-82-8	8260D	ND		5.0	2.0	ug/L	1
Methyl acetate	79-20-9	8260D	ND		5.0	2.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		5.0	2.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		50	10	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		25	2.0	ug/L	1
Methylene chloride	75-09-2	8260D	ND		5.0	2.0	ug/L	1
Styrene	100-42-5	8260D	ND		5.0	2.1	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		5.0	2.0	ug/L	1
Tetrachloroethene	127-18-4	8260D	520		5.0	2.0	ug/L	1
Toluene	108-88-3	8260D	ND		5.0	2.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		5.0	2.1	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		5.0	2.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		5.0	2.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		5.0	2.0	ug/L	1
Trichloroethene	79-01-6	8260D	ND		5.0	2.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		5.0	2.0	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		5.0	2.0	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		5.0	2.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		99	70-130
1,2-Dichloroethane-d4		100	70-130
Toluene-d8		106	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

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Client: TRC Companies, Inc.
Description: DPT-25B
Date Sampled: 03/24/2021 1030
Date Received: 03/25/2021

Laboratory ID: WC25080-009
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	03/30/2021 0509	AMR		87318
1		(Sulfate) 300.0	1	03/30/2021 0509	AMR		87316

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	ND		0.20	0.050	mg/L	1
Sulfate		300.0	2.3		1.0	0.25	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	10	04/01/2021 0523	DJG		87535

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		200	50	ug/L	1
Benzene	71-43-2	8260D	ND		10	4.0	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		10	4.0	ug/L	1
Bromoform	75-25-2	8260D	ND		10	4.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		20	4.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		100	20	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		10	4.0	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		10	4.0	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		10	4.0	ug/L	1
Chloroethane	75-00-3	8260D	ND		20	4.0	ug/L	1
Chloroform	67-66-3	8260D	ND		10	4.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		10	5.0	ug/L	1
Cyclohexane	110-82-7	8260D	ND		10	4.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		10	4.0	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		10	4.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		10	4.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		10	4.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		10	4.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		10	4.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		20	6.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		10	4.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		10	4.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		10	4.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		10	4.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		10	4.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		10	4.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		10	4.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		10	4.0	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		10	4.0	ug/L	1
2-Hexanone	591-78-6	8260D	ND		100	20	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: DPT-25B
Date Sampled: 03/24/2021 1030
Date Received: 03/25/2021

Laboratory ID: WC25080-009
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	10	04/01/2021 0523	DJG		87535

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Isopropylbenzene	98-82-8	8260D	ND		10	4.0	ug/L	1
Methyl acetate	79-20-9	8260D	ND		10	4.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		10	4.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		100	20	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		50	4.0	ug/L	1
Methylene chloride	75-09-2	8260D	ND		10	4.0	ug/L	1
Styrene	100-42-5	8260D	ND		10	4.1	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		10	4.0	ug/L	1
Tetrachloroethene	127-18-4	8260D	990		10	4.0	ug/L	1
Toluene	108-88-3	8260D	ND		10	4.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	5.6	J	10	4.2	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		10	4.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		10	4.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		10	4.0	ug/L	1
Trichloroethene	79-01-6	8260D	ND		10	4.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		10	4.0	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		10	4.0	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		10	4.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		99	70-130
1,2-Dichloroethane-d4		103	70-130
Toluene-d8		108	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

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Client: TRC Companies, Inc.
Description: DPT-24
Date Sampled: 03/24/2021 1210
Date Received: 03/25/2021

Laboratory ID: WC25080-010
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	03/30/2021 0528	AMR		87318
1		(Sulfate) 300.0	1	03/30/2021 0528	AMR		87316

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.19	J	0.20	0.050	mg/L	1
Sulfate		300.0	0.52	J	1.0	0.25	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	04/01/2021 2301	CJL2		87673

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	140		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: DPT-24
Date Sampled: 03/24/2021 1210
Date Received: 03/25/2021

Laboratory ID: WC25080-010
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	04/01/2021 2301	CJL2		87673

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	73		1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	0.49	J	1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260D	5.1		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	1.5		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		108	70-130
1,2-Dichloroethane-d4		103	70-130
Toluene-d8		105	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Pace Analytical Services, LLC *(formerly Shealy Environmental Services, Inc.)*
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Client: TRC Companies, Inc.
Description: DPT-24A
Date Sampled: 03/24/2021 1305
Date Received: 03/25/2021

Laboratory ID: WC25080-011
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	03/30/2021 0547	AMR		87318
1		(Sulfate) 300.0	1	03/30/2021 0547	AMR		87316

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	ND		0.20	0.050	mg/L	1
Sulfate		300.0	1.1		1.0	0.25	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	20	04/03/2021 0310	CJL2		87848

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		400	100	ug/L	1
Benzene	71-43-2	8260D	ND		20	8.0	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		20	8.0	ug/L	1
Bromoform	75-25-2	8260D	ND		20	8.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		40	8.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		200	40	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		20	8.0	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		20	8.0	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		20	8.0	ug/L	1
Chloroethane	75-00-3	8260D	ND		40	8.0	ug/L	1
Chloroform	67-66-3	8260D	ND		20	8.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		20	10	ug/L	1
Cyclohexane	110-82-7	8260D	ND		20	8.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		20	8.0	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		20	8.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		20	8.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		20	8.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		20	8.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		20	8.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		40	12	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		20	8.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		20	8.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		20	8.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		20	8.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		20	8.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		20	8.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		20	8.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		20	8.0	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		20	8.0	ug/L	1
2-Hexanone	591-78-6	8260D	ND		200	40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: DPT-24A
Date Sampled: 03/24/2021 1305
Date Received: 03/25/2021

Laboratory ID: WC25080-011
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	20	04/03/2021 0310	CJL2		87848

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Isopropylbenzene	98-82-8	8260D	ND		20	8.0	ug/L	1
Methyl acetate	79-20-9	8260D	ND		20	8.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		20	8.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		200	40	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		100	8.0	ug/L	1
Methylene chloride	75-09-2	8260D	ND		20	8.0	ug/L	1
Styrene	100-42-5	8260D	ND		20	8.2	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		20	8.0	ug/L	1
Tetrachloroethene	127-18-4	8260D	3200		20	8.0	ug/L	1
Toluene	108-88-3	8260D	ND		20	8.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	21		20	8.4	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		20	8.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		20	8.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		20	8.0	ug/L	1
Trichloroethene	79-01-6	8260D	12	J	20	8.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		20	8.0	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		20	8.0	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		20	8.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		102	70-130
1,2-Dichloroethane-d4		93	70-130
Toluene-d8		102	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Pace Analytical Services, LLC *(formerly Shealy Environmental Services, Inc.)*
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Client: TRC Companies, Inc.
Description: DPT-24B
Date Sampled: 03/24/2021 1410
Date Received: 03/25/2021

Laboratory ID: WC25080-012
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	03/31/2021 0531	AMR		87627
1		(Sulfate) 300.0	1	03/31/2021 0531	AMR		87623

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.058	J	0.20	0.050	mg/L	1
Sulfate		300.0	0.57	J	1.0	0.25	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	5	04/03/2021 0141	CJL2		87848

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	94	J	100	25	ug/L	1
Benzene	71-43-2	8260D	ND		5.0	2.0	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		5.0	2.0	ug/L	1
Bromoform	75-25-2	8260D	ND		5.0	2.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		10	2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	200		50	10	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		5.0	2.0	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		5.0	2.0	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		5.0	2.0	ug/L	1
Chloroethane	75-00-3	8260D	ND		10	2.0	ug/L	1
Chloroform	67-66-3	8260D	ND		5.0	2.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		5.0	2.5	ug/L	1
Cyclohexane	110-82-7	8260D	ND		5.0	2.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		5.0	2.0	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		5.0	2.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		5.0	2.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	3.0	J	5.0	2.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		5.0	2.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		5.0	2.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		10	3.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		5.0	2.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		5.0	2.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		5.0	2.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		5.0	2.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		5.0	2.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		5.0	2.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		5.0	2.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		5.0	2.0	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		5.0	2.0	ug/L	1
2-Hexanone	591-78-6	8260D	ND		50	10	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: DPT-24B
Date Sampled: 03/24/2021 1410
Date Received: 03/25/2021

Laboratory ID: WC25080-012
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	5	04/03/2021 0141	CJL2		87848

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Isopropylbenzene	98-82-8	8260D	ND		5.0	2.0	ug/L	1
Methyl acetate	79-20-9	8260D	ND		5.0	2.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		5.0	2.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		50	10	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		25	2.0	ug/L	1
Methylene chloride	75-09-2	8260D	ND		5.0	2.0	ug/L	1
Styrene	100-42-5	8260D	ND		5.0	2.1	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		5.0	2.0	ug/L	1
Tetrachloroethene	127-18-4	8260D	950		5.0	2.0	ug/L	1
Toluene	108-88-3	8260D	ND		5.0	2.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	14		5.0	2.1	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		5.0	2.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		5.0	2.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		5.0	2.0	ug/L	1
Trichloroethene	79-01-6	8260D	6.9		5.0	2.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		5.0	2.0	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		5.0	2.0	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		5.0	2.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		107	70-130
1,2-Dichloroethane-d4		93	70-130
Toluene-d8		108	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Pace Analytical Services, LLC *(formerly Shealy Environmental Services, Inc.)*
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Client: TRC Companies, Inc.
Description: DU-21104
Date Sampled: 03/23/2021
Date Received: 03/25/2021

Laboratory ID: WC25080-013
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	03/31/2021 0550	AMR		87627
1		(Sulfate) 300.0	1	03/31/2021 0550	AMR		87623

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.061	J	0.20	0.050	mg/L	1
Sulfate		300.0	0.79	J	1.0	0.25	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	5	04/03/2021 0203	CJL2		87848

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	100		100	25	ug/L	1
Benzene	71-43-2	8260D	ND		5.0	2.0	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		5.0	2.0	ug/L	1
Bromoform	75-25-2	8260D	ND		5.0	2.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		10	2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	190		50	10	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		5.0	2.0	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		5.0	2.0	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		5.0	2.0	ug/L	1
Chloroethane	75-00-3	8260D	ND		10	2.0	ug/L	1
Chloroform	67-66-3	8260D	ND		5.0	2.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		5.0	2.5	ug/L	1
Cyclohexane	110-82-7	8260D	ND		5.0	2.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		5.0	2.0	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		5.0	2.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		5.0	2.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	3.0	J	5.0	2.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		5.0	2.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		5.0	2.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		10	3.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		5.0	2.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		5.0	2.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		5.0	2.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		5.0	2.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		5.0	2.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		5.0	2.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		5.0	2.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		5.0	2.0	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		5.0	2.0	ug/L	1
2-Hexanone	591-78-6	8260D	ND		50	10	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: DU-21104
Date Sampled: 03/23/2021
Date Received: 03/25/2021

Laboratory ID: WC25080-013
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	5	04/03/2021 0203	CJL2		87848

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Isopropylbenzene	98-82-8	8260D	ND		5.0	2.0	ug/L	1
Methyl acetate	79-20-9	8260D	ND		5.0	2.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		5.0	2.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		50	10	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		25	2.0	ug/L	1
Methylene chloride	75-09-2	8260D	ND		5.0	2.0	ug/L	1
Styrene	100-42-5	8260D	ND		5.0	2.1	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		5.0	2.0	ug/L	1
Tetrachloroethene	127-18-4	8260D	880		5.0	2.0	ug/L	1
Toluene	108-88-3	8260D	ND		5.0	2.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	14		5.0	2.1	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		5.0	2.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		5.0	2.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		5.0	2.0	ug/L	1
Trichloroethene	79-01-6	8260D	6.8		5.0	2.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		5.0	2.0	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		5.0	2.0	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		5.0	2.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		101	70-130
1,2-Dichloroethane-d4		98	70-130
Toluene-d8		109	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Pace Analytical Services, LLC *(formerly Shealy Environmental Services, Inc.)*
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Client: TRC Companies, Inc.
Description: TBLK-21110
Date Sampled: 03/24/2021
Date Received: 03/25/2021

Laboratory ID: WC25080-014
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	04/01/2021 2046	CJL2		87673

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	0.52	BJ	1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	ND		1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: TBLK-21110
Date Sampled: 03/24/2021
Date Received: 03/25/2021

Laboratory ID: WC25080-014
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	04/01/2021 2046	CJL2		87673

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260D	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		100	70-130
1,2-Dichloroethane-d4		103	70-130
Toluene-d8		103	70-130

LOQ = Limit of Quantitation	B = Detected in the method blank	E = Quantitation of compound exceeded the calibration range	DL = Detection Limit	Q = Surrogate failure
ND = Not detected at or above the DL	N = Recovery is out of criteria	P = The RPD between two GC columns exceeds 40%	J = Estimated result < LOQ and ≥ DL	L = LCS/LCSD failure
H = Out of holding time	W = Reported on wet weight basis			S = MS/MSD failure

QC Summary

Inorganic non-metals - MB

Sample ID: WQ87313-001
Batch: 87313
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Sulfate	ND		1	1.0	0.25	mg/L	03/29/2021 1532

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: WQ87313-002
Batch: 87313
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Sulfate	20	19		1	97	90-110	03/29/2021 1610

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: WQ87314-001
Batch: 87314
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Bromide	ND		1	0.20	0.050	mg/L	03/29/2021 1532

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: WQ87314-002
Batch: 87314
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Bromide	8.0	8.4		1	105	90-110	03/29/2021 1610

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: WQ87316-001
Batch: 87316
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Sulfate	ND		1	1.0	0.25	mg/L	03/29/2021 2310

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: WQ87316-002
Batch: 87316
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Sulfate	20	20		1	99	90-110	03/30/2021 0141

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCSD

Sample ID: WQ87316-003
Batch: 87316
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	%Rec Limit	% RPD Limit	Analysis Date
Sulfate	20	20		1	98	0.40	90-110	20	03/30/2021 0200

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: WQ87318-001
Batch: 87318
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Bromide	ND		1	0.20	0.050	mg/L	03/29/2021 2310

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: WQ87318-002
Batch: 87318
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Bromide	8.0	8.2		1	103	90-110	03/30/2021 0141

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCSD

Sample ID: WQ87318-003
Batch: 87318
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	%Rec Limit	% RPD Limit	Analysis Date
Bromide	8.0	8.2		1	102	0.14	90-110	20	03/30/2021 0200

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: WQ87623-001
Batch: 87623
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Sulfate	ND		1	1.0	0.25	mg/L	03/31/2021 0357

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: WQ87623-002
Batch: 87623
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Sulfate	20	20		1	98	90-110	03/31/2021 0512

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: WQ87627-001
Batch: 87627
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Bromide	ND		1	0.20	0.050	mg/L	03/31/2021 0357

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: WQ87627-002
Batch: 87627
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Bromide	8.0	8.2		1	102	90-110	03/31/2021 0512

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: WQ87520-001
Batch: 87520
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Acetone	ND		1	20	5.0	ug/L	03/31/2021 2026
Benzene	ND		1	1.0	0.40	ug/L	03/31/2021 2026
Bromodichloromethane	ND		1	1.0	0.40	ug/L	03/31/2021 2026
Bromoform	ND		1	1.0	0.40	ug/L	03/31/2021 2026
Bromomethane (Methyl bromide)	ND		1	2.0	0.40	ug/L	03/31/2021 2026
2-Butanone (MEK)	ND		1	10	2.0	ug/L	03/31/2021 2026
Carbon tetrachloride	ND		1	1.0	0.40	ug/L	03/31/2021 2026
Chlorobenzene	ND		1	1.0	0.40	ug/L	03/31/2021 2026
Chloroethane	ND		1	2.0	0.40	ug/L	03/31/2021 2026
Chloroform	ND		1	1.0	0.40	ug/L	03/31/2021 2026
Chloromethane (Methyl chloride)	ND		1	1.0	0.50	ug/L	03/31/2021 2026
Cyclohexane	ND		1	1.0	0.40	ug/L	03/31/2021 2026
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	0.40	ug/L	03/31/2021 2026
Dibromochloromethane	ND		1	1.0	0.40	ug/L	03/31/2021 2026
1,2-Dibromoethane (EDB)	ND		1	1.0	0.40	ug/L	03/31/2021 2026
1,2-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/31/2021 2026
1,3-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/31/2021 2026
1,4-Dichlorobenzene	ND		1	1.0	0.40	ug/L	03/31/2021 2026
Dichlorodifluoromethane	ND		1	2.0	0.60	ug/L	03/31/2021 2026
1,1-Dichloroethane	ND		1	1.0	0.40	ug/L	03/31/2021 2026
1,2-Dichloroethane	ND		1	1.0	0.40	ug/L	03/31/2021 2026
1,1-Dichloroethene	ND		1	1.0	0.40	ug/L	03/31/2021 2026
cis-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	03/31/2021 2026
trans-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	03/31/2021 2026
1,2-Dichloropropane	ND		1	1.0	0.40	ug/L	03/31/2021 2026
cis-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	03/31/2021 2026
trans-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	03/31/2021 2026
Ethylbenzene	ND		1	1.0	0.40	ug/L	03/31/2021 2026
2-Hexanone	ND		1	10	2.0	ug/L	03/31/2021 2026
Isopropylbenzene	ND		1	1.0	0.40	ug/L	03/31/2021 2026
Methyl acetate	ND		1	1.0	0.40	ug/L	03/31/2021 2026
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	0.40	ug/L	03/31/2021 2026
4-Methyl-2-pentanone	ND		1	10	2.0	ug/L	03/31/2021 2026
Methylcyclohexane	ND		1	5.0	0.40	ug/L	03/31/2021 2026
Methylene chloride	ND		1	1.0	0.40	ug/L	03/31/2021 2026
Styrene	ND		1	1.0	0.41	ug/L	03/31/2021 2026
1,1,2,2-Tetrachloroethane	ND		1	1.0	0.40	ug/L	03/31/2021 2026
Tetrachloroethene	ND		1	1.0	0.40	ug/L	03/31/2021 2026
Toluene	ND		1	1.0	0.40	ug/L	03/31/2021 2026
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	0.42	ug/L	03/31/2021 2026
1,2,4-Trichlorobenzene	ND		1	1.0	0.40	ug/L	03/31/2021 2026
1,1,1-Trichloroethane	ND		1	1.0	0.40	ug/L	03/31/2021 2026
1,1,2-Trichloroethane	ND		1	1.0	0.40	ug/L	03/31/2021 2026
Trichloroethene	ND		1	1.0	0.40	ug/L	03/31/2021 2026

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: WQ87520-001
Batch: 87520
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Trichlorofluoromethane	ND		1	1.0	0.40	ug/L	03/31/2021 2026
Vinyl chloride	ND		1	1.0	0.40	ug/L	03/31/2021 2026
Xylenes (total)	ND		1	1.0	0.40	ug/L	03/31/2021 2026

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		104	70-130
1,2-Dichloroethane-d4		103	70-130
Toluene-d8		103	70-130

LOQ = Limit of Quantitation
DL = Detection Limit

ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria

N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: WQ87520-002
Batch: 87520
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Acetone	100	91		1	91	60-140	03/31/2021 1816
Benzene	50	46		1	92	70-130	03/31/2021 1816
Bromodichloromethane	50	46		1	92	70-130	03/31/2021 1816
Bromoform	50	47		1	95	70-130	03/31/2021 1816
Bromomethane (Methyl bromide)	50	47		1	94	70-130	03/31/2021 1816
2-Butanone (MEK)	100	77		1	77	70-130	03/31/2021 1816
Carbon tetrachloride	50	44		1	88	70-130	03/31/2021 1816
Chlorobenzene	50	45		1	91	70-130	03/31/2021 1816
Chloroethane	50	46		1	92	70-130	03/31/2021 1816
Chloroform	50	44		1	89	70-130	03/31/2021 1816
Chloromethane (Methyl chloride)	50	43		1	87	60-140	03/31/2021 1816
Cyclohexane	50	42		1	84	70-130	03/31/2021 1816
1,2-Dibromo-3-chloropropane (DBCP)	50	44		1	89	70-130	03/31/2021 1816
Dibromochloromethane	50	48		1	96	70-130	03/31/2021 1816
1,2-Dibromoethane (EDB)	50	46		1	93	70-130	03/31/2021 1816
1,2-Dichlorobenzene	50	50		1	100	70-130	03/31/2021 1816
1,3-Dichlorobenzene	50	47		1	93	70-130	03/31/2021 1816
1,4-Dichlorobenzene	50	48		1	96	70-130	03/31/2021 1816
Dichlorodifluoromethane	50	52		1	105	60-140	03/31/2021 1816
1,1-Dichloroethane	50	47		1	94	70-130	03/31/2021 1816
1,2-Dichloroethane	50	47		1	94	70-130	03/31/2021 1816
1,1-Dichloroethene	50	44		1	88	70-130	03/31/2021 1816
cis-1,2-Dichloroethene	50	45		1	90	70-130	03/31/2021 1816
trans-1,2-Dichloroethene	50	45		1	90	70-130	03/31/2021 1816
1,2-Dichloropropane	50	46		1	92	70-130	03/31/2021 1816
cis-1,3-Dichloropropene	50	45		1	91	70-130	03/31/2021 1816
trans-1,3-Dichloropropene	50	47		1	94	70-130	03/31/2021 1816
Ethylbenzene	50	45		1	90	70-130	03/31/2021 1816
2-Hexanone	100	95		1	95	70-130	03/31/2021 1816
Isopropylbenzene	50	46		1	91	70-130	03/31/2021 1816
Methyl acetate	50	42		1	83	70-130	03/31/2021 1816
Methyl tertiary butyl ether (MTBE)	50	45		1	90	70-130	03/31/2021 1816
4-Methyl-2-pentanone	100	88		1	88	70-130	03/31/2021 1816
Methylcyclohexane	50	45		1	91	70-130	03/31/2021 1816
Methylene chloride	50	44		1	88	70-130	03/31/2021 1816
Styrene	50	45		1	90	70-130	03/31/2021 1816
1,1,2,2-Tetrachloroethane	50	49		1	98	70-130	03/31/2021 1816
Tetrachloroethene	50	48		1	95	70-130	03/31/2021 1816
Toluene	50	47		1	94	70-130	03/31/2021 1816
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	46		1	92	70-130	03/31/2021 1816
1,2,4-Trichlorobenzene	50	51		1	102	70-130	03/31/2021 1816
1,1,1-Trichloroethane	50	45		1	90	70-130	03/31/2021 1816
1,1,2-Trichloroethane	50	45		1	90	70-130	03/31/2021 1816
Trichloroethene	50	46		1	92	70-130	03/31/2021 1816

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: WQ87520-002
Batch: 87520
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Trichlorofluoromethane	50	46		1	92	70-130	03/31/2021 1816
Vinyl chloride	50	44		1	88	70-130	03/31/2021 1816
Xylenes (total)	100	88		1	88	70-130	03/31/2021 1816

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		87	70-130
1,2-Dichloroethane-d4		88	70-130
Toluene-d8		90	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: WC25080-001MS
Batch: 87520
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Acetone	ND	1000	1000		10	101	60-140	04/01/2021 0312
Benzene	ND	500	550		10	110	70-130	04/01/2021 0312
Bromodichloromethane	ND	500	520		10	103	70-130	04/01/2021 0312
Bromoform	ND	500	510		10	102	70-130	04/01/2021 0312
Bromomethane (Methyl bromide)	ND	500	550		10	110	70-130	04/01/2021 0312
2-Butanone (MEK)	ND	1000	880		10	88	70-130	04/01/2021 0312
Carbon tetrachloride	ND	500	570		10	114	70-130	04/01/2021 0312
Chlorobenzene	ND	500	540		10	107	70-130	04/01/2021 0312
Chloroethane	ND	500	550		10	110	70-130	04/01/2021 0312
Chloroform	ND	500	530		10	107	70-130	04/01/2021 0312
Chloromethane (Methyl chloride)	ND	500	510		10	103	60-140	04/01/2021 0312
Cyclohexane	ND	500	590		10	118	70-130	04/01/2021 0312
1,2-Dibromo-3-chloropropane (DBCP)	ND	500	460		10	91	70-130	04/01/2021 0312
Dibromochloromethane	ND	500	530		10	106	70-130	04/01/2021 0312
1,2-Dibromoethane (EDB)	ND	500	550		10	110	70-130	04/01/2021 0312
1,2-Dichlorobenzene	ND	500	570		10	115	70-130	04/01/2021 0312
1,3-Dichlorobenzene	ND	500	550		10	110	70-130	04/01/2021 0312
1,4-Dichlorobenzene	ND	500	570		10	115	70-130	04/01/2021 0312
Dichlorodifluoromethane	ND	500	580		10	116	60-140	04/01/2021 0312
1,1-Dichloroethane	ND	500	540		10	109	70-130	04/01/2021 0312
1,2-Dichloroethane	ND	500	490		10	98	70-130	04/01/2021 0312
1,1-Dichloroethene	ND	500	570		10	114	70-130	04/01/2021 0312
cis-1,2-Dichloroethene	ND	500	530		10	106	70-130	04/01/2021 0312
trans-1,2-Dichloroethene	ND	500	550		10	110	70-130	04/01/2021 0312
1,2-Dichloropropane	ND	500	540		10	107	70-130	04/01/2021 0312
cis-1,3-Dichloropropene	ND	500	510		10	102	70-130	04/01/2021 0312
trans-1,3-Dichloropropene	ND	500	550		10	109	70-130	04/01/2021 0312
Ethylbenzene	ND	500	570		10	114	70-130	04/01/2021 0312
2-Hexanone	ND	1000	1100		10	109	70-130	04/01/2021 0312
Isopropylbenzene	ND	500	580		10	116	70-130	04/01/2021 0312
Methyl acetate	ND	500	490		10	98	70-130	04/01/2021 0312
Methyl tertiary butyl ether (MTBE)	ND	500	510		10	102	70-130	04/01/2021 0312
4-Methyl-2-pentanone	ND	1000	960		10	96	70-130	04/01/2021 0312
Methylcyclohexane	ND	500	620		10	123	70-130	04/01/2021 0312
Methylene chloride	ND	500	500		10	101	70-130	04/01/2021 0312
Styrene	ND	500	540		10	108	70-130	04/01/2021 0312
1,1,2,2-Tetrachloroethane	ND	500	540		10	108	70-130	04/01/2021 0312
Tetrachloroethene	1300	500	1800		10	106	70-130	04/01/2021 0312
Toluene	ND	500	570		10	114	70-130	04/01/2021 0312
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	500	630		10	125	70-130	04/01/2021 0312
1,2,4-Trichlorobenzene	ND	500	540		10	108	70-130	04/01/2021 0312
1,1,1-Trichloroethane	ND	500	550		10	111	70-130	04/01/2021 0312
1,1,2-Trichloroethane	ND	500	530		10	105	70-130	04/01/2021 0312
Trichloroethene	ND	500	560		10	113	70-130	04/01/2021 0312

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: WC25080-001MS
Batch: 87520
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Trichlorofluoromethane	ND	500	580		10	116	70-130	04/01/2021 0312
Vinyl chloride	ND	500	550		10	110	70-130	04/01/2021 0312
Xylenes (total)	ND	1000	1100		10	109	70-130	04/01/2021 0312

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		107	70-130
1,2-Dichloroethane-d4		98	70-130
Toluene-d8		112	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MSD

Sample ID: WC25080-001MD
Batch: 87520
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	%Rec Limit	% RPD Limit	Analysis Date
Acetone	ND	1000	1100		10	113	12	60-140	20	04/01/2021 0334
Benzene	ND	500	540		10	108	1.5	70-130	20	04/01/2021 0334
Bromodichloromethane	ND	500	500		10	101	2.7	70-130	20	04/01/2021 0334
Bromoform	ND	500	510		10	102	0.096	70-130	20	04/01/2021 0334
Bromomethane (Methyl bromide)	ND	500	510		10	103	6.6	70-130	20	04/01/2021 0334
2-Butanone (MEK)	ND	1000	960		10	96	8.3	70-130	20	04/01/2021 0334
Carbon tetrachloride	ND	500	540		10	107	5.9	70-130	20	04/01/2021 0334
Chlorobenzene	ND	500	510		10	103	4.6	70-130	20	04/01/2021 0334
Chloroethane	ND	500	500		10	101	9.0	70-130	20	04/01/2021 0334
Chloroform	ND	500	510		10	102	4.1	70-130	20	04/01/2021 0334
Chloromethane (Methyl chloride)	ND	500	450		10	90	13	60-140	20	04/01/2021 0334
Cyclohexane	ND	500	540		10	109	8.3	70-130	20	04/01/2021 0334
1,2-Dibromo-3-chloropropane (DBCP)	ND	500	460		10	92	0.82	70-130	20	04/01/2021 0334
Dibromochloromethane	ND	500	510		10	103	3.1	70-130	20	04/01/2021 0334
1,2-Dibromoethane (EDB)	ND	500	550		10	109	1.0	70-130	20	04/01/2021 0334
1,2-Dichlorobenzene	ND	500	540		10	107	6.9	70-130	20	04/01/2021 0334
1,3-Dichlorobenzene	ND	500	530		10	106	4.2	70-130	20	04/01/2021 0334
1,4-Dichlorobenzene	ND	500	520		10	103	10	70-130	20	04/01/2021 0334
Dichlorodifluoromethane	ND	500	530		10	105	9.9	60-140	20	04/01/2021 0334
1,1-Dichloroethane	ND	500	520		10	104	4.8	70-130	20	04/01/2021 0334
1,2-Dichloroethane	ND	500	520		10	104	5.5	70-130	20	04/01/2021 0334
1,1-Dichloroethene	ND	500	560		10	112	2.5	70-130	20	04/01/2021 0334
cis-1,2-Dichloroethene	ND	500	510		10	102	3.7	70-130	20	04/01/2021 0334
trans-1,2-Dichloroethene	ND	500	520		10	104	5.9	70-130	20	04/01/2021 0334
1,2-Dichloropropane	ND	500	540		10	108	0.67	70-130	20	04/01/2021 0334
cis-1,3-Dichloropropene	ND	500	510		10	102	0.24	70-130	20	04/01/2021 0334
trans-1,3-Dichloropropene	ND	500	510		10	103	6.1	70-130	20	04/01/2021 0334
Ethylbenzene	ND	500	540		10	108	4.8	70-130	20	04/01/2021 0334
2-Hexanone	ND	1000	1100		10	111	2.4	70-130	20	04/01/2021 0334
Isopropylbenzene	ND	500	570		10	113	2.6	70-130	20	04/01/2021 0334
Methyl acetate	ND	500	500		10	100	2.6	70-130	20	04/01/2021 0334
Methyl tertiary butyl ether (MTBE)	ND	500	510		10	101	0.42	70-130	20	04/01/2021 0334
4-Methyl-2-pentanone	ND	1000	1000		10	102	5.7	70-130	20	04/01/2021 0334
Methylcyclohexane	ND	500	600		10	121	2.0	70-130	20	04/01/2021 0334
Methylene chloride	ND	500	490		10	99	2.1	70-130	20	04/01/2021 0334
Styrene	ND	500	540		10	108	0.26	70-130	20	04/01/2021 0334
1,1,2,2-Tetrachloroethane	ND	500	530		10	106	1.8	70-130	20	04/01/2021 0334
Tetrachloroethene	1300	500	1700		10	82	6.8	70-130	20	04/01/2021 0334
Toluene	ND	500	520		10	105	8.6	70-130	20	04/01/2021 0334
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	500	580		10	116	7.2	70-130	20	04/01/2021 0334
1,2,4-Trichlorobenzene	ND	500	460		10	91	17	70-130	20	04/01/2021 0334
1,1,1-Trichloroethane	ND	500	550		10	110	0.81	70-130	20	04/01/2021 0334
1,1,2-Trichloroethane	ND	500	530		10	107	1.2	70-130	20	04/01/2021 0334
Trichloroethene	ND	500	550		10	110	1.9	70-130	20	04/01/2021 0334

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MSD

Sample ID: WC25080-001MD
Batch: 87520
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	%Rec Limit	% RPD Limit	Analysis Date
Trichlorofluoromethane	ND	500	550		10	109	6.4	70-130	20	04/01/2021 0334
Vinyl chloride	ND	500	510		10	102	7.8	70-130	20	04/01/2021 0334
Xylenes (total)	ND	1000	1100		10	108	1.0	70-130	20	04/01/2021 0334

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		105	70-130
1,2-Dichloroethane-d4		98	70-130
Toluene-d8		106	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: WQ87535-001
Batch: 87535
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Acetone	ND		1	20	5.0	ug/L	04/01/2021 0115
Benzene	ND		1	1.0	0.40	ug/L	04/01/2021 0115
Bromodichloromethane	ND		1	1.0	0.40	ug/L	04/01/2021 0115
Bromoform	ND		1	1.0	0.40	ug/L	04/01/2021 0115
Bromomethane (Methyl bromide)	ND		1	2.0	0.40	ug/L	04/01/2021 0115
2-Butanone (MEK)	ND		1	10	2.0	ug/L	04/01/2021 0115
Carbon disulfide	ND		1	1.0	0.40	ug/L	04/01/2021 0115
Carbon tetrachloride	ND		1	1.0	0.40	ug/L	04/01/2021 0115
Chlorobenzene	ND		1	1.0	0.40	ug/L	04/01/2021 0115
Chloroethane	ND		1	2.0	0.40	ug/L	04/01/2021 0115
Chloroform	ND		1	1.0	0.40	ug/L	04/01/2021 0115
Chloromethane (Methyl chloride)	ND		1	1.0	0.50	ug/L	04/01/2021 0115
Cyclohexane	ND		1	1.0	0.40	ug/L	04/01/2021 0115
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	0.40	ug/L	04/01/2021 0115
Dibromochloromethane	ND		1	1.0	0.40	ug/L	04/01/2021 0115
1,2-Dibromoethane (EDB)	ND		1	1.0	0.40	ug/L	04/01/2021 0115
1,2-Dichlorobenzene	ND		1	1.0	0.40	ug/L	04/01/2021 0115
1,3-Dichlorobenzene	ND		1	1.0	0.40	ug/L	04/01/2021 0115
1,4-Dichlorobenzene	ND		1	1.0	0.40	ug/L	04/01/2021 0115
Dichlorodifluoromethane	ND		1	2.0	0.60	ug/L	04/01/2021 0115
1,1-Dichloroethane	ND		1	1.0	0.40	ug/L	04/01/2021 0115
1,2-Dichloroethane	ND		1	1.0	0.40	ug/L	04/01/2021 0115
1,1-Dichloroethene	ND		1	1.0	0.40	ug/L	04/01/2021 0115
cis-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	04/01/2021 0115
trans-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	04/01/2021 0115
1,2-Dichloropropane	ND		1	1.0	0.40	ug/L	04/01/2021 0115
cis-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	04/01/2021 0115
trans-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	04/01/2021 0115
Ethylbenzene	ND		1	1.0	0.40	ug/L	04/01/2021 0115
2-Hexanone	ND		1	10	2.0	ug/L	04/01/2021 0115
Isopropylbenzene	ND		1	1.0	0.40	ug/L	04/01/2021 0115
Methyl acetate	ND		1	1.0	0.40	ug/L	04/01/2021 0115
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	0.40	ug/L	04/01/2021 0115
4-Methyl-2-pentanone	ND		1	10	2.0	ug/L	04/01/2021 0115
Methylcyclohexane	ND		1	5.0	0.40	ug/L	04/01/2021 0115
Methylene chloride	ND		1	1.0	0.40	ug/L	04/01/2021 0115
Styrene	ND		1	1.0	0.41	ug/L	04/01/2021 0115
1,1,2,2-Tetrachloroethane	ND		1	1.0	0.40	ug/L	04/01/2021 0115
Tetrachloroethene	ND		1	1.0	0.40	ug/L	04/01/2021 0115
Toluene	ND		1	1.0	0.40	ug/L	04/01/2021 0115
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	0.42	ug/L	04/01/2021 0115
1,2,4-Trichlorobenzene	ND		1	1.0	0.40	ug/L	04/01/2021 0115
1,1,1-Trichloroethane	ND		1	1.0	0.40	ug/L	04/01/2021 0115
1,1,2-Trichloroethane	ND		1	1.0	0.40	ug/L	04/01/2021 0115

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: WQ87535-001
Batch: 87535
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Trichloroethene	ND		1	1.0	0.40	ug/L	04/01/2021 0115
Trichlorofluoromethane	ND		1	1.0	0.40	ug/L	04/01/2021 0115
Vinyl chloride	ND		1	1.0	0.40	ug/L	04/01/2021 0115
Xylenes (total)	ND		1	1.0	0.40	ug/L	04/01/2021 0115

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		100	70-130
1,2-Dichloroethane-d4		98	70-130
Toluene-d8		108	70-130

LOQ = Limit of Quantitation
DL = Detection Limit

ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria

N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: WQ87535-002
Batch: 87535
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Acetone	100	78		1	78	60-140	04/01/2021 0027
Benzene	50	50		1	100	70-130	04/01/2021 0027
Bromodichloromethane	50	51		1	101	70-130	04/01/2021 0027
Bromoform	50	46		1	92	70-130	04/01/2021 0027
Bromomethane (Methyl bromide)	50	43		1	85	70-130	04/01/2021 0027
2-Butanone (MEK)	100	90		1	90	70-130	04/01/2021 0027
Carbon disulfide	50	53		1	105	70-130	04/01/2021 0027
Carbon tetrachloride	50	55		1	110	70-130	04/01/2021 0027
Chlorobenzene	50	51		1	102	70-130	04/01/2021 0027
Chloroethane	50	47		1	94	70-130	04/01/2021 0027
Chloroform	50	46		1	93	70-130	04/01/2021 0027
Chloromethane (Methyl chloride)	50	56		1	111	60-140	04/01/2021 0027
Cyclohexane	50	58		1	116	70-130	04/01/2021 0027
1,2-Dibromo-3-chloropropane (DBCP)	50	43		1	86	70-130	04/01/2021 0027
Dibromochloromethane	50	47		1	94	70-130	04/01/2021 0027
1,2-Dibromoethane (EDB)	50	52		1	104	70-130	04/01/2021 0027
1,2-Dichlorobenzene	50	46		1	93	70-130	04/01/2021 0027
1,3-Dichlorobenzene	50	51		1	101	70-130	04/01/2021 0027
1,4-Dichlorobenzene	50	50		1	100	70-130	04/01/2021 0027
Dichlorodifluoromethane	50	55		1	109	60-140	04/01/2021 0027
1,1-Dichloroethane	50	47		1	94	70-130	04/01/2021 0027
1,2-Dichloroethane	50	46		1	93	70-130	04/01/2021 0027
1,1-Dichloroethene	50	49		1	99	70-130	04/01/2021 0027
cis-1,2-Dichloroethene	50	49		1	97	70-130	04/01/2021 0027
trans-1,2-Dichloroethene	50	50		1	100	70-130	04/01/2021 0027
1,2-Dichloropropane	50	50		1	100	70-130	04/01/2021 0027
cis-1,3-Dichloropropene	50	49		1	98	70-130	04/01/2021 0027
trans-1,3-Dichloropropene	50	48		1	96	70-130	04/01/2021 0027
Ethylbenzene	50	51		1	102	70-130	04/01/2021 0027
2-Hexanone	100	88		1	88	70-130	04/01/2021 0027
Isopropylbenzene	50	49		1	98	70-130	04/01/2021 0027
Methyl acetate	50	44		1	88	70-130	04/01/2021 0027
Methyl tertiary butyl ether (MTBE)	50	49		1	99	70-130	04/01/2021 0027
4-Methyl-2-pentanone	100	100		1	101	70-130	04/01/2021 0027
Methylcyclohexane	50	53		1	105	70-130	04/01/2021 0027
Methylene chloride	50	48		1	95	70-130	04/01/2021 0027
Styrene	50	47		1	94	70-130	04/01/2021 0027
1,1,2,2-Tetrachloroethane	50	52		1	104	70-130	04/01/2021 0027
Tetrachloroethene	50	53		1	106	70-130	04/01/2021 0027
Toluene	50	52		1	104	70-130	04/01/2021 0027
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	49		1	99	70-130	04/01/2021 0027
1,2,4-Trichlorobenzene	50	40		1	80	70-130	04/01/2021 0027
1,1,1-Trichloroethane	50	50		1	101	70-130	04/01/2021 0027
1,1,2-Trichloroethane	50	49		1	97	70-130	04/01/2021 0027

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: WQ87535-002
Batch: 87535
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Trichloroethene	50	52		1	104	70-130	04/01/2021 0027
Trichlorofluoromethane	50	53		1	106	70-130	04/01/2021 0027
Vinyl chloride	50	48		1	96	70-130	04/01/2021 0027
Xylenes (total)	100	100		1	102	70-130	04/01/2021 0027

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		96	70-130
1,2-Dichloroethane-d4		93	70-130
Toluene-d8		102	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: WC25080-003MS
Batch: 87535
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Acetone	ND	500	400		5	81	60-140	04/01/2021 0722
Benzene	ND	250	270		5	107	70-130	04/01/2021 0722
Bromodichloromethane	ND	250	260		5	105	70-130	04/01/2021 0722
Bromoform	ND	250	230		5	92	70-130	04/01/2021 0722
Bromomethane (Methyl bromide)	ND	250	230		5	92	70-130	04/01/2021 0722
2-Butanone (MEK)	ND	500	510		5	101	70-130	04/01/2021 0722
Carbon disulfide	ND	250	270		5	109	70-130	04/01/2021 0722
Carbon tetrachloride	2.6	250	300		5	120	70-130	04/01/2021 0722
Chlorobenzene	ND	250	260		5	105	70-130	04/01/2021 0722
Chloroethane	ND	250	270		5	107	70-130	04/01/2021 0722
Chloroform	3.8	250	260		5	101	70-130	04/01/2021 0722
Chloromethane (Methyl chloride)	ND	250	300		5	120	60-140	04/01/2021 0722
Cyclohexane	ND	250	250		5	102	70-130	04/01/2021 0722
1,2-Dibromo-3-chloropropane (DBCP)	ND	250	210		5	84	70-130	04/01/2021 0722
Dibromochloromethane	ND	250	240		5	94	70-130	04/01/2021 0722
1,2-Dibromoethane (EDB)	ND	250	260		5	104	70-130	04/01/2021 0722
1,2-Dichlorobenzene	ND	250	240		5	96	70-130	04/01/2021 0722
1,3-Dichlorobenzene	ND	250	250		5	101	70-130	04/01/2021 0722
1,4-Dichlorobenzene	ND	250	250		5	99	70-130	04/01/2021 0722
Dichlorodifluoromethane	ND	250	280		5	112	60-140	04/01/2021 0722
1,1-Dichloroethane	ND	250	260		5	102	70-130	04/01/2021 0722
1,2-Dichloroethane	ND	250	250		5	98	70-130	04/01/2021 0722
1,1-Dichloroethene	ND	250	270		5	108	70-130	04/01/2021 0722
cis-1,2-Dichloroethene	ND	250	260		5	104	70-130	04/01/2021 0722
trans-1,2-Dichloroethene	ND	250	270		5	107	70-130	04/01/2021 0722
1,2-Dichloropropane	ND	250	260		5	106	70-130	04/01/2021 0722
cis-1,3-Dichloropropene	ND	250	240		5	96	70-130	04/01/2021 0722
trans-1,3-Dichloropropene	ND	250	230		5	92	70-130	04/01/2021 0722
Ethylbenzene	ND	250	270		5	108	70-130	04/01/2021 0722
2-Hexanone	ND	500	510		5	102	70-130	04/01/2021 0722
Isopropylbenzene	ND	250	270		5	108	70-130	04/01/2021 0722
Methyl acetate	ND	250	230		5	91	70-130	04/01/2021 0722
Methyl tertiary butyl ether (MTBE)	ND	250	250		5	100	70-130	04/01/2021 0722
4-Methyl-2-pentanone	ND	500	510		5	102	70-130	04/01/2021 0722
Methylcyclohexane	ND	250	290		5	114	70-130	04/01/2021 0722
Methylene chloride	ND	250	250		5	98	70-130	04/01/2021 0722
Styrene	ND	250	240		5	98	70-130	04/01/2021 0722
1,1,2,2-Tetrachloroethane	ND	250	240		5	97	70-130	04/01/2021 0722
Tetrachloroethene	550	250	860		5	125	70-130	04/01/2021 0722
Toluene	ND	250	270		5	107	70-130	04/01/2021 0722
1,1,2-Trichloro-1,2,2-Trifluoroethane	3.1	250	280		5	110	70-130	04/01/2021 0722
1,2,4-Trichlorobenzene	ND	250	190		5	75	70-130	04/01/2021 0722
1,1,1-Trichloroethane	ND	250	280		5	112	70-130	04/01/2021 0722
1,1,2-Trichloroethane	ND	250	240		5	97	70-130	04/01/2021 0722

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: WC25080-003MS
Batch: 87535
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Trichloroethene	ND	250	270		5	109	70-130	04/01/2021 0722
Trichlorofluoromethane	ND	250	300		5	120	70-130	04/01/2021 0722
Vinyl chloride	ND	250	260		5	105	70-130	04/01/2021 0722
Xylenes (total)	ND	500	530		5	107	70-130	04/01/2021 0722

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		103	70-130
1,2-Dichloroethane-d4		99	70-130
Toluene-d8		107	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MSD

Sample ID: WC25080-003MD
Batch: 87535
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	%Rec Limit	% RPD Limit	Analysis Date
Acetone	ND	500	390		5	77	4.2	60-140	20	04/01/2021 0745
Benzene	ND	250	260		5	106	1.1	70-130	20	04/01/2021 0745
Bromodichloromethane	ND	250	260		5	104	1.5	70-130	20	04/01/2021 0745
Bromoform	ND	250	220		5	90	2.6	70-130	20	04/01/2021 0745
Bromomethane (Methyl bromide)	ND	250	220		5	90	3.1	70-130	20	04/01/2021 0745
2-Butanone (MEK)	ND	500	490		5	98	2.8	70-130	20	04/01/2021 0745
Carbon disulfide	ND	250	280		5	112	2.0	70-130	20	04/01/2021 0745
Carbon tetrachloride	2.6	250	300		5	119	1.4	70-130	20	04/01/2021 0745
Chlorobenzene	ND	250	260		5	103	2.0	70-130	20	04/01/2021 0745
Chloroethane	ND	250	260		5	102	4.7	70-130	20	04/01/2021 0745
Chloroform	3.8	250	250		5	98	3.0	70-130	20	04/01/2021 0745
Chloromethane (Methyl chloride)	ND	250	300		5	121	1.0	60-140	20	04/01/2021 0745
Cyclohexane	ND	250	260		5	103	1.1	70-130	20	04/01/2021 0745
1,2-Dibromo-3-chloropropane (DBCP)	ND	250	210		5	84	0.053	70-130	20	04/01/2021 0745
Dibromochloromethane	ND	250	230		5	92	2.0	70-130	20	04/01/2021 0745
1,2-Dibromoethane (EDB)	ND	250	260		5	103	1.7	70-130	20	04/01/2021 0745
1,2-Dichlorobenzene	ND	250	240		5	96	0.61	70-130	20	04/01/2021 0745
1,3-Dichlorobenzene	ND	250	250		5	101	0.034	70-130	20	04/01/2021 0745
1,4-Dichlorobenzene	ND	250	250		5	99	0.011	70-130	20	04/01/2021 0745
Dichlorodifluoromethane	ND	250	290		5	117	4.1	60-140	20	04/01/2021 0745
1,1-Dichloroethane	ND	250	250		5	100	1.9	70-130	20	04/01/2021 0745
1,2-Dichloroethane	ND	250	240		5	95	2.9	70-130	20	04/01/2021 0745
1,1-Dichloroethene	ND	250	270		5	109	1.3	70-130	20	04/01/2021 0745
cis-1,2-Dichloroethene	ND	250	250		5	101	2.1	70-130	20	04/01/2021 0745
trans-1,2-Dichloroethene	ND	250	270		5	107	0.70	70-130	20	04/01/2021 0745
1,2-Dichloropropane	ND	250	260		5	104	1.9	70-130	20	04/01/2021 0745
cis-1,3-Dichloropropene	ND	250	240		5	95	1.3	70-130	20	04/01/2021 0745
trans-1,3-Dichloropropene	ND	250	230		5	90	1.7	70-130	20	04/01/2021 0745
Ethylbenzene	ND	250	260		5	106	2.7	70-130	20	04/01/2021 0745
2-Hexanone	ND	500	480		5	96	5.8	70-130	20	04/01/2021 0745
Isopropylbenzene	ND	250	270		5	108	0.44	70-130	20	04/01/2021 0745
Methyl acetate	ND	250	230		5	92	0.40	70-130	20	04/01/2021 0745
Methyl tertiary butyl ether (MTBE)	ND	250	250		5	98	1.5	70-130	20	04/01/2021 0745
4-Methyl-2-pentanone	ND	500	490		5	99	3.0	70-130	20	04/01/2021 0745
Methylcyclohexane	ND	250	290		5	116	1.6	70-130	20	04/01/2021 0745
Methylene chloride	ND	250	250		5	99	0.85	70-130	20	04/01/2021 0745
Styrene	ND	250	240		5	97	0.96	70-130	20	04/01/2021 0745
1,1,2,2-Tetrachloroethane	ND	250	240		5	96	1.1	70-130	20	04/01/2021 0745
Tetrachloroethene	550	250	860		5	125	0.14	70-130	20	04/01/2021 0745
Toluene	ND	250	260		5	105	1.8	70-130	20	04/01/2021 0745
1,1,2-Trichloro-1,2,2-Trifluoroethane	3.1	250	280		5	110	0.078	70-130	20	04/01/2021 0745
1,2,4-Trichlorobenzene	ND	250	190		5	76	1.5	70-130	20	04/01/2021 0745
1,1,1-Trichloroethane	ND	250	280		5	110	1.5	70-130	20	04/01/2021 0745
1,1,2-Trichloroethane	ND	250	240		5	95	2.2	70-130	20	04/01/2021 0745

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MSD

Sample ID: WC25080-003MD
Batch: 87535
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	%Rec Limit	% RPD Limit	Analysis Date
Trichloroethene	ND	250	280		5	110	1.4	70-130	20	04/01/2021 0745
Trichlorofluoromethane	ND	250	290		5	117	2.0	70-130	20	04/01/2021 0745
Vinyl chloride	ND	250	270		5	108	2.6	70-130	20	04/01/2021 0745
Xylenes (total)	ND	500	540		5	107	0.12	70-130	20	04/01/2021 0745

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		105	70-130
1,2-Dichloroethane-d4		99	70-130
Toluene-d8		109	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: WQ87673-001
Batch: 87673
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Acetone	ND		1	20	5.0	ug/L	04/01/2021 1940
Benzene	ND		1	1.0	0.40	ug/L	04/01/2021 1940
Bromodichloromethane	ND		1	1.0	0.40	ug/L	04/01/2021 1940
Bromoform	ND		1	1.0	0.40	ug/L	04/01/2021 1940
Bromomethane (Methyl bromide)	ND		1	2.0	0.40	ug/L	04/01/2021 1940
2-Butanone (MEK)	ND		1	10	2.0	ug/L	04/01/2021 1940
Carbon disulfide	0.44	J	1	1.0	0.40	ug/L	04/01/2021 1940
Carbon tetrachloride	ND		1	1.0	0.40	ug/L	04/01/2021 1940
Chlorobenzene	ND		1	1.0	0.40	ug/L	04/01/2021 1940
Chloroethane	ND		1	2.0	0.40	ug/L	04/01/2021 1940
Chloroform	ND		1	1.0	0.40	ug/L	04/01/2021 1940
Chloromethane (Methyl chloride)	ND		1	1.0	0.50	ug/L	04/01/2021 1940
Cyclohexane	ND		1	1.0	0.40	ug/L	04/01/2021 1940
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	0.40	ug/L	04/01/2021 1940
Dibromochloromethane	ND		1	1.0	0.40	ug/L	04/01/2021 1940
1,2-Dibromoethane (EDB)	ND		1	1.0	0.40	ug/L	04/01/2021 1940
1,2-Dichlorobenzene	ND		1	1.0	0.40	ug/L	04/01/2021 1940
1,3-Dichlorobenzene	ND		1	1.0	0.40	ug/L	04/01/2021 1940
1,4-Dichlorobenzene	ND		1	1.0	0.40	ug/L	04/01/2021 1940
Dichlorodifluoromethane	ND		1	2.0	0.60	ug/L	04/01/2021 1940
1,1-Dichloroethane	ND		1	1.0	0.40	ug/L	04/01/2021 1940
1,2-Dichloroethane	ND		1	1.0	0.40	ug/L	04/01/2021 1940
1,1-Dichloroethene	ND		1	1.0	0.40	ug/L	04/01/2021 1940
cis-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	04/01/2021 1940
trans-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	04/01/2021 1940
1,2-Dichloropropane	ND		1	1.0	0.40	ug/L	04/01/2021 1940
cis-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	04/01/2021 1940
trans-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	04/01/2021 1940
Ethylbenzene	ND		1	1.0	0.40	ug/L	04/01/2021 1940
2-Hexanone	ND		1	10	2.0	ug/L	04/01/2021 1940
Isopropylbenzene	ND		1	1.0	0.40	ug/L	04/01/2021 1940
Methyl acetate	ND		1	1.0	0.40	ug/L	04/01/2021 1940
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	0.40	ug/L	04/01/2021 1940
4-Methyl-2-pentanone	ND		1	10	2.0	ug/L	04/01/2021 1940
Methylcyclohexane	ND		1	5.0	0.40	ug/L	04/01/2021 1940
Methylene chloride	ND		1	1.0	0.40	ug/L	04/01/2021 1940
Styrene	ND		1	1.0	0.41	ug/L	04/01/2021 1940
1,1,2,2-Tetrachloroethane	ND		1	1.0	0.40	ug/L	04/01/2021 1940
Tetrachloroethene	ND		1	1.0	0.40	ug/L	04/01/2021 1940
Toluene	ND		1	1.0	0.40	ug/L	04/01/2021 1940
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	0.42	ug/L	04/01/2021 1940
1,2,4-Trichlorobenzene	0.64	J	1	1.0	0.40	ug/L	04/01/2021 1940
1,1,1-Trichloroethane	ND		1	1.0	0.40	ug/L	04/01/2021 1940
1,1,2-Trichloroethane	ND		1	1.0	0.40	ug/L	04/01/2021 1940

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: WQ87673-001
Batch: 87673
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Trichloroethene	ND		1	1.0	0.40	ug/L	04/01/2021 1940
Trichlorofluoromethane	ND		1	1.0	0.40	ug/L	04/01/2021 1940
Vinyl chloride	ND		1	1.0	0.40	ug/L	04/01/2021 1940
Xylenes (total)	ND		1	1.0	0.40	ug/L	04/01/2021 1940

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		100	70-130
1,2-Dichloroethane-d4		100	70-130
Toluene-d8		101	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: WQ87673-002
Batch: 87673
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Acetone	100	130		1	133	60-140	04/01/2021 1855
Benzene	50	47		1	94	70-130	04/01/2021 1855
Bromodichloromethane	50	46		1	92	70-130	04/01/2021 1855
Bromoform	50	49		1	98	70-130	04/01/2021 1855
Bromomethane (Methyl bromide)	50	48		1	96	70-130	04/01/2021 1855
2-Butanone (MEK)	100	93		1	93	70-130	04/01/2021 1855
Carbon disulfide	50	48		1	97	70-130	04/01/2021 1855
Carbon tetrachloride	50	48		1	95	70-130	04/01/2021 1855
Chlorobenzene	50	45		1	89	70-130	04/01/2021 1855
Chloroethane	50	50		1	99	70-130	04/01/2021 1855
Chloroform	50	46		1	91	70-130	04/01/2021 1855
Chloromethane (Methyl chloride)	50	44		1	88	60-140	04/01/2021 1855
Cyclohexane	50	46		1	93	70-130	04/01/2021 1855
1,2-Dibromo-3-chloropropane (DBCP)	50	42		1	83	70-130	04/01/2021 1855
Dibromochloromethane	50	47		1	94	70-130	04/01/2021 1855
1,2-Dibromoethane (EDB)	50	45		1	89	70-130	04/01/2021 1855
1,2-Dichlorobenzene	50	46		1	91	70-130	04/01/2021 1855
1,3-Dichlorobenzene	50	45		1	90	70-130	04/01/2021 1855
1,4-Dichlorobenzene	50	44		1	87	70-130	04/01/2021 1855
Dichlorodifluoromethane	50	52		1	105	60-140	04/01/2021 1855
1,1-Dichloroethane	50	46		1	91	70-130	04/01/2021 1855
1,2-Dichloroethane	50	44		1	89	70-130	04/01/2021 1855
1,1-Dichloroethene	50	45		1	91	70-130	04/01/2021 1855
cis-1,2-Dichloroethene	50	45		1	90	70-130	04/01/2021 1855
trans-1,2-Dichloroethene	50	47		1	94	70-130	04/01/2021 1855
1,2-Dichloropropane	50	46		1	93	70-130	04/01/2021 1855
cis-1,3-Dichloropropene	50	48		1	95	70-130	04/01/2021 1855
trans-1,3-Dichloropropene	50	46		1	92	70-130	04/01/2021 1855
Ethylbenzene	50	45		1	91	70-130	04/01/2021 1855
2-Hexanone	100	94		1	94	70-130	04/01/2021 1855
Isopropylbenzene	50	46		1	92	70-130	04/01/2021 1855
Methyl acetate	50	46		1	91	70-130	04/01/2021 1855
Methyl tertiary butyl ether (MTBE)	50	46		1	92	70-130	04/01/2021 1855
4-Methyl-2-pentanone	100	96		1	96	70-130	04/01/2021 1855
Methylcyclohexane	50	47		1	95	70-130	04/01/2021 1855
Methylene chloride	50	45		1	89	70-130	04/01/2021 1855
Styrene	50	47		1	95	70-130	04/01/2021 1855
1,1,2,2-Tetrachloroethane	50	45		1	90	70-130	04/01/2021 1855
Tetrachloroethene	50	47		1	94	70-130	04/01/2021 1855
Toluene	50	46		1	92	70-130	04/01/2021 1855
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	48		1	96	70-130	04/01/2021 1855
1,2,4-Trichlorobenzene	50	41		1	82	70-130	04/01/2021 1855
1,1,1-Trichloroethane	50	47		1	95	70-130	04/01/2021 1855
1,1,2-Trichloroethane	50	46		1	92	70-130	04/01/2021 1855

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: WQ87673-002
Batch: 87673
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Trichloroethene	50	46		1	92	70-130	04/01/2021 1855
Trichlorofluoromethane	50	51		1	102	70-130	04/01/2021 1855
Vinyl chloride	50	47		1	93	70-130	04/01/2021 1855
Xylenes (total)	100	92		1	92	70-130	04/01/2021 1855

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		101	70-130
1,2-Dichloroethane-d4		96	70-130
Toluene-d8		94	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: WQ87848-001
Batch: 87848
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Acetone	ND		1	20	5.0	ug/L	04/02/2021 1921
Benzene	ND		1	1.0	0.40	ug/L	04/02/2021 1921
Bromodichloromethane	ND		1	1.0	0.40	ug/L	04/02/2021 1921
Bromoform	ND		1	1.0	0.40	ug/L	04/02/2021 1921
Bromomethane (Methyl bromide)	ND		1	2.0	0.40	ug/L	04/02/2021 1921
2-Butanone (MEK)	ND		1	10	2.0	ug/L	04/02/2021 1921
Carbon disulfide	ND		1	1.0	0.40	ug/L	04/02/2021 1921
Carbon tetrachloride	ND		1	1.0	0.40	ug/L	04/02/2021 1921
Chlorobenzene	ND		1	1.0	0.40	ug/L	04/02/2021 1921
Chloroethane	ND		1	2.0	0.40	ug/L	04/02/2021 1921
Chloroform	ND		1	1.0	0.40	ug/L	04/02/2021 1921
Chloromethane (Methyl chloride)	ND		1	1.0	0.50	ug/L	04/02/2021 1921
Cyclohexane	ND		1	1.0	0.40	ug/L	04/02/2021 1921
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	0.40	ug/L	04/02/2021 1921
Dibromochloromethane	ND		1	1.0	0.40	ug/L	04/02/2021 1921
1,2-Dibromoethane (EDB)	ND		1	1.0	0.40	ug/L	04/02/2021 1921
1,2-Dichlorobenzene	ND		1	1.0	0.40	ug/L	04/02/2021 1921
1,3-Dichlorobenzene	ND		1	1.0	0.40	ug/L	04/02/2021 1921
1,4-Dichlorobenzene	ND		1	1.0	0.40	ug/L	04/02/2021 1921
Dichlorodifluoromethane	ND		1	2.0	0.60	ug/L	04/02/2021 1921
1,1-Dichloroethane	ND		1	1.0	0.40	ug/L	04/02/2021 1921
1,2-Dichloroethane	ND		1	1.0	0.40	ug/L	04/02/2021 1921
1,1-Dichloroethene	ND		1	1.0	0.40	ug/L	04/02/2021 1921
cis-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	04/02/2021 1921
trans-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	04/02/2021 1921
1,2-Dichloropropane	ND		1	1.0	0.40	ug/L	04/02/2021 1921
cis-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	04/02/2021 1921
trans-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	04/02/2021 1921
Ethylbenzene	ND		1	1.0	0.40	ug/L	04/02/2021 1921
2-Hexanone	ND		1	10	2.0	ug/L	04/02/2021 1921
Isopropylbenzene	ND		1	1.0	0.40	ug/L	04/02/2021 1921
Methyl acetate	ND		1	1.0	0.40	ug/L	04/02/2021 1921
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	0.40	ug/L	04/02/2021 1921
4-Methyl-2-pentanone	ND		1	10	2.0	ug/L	04/02/2021 1921
Methylcyclohexane	ND		1	5.0	0.40	ug/L	04/02/2021 1921
Methylene chloride	ND		1	1.0	0.40	ug/L	04/02/2021 1921
Styrene	ND		1	1.0	0.41	ug/L	04/02/2021 1921
1,1,2,2-Tetrachloroethane	ND		1	1.0	0.40	ug/L	04/02/2021 1921
Tetrachloroethene	ND		1	1.0	0.40	ug/L	04/02/2021 1921
Toluene	ND		1	1.0	0.40	ug/L	04/02/2021 1921
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	0.42	ug/L	04/02/2021 1921
1,2,4-Trichlorobenzene	0.42	J	1	1.0	0.40	ug/L	04/02/2021 1921
1,1,1-Trichloroethane	ND		1	1.0	0.40	ug/L	04/02/2021 1921
1,1,2-Trichloroethane	ND		1	1.0	0.40	ug/L	04/02/2021 1921

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: WQ87848-001
Batch: 87848
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Trichloroethene	ND		1	1.0	0.40	ug/L	04/02/2021 1921
Trichlorofluoromethane	ND		1	1.0	0.40	ug/L	04/02/2021 1921
Vinyl chloride	ND		1	1.0	0.40	ug/L	04/02/2021 1921
Xylenes (total)	ND		1	1.0	0.40	ug/L	04/02/2021 1921

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		101	70-130
1,2-Dichloroethane-d4		102	70-130
Toluene-d8		103	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: WQ87848-002
Batch: 87848
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Acetone	100	120		1	116	60-140	04/02/2021 1819
Benzene	50	47		1	94	70-130	04/02/2021 1819
Bromodichloromethane	50	47		1	95	70-130	04/02/2021 1819
Bromoform	50	49		1	98	70-130	04/02/2021 1819
Bromomethane (Methyl bromide)	50	50		1	99	70-130	04/02/2021 1819
2-Butanone (MEK)	100	90		1	90	70-130	04/02/2021 1819
Carbon disulfide	50	51		1	103	70-130	04/02/2021 1819
Carbon tetrachloride	50	50		1	99	70-130	04/02/2021 1819
Chlorobenzene	50	46		1	92	70-130	04/02/2021 1819
Chloroethane	50	50		1	101	70-130	04/02/2021 1819
Chloroform	50	47		1	94	70-130	04/02/2021 1819
Chloromethane (Methyl chloride)	50	47		1	94	60-140	04/02/2021 1819
Cyclohexane	50	48		1	95	70-130	04/02/2021 1819
1,2-Dibromo-3-chloropropane (DBCP)	50	42		1	84	70-130	04/02/2021 1819
Dibromochloromethane	50	50		1	99	70-130	04/02/2021 1819
1,2-Dibromoethane (EDB)	50	48		1	96	70-130	04/02/2021 1819
1,2-Dichlorobenzene	50	47		1	94	70-130	04/02/2021 1819
1,3-Dichlorobenzene	50	43		1	87	70-130	04/02/2021 1819
1,4-Dichlorobenzene	50	44		1	89	70-130	04/02/2021 1819
Dichlorodifluoromethane	50	55		1	110	60-140	04/02/2021 1819
1,1-Dichloroethane	50	49		1	98	70-130	04/02/2021 1819
1,2-Dichloroethane	50	46		1	91	70-130	04/02/2021 1819
1,1-Dichloroethene	50	50		1	100	70-130	04/02/2021 1819
cis-1,2-Dichloroethene	50	48		1	95	70-130	04/02/2021 1819
trans-1,2-Dichloroethene	50	48		1	97	70-130	04/02/2021 1819
1,2-Dichloropropane	50	48		1	97	70-130	04/02/2021 1819
cis-1,3-Dichloropropene	50	42		1	84	70-130	04/02/2021 1819
trans-1,3-Dichloropropene	50	43		1	86	70-130	04/02/2021 1819
Ethylbenzene	50	47		1	93	70-130	04/02/2021 1819
2-Hexanone	100	95		1	95	70-130	04/02/2021 1819
Isopropylbenzene	50	49		1	98	70-130	04/02/2021 1819
Methyl acetate	50	47		1	94	70-130	04/02/2021 1819
Methyl tertiary butyl ether (MTBE)	50	49		1	99	70-130	04/02/2021 1819
4-Methyl-2-pentanone	100	94		1	94	70-130	04/02/2021 1819
Methylcyclohexane	50	48		1	96	70-130	04/02/2021 1819
Methylene chloride	50	48		1	96	70-130	04/02/2021 1819
Styrene	50	47		1	95	70-130	04/02/2021 1819
1,1,2,2-Tetrachloroethane	50	47		1	93	70-130	04/02/2021 1819
Tetrachloroethene	50	48		1	96	70-130	04/02/2021 1819
Toluene	50	47		1	95	70-130	04/02/2021 1819
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	49		1	99	70-130	04/02/2021 1819
1,2,4-Trichlorobenzene	50	40		1	81	70-130	04/02/2021 1819
1,1,1-Trichloroethane	50	51		1	101	70-130	04/02/2021 1819
1,1,2-Trichloroethane	50	48		1	96	70-130	04/02/2021 1819

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: WQ87848-002
Batch: 87848
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Trichloroethene	50	47		1	94	70-130	04/02/2021 1819
Trichlorofluoromethane	50	52		1	103	70-130	04/02/2021 1819
Vinyl chloride	50	50		1	101	70-130	04/02/2021 1819
Xylenes (total)	100	94		1	94	70-130	04/02/2021 1819

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		104	70-130
1,2-Dichloroethane-d4		94	70-130
Toluene-d8		100	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Chain of Custody

and

Miscellaneous Documents

PACE ANALYTICAL SERVICES, LLC
106 Vantage Point Drive • West Columbia, SC 29172
Telephone No. 803-791-9700 Fax No. 803-791-9111
www.pacelabs.com

Number 117091

Client: TRC	Report to Contact: Lisa Clark	Telephone No. / E-mail:	Quote No.:
Address: 50 International Dr Ste 150	Sampler's Signature: x [signature]	Analysis (Attach list if more space is needed)	Page 1 of 2
City: Greenville State: SC Zip Code: 29615	Printed Name: David Szynal		WC25080
Project Name: WPM Clemson			
Project No.: 300688.0.0.12	P.O. No.:		

Sample ID / Description (Containers for each sample may be combined on one line.)	Collection Date(s)	Collection Time (Military)	Number of Containers	Matrix: Aqueous	Matrix: Solid	Matrix: Non-Aqueous	Unpres.	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Field Filtered	VOC	Sulfate + Bromide	Dissolved Gasses	Remarks / Cooler I.D.
DPT-27	3-23-21	0830	6	X			1	3		3				X	X	X	
DPT-27A	3-23-21	0930	6	X			1	3		3				X	X	X	
DPT-27B	3-23-21	1100	6	X			1	3		3				X	X	X	
DPT-26	3-23-21	1215	6	X			1	3		3				X	X	X	
DPT-26A	3-23-21	1255	6	X			1	3		3				X	X	X	
DPT-26B	3-23-21	1350	6	X			1	3		3				X	X	X	
DPT-25	3-24-21	0830	6	X			1	3		3				X	X	X	
DPT-25A	3-24-21	0920	6	X			1	3		3				X	X	X	
DPT-25B	3-24-21	1030	6	X			1	3		3				X	X	X	
DPT-24	3-24-21	1210	6	X			1	3		3				X	X	X	

Turn Around Time Required (Prior lab approval required for expedited TAT.) ☑ Standard ☐ Rush (Specify)

Sample Disposal: ☐ Return to Client ☑ Disposal by Lab

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

QC Requirements (Specify)

Relinquished by	Date	Time	Received by	Date	Time
1. David Szynal	3/25/21	0645	1. TRC Storage	3/25/21	0645
2. TRC Sample Storage	3.25.21	0900	2. [signature]	3.25.21	0900
3. [signature]	3/25/21	1530	3.		
4.			4. Laboratory received by: [signature]	3/25/21	1530

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on ice (Circle) (Yes) No Ice Pack
Receipt Temp. 1.7 °C
Temp Blank ☑ Y ☐ N

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Client Copy

Document Number: ME003N2-01

CHAIN-OF-CUSTODY Analytical Request Document

Pace Analytical®

Chain-of-Custody is a LEGAL DOCUMENT - Complete all relevant fields

LAB USE ONLY- Affix Workorder/Login Label Here or List Pace Workorder Number or MTJL Log-in Number Here: LOC 212

ALL SHADED AREAS are for LAB USE ONLY

Company: TRC	Billing Information:
Address: 50 International Dr Ste 156	
Report To: Lisa Clark	Email To:
Copy To:	Site Collection Info/Address:
Customer Project Name/Number: 300688.0.0.12	State: SC / County/City: Greenville / Time Zone Collected: [ ]PT [ ]MT [ ]CT [ ]ET
Phone: / Email:	Site/Facility ID #: WPH Clemson
Collected By (print): David Szynal	Purchase Order #: / Quote #:
Collected By (signature):	Turnaround Date Required: Standard
Sample Disposal: [X] Dispose as appropriate [ ] Return [ ] Archive: [ ] Hold:	Rush: [ ] Same Day [ ] Next Day [ ] 2 Day [ ] 3 Day [ ] 4 Day [ ] 5 Day (Expedite Charges Apply)
	Compliance Monitoring? [ ] Yes [ ] No
	DW PWS ID #: / DW Location Code:
	Immediately Packed on Ice: [X] Yes [ ] No
	Field Filtered (if applicable): [ ] Yes [ ] No / Analysis:

Container Preservative Type **: U | D | 3

** Preservative Types: (1) nitric acid, (2) sulfuric acid, (3) hydrochloric acid, (4) sodium hydroxide, (5) zinc acetate, (6) methanol, (7) sodium bisulfate, (8) sodium thiosulfate, (9) hexane, (A) ascorbic acid, (B) ammonium sulfate, (C) ammonium hydroxide, (D) TSP, (U) Unpreserved, (O) Other

Lab Project Manager:

Analyses: Sulfate + Bromide | Dissolved Gases | VOC

Lab Profile/Line:

Lab Sample Receipt Checklist:

Custody Seals Present/Intact	Y N NA
Custody Signatures Present	Y N NA
Collector Signature Present	Y N NA
Bottles Intact	Y N NA
Correct Bottles	Y N NA
Sufficient Volume	Y N NA
Samples Received on Ice	Y N NA
VOA - Headspace Acceptable	Y N NA
USDA Regulated Soils	Y N NA
Samples in Holding Time	Y N NA
Residual Chlorine Present	Y N NA
Cl Strips:	
Sample pH Acceptable	Y N NA
pH Strips:	
Sulfide Present	Y N NA
Lead Acetate Strips:	

LAB USE ONLY:
Lab Sample # / Comments:

WC25080

LJG

* Matrix Codes (Insert in Matrix box below): Drinking Water (DW), Ground Water (GW), Wastewater (WW), Product (P), Soil/Solid (SL), Oil (OL), Wipe (WP), Air (AR), Tissue (TS), Bioassay (B), Vapor (V), Other (OT)

Customer Sample ID	Matrix *	Comp / Grab	Collected (or Composite Start) Date	Collected (or Composite Start) Time	Composite End Date	Composite End Time	Res Cl	# of Cntrs	Sulfate + Bromide	Dissolved Gases	VOC
DPT-24A	GW	Grab	3-24-21	1305				1	1	3	3
DPT-24B	GW	Grab	3-24-21	1410				1	1	3	3
DUP-21104	GW	Grab						1	1	3	3
TBLK-21110	GW	Grab									3

Customer Remarks / Special Conditions / Possible Hazards:

Type of Ice Used: Wet Blue Dry None

Packing Material Used:

Radchem sample(s) screened (<500 cpm): Y N NA

SHORT HOLDS PRESENT (<72 hours): Y N N/A

Lab Tracking #: 2635499

Samples received via: FEDEX UPS Client Courier Pace Courier

Lab Sample Temperature Info:
Temp Blank Received: N NA
Therm ID#: 6
Cooler 1 Temp Upon Receipt: 1-7 oC
Cooler 1 Therm Corr. Factor: oC
Cooler 1 Corrected Temp: oC
Comments:

Trip Blank Received: Y N NA
HCL MeOH TSP Other

Non Conformance(s): YES / NO

Page: of:

Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
	3/25/21 0645	TRC Storage	3/25/21 0645
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
TRC Storage	3.25.21 0900		3.25.21 0900
Relinquished by/Company: (Signature)	Date/Time:	Received by/Company: (Signature)	Date/Time:
	3/25/21 1530		3/25/21 1538

MTJL LAB USE ONLY

Table #:
Acctnum:
Template:
Prelogin:
PM:
PB:

Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.)
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Pace Analytical

Samples Receipt Checklist (SRC) (ME0018C-15)
Issuing Authority: Pace ENV - WCOL

Revised:9/29/2020
Page 1 of 1

Sample Receipt Checklist (SRC)

Client: TRC Cooler Inspected by/date: MBH / 3/25/2021 Lot #: WC25080

Means of receipt: ☑ Pace ☐ Client ☐ UPS ☐ FedEx ☐ Other:

☐ Yes	☑ No		1. Were custody seals present on the cooler?
☐ Yes	☐ No	☑ NA	2. If custody seals were present, were they intact and unbroken?

pH Strip ID: NA Chlorine Strip ID: NA Tested by: NA

Original temperature upon receipt / Derived (Corrected) temperature upon receipt %Solid Snap-Cup ID: NA

1.7 / 1.7 °C NA / NA °C NA / NA °C NA / NA °C

Method: ☐ Temperature Blank ☑ Against Bottles IR Gun ID: 5 IR Gun Correction Factor: 0 °C

Method of coolant: ☑ Wet Ice ☐ Ice Packs ☐ Dry Ice ☐ None

☑ Yes	☐ No	☐ NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).
☐ Yes	☐ No	☑ NA	4. Is the commercial courier's packing slip attached to this form?
☑ Yes	☐ No		5. Were proper custody procedures (relinquished/received) followed?
☑ Yes	☐ No		6. Were sample IDs listed on the COC?
☑ Yes	☐ No		7. Were sample IDs listed on all sample containers?
☑ Yes	☐ No		8. Was collection date & time listed on the COC?
☑ Yes	☐ No		9. Was collection date & time listed on all sample containers?
☑ Yes	☐ No		10. Did all container label information (ID, date, time) agree with the COC?
☑ Yes	☐ No		11. Were tests to be performed listed on the COC?
☑ Yes	☐ No		12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)?
☑ Yes	☐ No		13. Was adequate sample volume available?
☐ Yes	☑ No		14. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
☐ Yes	☑ No		15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
☐ Yes	☑ No	☐ NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (¼"or 6mm in diameter) in any of the VOA vials?
☑ Yes	☐ No	☐ NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?
☐ Yes	☐ No	☑ NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
☐ Yes	☐ No	☑ NA	19. Were all applicable NH_3/TKN/cyanide/phenol/625.1/608.3 (< 0.5mg/L) samples free of residual chlorine?
☐ Yes	☐ No	☑ NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc...) correctly transcribed from the COC into the comment section in LIMS?
☐ Yes	☑ No		21. Was the quote number listed on the container label? If yes, Quote #

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) NA were received incorrectly preserved and were adjusted accordingly in sample receiving with NA mL of circle one: H_2SO_4, HNO_3, HCl, NaOH using SR # NA. Time of preservation NA. If more than one preservative is needed, please note in the comments below.

Sample(s) NA were received with bubbles >6 mm in diameter.

Samples(s) NA were received with TRC > 0.5 mg/L (If #19 is *no*) and were adjusted accordingly in sample receiving with sodium thiosulfate ($Na_2S_2O_3$) with Shealy ID: NA.

SR barcode labels applied by: JRG2 Date: 3/25/2021

Comments:

LELAP CERTIFICATE NUMBER: 01955
DOD-ELAP ACCREDITATION NUMBER: 74960

ANALYTICAL RESULTS

PERFORMED BY

Pace Analytical Gulf Coast
7979 Innovation Park Dr.
Baton Rouge, LA 70820
(225) 769-4900

Report Date 04/05/2021

Report # 221033043

Project WC25080 WPH Clemson

Deliver To	***Additional Recipients***
Lucas Odom Pace Analytical Services South Carolina 106 Vantage Point Drive West Columbia, SC 29172 803 791 9700	NONE

Laboratory Data Quality Review Notes

Project Name: WPH-Clemson, SC

Project Number: 300688.0000.0000 Phase 11

Lab Report: **WC25080** Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.), West Columbia, SC; subcontracted report: **221033043** Pace Analytical Gulf Coast, Baton Rouge, LA

Samples and Analyses: Eighteen groundwater samples (plus one field duplicate), collected 23-Mar and 24-Mar-2021, and analyzed for volatile organic compounds (VOCs), bromide, and sulfate; one trip blank (TB), analyzed for VOCs only. Analysis of the groundwater samples for dissolved hydrocarbon gases (ethane, ethene, methane) was subcontracted and was reported separately (as noted above).

It was noted that the field duplicate sample (DU-21104) was labeled as "DUP-21104" in the subcontract report for dissolved hydrocarbon gases analysis. This discrepancy is noted, but no validation action was taken on this basis.

Chain of Custody, Sample Temperature, Sample Preservation: Chain of custody (COC) forms were signed; cooler temperature was ≤6 ^{o}C upon arrival at each laboratory; samples were preserved properly. No sample receipt anomalies were noted.

Holding Time: Sample analyses were performed within acceptable holding times.

Surrogates: VOC surrogate recoveries were within laboratory quality control (QC) limits.

Method Blank: Laboratory method blanks were appropriately associated with all analyses. The following target analytes were detected in the laboratory method blanks:

- Carbon disulfide (0.44 J µg/L) and 1,2,4-trichlorobenzene (0.64 J µg/L) were detected in one of the VOCs laboratory method blanks. **The positive result for carbon disulfide in the TB sample (TBLK-21110) was an estimated concentration below the limit of quantitation (LOQ) (J-qualified by the laboratory) and was therefore a potential false positive; this result was qualified "u" (revised to non-detect [ND]) at the laboratory LOQ, based on the associated laboratory method blank contamination.** Qualification was not required for the 1,2,4-trichlorobenzene result in the TB or for either analyte in the remaining associated sample (DPT-24) since these results were ND.
- Carbon disulfide (0.42 J µg/L) was detected in one of the other VOCs laboratory method blanks. Qualification was not required on this basis since carbon disulfide was ND in the associated samples (DPT-24, DPT-24B, and DU-21104).
- Methane (2.7 J µg/L) was detected in the laboratory method blank associated with the analysis of dissolved hydrocarbon gases in all samples. **The positive results for methane in samples DPT-27, DPT-27A, DPT-27B, DPT-26A, DPT-25A, and DPT-24A were estimated concentrations**

below the LOQ (J-qualified by the laboratory) and were therefore potential false positives; these results were qualified "u" (revised to ND) at the laboratory LOQ, based on the associated laboratory method blank contamination. The positive results for methane in samples DPT-26B and DPT-25B were > the LOQ but <5× the associated blank concentration; therefore, these results were considered to be potential false positives and were qualified "u" (revised to ND), with the LOQ for each revised to the reported sample concentration. Qualification was not required for the positive results for methane in the remaining samples since these results were significantly higher than (>5×) the method blank concentration.

Trip Blank: No target analytes were detected in the TB (TBLK-21110) (analyzed for VOCs only), with the exception of the following:

- Carbon disulfide (0.52 J µg/L) was detected in the TB; however, this result was qualified "u" (revised to ND) based on associated method blank contamination. No further evaluation of the reported TB contamination was required.

Field Blank: A field blank was not collected with these samples.

Equipment Rinse Blank: An equipment rinse blank was not collected with these samples.

LCS/LCSD: LCS analyses were performed appropriately for all analyses; some analytical or preparation batches also included analysis of LCSD samples. The LCS and LCSD recoveries and LCS/LCSD relative percent differences (RPDs) were within the laboratory QC limits.

MS/MSD: Two MS/MSD analyses were performed for the VOCs using samples DPT-27 and DPT-27B as the associated parent samples. The MS and MSD recoveries and MS/MSD RPDs were within QC criteria.

Duplicates: No laboratory duplicates were included with these analyses. A field duplicate (DU-21104) was collected for sample DPT-24B. Duplicate RPDs were calculated for analytes detected above 5× the LOQ in both samples; the absolute difference (AbsD) was used to evaluate analytes detected below 5× the LOQ in one or both samples. RPD values were ≤ 30%, and AbsD values were ≤LOQ; therefore, the field duplicate results were in acceptable agreement.

Dilutions: The following sample analyses were performed with dilution, as indicated:

DPT-27	VOCs (10×)
DPT-27A	VOCs (10×)
DPT-27B	VOCs (5×)
DPT-26	VOCs (5×) (tetrachloroethene only)
DPT-26A	VOCs (50×)
DPT-26B	VOCs (100×)
DPT-25A	VOCs (5×)
DPT-25B	VOCs (10×)
DPT-24A	VOCs (20×)
DPT-24B	VOCs (5×)

DU-21104 VOCs (5×)

The laboratory reports did not indicate the dilution reason(s), but the dilutions appear to have been performed in order to bring the concentrations of target analytes into the appropriate instrument calibration range. With the exception of DPT-26, the ND results in the noted VOC analyses were associated with correspondingly elevated detection limit (DL) and LOQ values.

Validation qualifiers were applied in this review, as summarized in the following table.

Data Reviewer: Amy Bass; TRC Environmental Corporation; 26-Apr-2021

Summary of qualifiers assigned by the data quality reviewer.

WC25080 **Sample ID**	**Analyte**	**Lab Result [LOQ]**	**Qualifier Assigned**	**Qualified Result**	**Basis**
TBLK-21110	carbon disulfide	0.52 J [1.0]	u (@LOQ)	< 1.0	MB (TB≤ LOQ)
DPT-27	methane	4.8 J [5.0]	u (@LOQ)	< 5.0	MB (sc ≤ LOQ)
DPT-27A		3.5 J [5.0]		< 5.0	
DPT-27B		3.2 J [5.0]		< 5.0	
DPT-26A		4.2 J [5.0]		< 5.0	
DPT-25A		4.9 J [5.0]		< 5.0	
DPT-24A		4.5 J [5.0]		< 5.0	
DPT-26B	methane	10 [5.0]	u (@sc)	< 10	MB (LOQ< sc < 5×MB)
DPT-25B		8.2 [5.0]		< 8.2	

LOQ: limit of quantitation MB: method blank contamination ND: non-detect sc: sample concentration
TB: trip blank
Validation qualifiers applied: “u” (revised to ND)

Laboratory Endorsement

Sample analysis was performed in accordance with approved methodologies provided by the Environmental Protection Agency or other recognized agencies. The samples and their corresponding extracts will be maintained for a period of 30 days unless otherwise arranged. Following this retention period the samples will be disposed in accordance with Pace Gulf Coast's Standard Operating Procedures.

Common Abbreviations that may be Utilized in this Report

ND	Indicates the result was Not Detected at the specified reporting limit
NO	Indicates the sample did not ignite when preliminary test performed for EPA Method 1030
DO	Indicates the result was Diluted Out
MI	Indicates the result was subject to Matrix Interference
TNTC	Indicates the result was Too Numerous To Count
SUBC	Indicates the analysis was Sub-Contracted
FLD	Indicates the analysis was performed in the Field
DL	Detection Limit
LOD	Limit of Detection
LOQ	Limit of Quantitation
RE	Re-analysis
CF	HPLC or GC Confirmation
00:01	Reported as a time equivalent to 12:00 AM

Reporting Flags that may be Utilized in this Report

J or I	Indicates the result is between the MDL and LOQ
J	DOD flag on analyte in the parent sample for MS/MSD outside acceptance criteria
U	Indicates the compound was analyzed for but not detected
B or V	Indicates the analyte was detected in the associated Method Blank
Q	Indicates a non-compliant QC Result (See Q Flag Application Report)
*****	Indicates a non-compliant or not applicable QC recovery or RPD – see narrative
E	Organics - The result is estimated because it exceeded the instrument calibration range
E	Metals - % diference for the serial dilution is > 10%
L	Reporting Limits adjusted to meet risk-based limit.
P	RPD between primary and confirmation result is greater than 40
DL	Diluted analysis – when appended to Client Sample ID

Sample receipt at Pace Gulf Coast is documented through the attached chain of custody. In accordance with NELAC, this report shall be reproduced only in full and with the written permission of Pace Gulf Coast. The results contained within this report relate only to the samples reported. The documented results are presented within this report.

This report pertains only to the samples listed in the Report Sample Summary and should be retained as a permanent record thereof. The results contained within this report are intended for the use of the client. Any unauthorized use of the information contained in this report is prohibited.

I certify that this data package is in compliance with The NELAC Institute (TNI) Standard 2009 and terms and conditions of the contract and Statement of Work both technically and for completeness, for other than the conditions in the case narrative. Release of the data contained in this hardcopy data package and in the computer readable data submitted has been authorized by the Quality Assurance Manager or his/her designee, as verified by the following signature.

Estimated uncertainty of measurement is available upon request. This report is in compliance with the DOD QSM as specified in the contract if applicable.

Authorized Signature
Pace Gulf Coast Report 221033043

Certifications

Certification	Certification Number
DOD ELAP	74960
Alabama	01955
Arkansas	88-0655
Colorado	01955
Delaware	01955
Florida	E87854
Georgia	01955
Hawaii	01955
Idaho	01955
Illinois	200048
Indiana	01955
Kansas	E-10354
Kentucky	95
Louisiana	01955
Maryland	01955
Massachusetts	01955
Michigan	01955
Mississippi	01955
Missouri	01955
Montana	N/A
Nebraska	01955
New Mexico	01955
North Carolina	618
North Dakota	R-195
Oklahoma	9403
South Carolina	73006001
South Dakota	01955
Tennessee	01955
Texas	T104704178
Vermont	01955
Virginia	460215
Washington	C929
USDA Soil Permit	P330-16-00234

Case Narrative

Client: Pace Analytical Services South Carolina **Report:** 221033043

Pace Analytical Gulf Coast received and analyzed the sample(s) listed
on the Report Sample Summary page of this report. Receipt of the sample(s) is documented
by the attached chain of custody. This applies only to the sample(s) listed in this report.
No sample integrity or quality control exceptions were identified unless noted below.

No anomalies were found for the analyzed sample(s).

Sample Summary

LAB ID	Client ID	Matrix	Collect Date	Receive Date
22103304301	DPT-27	Water	03/23/2021 08:30	03/30/2021 10:11
22103304302	DPT-27A	Water	03/23/2021 09:30	03/30/2021 10:11
22103304303	DPT-27B	Water	03/23/2021 11:00	03/30/2021 10:11
22103304304	DPT-26	Water	03/23/2021 12:15	03/30/2021 10:11
22103304305	DPT-26A	Water	03/23/2021 12:55	03/30/2021 10:11
22103304306	DPT-26B	Water	03/23/2021 13:50	03/30/2021 10:11
22103304307	DPT-25	Water	03/24/2021 08:30	03/30/2021 10:11
22103304308	DPT-25A	Water	03/24/2021 09:20	03/30/2021 10:11
22103304309	DPT-25B	Water	03/24/2021 10:30	03/30/2021 10:11
22103304310	DPT-24	Water	03/24/2021 12:10	03/30/2021 10:11
22103304311	DPT-24A	Water	03/24/2021 13:05	03/30/2021 10:11
22103304312	DPT-24B	Water	03/24/2021 14:10	03/30/2021 10:11
22103304313	DUP-21104	Water	03/23/2021 00:01	03/30/2021 10:11

Detect Summary

LAB ID	Client ID	Method	Parameter	Result	Units
22103304301	DPT-27	AM20GAX	Ethane	0.18J	ug/L
22103304301	DPT-27	AM20GAX	Ethene	0.33J	ug/L
22103304301	DPT-27	AM20GAX	Methane	4.8J	ug/L
22103304302	DPT-27A	AM20GAX	Ethane	0.28J	ug/L
22103304302	DPT-27A	AM20GAX	Ethene	0.23J	ug/L
22103304302	DPT-27A	AM20GAX	Methane	3.5J	ug/L
22103304303	DPT-27B	AM20GAX	Ethane	0.30J	ug/L
22103304303	DPT-27B	AM20GAX	Ethene	0.22J	ug/L
22103304303	DPT-27B	AM20GAX	Methane	3.2J	ug/L
22103304304	DPT-26	AM20GAX	Ethane	2.9	ug/L
22103304304	DPT-26	AM20GAX	Methane	1400	ug/L
22103304305	DPT-26A	AM20GAX	Ethane	11	ug/L
22103304305	DPT-26A	AM20GAX	Ethene	0.17J	ug/L
22103304305	DPT-26A	AM20GAX	Methane	4.2J	ug/L
22103304306	DPT-26B	AM20GAX	Ethane	5.6	ug/L
22103304306	DPT-26B	AM20GAX	Ethene	11	ug/L
22103304306	DPT-26B	AM20GAX	Methane	10	ug/L
22103304307	DPT-25	AM20GAX	Ethane	2.4	ug/L
22103304307	DPT-25	AM20GAX	Ethene	1.2	ug/L
22103304307	DPT-25	AM20GAX	Methane	710	ug/L
22103304308	DPT-25A	AM20GAX	Ethane	0.98J	ug/L
22103304308	DPT-25A	AM20GAX	Ethene	0.53J	ug/L
22103304308	DPT-25A	AM20GAX	Methane	4.9J	ug/L
22103304309	DPT-25B	AM20GAX	Ethane	2.6	ug/L
22103304309	DPT-25B	AM20GAX	Ethene	0.72J	ug/L
22103304309	DPT-25B	AM20GAX	Methane	8.2	ug/L
22103304310	DPT-24	AM20GAX	Ethane	6.6	ug/L
22103304310	DPT-24	AM20GAX	Ethene	0.22J	ug/L
22103304310	DPT-24	AM20GAX	Methane	3000	ug/L
22103304311	DPT-24A	AM20GAX	Ethane	0.34J	ug/L
22103304311	DPT-24A	AM20GAX	Ethene	0.35J	ug/L
22103304311	DPT-24A	AM20GAX	Methane	4.5J	ug/L
22103304312	DPT-24B	AM20GAX	Ethane	6.2	ug/L
22103304312	DPT-24B	AM20GAX	Ethene	2.9	ug/L
22103304312	DPT-24B	AM20GAX	Methane	23	ug/L
22103304313	DUP-21104	AM20GAX	Ethane	6.6	ug/L
22103304313	DUP-21104	AM20GAX	Ethene	3.1	ug/L
22103304313	DUP-21104	AM20GAX	Methane	24	ug/L

Sample Results

DPT-27

Collect Date	03/23/2021 08:30	**LAB ID**	22103304301
Receive Date	03/30/2021 10:11	**Matrix**	Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/02/2021 21:33	JCK2	707572

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	Ethane	0.18J	0.075	1.0	ug/L
74-85-1	Ethene	0.33J	0.12	1.0	ug/L
74-82-8	Methane	4.8J	2.5	5.0	ug/L

DPT-27A

Collect Date	03/23/2021 09:30	**LAB ID**	22103304302
Receive Date	03/30/2021 10:11	**Matrix**	Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/02/2021 21:45	JCK2	707572

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	Ethane	0.28J	0.075	1.0	ug/L
74-85-1	Ethene	0.23J	0.12	1.0	ug/L
74-82-8	Methane	3.5J	2.5	5.0	ug/L

DPT-27B

Collect Date	03/23/2021 11:00	**LAB ID**	22103304303
Receive Date	03/30/2021 10:11	**Matrix**	Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/02/2021 21:57	JCK2	707572

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	Ethane	0.30J	0.075	1.0	ug/L
74-85-1	Ethene	0.22J	0.12	1.0	ug/L
74-82-8	Methane	3.2J	2.5	5.0	ug/L

DPT-26

Collect Date	03/23/2021 12:15	**LAB ID**	22103304304
Receive Date	03/30/2021 10:11	**Matrix**	Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/02/2021 22:10	JCK2	707572

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	Ethane	2.9	0.075	1.0	ug/L
74-85-1	Ethene	0.12U	0.12	1.0	ug/L
74-82-8	Methane	1400	2.5	5.0	ug/L

Sample Results

DPT-26A

Collect Date 03/23/2021 12:55 | LAB ID 22103304305
Receive Date 03/30/2021 10:11 | Matrix Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/02/2021 22:21	JCK2	707572

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	Ethane	11	0.075	1.0	ug/L
74-85-1	Ethene	0.17J	0.12	1.0	ug/L
74-82-8	Methane	4.2J	2.5	5.0	ug/L

DPT-26B

Collect Date 03/23/2021 13:50 | LAB ID 22103304306
Receive Date 03/30/2021 10:11 | Matrix Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/02/2021 22:33	JCK2	707572

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	Ethane	5.6	0.075	1.0	ug/L
74-85-1	Ethene	11	0.12	1.0	ug/L
74-82-8	Methane	10	2.5	5.0	ug/L

DPT-25

Collect Date 03/24/2021 08:30 | LAB ID 22103304307
Receive Date 03/30/2021 10:11 | Matrix Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/02/2021 22:45	JCK2	707572

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	Ethane	2.4	0.075	1.0	ug/L
74-85-1	Ethene	1.2	0.12	1.0	ug/L
74-82-8	Methane	710	2.5	5.0	ug/L

DPT-25A

Collect Date 03/24/2021 09:20 | LAB ID 22103304308
Receive Date 03/30/2021 10:11 | Matrix Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/02/2021 22:57	JCK2	707572

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	Ethane	0.98J	0.075	1.0	ug/L
74-85-1	Ethene	0.53J	0.12	1.0	ug/L
74-82-8	Methane	4.9J	2.5	5.0	ug/L

Sample Results

DPT-25B

Collect Date 03/24/2021 10:30 | LAB ID 22103304309
Receive Date 03/30/2021 10:11 | Matrix Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/02/2021 23:09	JCK2	707572

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	Ethane	2.6	0.075	1.0	ug/L
74-85-1	Ethene	0.72J	0.12	1.0	ug/L
74-82-8	Methane	8.2	2.5	5.0	ug/L

DPT-24

Collect Date 03/24/2021 12:10 | LAB ID 22103304310
Receive Date 03/30/2021 10:11 | Matrix Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/02/2021 23:22	JCK2	707572

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	Ethane	6.6	0.075	1.0	ug/L
74-85-1	Ethene	0.22J	0.12	1.0	ug/L
74-82-8	Methane	3000	2.5	5.0	ug/L

DPT-24A

Collect Date 03/24/2021 13:05 | LAB ID 22103304311
Receive Date 03/30/2021 10:11 | Matrix Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/02/2021 23:34	JCK2	707572

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	Ethane	0.34J	0.075	1.0	ug/L
74-85-1	Ethene	0.35J	0.12	1.0	ug/L
74-82-8	Methane	4.5J	2.5	5.0	ug/L

DPT-24B

Collect Date 03/24/2021 14:10 | LAB ID 22103304312
Receive Date 03/30/2021 10:11 | Matrix Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/02/2021 23:46	JCK2	707572

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	Ethane	6.2	0.075	1.0	ug/L
74-85-1	Ethene	2.9	0.12	1.0	ug/L
74-82-8	Methane	23	2.5	5.0	ug/L

Sample Results

DUP-21104				
	Collect Date	03/23/2021 00:01	LAB ID	22103304313
	Receive Date	03/30/2021 10:11	Matrix	Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/02/2021 23:58	JCK2	707572

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	Ethane	6.6	0.075	1.0	ug/L
74-85-1	Ethene	3.1	0.12	1.0	ug/L
74-82-8	Methane	24	2.5	5.0	ug/L

General Chromatography QC Summary

Analytical Batch	Client ID	MB707572		LCS707572				LCSD707572				
707572	LAB ID	2164838		2164839				2164840				
	Sample Type	MB		LCS				LCSD				
	Prep Date											
	Analysis Date	04/02/21 19:57		04/02/21 19:09				04/02/21 19:21				
	Matrix	Water		Water				Water				
AM20GAX		Units Result	ug/L DL	Spike Added	Result	%R	Control Limits%R	Spike Added	Result	%R	RPD	RPD Limit
Ethane	74-84-0	0.075U	0.075	100	100	101	70 - 130	100	100	99	2	20
Ethene	74-85-1	0.12U	0.12	140	150	103	70 - 130	140	140	101	1	20
Methane	74-82-8	2.7J	2.5	490	470	95	70 - 130	490	460	93	2	20

Chain of Custody

Pace Analytical

Workorder: WC25080 Workorder Name: WPH Clemson Owner Received Date: 3/25/2021 Results Requested By: 4/8/2021

Report To:	Subcontract To:
Lucas Odom Pace Analytical 106 Vantage Point Drive Columbia SC, 29223 803-227-2704 lucas.odom@pacelabs.com	Project # 300688.0000.0000.00011 Pace Golf Coast 7979 Innovation Park Drive, Baton Rouge, LA 70820

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers: TSP	Requested Analysis: Dissolved Gasses (MEE)	LAB USE ONLY
1	DPT-27	G	03/23/21 @ 0830	WC25080-001				
2	DPT-27A	G	03/23/21 @ 0930	WC25080-002		x	X	2
3	DPT-27B	G	03/23/21 @ 1100	WC25080-003		x	x	3
4	DPT-26	G	03/23/21 @ 1215	WC25080-004		x	x	4
5	DPT-26A	G	03/23/21 @ 1255	WC25080-005		x	x	5
6	DPT-26B	G	03/23/21 @ 1350	WC25080-006		x	x	6
7	DPT-25	G	03/24/21 @ 0830	WC25080-007		x	x	7
8	DPT-25A	G	03/24/21 @ 0920	WC25080-008		x	x	8
9	DPT-25B	G	03/24/21 @ 1030	WC25080-009		x	x	9
10	DPT-24	G	03/24/21 @ 1210	WC25080-010		x	x	10

Transfers	Released By	Date/Time	Reveived By	Date/Time	Comments
1	KSC	3/26/21 1800			0.9E2L 60CPM
2	Fedex	3/30/21 1011	MARK Jenkins	3/30/21 1911	1663 3465 2704
3					

Cooler Temperature on Receipt _____ °C	Custody Seal Y or N	Received on Ice Y or N	Sample Intact Y or N

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC
This chain of custody is considered complete as is since this information is available in the owner laboratory.

Client ID: Shealy Envir - Pace Analytical Services South Carolina
SDG: 221033043
PM: RWe

Friday, June 17, 2016 11:01:34 AM FMT-ALL-C-002rev.00 24

Chain of Custody

Pace Analytical

Workorder: WC25080 Workorder Name: WPH Clemson Owner Received Date: 3/25/2021 Results Requested By: 4/8/2021

Report To:	Subcontract To:	Requested Analysis
Lucas Odom Pace Analytical 106 Vantage Point Drive Columbia SC, 29223 803-227-2704 lucas.odom@pacelabs.com	Project # 300688.0000.0000.00011 Pace Golf Coast 7979 Innovation Park Drive, Baton Rouge, LA 70820	

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers: TSP	Dissolved Gasses (MEE)	LAB USE ONLY
1	DPT-24A	G	03/24/21 @ 1305	WC25080-011				11
2	DPT-24B	G	03/24/21 @ 1410	WC25080-012		x	X	12
3	DUP-21104	G	03/23/21 @ 0000	WC25080-013		x	x	13
4		G						
5		G						
6		G						
7		G						
8		G						
9		G						
10								

Transfers	Released By	Date/Time	Reveived By	Date/Time	Comments
1	[illegible]	3/24/21 1600			
2					
3					

Cooler Temperature on Receipt _____ °C	Custody Seal Y or N	Received on Ice Y or N	Sample Intact Y or N

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC
This chain of custody is considered complete as is since this information is available in the owner laboratory.

Friday, June 17, 2016 11:01:34 AM FMT-ALL-C-002rev.

Client ID: Shealy Envir - Pace Analytical Services South Carolina
SDG: 221033043
PM: RWe

SAMPLE RECEIVING CHECKLIST

SAMPLE DELIVERY GROUP 221033043	
Client **PM** RWe Shealy Envir - Pace Analytical Services South Carolina	**Transport Method** FEDEX
Profile Number 290459	**Received By** McCune, Dodie N.
Line Item(s) 1 - MEE	**Receive Date(s)** 03/30/21

CHECKLIST	YES	NO
Samples received with proper thermal preservation?	☑	☐
Radioactivity is <1600 cpm? If no, record cpm value in notes section.	☑	☐
COC relinquished and complete (including sampleIDs, collect times, and sampler)?	☑	☐
All containers received in good condition and within hold time?	☑	☐
All sample labels and containers received match the chain of custody?	☑	☐
Preservative added to any containers?	☐	☑
If received, was headspace for VOC water containers < 6mm?	☑	☐
Samples collected in containers provided by Pace Gulf Coast?	☑	☐

COOLERS

Airbill	Thermometer ID: E26	Temp °C
166334652706		0.9

DISCREPANCIES

None

LAB PRESERVATIONS

None

NOTES

Revision 1.6

Report of Analysis

TRC Companies, Inc.
50 International Dr.
Suite 150
Greenville, SC 29615
Attention: Lisa Clark

Project Name: WPH Clemson

Project Number: 300688.0000.0000.00011

Lot Number:**WC27001**

Date Completed:04/08/2021

04/08/2021 3:03 PM
Approved and released by:
Project Manager II: **Lucas Odom**

The electronic signature above is the equivalent of a handwritten signature.

Pace Analytical Services, LLC (*formerly Shealy Environmental Services, Inc.*)
106 Vantage Point Drive West Columbia, SC 29172
Tel: 803-791-9700 Fax: 803-791-9111 www.pacelabs.com

Laboratory Data Quality Review Notes

Project Name: WPH-Clemson, SC

Project Number: 300688.0000.0000 Phase 11

Lab Report: **WC27001** Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.), West Columbia, SC; subcontracted report: **221033046** Pace Analytical Gulf Coast, Baton Rouge, LA

Samples and Analyses: Eight groundwater samples, collected 24-Mar-2021 and 25-Mar-2021, and analyzed for volatile organic compounds (VOCs), bromide, and sulfate; one trip blank (TB), analyzed for VOCs only. Analysis of the groundwater samples for dissolved hydrocarbon gases (ethane, ethene, methane) was subcontracted and was reported separately (as noted above).

Chain of Custody, Sample Temperature, Sample Preservation: Chain of custody (COC) forms were signed; cooler temperature was ≤6 ^{o}C upon arrival at each laboratory; samples were preserved properly. No sample receipt anomalies were noted.

Holding Time: Sample analyses were performed within acceptable holding times.

Surrogates: VOC surrogate recoveries were within laboratory quality control (QC) limits.

Method Blank: Laboratory method blanks were appropriately associated with all analyses. The following target analytes were detected in the laboratory method blanks:

- Carbon disulfide (0.44 J µg/L) and 1,2,4-trichlorobenzene (0.64 J µg/L) were detected in one of the VOCs laboratory method blanks, associated only with the TB in this sample set. Qualification was not required on this basis since these analytes were ND in the TB.
- 1,2,4-Trichlorobenzene (0.42 J µg/L) was detected in another of the VOCs laboratory method blanks, associated with all of the groundwater samples. Qualification was not required on this basis since this analyte was ND in the associated samples.

Trip Blank: No target analytes were detected in the TB (TBLK-21104) (analyzed for VOCs only).

Field Blank: A field blank was not collected with these samples.

Equipment Rinse Blank: An equipment rinse blank was not collected with these samples.

LCS/LCSD: LCS analyses were performed appropriately for all analyses; some analytical or preparation batches also included analysis of LCSD samples. The LCS and LCSD recoveries and LCS/LCSD relative percent differences (RPDs) were within the laboratory QC limits.

MS/MSD: MS/MSD analyses were performed for the bromide, sulfate, VOCs, and dissolved hydrocarbon gases using sample MG-06B as the associated parent sample. The MS and MSD recoveries and MS/MSD RPDs were within QC criteria, with the following exception:

- The MSD recovery for tetrachloroethene in sample MG-06B was above the QC limits; however, the parent sample concentration (530 µg/L) was over 4× the spike concentration (50 µg/L). In this situation (parent > 4× spike) the recovery results are considered unreliable and are not usable for sample qualification. Np validation action was taken on this basis.

Duplicates: No laboratory duplicates were included with these analyses. A field duplicate was not collected with this sample set.

Dilutions: The following sample analyses were performed with dilution, as indicated:

RMW-02	VOCs (5×)
MG-06B	VOCs (10×) (tetrachloroethene only)
RMW-18	VOCs (5×) (cis-1,2-dishloroethene and tetrachloroethene only)

The laboratory reports did not indicate the dilution reason(s), but the dilutions appear to have been performed in order to bring the concentrations of target analytes into the appropriate instrument calibration range. With the exception of MG-06B and RMW-18, the ND results in the noted VOC analyses were associated with correspondingly elevated detection limit (DL) and LOQ values.

No validation qualifiers were applied in this review.

Data Reviewer: Amy Bass; TRC Environmental Corporation; 28-Apr-2021

Case Narrative
TRC Companies, Inc.
Lot Number: WC27001

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved The NELAC Institute (TNI) standards, the Pace Analytical Services, LLC ("Pace") Laboratory Quality Manual, standard operating procedures (SOPs), and Pace policies. Any exceptions to the TNI standards, the Laboratory Quality Manual, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Pace Project Manager listed on the cover page.

VOCs by GC/MS

The method blank associated with analytical batch 87673 containes Carbon Disulfide and 1,24-Trichlorobenzene greater than method criteria. The data has been reported as all associated samples are non-detect for these compounds.

Due to suspected matrix interferences, the MS/MSD associated with batch 87848 recovered Tetrachloroethene outside of method criteria.

Dissolved Gasses

The analysis for dissolved gasses has been performed by Pace Gulf Coast. This data has been ammended to this report beginning at page 56.

Sample Summary
TRC Companies, Inc.
Lot Number: WC27001

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	TBLK-21104	Aqueous	03/24/2021	03/26/2021
002	RMW-02	Aqueous	03/24/2021 1130	03/26/2021
003	MG-06B	Aqueous	03/24/2021 1420	03/26/2021
004	MG-06A	Aqueous	03/24/2021 1445	03/26/2021
005	MG-06	Aqueous	03/24/2021 1515	03/26/2021
006	RMW-24	Aqueous	03/24/2021 1650	03/26/2021
007	RMW-01	Aqueous	03/25/2021 1035	03/26/2021
008	RMW-18	Aqueous	03/25/2021 1120	03/26/2021
009	RMW-11	Aqueous	03/25/2021 1225	03/26/2021

(9 samples)

Detection Summary

TRC Companies, Inc.

Lot Number: WC27001

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
002	RMW-02	Aqueous	Bromide	300.0	0.22		mg/L	8
002	RMW-02	Aqueous	Sulfate	300.0	12		mg/L	8
002	RMW-02	Aqueous	Acetone	8260D	64	J	ug/L	8
002	RMW-02	Aqueous	Ethylbenzene	8260D	350		ug/L	8
002	RMW-02	Aqueous	Methylene chloride	8260D	2.1	J	ug/L	9
002	RMW-02	Aqueous	Tetrachloroethene	8260D	4.9	J	ug/L	9
002	RMW-02	Aqueous	Xylenes (total)	8260D	1100		ug/L	9
003	MG-06B	Aqueous	Bromide	300.0	0.061	J	mg/L	10
003	MG-06B	Aqueous	Sulfate	300.0	9.1		mg/L	10
003	MG-06B	Aqueous	cis-1,2-Dichloroethene	8260D	0.61	J	ug/L	10
003	MG-06B	Aqueous	Tetrachloroethene	8260D	390		ug/L	11
003	MG-06B	Aqueous	Trichloroethene	8260D	1.4		ug/L	11
004	MG-06A	Aqueous	Bromide	300.0	0.052	J	mg/L	12
004	MG-06A	Aqueous	Sulfate	300.0	1.3		mg/L	12
004	MG-06A	Aqueous	Tetrachloroethene	8260D	170		ug/L	13
004	MG-06A	Aqueous	Trichloroethene	8260D	0.49	J	ug/L	13
005	MG-06	Aqueous	Bromide	300.0	0.051	J	mg/L	14
005	MG-06	Aqueous	Sulfate	300.0	21		mg/L	14
006	RMW-24	Aqueous	Bromide	300.0	0.26		mg/L	16
006	RMW-24	Aqueous	Sulfate	300.0	67		mg/L	16
006	RMW-24	Aqueous	Acetone	8260D	8.8	J	ug/L	16
006	RMW-24	Aqueous	Benzene	8260D	9.4		ug/L	16
006	RMW-24	Aqueous	Chlorobenzene	8260D	0.65	J	ug/L	16
006	RMW-24	Aqueous	Cyclohexane	8260D	20		ug/L	16
006	RMW-24	Aqueous	1,2-Dichlorobenzene	8260D	4.1		ug/L	16
006	RMW-24	Aqueous	1,4-Dichlorobenzene	8260D	0.50	J	ug/L	16
006	RMW-24	Aqueous	Isopropylbenzene	8260D	33		ug/L	17
006	RMW-24	Aqueous	Methylcyclohexane	8260D	8.3		ug/L	17
006	RMW-24	Aqueous	Styrene	8260D	1.1		ug/L	17
006	RMW-24	Aqueous	Toluene	8260D	6.1		ug/L	17
006	RMW-24	Aqueous	Xylenes (total)	8260D	0.66	J	ug/L	17
007	RMW-01	Aqueous	Bromide	300.0	0.14	J	mg/L	18
007	RMW-01	Aqueous	Sulfate	300.0	77		mg/L	18
007	RMW-01	Aqueous	Tetrachloroethene	8260D	0.81	J	ug/L	19
008	RMW-18	Aqueous	Bromide	300.0	0.37		mg/L	20
008	RMW-18	Aqueous	Sulfate	300.0	65		mg/L	20
008	RMW-18	Aqueous	1,1-Dichloroethene	8260D	0.73	J	ug/L	20
008	RMW-18	Aqueous	cis-1,2-Dichloroethene	8260D	350		ug/L	20
008	RMW-18	Aqueous	Tetrachloroethene	8260D	280		ug/L	21
008	RMW-18	Aqueous	Trichloroethene	8260D	22		ug/L	21
008	RMW-18	Aqueous	Vinyl chloride	8260D	0.90	J	ug/L	21
009	RMW-11	Aqueous	Bromide	300.0	0.12	J	mg/L	22
009	RMW-11	Aqueous	Sulfate	300.0	90		mg/L	22
009	RMW-11	Aqueous	Chloroform	8260D	1.6		ug/L	22
009	RMW-11	Aqueous	1,2-Dichloroethane	8260D	0.75	J	ug/L	22

Detection Summary (Continued)

Lot Number: WC27001

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
009	RMW-11	Aqueous	Tetrachloroethene	8260D	87		ug/L	23

(46 detections)

Client: TRC Companies, Inc.
Description: TBLK-21104
Date Sampled: 03/24/2021
Date Received: 03/26/2021

Laboratory ID: WC27001-001
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	04/01/2021 2216	CJL2		87673

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	ND		1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: TBLK-21104
Date Sampled: 03/24/2021
Date Received: 03/26/2021

Laboratory ID: WC27001-001
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	04/01/2021 2216	CJL2		87673

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260D	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		102	70-130
1,2-Dichloroethane-d4		104	70-130
Toluene-d8		103	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Pace Analytical Services, LLC *(formerly Shealy Environmental Services, Inc.)*
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Client: TRC Companies, Inc.
Description: RMW-02
Date Sampled: 03/24/2021 1130
Date Received: 03/26/2021

Laboratory ID: WC27001-002
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	04/01/2021 2144	AMR		87784
1		(Sulfate) 300.0	1	04/01/2021 2144	AMR		87779

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.22		0.20	0.050	mg/L	1
Sulfate		300.0	12		1.0	0.25	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	5	04/03/2021 0226	CJL2		87848

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	64	J	100	25	ug/L	1
Benzene	71-43-2	8260D	ND		5.0	2.0	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		5.0	2.0	ug/L	1
Bromoform	75-25-2	8260D	ND		5.0	2.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		10	2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		50	10	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		5.0	2.0	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		5.0	2.0	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		5.0	2.0	ug/L	1
Chloroethane	75-00-3	8260D	ND		10	2.0	ug/L	1
Chloroform	67-66-3	8260D	ND		5.0	2.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		5.0	2.5	ug/L	1
Cyclohexane	110-82-7	8260D	ND		5.0	2.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		5.0	2.0	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		5.0	2.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		5.0	2.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		5.0	2.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		5.0	2.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		5.0	2.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		10	3.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		5.0	2.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		5.0	2.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		5.0	2.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		5.0	2.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		5.0	2.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		5.0	2.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		5.0	2.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		5.0	2.0	ug/L	1
Ethylbenzene	100-41-4	8260D	350		5.0	2.0	ug/L	1
2-Hexanone	591-78-6	8260D	ND		50	10	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: RMW-02
Date Sampled: 03/24/2021 1130
Date Received: 03/26/2021

Laboratory ID: WC27001-002
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	5	04/03/2021 0226	CJL2		87848

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Isopropylbenzene	98-82-8	8260D	ND		5.0	2.0	ug/L	1
Methyl acetate	79-20-9	8260D	ND		5.0	2.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		5.0	2.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		50	10	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		25	2.0	ug/L	1
Methylene chloride	75-09-2	8260D	2.1	J	5.0	2.0	ug/L	1
Styrene	100-42-5	8260D	ND		5.0	2.1	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		5.0	2.0	ug/L	1
Tetrachloroethene	127-18-4	8260D	4.9	J	5.0	2.0	ug/L	1
Toluene	108-88-3	8260D	ND		5.0	2.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		5.0	2.1	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		5.0	2.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		5.0	2.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		5.0	2.0	ug/L	1
Trichloroethene	79-01-6	8260D	ND		5.0	2.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		5.0	2.0	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		5.0	2.0	ug/L	1
Xylenes (total)	1330-20-7	8260D	1100		5.0	2.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		105	70-130
1,2-Dichloroethane-d4		96	70-130
Toluene-d8		100	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Pace Analytical Services, LLC *(formerly Shealy Environmental Services, Inc.)*
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Client: TRC Companies, Inc.
Description: MG-06B
Date Sampled: 03/24/2021 1420
Date Received: 03/26/2021

Laboratory ID: WC27001-003
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	04/01/2021 2203	AMR		87784
1		(Sulfate) 300.0	1	04/01/2021 2203	AMR		87779

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.061	J	0.20	0.050	mg/L	1
Sulfate		300.0	9.1		1.0	0.25	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	04/02/2021 2242	CJL2		87848
2	5030B	8260D	10	04/07/2021 0747	CJL2		88182

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	0.61	J	1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: MG-06B
Date Sampled: 03/24/2021 1420
Date Received: 03/26/2021

Laboratory ID: WC27001-003
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	04/02/2021 2242	CJL2		87848
2	5030B	8260D	10	04/07/2021 0747	CJL2		88182

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	390		10	4.0	ug/L	2
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260D	1.4		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits	Q	Run 2 % Recovery	Acceptance Limits
Bromofluorobenzene		102	70-130		111	70-130
1,2-Dichloroethane-d4		96	70-130		107	70-130
Toluene-d8		103	70-130		109	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: MG-06A
Date Sampled: 03/24/2021 1445
Date Received: 03/26/2021

Laboratory ID: WC27001-004
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	04/01/2021 2300	AMR		87784
1		(Sulfate) 300.0	1	04/01/2021 2300	AMR		87779

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.052	J	0.20	0.050	mg/L	1
Sulfate		300.0	1.3		1.0	0.25	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	04/02/2021 2304	CJL2		87848

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: MG-06A
Date Sampled: 03/24/2021 1445
Date Received: 03/26/2021

Laboratory ID: WC27001-004
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	04/02/2021 2304	CJL2		87848

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	170		1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260D	0.49	J	1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		113	70-130
1,2-Dichloroethane-d4		99	70-130
Toluene-d8		113	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: MG-06
Date Sampled: 03/24/2021 1515
Date Received: 03/26/2021

Laboratory ID: WC27001-005
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	04/01/2021 2319	AMR		87784
1		(Sulfate) 300.0	1	04/01/2021 2319	AMR		87779

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.051	J	0.20	0.050	mg/L	1
Sulfate		300.0	21		1.0	0.25	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	04/02/2021 2327	CJL2		87848
2	5030B	8260D	1	04/07/2021 0632	CJL2		88182

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: MG-06
Date Sampled: 03/24/2021 1515
Date Received: 03/26/2021

Laboratory ID: WC27001-005
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	04/02/2021 2327	CJL2		87848
2	5030B	8260D	1	04/07/2021 0632	CJL2		88182

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	ND		1.0	0.40	ug/L	2
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260D	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits	Q	Run 2 % Recovery	Acceptance Limits
Bromofluorobenzene		100	70-130		110	70-130
1,2-Dichloroethane-d4		94	70-130		103	70-130
Toluene-d8		103	70-130		112	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: RMW-24
Date Sampled: 03/24/2021 1650
Date Received: 03/26/2021

Laboratory ID: WC27001-006
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	04/01/2021 2338	AMR		87784
1		(Sulfate) 300.0	1	04/01/2021 2338	AMR		87779

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.26		0.20	0.050	mg/L	1
Sulfate		300.0	67		1.0	0.25	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	04/02/2021 2349	CJL2		87848

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	8.8	J	20	5.0	ug/L	1
Benzene	71-43-2	8260D	9.4		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	0.65	J	1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	20		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	4.1		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	0.50	J	1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: RMW-24
Date Sampled: 03/24/2021 1650
Date Received: 03/26/2021

Laboratory ID: WC27001-006
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	04/02/2021 2349	CJL2		87848

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Isopropylbenzene	98-82-8	8260D	33		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	8.3		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	1.1		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	ND		1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	6.1		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260D	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	0.66	J	1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		108	70-130
1,2-Dichloroethane-d4		95	70-130
Toluene-d8		107	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Pace Analytical Services, LLC *(formerly Shealy Environmental Services, Inc.)*
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Client: TRC Companies, Inc.
Description: RMW-01
Date Sampled: 03/25/2021 1035
Date Received: 03/26/2021

Laboratory ID: WC27001-007
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	04/01/2021 2357	AMR		87784
1		(Sulfate) 300.0	1	04/01/2021 2357	AMR		87779

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.14	J	0.20	0.050	mg/L	1
Sulfate		300.0	77		1.0	0.25	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	04/03/2021 0012	CJL2		87848

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: RMW-01
Date Sampled: 03/25/2021 1035
Date Received: 03/26/2021

Laboratory ID: WC27001-007
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	04/03/2021 0012	CJL2		87848

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	0.81	J	1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260D	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		102	70-130
1,2-Dichloroethane-d4		95	70-130
Toluene-d8		103	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Pace Analytical Services, LLC *(formerly Shealy Environmental Services, Inc.)*
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Client: TRC Companies, Inc.
Description: RMW-18
Date Sampled: 03/25/2021 1120
Date Received: 03/26/2021

Laboratory ID: WC27001-008
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	04/02/2021 0054	AMR		87784
1		(Sulfate) 300.0	1	04/02/2021 0054	AMR		87779

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.37		0.20	0.050	mg/L	1
Sulfate		300.0	65		1.0	0.25	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	04/03/2021 0034	CJL2		87848
2	5030B	8260D	5	04/07/2021 1638	BWS		88245

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	0.73	J	1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	350		5.0	2.0	ug/L	2
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: RMW-18
Date Sampled: 03/25/2021 1120
Date Received: 03/26/2021

Laboratory ID: WC27001-008
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	04/03/2021 0034	CJL2		87848
2	5030B	8260D	5	04/07/2021 1638	BWS		88245

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	280		5.0	2.0	ug/L	2
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260D	22		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	0.90	J	1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Run 1 Acceptance Limits	Q	Run 2 % Recovery	Run 2 Acceptance Limits
Bromofluorobenzene		102	70-130		100	70-130
1,2-Dichloroethane-d4		94	70-130		91	70-130
Toluene-d8		104	70-130		105	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: RMW-11
Date Sampled: 03/25/2021 1225
Date Received: 03/26/2021

Laboratory ID: WC27001-009
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	04/02/2021 0113	AMR		87784
1		(Sulfate) 300.0	1	04/02/2021 0113	AMR		87779

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.12	J	0.20	0.050	mg/L	1
Sulfate		300.0	90		1.0	0.25	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	04/03/2021 0056	CJL2		87848

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	1.6		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	0.75	J	1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: RMW-11
Date Sampled: 03/25/2021 1225
Date Received: 03/26/2021

Laboratory ID: WC27001-009
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	04/03/2021 0056	CJL2		87848

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	87		1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260D	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		110	70-130
1,2-Dichloroethane-d4		97	70-130
Toluene-d8		108	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

QC Summary

Inorganic non-metals - MB

Sample ID: WQ87779-001
Batch: 87779
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Sulfate	ND		1	1.0	0.25	mg/L	04/01/2021 1701

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: WQ87779-002
Batch: 87779
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Sulfate	20	19		1	97	90-110	04/01/2021 1913

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCSD

Sample ID: WQ87779-003
Batch: 87779
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	%Rec Limit	% RPD Limit	Analysis Date
Sulfate	20	19		1	97	0.20	90-110	20	04/01/2021 1932

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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Inorganic non-metals - MS

Sample ID: WC27001-003MS
Batch: 87779
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Sulfate	9.1	10	19		1	95	90-110	04/01/2021 2222

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: WC27001-003MD
Batch: 87779
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	%Rec Limit	% RPD Limit	Analysis Date
Sulfate	9.1	10	19		1	95	0.36	90-110	20	04/01/2021 2241

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: WQ87784-001
Batch: 87784
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Bromide	ND		1	0.20	0.050	mg/L	04/01/2021 1701

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: WQ87784-002
Batch: 87784
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Bromide	8.0	8.1		1	102	90-110	04/01/2021 1913

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCSD

Sample ID: WQ87784-003
Batch: 87784
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	%Rec Limit	% RPD Limit	Analysis Date
Bromide	8.0	8.2		1	102	0.099	90-110	20	04/01/2021 1932

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MS

Sample ID: WC27001-003MS
Batch: 87784
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Bromide	0.061	4.0	3.9		1	97	90-110	04/01/2021 2222

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: WC27001-003MD
Batch: 87784
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	%Rec Limit	% RPD Limit	Analysis Date
Bromide	0.061	4.0	4.0		1	97	0.31	90-110	20	04/01/2021 2241

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: WQ87673-001
Batch: 87673
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Acetone	ND		1	20	5.0	ug/L	04/01/2021 1940
Benzene	ND		1	1.0	0.40	ug/L	04/01/2021 1940
Bromodichloromethane	ND		1	1.0	0.40	ug/L	04/01/2021 1940
Bromoform	ND		1	1.0	0.40	ug/L	04/01/2021 1940
Bromomethane (Methyl bromide)	ND		1	2.0	0.40	ug/L	04/01/2021 1940
2-Butanone (MEK)	ND		1	10	2.0	ug/L	04/01/2021 1940
Carbon disulfide	0.44	J	1	1.0	0.40	ug/L	04/01/2021 1940
Carbon tetrachloride	ND		1	1.0	0.40	ug/L	04/01/2021 1940
Chlorobenzene	ND		1	1.0	0.40	ug/L	04/01/2021 1940
Chloroethane	ND		1	2.0	0.40	ug/L	04/01/2021 1940
Chloroform	ND		1	1.0	0.40	ug/L	04/01/2021 1940
Chloromethane (Methyl chloride)	ND		1	1.0	0.50	ug/L	04/01/2021 1940
Cyclohexane	ND		1	1.0	0.40	ug/L	04/01/2021 1940
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	0.40	ug/L	04/01/2021 1940
Dibromochloromethane	ND		1	1.0	0.40	ug/L	04/01/2021 1940
1,2-Dibromoethane (EDB)	ND		1	1.0	0.40	ug/L	04/01/2021 1940
1,2-Dichlorobenzene	ND		1	1.0	0.40	ug/L	04/01/2021 1940
1,3-Dichlorobenzene	ND		1	1.0	0.40	ug/L	04/01/2021 1940
1,4-Dichlorobenzene	ND		1	1.0	0.40	ug/L	04/01/2021 1940
Dichlorodifluoromethane	ND		1	2.0	0.60	ug/L	04/01/2021 1940
1,1-Dichloroethane	ND		1	1.0	0.40	ug/L	04/01/2021 1940
1,2-Dichloroethane	ND		1	1.0	0.40	ug/L	04/01/2021 1940
1,1-Dichloroethene	ND		1	1.0	0.40	ug/L	04/01/2021 1940
cis-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	04/01/2021 1940
trans-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	04/01/2021 1940
1,2-Dichloropropane	ND		1	1.0	0.40	ug/L	04/01/2021 1940
cis-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	04/01/2021 1940
trans-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	04/01/2021 1940
Ethylbenzene	ND		1	1.0	0.40	ug/L	04/01/2021 1940
2-Hexanone	ND		1	10	2.0	ug/L	04/01/2021 1940
Isopropylbenzene	ND		1	1.0	0.40	ug/L	04/01/2021 1940
Methyl acetate	ND		1	1.0	0.40	ug/L	04/01/2021 1940
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	0.40	ug/L	04/01/2021 1940
4-Methyl-2-pentanone	ND		1	10	2.0	ug/L	04/01/2021 1940
Methylcyclohexane	ND		1	5.0	0.40	ug/L	04/01/2021 1940
Methylene chloride	ND		1	1.0	0.40	ug/L	04/01/2021 1940
Styrene	ND		1	1.0	0.41	ug/L	04/01/2021 1940
1,1,2,2-Tetrachloroethane	ND		1	1.0	0.40	ug/L	04/01/2021 1940
Tetrachloroethene	ND		1	1.0	0.40	ug/L	04/01/2021 1940
Toluene	ND		1	1.0	0.40	ug/L	04/01/2021 1940
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	0.42	ug/L	04/01/2021 1940
1,2,4-Trichlorobenzene	0.64	J	1	1.0	0.40	ug/L	04/01/2021 1940
1,1,1-Trichloroethane	ND		1	1.0	0.40	ug/L	04/01/2021 1940
1,1,2-Trichloroethane	ND		1	1.0	0.40	ug/L	04/01/2021 1940

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: WQ87673-001
Batch: 87673
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Trichloroethene	ND		1	1.0	0.40	ug/L	04/01/2021 1940
Trichlorofluoromethane	ND		1	1.0	0.40	ug/L	04/01/2021 1940
Vinyl chloride	ND		1	1.0	0.40	ug/L	04/01/2021 1940
Xylenes (total)	ND		1	1.0	0.40	ug/L	04/01/2021 1940

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		100	70-130
1,2-Dichloroethane-d4		100	70-130
Toluene-d8		101	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: WQ87673-002
Batch: 87673
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Acetone	100	130		1	133	60-140	04/01/2021 1855
Benzene	50	47		1	94	70-130	04/01/2021 1855
Bromodichloromethane	50	46		1	92	70-130	04/01/2021 1855
Bromoform	50	49		1	98	70-130	04/01/2021 1855
Bromomethane (Methyl bromide)	50	48		1	96	70-130	04/01/2021 1855
2-Butanone (MEK)	100	93		1	93	70-130	04/01/2021 1855
Carbon disulfide	50	48		1	97	70-130	04/01/2021 1855
Carbon tetrachloride	50	48		1	95	70-130	04/01/2021 1855
Chlorobenzene	50	45		1	89	70-130	04/01/2021 1855
Chloroethane	50	50		1	99	70-130	04/01/2021 1855
Chloroform	50	46		1	91	70-130	04/01/2021 1855
Chloromethane (Methyl chloride)	50	44		1	88	60-140	04/01/2021 1855
Cyclohexane	50	46		1	93	70-130	04/01/2021 1855
1,2-Dibromo-3-chloropropane (DBCP)	50	42		1	83	70-130	04/01/2021 1855
Dibromochloromethane	50	47		1	94	70-130	04/01/2021 1855
1,2-Dibromoethane (EDB)	50	45		1	89	70-130	04/01/2021 1855
1,2-Dichlorobenzene	50	46		1	91	70-130	04/01/2021 1855
1,3-Dichlorobenzene	50	45		1	90	70-130	04/01/2021 1855
1,4-Dichlorobenzene	50	44		1	87	70-130	04/01/2021 1855
Dichlorodifluoromethane	50	52		1	105	60-140	04/01/2021 1855
1,1-Dichloroethane	50	46		1	91	70-130	04/01/2021 1855
1,2-Dichloroethane	50	44		1	89	70-130	04/01/2021 1855
1,1-Dichloroethene	50	45		1	91	70-130	04/01/2021 1855
cis-1,2-Dichloroethene	50	45		1	90	70-130	04/01/2021 1855
trans-1,2-Dichloroethene	50	47		1	94	70-130	04/01/2021 1855
1,2-Dichloropropane	50	46		1	93	70-130	04/01/2021 1855
cis-1,3-Dichloropropene	50	48		1	95	70-130	04/01/2021 1855
trans-1,3-Dichloropropene	50	46		1	92	70-130	04/01/2021 1855
Ethylbenzene	50	45		1	91	70-130	04/01/2021 1855
2-Hexanone	100	94		1	94	70-130	04/01/2021 1855
Isopropylbenzene	50	46		1	92	70-130	04/01/2021 1855
Methyl acetate	50	46		1	91	70-130	04/01/2021 1855
Methyl tertiary butyl ether (MTBE)	50	46		1	92	70-130	04/01/2021 1855
4-Methyl-2-pentanone	100	96		1	96	70-130	04/01/2021 1855
Methylcyclohexane	50	47		1	95	70-130	04/01/2021 1855
Methylene chloride	50	45		1	89	70-130	04/01/2021 1855
Styrene	50	47		1	95	70-130	04/01/2021 1855
1,1,2,2-Tetrachloroethane	50	45		1	90	70-130	04/01/2021 1855
Tetrachloroethene	50	47		1	94	70-130	04/01/2021 1855
Toluene	50	46		1	92	70-130	04/01/2021 1855
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	48		1	96	70-130	04/01/2021 1855
1,2,4-Trichlorobenzene	50	41		1	82	70-130	04/01/2021 1855
1,1,1-Trichloroethane	50	47		1	95	70-130	04/01/2021 1855
1,1,2-Trichloroethane	50	46		1	92	70-130	04/01/2021 1855

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: WQ87673-002
Batch: 87673
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Trichloroethene	50	46		1	92	70-130	04/01/2021 1855
Trichlorofluoromethane	50	51		1	102	70-130	04/01/2021 1855
Vinyl chloride	50	47		1	93	70-130	04/01/2021 1855
Xylenes (total)	100	92		1	92	70-130	04/01/2021 1855

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		101	70-130
1,2-Dichloroethane-d4		96	70-130
Toluene-d8		94	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: WQ87848-001
Batch: 87848
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Acetone	ND		1	20	5.0	ug/L	04/02/2021 1921
Benzene	ND		1	1.0	0.40	ug/L	04/02/2021 1921
Bromodichloromethane	ND		1	1.0	0.40	ug/L	04/02/2021 1921
Bromoform	ND		1	1.0	0.40	ug/L	04/02/2021 1921
Bromomethane (Methyl bromide)	ND		1	2.0	0.40	ug/L	04/02/2021 1921
2-Butanone (MEK)	ND		1	10	2.0	ug/L	04/02/2021 1921
Carbon disulfide	ND		1	1.0	0.40	ug/L	04/02/2021 1921
Carbon tetrachloride	ND		1	1.0	0.40	ug/L	04/02/2021 1921
Chlorobenzene	ND		1	1.0	0.40	ug/L	04/02/2021 1921
Chloroethane	ND		1	2.0	0.40	ug/L	04/02/2021 1921
Chloroform	ND		1	1.0	0.40	ug/L	04/02/2021 1921
Chloromethane (Methyl chloride)	ND		1	1.0	0.50	ug/L	04/02/2021 1921
Cyclohexane	ND		1	1.0	0.40	ug/L	04/02/2021 1921
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	0.40	ug/L	04/02/2021 1921
Dibromochloromethane	ND		1	1.0	0.40	ug/L	04/02/2021 1921
1,2-Dibromoethane (EDB)	ND		1	1.0	0.40	ug/L	04/02/2021 1921
1,2-Dichlorobenzene	ND		1	1.0	0.40	ug/L	04/02/2021 1921
1,3-Dichlorobenzene	ND		1	1.0	0.40	ug/L	04/02/2021 1921
1,4-Dichlorobenzene	ND		1	1.0	0.40	ug/L	04/02/2021 1921
Dichlorodifluoromethane	ND		1	2.0	0.60	ug/L	04/02/2021 1921
1,1-Dichloroethane	ND		1	1.0	0.40	ug/L	04/02/2021 1921
1,2-Dichloroethane	ND		1	1.0	0.40	ug/L	04/02/2021 1921
1,1-Dichloroethene	ND		1	1.0	0.40	ug/L	04/02/2021 1921
cis-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	04/02/2021 1921
trans-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	04/02/2021 1921
1,2-Dichloropropane	ND		1	1.0	0.40	ug/L	04/02/2021 1921
cis-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	04/02/2021 1921
trans-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	04/02/2021 1921
Ethylbenzene	ND		1	1.0	0.40	ug/L	04/02/2021 1921
2-Hexanone	ND		1	10	2.0	ug/L	04/02/2021 1921
Isopropylbenzene	ND		1	1.0	0.40	ug/L	04/02/2021 1921
Methyl acetate	ND		1	1.0	0.40	ug/L	04/02/2021 1921
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	0.40	ug/L	04/02/2021 1921
4-Methyl-2-pentanone	ND		1	10	2.0	ug/L	04/02/2021 1921
Methylcyclohexane	ND		1	5.0	0.40	ug/L	04/02/2021 1921
Methylene chloride	ND		1	1.0	0.40	ug/L	04/02/2021 1921
Styrene	ND		1	1.0	0.41	ug/L	04/02/2021 1921
1,1,2,2-Tetrachloroethane	ND		1	1.0	0.40	ug/L	04/02/2021 1921
Tetrachloroethene	ND		1	1.0	0.40	ug/L	04/02/2021 1921
Toluene	ND		1	1.0	0.40	ug/L	04/02/2021 1921
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	0.42	ug/L	04/02/2021 1921
1,2,4-Trichlorobenzene	0.42	J	1	1.0	0.40	ug/L	04/02/2021 1921
1,1,1-Trichloroethane	ND		1	1.0	0.40	ug/L	04/02/2021 1921
1,1,2-Trichloroethane	ND		1	1.0	0.40	ug/L	04/02/2021 1921

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: WQ87848-001
Batch: 87848
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Trichloroethene	ND		1	1.0	0.40	ug/L	04/02/2021 1921
Trichlorofluoromethane	ND		1	1.0	0.40	ug/L	04/02/2021 1921
Vinyl chloride	ND		1	1.0	0.40	ug/L	04/02/2021 1921
Xylenes (total)	ND		1	1.0	0.40	ug/L	04/02/2021 1921

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		101	70-130
1,2-Dichloroethane-d4		102	70-130
Toluene-d8		103	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: WQ87848-002
Batch: 87848
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Acetone	100	120		1	116	60-140	04/02/2021 1819
Benzene	50	47		1	94	70-130	04/02/2021 1819
Bromodichloromethane	50	47		1	95	70-130	04/02/2021 1819
Bromoform	50	49		1	98	70-130	04/02/2021 1819
Bromomethane (Methyl bromide)	50	50		1	99	70-130	04/02/2021 1819
2-Butanone (MEK)	100	90		1	90	70-130	04/02/2021 1819
Carbon disulfide	50	51		1	103	70-130	04/02/2021 1819
Carbon tetrachloride	50	50		1	99	70-130	04/02/2021 1819
Chlorobenzene	50	46		1	92	70-130	04/02/2021 1819
Chloroethane	50	50		1	101	70-130	04/02/2021 1819
Chloroform	50	47		1	94	70-130	04/02/2021 1819
Chloromethane (Methyl chloride)	50	47		1	94	60-140	04/02/2021 1819
Cyclohexane	50	48		1	95	70-130	04/02/2021 1819
1,2-Dibromo-3-chloropropane (DBCP)	50	42		1	84	70-130	04/02/2021 1819
Dibromochloromethane	50	50		1	99	70-130	04/02/2021 1819
1,2-Dibromoethane (EDB)	50	48		1	96	70-130	04/02/2021 1819
1,2-Dichlorobenzene	50	47		1	94	70-130	04/02/2021 1819
1,3-Dichlorobenzene	50	43		1	87	70-130	04/02/2021 1819
1,4-Dichlorobenzene	50	44		1	89	70-130	04/02/2021 1819
Dichlorodifluoromethane	50	55		1	110	60-140	04/02/2021 1819
1,1-Dichloroethane	50	49		1	98	70-130	04/02/2021 1819
1,2-Dichloroethane	50	46		1	91	70-130	04/02/2021 1819
1,1-Dichloroethene	50	50		1	100	70-130	04/02/2021 1819
cis-1,2-Dichloroethene	50	48		1	95	70-130	04/02/2021 1819
trans-1,2-Dichloroethene	50	48		1	97	70-130	04/02/2021 1819
1,2-Dichloropropane	50	48		1	97	70-130	04/02/2021 1819
cis-1,3-Dichloropropene	50	42		1	84	70-130	04/02/2021 1819
trans-1,3-Dichloropropene	50	43		1	86	70-130	04/02/2021 1819
Ethylbenzene	50	47		1	93	70-130	04/02/2021 1819
2-Hexanone	100	95		1	95	70-130	04/02/2021 1819
Isopropylbenzene	50	49		1	98	70-130	04/02/2021 1819
Methyl acetate	50	47		1	94	70-130	04/02/2021 1819
Methyl tertiary butyl ether (MTBE)	50	49		1	99	70-130	04/02/2021 1819
4-Methyl-2-pentanone	100	94		1	94	70-130	04/02/2021 1819
Methylcyclohexane	50	48		1	96	70-130	04/02/2021 1819
Methylene chloride	50	48		1	96	70-130	04/02/2021 1819
Styrene	50	47		1	95	70-130	04/02/2021 1819
1,1,2,2-Tetrachloroethane	50	47		1	93	70-130	04/02/2021 1819
Tetrachloroethene	50	48		1	96	70-130	04/02/2021 1819
Toluene	50	47		1	95	70-130	04/02/2021 1819
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	49		1	99	70-130	04/02/2021 1819
1,2,4-Trichlorobenzene	50	40		1	81	70-130	04/02/2021 1819
1,1,1-Trichloroethane	50	51		1	101	70-130	04/02/2021 1819
1,1,2-Trichloroethane	50	48		1	96	70-130	04/02/2021 1819

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: WQ87848-002
Batch: 87848
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Trichloroethene	50	47		1	94	70-130	04/02/2021 1819
Trichlorofluoromethane	50	52		1	103	70-130	04/02/2021 1819
Vinyl chloride	50	50		1	101	70-130	04/02/2021 1819
Xylenes (total)	100	94		1	94	70-130	04/02/2021 1819

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		104	70-130
1,2-Dichloroethane-d4		94	70-130
Toluene-d8		100	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: WC27001-003MS
Batch: 87848
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Acetone	ND	100	110		1	115	60-140	04/03/2021 0333
Benzene	ND	50	55		1	110	70-130	04/03/2021 0333
Bromodichloromethane	ND	50	52		1	103	70-130	04/03/2021 0333
Bromoform	ND	50	52		1	104	70-130	04/03/2021 0333
Bromomethane (Methyl bromide)	ND	50	50		1	99	70-130	04/03/2021 0333
2-Butanone (MEK)	ND	100	99		1	99	70-130	04/03/2021 0333
Carbon disulfide	ND	50	53		1	106	70-130	04/03/2021 0333
Carbon tetrachloride	ND	50	55		1	110	70-130	04/03/2021 0333
Chlorobenzene	ND	50	56		1	112	70-130	04/03/2021 0333
Chloroethane	ND	50	53		1	105	70-130	04/03/2021 0333
Chloroform	ND	50	53		1	106	70-130	04/03/2021 0333
Chloromethane (Methyl chloride)	ND	50	49		1	97	60-140	04/03/2021 0333
Cyclohexane	ND	50	54		1	109	70-130	04/03/2021 0333
1,2-Dibromo-3-chloropropane (DBCP)	ND	50	52		1	104	70-130	04/03/2021 0333
Dibromochloromethane	ND	50	55		1	111	70-130	04/03/2021 0333
1,2-Dibromoethane (EDB)	ND	50	56		1	112	70-130	04/03/2021 0333
1,2-Dichlorobenzene	ND	50	61		1	122	70-130	04/03/2021 0333
1,3-Dichlorobenzene	ND	50	57		1	115	70-130	04/03/2021 0333
1,4-Dichlorobenzene	ND	50	60		1	120	70-130	04/03/2021 0333
Dichlorodifluoromethane	ND	50	57		1	114	60-140	04/03/2021 0333
1,1-Dichloroethane	ND	50	54		1	108	70-130	04/03/2021 0333
1,2-Dichloroethane	ND	50	51		1	102	70-130	04/03/2021 0333
1,1-Dichloroethene	ND	50	56		1	112	70-130	04/03/2021 0333
cis-1,2-Dichloroethene	0.61	50	54		1	107	70-130	04/03/2021 0333
trans-1,2-Dichloroethene	ND	50	55		1	109	70-130	04/03/2021 0333
1,2-Dichloropropane	ND	50	55		1	110	70-130	04/03/2021 0333
cis-1,3-Dichloropropene	ND	50	52		1	105	70-130	04/03/2021 0333
trans-1,3-Dichloropropene	ND	50	55		1	111	70-130	04/03/2021 0333
Ethylbenzene	ND	50	58		1	116	70-130	04/03/2021 0333
2-Hexanone	ND	100	110		1	110	70-130	04/03/2021 0333
Isopropylbenzene	ND	50	59		1	119	70-130	04/03/2021 0333
Methyl acetate	ND	50	45		1	90	70-130	04/03/2021 0333
Methyl tertiary butyl ether (MTBE)	ND	50	52		1	103	70-130	04/03/2021 0333
4-Methyl-2-pentanone	ND	100	100		1	103	70-130	04/03/2021 0333
Methylcyclohexane	ND	50	63		1	125	70-130	04/03/2021 0333
Methylene chloride	ND	50	52		1	103	70-130	04/03/2021 0333
Styrene	ND	50	58		1	115	70-130	04/03/2021 0333
1,1,2,2-Tetrachloroethane	ND	50	61		1	122	70-130	04/03/2021 0333
Tetrachloroethene	530	50	610	N	1	145	70-130	04/03/2021 0333
Toluene	ND	50	58		1	115	70-130	04/03/2021 0333
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	50	60		1	121	70-130	04/03/2021 0333
1,2,4-Trichlorobenzene	ND	50	56		1	113	70-130	04/03/2021 0333
1,1,1-Trichloroethane	ND	50	55		1	110	70-130	04/03/2021 0333
1,1,2-Trichloroethane	ND	50	55		1	111	70-130	04/03/2021 0333

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: WC27001-003MS
Batch: 87848
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Trichloroethene	1.4	50	57		1	111	70-130	04/03/2021 0333
Trichlorofluoromethane	ND	50	55		1	109	70-130	04/03/2021 0333
Vinyl chloride	ND	50	53		1	106	70-130	04/03/2021 0333
Xylenes (total)	ND	100	120		1	116	70-130	04/03/2021 0333

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		109	70-130
1,2-Dichloroethane-d4		95	70-130
Toluene-d8		109	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MSD

Sample ID: WC27001-003MD
Batch: 87848
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	%Rec Limit	% RPD Limit	Analysis Date
Acetone	ND	100	110		1	112	2.3	60-140	20	04/03/2021 0355
Benzene	ND	50	55		1	111	0.13	70-130	20	04/03/2021 0355
Bromodichloromethane	ND	50	53		1	105	1.7	70-130	20	04/03/2021 0355
Bromoform	ND	50	55		1	111	6.2	70-130	20	04/03/2021 0355
Bromomethane (Methyl bromide)	ND	50	51		1	102	3.0	70-130	20	04/03/2021 0355
2-Butanone (MEK)	ND	100	96		1	96	2.8	70-130	20	04/03/2021 0355
Carbon disulfide	ND	50	54		1	108	1.8	70-130	20	04/03/2021 0355
Carbon tetrachloride	ND	50	57		1	115	4.0	70-130	20	04/03/2021 0355
Chlorobenzene	ND	50	56		1	113	0.53	70-130	20	04/03/2021 0355
Chloroethane	ND	50	52		1	103	1.8	70-130	20	04/03/2021 0355
Chloroform	ND	50	53		1	105	0.20	70-130	20	04/03/2021 0355
Chloromethane (Methyl chloride)	ND	50	48		1	97	0.53	60-140	20	04/03/2021 0355
Cyclohexane	ND	50	57		1	115	5.5	70-130	20	04/03/2021 0355
1,2-Dibromo-3-chloropropane (DBCP)	ND	50	56		1	111	6.1	70-130	20	04/03/2021 0355
Dibromochloromethane	ND	50	57		1	113	2.0	70-130	20	04/03/2021 0355
1,2-Dibromoethane (EDB)	ND	50	58		1	116	3.2	70-130	20	04/03/2021 0355
1,2-Dichlorobenzene	ND	50	61		1	122	0.0018	70-130	20	04/03/2021 0355
1,3-Dichlorobenzene	ND	50	58		1	115	0.21	70-130	20	04/03/2021 0355
1,4-Dichlorobenzene	ND	50	60		1	119	0.31	70-130	20	04/03/2021 0355
Dichlorodifluoromethane	ND	50	56		1	112	0.95	60-140	20	04/03/2021 0355
1,1-Dichloroethane	ND	50	55		1	110	2.7	70-130	20	04/03/2021 0355
1,2-Dichloroethane	ND	50	50		1	101	1.3	70-130	20	04/03/2021 0355
1,1-Dichloroethene	ND	50	59		1	118	5.4	70-130	20	04/03/2021 0355
cis-1,2-Dichloroethene	0.61	50	55		1	109	1.8	70-130	20	04/03/2021 0355
trans-1,2-Dichloroethene	ND	50	55		1	110	0.34	70-130	20	04/03/2021 0355
1,2-Dichloropropane	ND	50	54		1	109	1.1	70-130	20	04/03/2021 0355
cis-1,3-Dichloropropene	ND	50	52		1	104	0.061	70-130	20	04/03/2021 0355
trans-1,3-Dichloropropene	ND	50	57		1	113	2.3	70-130	20	04/03/2021 0355
Ethylbenzene	ND	50	60		1	119	2.5	70-130	20	04/03/2021 0355
2-Hexanone	ND	100	110		1	115	3.7	70-130	20	04/03/2021 0355
Isopropylbenzene	ND	50	63		1	126	6.0	70-130	20	04/03/2021 0355
Methyl acetate	ND	50	49		1	97	7.8	70-130	20	04/03/2021 0355
Methyl tertiary butyl ether (MTBE)	ND	50	53		1	105	1.6	70-130	20	04/03/2021 0355
4-Methyl-2-pentanone	ND	100	100		1	104	1.3	70-130	20	04/03/2021 0355
Methylcyclohexane	ND	50	62		1	124	1.4	70-130	20	04/03/2021 0355
Methylene chloride	ND	50	52		1	104	1.2	70-130	20	04/03/2021 0355
Styrene	ND	50	58		1	116	0.81	70-130	20	04/03/2021 0355
1,1,2,2-Tetrachloroethane	ND	50	61		1	121	0.37	70-130	20	04/03/2021 0355
Tetrachloroethene	530	50	610	N	1	154	0.75	70-130	20	04/03/2021 0355
Toluene	ND	50	60		1	120	4.0	70-130	20	04/03/2021 0355
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	50	62		1	124	2.5	70-130	20	04/03/2021 0355
1,2,4-Trichlorobenzene	ND	50	51		1	102	9.5	70-130	20	04/03/2021 0355
1,1,1-Trichloroethane	ND	50	57		1	114	3.0	70-130	20	04/03/2021 0355
1,1,2-Trichloroethane	ND	50	56		1	111	0.46	70-130	20	04/03/2021 0355

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MSD

Sample ID: WC27001-003MD
Batch: 87848
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	%Rec Limit	% RPD Limit	Analysis Date
Trichloroethene	1.4	50	56		1	109	1.9	70-130	20	04/03/2021 0355
Trichlorofluoromethane	ND	50	54		1	109	0.49	70-130	20	04/03/2021 0355
Vinyl chloride	ND	50	52		1	104	2.4	70-130	20	04/03/2021 0355
Xylenes (total)	ND	100	120		1	116	0.12	70-130	20	04/03/2021 0355

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		104	70-130
1,2-Dichloroethane-d4		92	70-130
Toluene-d8		105	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: WQ88182-001
Batch: 88182
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Tetrachloroethene	ND		1	1.0	0.40	ug/L	04/06/2021 2327

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		110	70-130
1,2-Dichloroethane-d4		99	70-130
Toluene-d8		108	70-130

LOQ = Limit of Quantitation
DL = Detection Limit

ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria

N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: WQ88182-002
Batch: 88182
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Tetrachloroethene	50	51		1	102	70-130	04/06/2021 2158

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		97	70-130
1,2-Dichloroethane-d4		86	70-130
Toluene-d8		92	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: WC27001-003MS
Batch: 88182
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Tetrachloroethene	390	500	940		10	111	70-130	04/07/2021 0811

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		102	70-130
1,2-Dichloroethane-d4		89	70-130
Toluene-d8		102	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MSD

Sample ID: WC27001-003MD
Batch: 88182
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	%Rec Limit	% RPD Limit	Analysis Date
Tetrachloroethene	390	500	930		10	110	0.74	70-130	20	04/07/2021 0836

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		103	70-130
1,2-Dichloroethane-d4		90	70-130
Toluene-d8		98	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: WQ88245-001
Batch: 88245
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
cis-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	04/07/2021 1047
Tetrachloroethene	ND		1	1.0	0.40	ug/L	04/07/2021 1047

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		100	70-130
1,2-Dichloroethane-d4		92	70-130
Toluene-d8		102	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: WQ88245-002
Batch: 88245
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
cis-1,2-Dichloroethene	50	47		1	93	70-130	04/07/2021 0903
Tetrachloroethene	50	51		1	101	70-130	04/07/2021 0903

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		96	70-130
1,2-Dichloroethane-d4		86	70-130
Toluene-d8		95	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Chain of Custody

and

Miscellaneous Documents

Pace Analytical®

PACE ANALYTICAL SERVICES, LLC
106 Vantage Point Drive • West Columbia, SC 29172
Telephone No. 803-791-9700 Fax No. 803-791-9111
www.pacelabs.com

Number 117076

Client: TRC	Report to Contact: Lisa Clark	Telephone No. / E-mail:	Quote No.
Address: 50 International Dr Ste 150	Sampler's Signature: X	Analysis (Attach list if more space is needed)	Page 1 of 1
City: Greenville / State: SC / Zip Code: 29615	Printed Name: Aharon Mishnes		WC27001
Project Name: WPH Clemson			LJD
Project No: 300686.0.0.11	P.O. No.		Remarks / Cooler I.D.

Sample ID / Description (Containers for each sample may be combined on one line.)	2021 Collection Date(s)	Collection Time (Military)	Grab / Composite	Matrix: Aqueous	Solid	Non-Aqueous	No. of Containers by Preservative Type: Unpres.	H2SO4	HNO3	HCl	NaOH	Na2S2O3	ZnAc/NaOH	VOCs	Sulfide + Bromide	Dissolved Gases
TBLK-21104	1	1	G	X						2				X		
RMW-02	3-24	1130	G	X			1	3		3				X	X	X
MG-06B/MG-06B/MS/MSD	3-24	1420	G	X			2	6		6				X	X	X
MG-06A	3-24	1445	G	X			1	3		3				X	X	X
MG-06	3-24	1515	G	X			1	3		3				X	X	X
RMW-24	3-24	1650	G	X			1	3		3				X	X	X
RMW-01	3-25	1035	G	X			1	3		3				X	X	X
RMW-18	3-25	1120	G	X			1	3		3				X	X	X
RMW-11	3-25	1225	G	X			1	3		3				X	X	X

Turn Around Time Required (Prior lab approval required for expedited TAT.) ☐ Standard ☐ Rush (Specify)

Sample Disposal ☐ Return to Client ☐ Disposal by Lab

Possible Hazard Identification ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

QC Requirements (Specify)

	Date	Time
1. Relinquished by	3.25.21	1445
2. Relinquished by TRC SS	3/26/21	1005
3. Relinquished by Matt DP	3/26/21	1520
4. Relinquished by	Date	Time

	Date	Time
1. Received by TRC SS	3.25.21	1445
2. Received by Matt DP	3/26/21	1005
3. Received by	Date	Time
4. Laboratory received by JMahoney	3/26/21	1520

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on Ice (Circle) Yes No Ice Pack Receipt Temp 0.0 °C Temp Blank ☑ Y ☐ N

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Client Copy

Document Number: MS003N2-01

PACE ANALYTICAL SERVICES, LLC

Pace Analytical

Samples Receipt Checklist (SRC) (ME0018C-15)
Issuing Authority: Pace ENV - WCOL

Revised:9/29/2020
Page 1 of 1

Sample Receipt Checklist (SRC)

Client: TRC Cooler Inspected by/date: MEH / 3/27/2021 Lot #: WC27001

Means of receipt: ☑ Pace ☐ Client ☐ UPS ☐ FedEx ☐ Other:

☐ Yes	☑ No		1. Were custody seals present on the cooler?
☐ Yes	☐ No	☑ NA	2. If custody seals were present, were they intact and unbroken?

pH Strip ID: NA Chlorine Strip ID: _____ Tested by: NA

Original temperature upon receipt / Derived (Corrected) temperature upon receipt %Solid Snap-Cup ID: NA

6.0 / 6.0 °C NA / NA °C NA / NA °C NA / NA °C

Method: ☑ Temperature Blank ☐ Against Bottles IR Gun ID: 6 IR Gun Correction Factor: 0 °C

Method of coolant: ☑ Wet Ice ☐ Ice Packs ☐ Dry Ice ☐ None

☐ Yes	☐ No	☑ NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).
☐ Yes	☐ No	☑ NA	4. Is the commercial courier's packing slip attached to this form?
☑ Yes	☐ No		5. Were proper custody procedures (relinquished/received) followed?
☑ Yes	☐ No		6. Were sample IDs listed on the COC?
☑ Yes	☐ No		7. Were sample IDs listed on all sample containers?
☑ Yes	☐ No		8. Was collection date & time listed on the COC?
☑ Yes	☐ No		9. Was collection date & time listed on all sample containers?
☑ Yes	☐ No		10. Did all container label information (ID, date, time) agree with the COC?
☑ Yes	☐ No		11. Were tests to be performed listed on the COC?
☑ Yes	☐ No		12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)?
☑ Yes	☐ No		13. Was adequate sample volume available?
☑ Yes	☐ No		14. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
☐ Yes	☑ No		15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
☐ Yes	☑ No	☐ NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (¼"or 6mm in diameter) in any of the VOA vials?
☐ Yes	☐ No	☑ NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?
☐ Yes	☐ No	☑ NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
☐ Yes	☐ No	☑ NA	19. Were all applicable NH_3/TKN/cyanide/phenol/625.1/608.3 (< 0.5mg/L) samples free of residual chlorine?
☐ Yes	☐ No	☑ NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc…) correctly transcribed from the COC into the comment section in LIMS?
☑ Yes	☐ No		21. Was the quote number listed on the container label? If yes, Quote # 24503

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) NA _____ were received incorrectly preserved and were adjusted accordingly in sample receiving with NA mL of circle one: H2SO4, HNO3, HCl, NaOH using SR # NA.
Time of preservation NA. If more than one preservative is needed, please note in the comments below.

Sample(s) NA _____ were received with bubbles >6 mm in diameter.

Samples(s) NA _____ were received with TRC > 0.5 mg/L (If #19 is *no*) and were adjusted accordingly in sample receiving with sodium thiosulfate ($Na_2S_2O_3$) with Shealy ID: NA.

SR barcode labels applied by: MEH Date: 3/27/2021

Comments:

LELAP CERTIFICATE NUMBER: 01955
DOD-ELAP ACCREDITATION NUMBER: 74960

ANALYTICAL RESULTS

PERFORMED BY

Pace Analytical Gulf Coast
7979 Innovation Park Dr.
Baton Rouge, LA 70820
(225) 769-4900

Report Date 04/08/2021

Report # 221033046

Project WC27001 WPH Clemson

Deliver To	***Additional Recipients***
Lucas Odom Pace Analytical Services South Carolina 106 Vantage Point Drive West Columbia, SC 29172 803 791 9700	NONE

Laboratory Endorsement

Sample analysis was performed in accordance with approved methodologies provided by the Environmental Protection Agency or other recognized agencies. The samples and their corresponding extracts will be maintained for a period of 30 days unless otherwise arranged. Following this retention period the samples will be disposed in accordance with Pace Gulf Coast's Standard Operating Procedures.

Common Abbreviations that may be Utilized in this Report

ND	Indicates the result was Not Detected at the specified reporting limit
NO	Indicates the sample did not ignite when preliminary test performed for EPA Method 1030
DO	Indicates the result was Diluted Out
MI	Indicates the result was subject to Matrix Interference
TNTC	Indicates the result was Too Numerous To Count
SUBC	Indicates the analysis was Sub-Contracted
FLD	Indicates the analysis was performed in the Field
DL	Detection Limit
LOD	Limit of Detection
LOQ	Limit of Quantitation
RE	Re-analysis
CF	HPLC or GC Confirmation
00:01	Reported as a time equivalent to 12:00 AM

Reporting Flags that may be Utilized in this Report

J or I	Indicates the result is between the MDL and LOQ
J	DOD flag on analyte in the parent sample for MS/MSD outside acceptance criteria
U	Indicates the compound was analyzed for but not detected
B or V	Indicates the analyte was detected in the associated Method Blank
Q	Indicates a non-compliant QC Result (See Q Flag Application Report)
*****	Indicates a non-compliant or not applicable QC recovery or RPD – see narrative
E	Organics - The result is estimated because it exceeded the instrument calibration range
E	Metals - % diference for the serial dilution is > 10%
L	Reporting Limits adjusted to meet risk-based limit.
P	RPD between primary and confirmation result is greater than 40
DL	Diluted analysis – when appended to Client Sample ID

Sample receipt at Pace Gulf Coast is documented through the attached chain of custody. In accordance with NELAC, this report shall be reproduced only in full and with the written permission of Pace Gulf Coast. The results contained within this report relate only to the samples reported. The documented results are presented within this report.

This report pertains only to the samples listed in the Report Sample Summary and should be retained as a permanent record thereof. The results contained within this report are intended for the use of the client. Any unauthorized use of the information contained in this report is prohibited.

I certify that this data package is in compliance with The NELAC Institute (TNI) Standard 2009 and terms and conditions of the contract and Statement of Work both technically and for completeness, for other than the conditions in the case narrative. Release of the data contained in this hardcopy data package and in the computer readable data submitted has been authorized by the Quality Assurance Manager or his/her designee, as verified by the following signature.

Estimated uncertainty of measurement is available upon request. This report is in compliance with the DOD QSM as specified in the contract if applicable.

Authorized Signature
Pace Gulf Coast Report 221033046

Certifications

Certification	Certification Number
DOD ELAP	74960
Alabama	01955
Arkansas	88-0655
Colorado	01955
Delaware	01955
Florida	E87854
Georgia	01955
Hawaii	01955
Idaho	01955
Illinois	200048
Indiana	01955
Kansas	E-10354
Kentucky	95
Louisiana	01955
Maryland	01955
Massachusetts	01955
Michigan	01955
Mississippi	01955
Missouri	01955
Montana	N/A
Nebraska	01955
New Mexico	01955
North Carolina	618
North Dakota	R-195
Oklahoma	9403
South Carolina	73006001
South Dakota	01955
Tennessee	01955
Texas	T104704178
Vermont	01955
Virginia	460215
Washington	C929
USDA Soil Permit	P330-16-00234

Case Narrative

Client: Pace Analytical Services South Carolina **Report:** 221033046

Pace Analytical Gulf Coast received and analyzed the sample(s) listed
on the Report Sample Summary page of this report. Receipt of the sample(s) is documented
by the attached chain of custody. This applies only to the sample(s) listed in this report.
No sample integrity or quality control exceptions were identified unless noted below.

No anomalies were found for the analyzed sample(s).

Sample Summary

LAB ID	Client ID	Matrix	Collect Date	Receive Date
22103304601	RMW-02	Water	03/24/2021 11:30	03/30/2021 10:11
22103304602	MG-06B	Water	03/24/2021 14:20	03/30/2021 10:11
22103304603	MG-06B-MS	Water	03/24/2021 14:20	03/30/2021 10:11
22103304604	MG-06B-MSD	Water	03/24/2021 14:20	03/30/2021 10:11
22103304605	MG-06A	Water	03/24/2021 14:45	03/30/2021 10:11
22103304606	MG-06	Water	03/24/2021 15:15	03/30/2021 10:11
22103304607	RMW-24	Water	03/24/2021 16:50	03/30/2021 10:11
22103304608	RMW-01	Water	03/25/2021 10:35	03/30/2021 10:11
22103304609	RMW-18	Water	03/25/2021 11:20	03/30/2021 10:11
22103304610	RMW-11	Water	03/25/2021 12:25	03/30/2021 10:11

Detect Summary

LAB ID	Client ID	Method	Parameter	Result	Units
22103304601	RMW-02	AM20GAX	Ethene	0.18J	ug/L
22103304601	RMW-02	AM20GAX	Methane	170	ug/L
22103304606	MG-06	AM20GAX	Methane	70	ug/L
22103304607	RMW-24	AM20GAX	Ethane	0.16J	ug/L
22103304607	RMW-24	AM20GAX	Ethene	0.18J	ug/L
22103304607	RMW-24	AM20GAX	Methane	24	ug/L
22103304608	RMW-01	AM20GAX	Methane	16	ug/L
22103304609	RMW-18	AM20GAX	Ethane	3.5	ug/L
22103304609	RMW-18	AM20GAX	Ethene	0.18J	ug/L
22103304609	RMW-18	AM20GAX	Methane	1600	ug/L
22103304610	RMW-11	AM20GAX	Methane	2.6J	ug/L

Sample Results

RMW-02

Collect Date	03/24/2021 11:30	LAB ID	22103304601
Receive Date	03/30/2021 10:11	Matrix	Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/06/2021 11:07	JCK2	707796

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	Ethane	0.075U	0.075	1.0	ug/L
74-85-1	**Ethene**	**0.18J**	**0.12**	**1.0**	**ug/L**
74-82-8	**Methane**	**170**	**2.5**	**5.0**	**ug/L**

MG-06B

Collect Date	03/24/2021 14:20	LAB ID	22103304602
Receive Date	03/30/2021 10:11	Matrix	Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/06/2021 11:19	JCK2	707796

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	Ethane	0.075U	0.075	1.0	ug/L
74-85-1	Ethene	0.12U	0.12	1.0	ug/L
74-82-8	Methane	2.5U	2.5	5.0	ug/L

MG-06B-MS

Collect Date	03/24/2021 14:20	LAB ID	22103304603
Receive Date	03/30/2021 10:11	Matrix	Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/06/2021 11:32	JCK2	707796

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	**Ethane**	**89**	**0.075**	**1.0**	**ug/L**
74-85-1	**Ethene**	**130**	**0.12**	**1.0**	**ug/L**
74-82-8	**Methane**	**420**	**2.5**	**5.0**	**ug/L**

MG-06B-MSD

Collect Date	03/24/2021 14:20	LAB ID	22103304604
Receive Date	03/30/2021 10:11	Matrix	Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/06/2021 11:44	JCK2	707796

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	**Ethane**	**88**	**0.075**	**1.0**	**ug/L**
74-85-1	**Ethene**	**130**	**0.12**	**1.0**	**ug/L**
74-82-8	**Methane**	**410**	**2.5**	**5.0**	**ug/L**

Sample Results

MG-06A

Collect Date	03/24/2021 14:45	LAB ID	22103304605
Receive Date	03/30/2021 10:11	Matrix	Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/06/2021 11:55	JCK2	707796

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	Ethane	0.075U	0.075	1.0	ug/L
74-85-1	Ethene	0.12U	0.12	1.0	ug/L
74-82-8	Methane	2.5U	2.5	5.0	ug/L

MG-06

Collect Date	03/24/2021 15:15	LAB ID	22103304606
Receive Date	03/30/2021 10:11	Matrix	Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/06/2021 12:07	JCK2	707796

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	Ethane	0.075U	0.075	1.0	ug/L
74-85-1	Ethene	0.12U	0.12	1.0	ug/L
74-82-8	**Methane**	**70**	**2.5**	**5.0**	**ug/L**

RMW-24

Collect Date	03/24/2021 16:50	LAB ID	22103304607
Receive Date	03/30/2021 10:11	Matrix	Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/06/2021 12:20	JCK2	707796

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	**Ethane**	**0.16J**	**0.075**	**1.0**	**ug/L**
74-85-1	**Ethene**	**0.18J**	**0.12**	**1.0**	**ug/L**
74-82-8	**Methane**	**24**	**2.5**	**5.0**	**ug/L**

RMW-01

Collect Date	03/25/2021 10:35	LAB ID	22103304608
Receive Date	03/30/2021 10:11	Matrix	Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/06/2021 12:31	JCK2	707796

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	Ethane	0.075U	0.075	1.0	ug/L
74-85-1	Ethene	0.12U	0.12	1.0	ug/L
74-82-8	**Methane**	**16**	**2.5**	**5.0**	**ug/L**

Sample Results

RMW-18

Collect Date	03/25/2021 11:20	**LAB ID**	22103304609
Receive Date	03/30/2021 10:11	**Matrix**	Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/06/2021 12:43	JCK2	707796

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	**Ethane**	**3.5**	**0.075**	**1.0**	**ug/L**
74-85-1	**Ethene**	**0.18J**	**0.12**	**1.0**	**ug/L**
74-82-8	**Methane**	**1600**	**2.5**	**5.0**	**ug/L**

RMW-11

Collect Date	03/25/2021 12:25	**LAB ID**	22103304610
Receive Date	03/30/2021 10:11	**Matrix**	Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/06/2021 12:55	JCK2	707796

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	Ethane	0.075U	0.075	1.0	ug/L
74-85-1	Ethene	0.12U	0.12	1.0	ug/L
74-82-8	**Methane**	**2.6J**	**2.5**	**5.0**	**ug/L**

General Chromatography QC Summary

Analytical Batch 707796	Client ID	MB707796		LCS707796				LCSD707796				
	LAB ID	2166317		2166318				2166319				
	Sample Type	MB		LCS				LCSD				
	Prep Date											
	Analysis Date	04/06/21 10:07		04/06/21 09:20				04/06/21 09:31				
	Matrix	Water		Water				Water				
AM20GAX		Units Result	ug/L DL	Spike Added	Result	%R	Control Limits%R	Spike Added	Result	%R	RPD	RPD Limit
Ethane	74-84-0	0.075U	0.075	100	100	99	70 - 130	100	100	102	3	20
Ethene	74-85-1	0.12U	0.12	140	140	101	70 - 130	140	150	103	2	20
Methane	74-82-8	2.5U	2.5	490	470	96	70 - 130	490	480	97	2	20

Analytical Batch 707796	Client ID	MG-06B		MG-06B-MS				MG-06B-MSD				
	LAB ID	22103304602		22103304603				22103304604				
	Sample Type	SAMPLE		MS				MSD				
	Prep Date	NA										
	Analysis Date	04/06/2021 11:19		04/06/21 11:32				04/06/21 11:44				
	Matrix	Water		Water				Water				
AM20GAX		Units Result	ug/L DL	Spike Added	Result	%R	Control Limits%R	Spike Added	Result	%R	RPD	RPD Limit
Ethane	74-84-0	0.0	0.075	100	89	88	70 - 130	100	88	87	2	20
Ethene	74-85-1	0.0	0.12	140	130	91	70 - 130	140	130	89	2	20
Methane	74-82-8	0.0	2.5	490	420	86	70 - 130	490	410	84	2	20

Chain of Custody

Pace Analytical

Workorder: WC27001 Workorder Name: WPH Clemson Owner Received Date: 3/26/2021 Results Requested By: 4/8/2021

Report To:	Subcontract To:
Lucas Odom	Project # 300688.0000.0000.00011
Pace Analytical	
106 Vantage Point Drive	Pace Gulf Coast
Columbia SC, 29223	7979 Innovation Park Drive,
803-227-2704	Baton Rouge, LA 70820
lucas.odom@pacelabs.com	

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers: TSP	Requested Analysis: Dissolved Gasses (MEE)	LAB USE ONLY
1	RMW-02	G	03/24/21 @ 1130	WC27001-002				1
2	MG-06B (MS/MSD)	G	03/24/21 @ 1420	WC27001-003		x	X	2
3	MG-06A	G	03/24/21 @ 1445	WC27001-004		x	x	3
4	MG-06	G	03/24/21 @ 1515	WC27001-005		x	x	4
5	RMW-24	G	03/24/21 @ 1650	WC27001-006		x	x	5
6	RMW-01	G	03/25/21 @ 1035	WC27001-007		x	x	6
7	RMW-18	G	03/25/21 @ 1120	WC27001-008		x	x	7
8	RMW-11	G	03/25/21 @ 1225	WC27001-009		x	x	8
9								
10								

Transfers	Released By	Date/Time	Reveived By	Date/Time	Comments
1	KSC	3/26/21 1800			
2	fedex	3/30/21 1011	MARK Jenkins	3/30/21 1011	1663 3765 2702 60CFM 0.9
3					

Cooler Temperature on Receipt _____ °C	Custody Seal Y or N	Received on Ice Y or N	Sample Intact Y or N

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC

This chain of custody is considered complete as is since this information is available in the owner laboratory

Client ID: Shealy Envir - Pace Analytical Services South Carolina

SDG: 221033046

PM: RWe

Friday, June 17, 2016 11:01:34 AM FMT-ALL-C-002rev.00

SAMPLE RECEIVING CHECKLIST

SAMPLE DELIVERY GROUP 221033046	
Client **PM** RWe Shealy Envir - Pace Analytical Services South Carolina	**Transport Method** FEDEX
Profile Number 290459	**Received By** McCune, Dodie N.
Line Item(s) 1 - MEE	**Receive Date(s)** 03/30/21

CHECKLIST	YES	NO
Samples received with proper thermal preservation?	☑	☐
Radioactivity is <1600 cpm? If no, record cpm value in notes section.	☑	☐
COC relinquished and complete (including sampleIDs, collect times, and sampler)?	☑	☐
All containers received in good condition and within hold time?	☑	☐
All sample labels and containers received match the chain of custody?	☑	☐
Preservative added to any containers?	☐	☑
If received, was headspace for VOC water containers < 6mm?	☑	☐
Samples collected in containers provided by Pace Gulf Coast?	☑	☐

COOLERS

Airbill	Thermometer ID: E26	Temp °C
166334652706		0.9

DISCREPANCIES

None

LAB PRESERVATIONS

None

NOTES

Revision 1.6

Page 1 of 1

LELAP CERTIFICATE NUMBER: 01955
DOD-ELAP ACCREDITATION NUMBER: 74960

ANALYTICAL RESULTS

PERFORMED BY

Pace Analytical Gulf Coast
7979 Innovation Park Dr.
Baton Rouge, LA 70820
(225) 769-4900

Report Date 04/08/2021

Report # 221033046

Project WC27001 WPH Clemson

Deliver To	***Additional Recipients***
Lucas Odom Pace Analytical Services South Carolina 106 Vantage Point Drive West Columbia, SC 29172 803 791 9700	NONE

Laboratory Data Quality Review Notes

Project Name: WPH-Clemson, SC

Project Number: 300688.0000.0000 Phase 11

Lab Report: **WC27001** Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.), West Columbia, SC; subcontracted report: **221033046** Pace Analytical Gulf Coast, Baton Rouge, LA

Samples and Analyses: Eight groundwater samples, collected 24-Mar-2021 and 25-Mar-2021, and analyzed for volatile organic compounds (VOCs), bromide, and sulfate; one trip blank (TB), analyzed for VOCs only. Analysis of the groundwater samples for dissolved hydrocarbon gases (ethane, ethene, methane) was subcontracted and was reported separately (as noted above).

Chain of Custody, Sample Temperature, Sample Preservation: Chain of custody (COC) forms were signed; cooler temperature was ≤6 ^{o}C upon arrival at each laboratory; samples were preserved properly. No sample receipt anomalies were noted.

Holding Time: Sample analyses were performed within acceptable holding times.

Surrogates: VOC surrogate recoveries were within laboratory quality control (QC) limits.

Method Blank: Laboratory method blanks were appropriately associated with all analyses. The following target analytes were detected in the laboratory method blanks:

- Carbon disulfide (0.44 J µg/L) and 1,2,4-trichlorobenzene (0.64 J µg/L) were detected in one of the VOCs laboratory method blanks, associated only with the TB in this sample set. Qualification was not required on this basis since these analytes were ND in the TB.
- 1,2,4-Trichlorobenzene (0.42 J µg/L) was detected in another of the VOCs laboratory method blanks, associated with all of the groundwater samples. Qualification was not required on this basis since this analyte was ND in the associated samples.

Trip Blank: No target analytes were detected in the TB (TBLK-21104) (analyzed for VOCs only).

Field Blank: A field blank was not collected with these samples.

Equipment Rinse Blank: An equipment rinse blank was not collected with these samples.

LCS/LCSD: LCS analyses were performed appropriately for all analyses; some analytical or preparation batches also included analysis of LCSD samples. The LCS and LCSD recoveries and LCS/LCSD relative percent differences (RPDs) were within the laboratory QC limits.

MS/MSD: MS/MSD analyses were performed for the bromide, sulfate, VOCs, and dissolved hydrocarbon gases using sample MG-06B as the associated parent sample. The MS and MSD recoveries and MS/MSD RPDs were within QC criteria, with the following exception:

- The MSD recovery for tetrachloroethene in sample MG-06B was above the QC limits; however, the parent sample concentration (530 µg/L) was over 4× the spike concentration (50 µg/L). In this situation (parent > 4× spike) the recovery results are considered unreliable and are not usable for sample qualification. Np validation action was taken on this basis.

Duplicates: No laboratory duplicates were included with these analyses. A field duplicate was not collected with this sample set.

Dilutions: The following sample analyses were performed with dilution, as indicated:

RMW-02	VOCs (5×)
MG-06B	VOCs (10×) (tetrachloroethene only)
RMW-18	VOCs (5×) (cis-1,2-dishloroethene and tetrachloroethene only)

The laboratory reports did not indicate the dilution reason(s), but the dilutions appear to have been performed in order to bring the concentrations of target analytes into the appropriate instrument calibration range. With the exception of MG-06B and RMW-18, the ND results in the noted VOC analyses were associated with correspondingly elevated detection limit (DL) and LOQ values.

No validation qualifiers were applied in this review.

Data Reviewer: Amy Bass; TRC Environmental Corporation; 28-Apr-2021

Laboratory Endorsement

Sample analysis was performed in accordance with approved methodologies provided by the Environmental Protection Agency or other recognized agencies. The samples and their corresponding extracts will be maintained for a period of 30 days unless otherwise arranged. Following this retention period the samples will be disposed in accordance with Pace Gulf Coast's Standard Operating Procedures.

Common Abbreviations that may be Utilized in this Report

ND	Indicates the result was Not Detected at the specified reporting limit
NO	Indicates the sample did not ignite when preliminary test performed for EPA Method 1030
DO	Indicates the result was Diluted Out
MI	Indicates the result was subject to Matrix Interference
TNTC	Indicates the result was Too Numerous To Count
SUBC	Indicates the analysis was Sub-Contracted
FLD	Indicates the analysis was performed in the Field
DL	Detection Limit
LOD	Limit of Detection
LOQ	Limit of Quantitation
RE	Re-analysis
CF	HPLC or GC Confirmation
00:01	Reported as a time equivalent to 12:00 AM

Reporting Flags that may be Utilized in this Report

J or I	Indicates the result is between the MDL and LOQ
J	DOD flag on analyte in the parent sample for MS/MSD outside acceptance criteria
U	Indicates the compound was analyzed for but not detected
B or V	Indicates the analyte was detected in the associated Method Blank
Q	Indicates a non-compliant QC Result (See Q Flag Application Report)
*****	Indicates a non-compliant or not applicable QC recovery or RPD – see narrative
E	Organics - The result is estimated because it exceeded the instrument calibration range
E	Metals - % diference for the serial dilution is > 10%
L	Reporting Limits adjusted to meet risk-based limit.
P	RPD between primary and confirmation result is greater than 40
DL	Diluted analysis – when appended to Client Sample ID

Sample receipt at Pace Gulf Coast is documented through the attached chain of custody. In accordance with NELAC, this report shall be reproduced only in full and with the written permission of Pace Gulf Coast. The results contained within this report relate only to the samples reported. The documented results are presented within this report.

This report pertains only to the samples listed in the Report Sample Summary and should be retained as a permanent record thereof. The results contained within this report are intended for the use of the client. Any unauthorized use of the information contained in this report is prohibited.

I certify that this data package is in compliance with The NELAC Institute (TNI) Standard 2009 and terms and conditions of the contract and Statement of Work both technically and for completeness, for other than the conditions in the case narrative. Release of the data contained in this hardcopy data package and in the computer readable data submitted has been authorized by the Quality Assurance Manager or his/her designee, as verified by the following signature.

Estimated uncertainty of measurement is available upon request. This report is in compliance with the DOD QSM as specified in the contract if applicable.

Authorized Signature
Pace Gulf Coast Report 221033046

Certifications

Certification	Certification Number
DOD ELAP	74960
Alabama	01955
Arkansas	88-0655
Colorado	01955
Delaware	01955
Florida	E87854
Georgia	01955
Hawaii	01955
Idaho	01955
Illinois	200048
Indiana	01955
Kansas	E-10354
Kentucky	95
Louisiana	01955
Maryland	01955
Massachusetts	01955
Michigan	01955
Mississippi	01955
Missouri	01955
Montana	N/A
Nebraska	01955
New Mexico	01955
North Carolina	618
North Dakota	R-195
Oklahoma	9403
South Carolina	73006001
South Dakota	01955
Tennessee	01955
Texas	T104704178
Vermont	01955
Virginia	460215
Washington	C929
USDA Soil Permit	P330-16-00234

Case Narrative

Client: Pace Analytical Services South Carolina **Report:** 221033046

Pace Analytical Gulf Coast received and analyzed the sample(s) listed
on the Report Sample Summary page of this report. Receipt of the sample(s) is documented
by the attached chain of custody. This applies only to the sample(s) listed in this report.
No sample integrity or quality control exceptions were identified unless noted below.

No anomalies were found for the analyzed sample(s).

Sample Summary

LAB ID	Client ID	Matrix	Collect Date	Receive Date
22103304601	RMW-02	Water	03/24/2021 11:30	03/30/2021 10:11
22103304602	MG-06B	Water	03/24/2021 14:20	03/30/2021 10:11
22103304603	MG-06B-MS	Water	03/24/2021 14:20	03/30/2021 10:11
22103304604	MG-06B-MSD	Water	03/24/2021 14:20	03/30/2021 10:11
22103304605	MG-06A	Water	03/24/2021 14:45	03/30/2021 10:11
22103304606	MG-06	Water	03/24/2021 15:15	03/30/2021 10:11
22103304607	RMW-24	Water	03/24/2021 16:50	03/30/2021 10:11
22103304608	RMW-01	Water	03/25/2021 10:35	03/30/2021 10:11
22103304609	RMW-18	Water	03/25/2021 11:20	03/30/2021 10:11
22103304610	RMW-11	Water	03/25/2021 12:25	03/30/2021 10:11

Detect Summary

LAB ID	Client ID	Method	Parameter	Result	Units
22103304601	RMW-02	AM20GAX	Ethene	0.18J	ug/L
22103304601	RMW-02	AM20GAX	Methane	170	ug/L
22103304606	MG-06	AM20GAX	Methane	70	ug/L
22103304607	RMW-24	AM20GAX	Ethane	0.16J	ug/L
22103304607	RMW-24	AM20GAX	Ethene	0.18J	ug/L
22103304607	RMW-24	AM20GAX	Methane	24	ug/L
22103304608	RMW-01	AM20GAX	Methane	16	ug/L
22103304609	RMW-18	AM20GAX	Ethane	3.5	ug/L
22103304609	RMW-18	AM20GAX	Ethene	0.18J	ug/L
22103304609	RMW-18	AM20GAX	Methane	1600	ug/L
22103304610	RMW-11	AM20GAX	Methane	2.6J	ug/L

Sample Results

RMW-02

Collect Date	03/24/2021 11:30	LAB ID	22103304601
Receive Date	03/30/2021 10:11	Matrix	Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/06/2021 11:07	JCK2	707796

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	Ethane	0.075U	0.075	1.0	ug/L
74-85-1	**Ethene**	**0.18J**	**0.12**	**1.0**	**ug/L**
74-82-8	**Methane**	**170**	**2.5**	**5.0**	**ug/L**

MG-06B

Collect Date	03/24/2021 14:20	LAB ID	22103304602
Receive Date	03/30/2021 10:11	Matrix	Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/06/2021 11:19	JCK2	707796

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	Ethane	0.075U	0.075	1.0	ug/L
74-85-1	Ethene	0.12U	0.12	1.0	ug/L
74-82-8	Methane	2.5U	2.5	5.0	ug/L

MG-06B-MS

Collect Date	03/24/2021 14:20	LAB ID	22103304603
Receive Date	03/30/2021 10:11	Matrix	Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/06/2021 11:32	JCK2	707796

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	**Ethane**	**89**	**0.075**	**1.0**	**ug/L**
74-85-1	**Ethene**	**130**	**0.12**	**1.0**	**ug/L**
74-82-8	**Methane**	**420**	**2.5**	**5.0**	**ug/L**

MG-06B-MSD

Collect Date	03/24/2021 14:20	LAB ID	22103304604
Receive Date	03/30/2021 10:11	Matrix	Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/06/2021 11:44	JCK2	707796

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	**Ethane**	**88**	**0.075**	**1.0**	**ug/L**
74-85-1	**Ethene**	**130**	**0.12**	**1.0**	**ug/L**
74-82-8	**Methane**	**410**	**2.5**	**5.0**	**ug/L**

Sample Results

MG-06A

Collect Date	03/24/2021 14:45	LAB ID	22103304605
Receive Date	03/30/2021 10:11	Matrix	Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/06/2021 11:55	JCK2	707796

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	Ethane	0.075U	0.075	1.0	ug/L
74-85-1	Ethene	0.12U	0.12	1.0	ug/L
74-82-8	Methane	2.5U	2.5	5.0	ug/L

MG-06

Collect Date	03/24/2021 15:15	LAB ID	22103304606
Receive Date	03/30/2021 10:11	Matrix	Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/06/2021 12:07	JCK2	707796

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	Ethane	0.075U	0.075	1.0	ug/L
74-85-1	Ethene	0.12U	0.12	1.0	ug/L
74-82-8	**Methane**	**70**	**2.5**	**5.0**	**ug/L**

RMW-24

Collect Date	03/24/2021 16:50	LAB ID	22103304607
Receive Date	03/30/2021 10:11	Matrix	Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/06/2021 12:20	JCK2	707796

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	**Ethane**	**0.16J**	**0.075**	**1.0**	**ug/L**
74-85-1	**Ethene**	**0.18J**	**0.12**	**1.0**	**ug/L**
74-82-8	**Methane**	**24**	**2.5**	**5.0**	**ug/L**

RMW-01

Collect Date	03/25/2021 10:35	LAB ID	22103304608
Receive Date	03/30/2021 10:11	Matrix	Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/06/2021 12:31	JCK2	707796

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	Ethane	0.075U	0.075	1.0	ug/L
74-85-1	Ethene	0.12U	0.12	1.0	ug/L
74-82-8	**Methane**	**16**	**2.5**	**5.0**	**ug/L**

Sample Results

RMW-18

Collect Date	03/25/2021 11:20	**LAB ID**	22103304609
Receive Date	03/30/2021 10:11	**Matrix**	Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/06/2021 12:43	JCK2	707796

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	**Ethane**	**3.5**	**0.075**	**1.0**	**ug/L**
74-85-1	**Ethene**	**0.18J**	**0.12**	**1.0**	**ug/L**
74-82-8	**Methane**	**1600**	**2.5**	**5.0**	**ug/L**

RMW-11

Collect Date	03/25/2021 12:25	**LAB ID**	22103304610
Receive Date	03/30/2021 10:11	**Matrix**	Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/06/2021 12:55	JCK2	707796

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	Ethane	0.075U	0.075	1.0	ug/L
74-85-1	Ethene	0.12U	0.12	1.0	ug/L
74-82-8	**Methane**	**2.6J**	**2.5**	**5.0**	**ug/L**

General Chromatography QC Summary

Analytical Batch 707796	Client ID	MB707796		LCS707796				LCSD707796				
	LAB ID	2166317		2166318				2166319				
	Sample Type	MB		LCS				LCSD				
	Prep Date											
	Analysis Date	04/06/21 10:07		04/06/21 09:20				04/06/21 09:31				
	Matrix	Water		Water				Water				
AM20GAX		Units Result	ug/L DL	Spike Added	Result	%R	Control Limits%R	Spike Added	Result	%R	RPD	RPD Limit
Ethane	74-84-0	0.075U	0.075	100	100	99	70 - 130	100	100	102	3	20
Ethene	74-85-1	0.12U	0.12	140	140	101	70 - 130	140	150	103	2	20
Methane	74-82-8	2.5U	2.5	490	470	96	70 - 130	490	480	97	2	20

Analytical Batch 707796	Client ID	MG-06B		MG-06B-MS				MG-06B-MSD				
	LAB ID	22103304602		22103304603				22103304604				
	Sample Type	SAMPLE		MS				MSD				
	Prep Date	NA										
	Analysis Date	04/06/2021 11:19		04/06/21 11:32				04/06/21 11:44				
	Matrix	Water		Water				Water				
AM20GAX		Units Result	ug/L DL	Spike Added	Result	%R	Control Limits%R	Spike Added	Result	%R	RPD	RPD Limit
Ethane	74-84-0	0.0	0.075	100	89	88	70 - 130	100	88	87	2	20
Ethene	74-85-1	0.0	0.12	140	130	91	70 - 130	140	130	89	2	20
Methane	74-82-8	0.0	2.5	490	420	86	70 - 130	490	410	84	2	20

Chain of Custody

Pace Analytical

Workorder: WC27001 Workorder Name: WPH Clemson Owner Received Date: 3/26/2021 Results Requested By: 4/8/2021

Report To:	Subcontract To:
Lucas Odom	Project # 300688.0000.0000.00011
Pace Analytical	
106 Vantage Point Drive	Pace Gulf Coast
Columbia SC, 29223	7979 Innovation Park Drive,
803-227-2704	Baton Rouge, LA 70820
lucas.odom@pacelabs.com	

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers: TSP	Requested Analysis: Dissolved Gasses (MEE)	LAB USE ONLY
1	RMW-02	G	03/24/21 @ 1130	WC27001-002				1
2	MG-06B (MS/MSD)	G	03/24/21 @ 1420	WC27001-003		x	X	2
3	MG-06A	G	03/24/21 @ 1445	WC27001-004		x	x	3
4	MG-06	G	03/24/21 @ 1515	WC27001-005		x	x	4
5	RMW-24	G	03/24/21 @ 1650	WC27001-006		x	x	5
6	RMW-01	G	03/25/21 @ 1035	WC27001-007		x	x	6
7	RMW-18	G	03/25/21 @ 1120	WC27001-008		x	x	7
8	RMW-11	G	03/25/21 @ 1225	WC27001-009		x	x	8
9								
10								

Transfers	Released By	Date/Time	Reveived By	Date/Time	Comments
1	KSC	3/26/21 1800			
2	fedex	3/30/21 1011	MARK Jenkins	3/30/21 1011	1663 3765 2702 60CFM 0.9
3					

Cooler Temperature on Receipt _____ °C	Custody Seal Y or N	Received on Ice Y or N	Sample Intact Y or N

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC

This chain of custody is considered complete as is since this information is available in the owner laboratory

Client ID: Shealy Envir - Pace Analytical Services South Carolina

SDG: 221033046

PM: RWe

Friday, June 17, 2016 11:01:34 AM FMT-ALL-C-002rev.00

SAMPLE RECEIVING CHECKLIST

SAMPLE DELIVERY GROUP 221033046	
Client **PM** RWe Shealy Envir - Pace Analytical Services South Carolina	**Transport Method** FEDEX
Profile Number 290459	**Received By** McCune, Dodie N.
Line Item(s) 1 - MEE	**Receive Date(s)** 03/30/21

CHECKLIST	YES	NO
Samples received with proper thermal preservation?	☑	☐
Radioactivity is <1600 cpm? If no, record cpm value in notes section.	☑	☐
COC relinquished and complete (including sampleIDs, collect times, and sampler)?	☑	☐
All containers received in good condition and within hold time?	☑	☐
All sample labels and containers received match the chain of custody?	☑	☐
Preservative added to any containers?	☐	☑
If received, was headspace for VOC water containers < 6mm?	☑	☐
Samples collected in containers provided by Pace Gulf Coast?	☑	☐

COOLERS

Airbill	Thermometer ID: E26	Temp °C
166334652706		0.9

DISCREPANCIES

None

LAB PRESERVATIONS

None

NOTES

Report of Analysis

TRC Companies, Inc.
50 International Dr.
Suite 150
Greenville, SC 29615
Attention: Lisa Clark

Project Name: WPH Clemson

Project Number: 300688.0000.0000.00012

Lot Number:**WC29029**

Date Completed:04/08/2021

04/08/2021 3:29 PM
Approved and released by:
Project Manager II: **Lucas Odom**

Pace Analytical Services, LLC (*formerly Shealy Environmental Services, Inc.*)
106 Vantage Point Drive West Columbia, SC 29172
Tel: 803-791-9700 Fax: 803-791-9111 www.pacelabs.com

Laboratory Data Quality Review Notes

Project Name: WPH-Clemson, SC

Project Number: 300688.0000.0000 Phase 11

Lab Report: **WC29029** Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.), West Columbia, SC; subcontracted report: **221033158** Pace Analytical Gulf Coast, Baton Rouge, LA

Samples and Analyses: Twelve groundwater samples (plus one field duplicate), collected 25-Mar and 26-Mar-2021, and analyzed for volatile organic compounds (VOCs), bromide, and sulfate; one trip blank (TB), analyzed for VOCs only. Analysis of the groundwater samples for dissolved hydrocarbon gases (ethane, ethene, methane) was subcontracted and was reported separately (as noted above).

Chain of Custody, Sample Temperature, Sample Preservation: Chain of custody (COC) forms were signed; cooler temperature was ≤6 ^{o}C upon arrival at each laboratory; samples were preserved properly. No sample receipt anomalies were noted.

Holding Time: Sample analyses were performed within acceptable holding times.

Surrogates: VOC surrogate recoveries were within laboratory quality control (QC) limits.

Method Blank: Laboratory method blanks were appropriately associated with all analyses. The following target analytes were detected in the laboratory method blanks:

- Carbon disulfide (0.44 J µg/L) and 1,2,4-trichlorobenzene (0.64 J µg/L) were detected in one VOCs laboratory method blank, associated only with the TB sample**.** Qualification was not required since these analytes were non-detect (ND) in the TB.

Trip Blank: No target analytes were detected in the TB (TBLK-21111).

Field Blank: A field blank was not collected with these samples.

Equipment Rinse Blank: An equipment rinse blank was not collected with these samples.

LCS/LCSD: LCS analyses were performed appropriately for all analyses; some analytical or preparation batches also included analysis of LCSD samples. The LCS and LCSD recoveries and LCS/LCSD relative percent differences (RPDs) were within the laboratory QC limits.

MS/MSD: MS/MSD analyses were performed for bromide, sulfate, and VOCs using sample DPT-20B as the associated parent sample, and a second set of MS/MSD analyses were performed for bromide and sulfate using sample DPT-21. The MS and MSD recoveries and MS/MSD RPDs were within QC criteria, with the following exception:

- The MSD recovery for sulfate in sample DPT-21 was slightly below the QC limits. **Therefore, the positive results for sulfate were qualified "j-" (estimated, with a potential low bias), and the ND results were qualified "uj" (estimated LOQ).**

Duplicates: No laboratory duplicates were included with these analyses. A field duplicate (DU-21105) was collected for sample DPT-21B. Duplicate RPDs were calculated for analytes detected above 5× the LOQ in both samples; the absolute difference (AbsD) was used to evaluate analytes detected below 5× the LOQ in one or both samples. RPD values were ≤ 30%, and AbsD values were ≤LOQ, with the following exceptions:

- The calculated field duplicate RPDs for ethane and methane in samples DPT-21B and DU-21105 (33% and 38%, respectively) exceeded the QC limit of 30%. **Therefore, the DPT-21B and DU-21105 results for ethane and methane were qualified "j" (estimated).**

Dilutions: The following sample analyses were performed with dilution, as indicated:

DPT-23A	VOCs (5×)
DPT-22	VOCs (5×)
DPT-22A	VOCs (20×)
DPT-22B	VOCs (5×)
DPT-20	VOCs (5×)
DPT-20A	VOCs (50×)
DPT-20B	VOCs (5×)

The laboratory reports did not indicate the dilution reason(s), but the dilutions appear to have been performed in order to bring the concentrations of target analytes into the appropriate instrument calibration range. The ND results in the noted VOC analyses were associated with correspondingly elevated detection limit (DL) and LOQ values.

Validation qualifiers were applied in this review, as summarized in the following table.

Data Reviewer: Amy Bass; TRC Environmental Corporation; 28-Apr-2021

Summary of qualifiers assigned by the data quality reviewer.

WC299029 **Sample ID**	**Analyte**	**Lab Result [LOQ]**	**Qualifier Assigned**	**Qualified Result**	**Basis**
DPT-23	sulfate	0.81 J [1.0]	j-	0.81 J-	low MS recovery
DPT-22		45 [1.0]		45 J-	
DPT-22A		0.37 J [1.0]		0.37 J-	
DPT-22B		0.35 J [1.0]		0.35 J-	
DPT-21		16 [1.0]		16 J-	
DPT-21A		0.51 J [1.0]		0.51 J-	
DPT-21B		0.33 J [1.0]		0.33 J-	
DU-21105		0.43 J [1.0]		0.43 J-	
DPT-20		38 [1.0]		38 J-	
DPT-20A		1.1 [1.0]		1.1 J-	
DPT-20B		6.8 [1.0]		3.8 J-	
DPT-23A, DPT-23B		ND [1.0]	uj	< 1.0 UJ	
DPT-21B	ethane	12 [1.0]	j	12 J	FD comparison
DU-21105		8.6 [1.0]		8.6 J	
DPT-21B	methane	280 [5.0]	j	280 J	FD comparison
DU-21105		190 [5.0]		190 J	

FD: field duplicate LOQ: limit of quantitation MS: matrix spike and/or duplicate ND: non-detect

Validation qualifiers applied: “j” (estimated); “j-“ (estimated, with a potential low bias); “uj” (estimated LOQ)

Case Narrative
TRC Companies, Inc.
Lot Number: WC29029

This Report of Analysis contains the analytical result(s) for the sample(s) listed on the Sample Summary following this Case Narrative. The sample receiving date is documented in the header information associated with each sample.

All results listed in this report relate only to the samples that are contained within this report.

Sample receipt, sample analysis, and data review have been performed in accordance with the most current approved The NELAC Institute (TNI) standards, the Pace Analytical Services, LLC ("Pace") Laboratory Quality Manual, standard operating procedures (SOPs), and Pace policies. Any exceptions to the TNI standards, the Laboratory Quality Manual, SOPs or policies are qualified on the results page or discussed below.

If you have any questions regarding this report please contact the Pace Project Manager listed on the cover page.

VOCs by GC/MS

The method blank associated with analytical batch 87673 contained Carbon Disulfide and 1,24-Trichlorobenzene greater than method criteria. No corrective action is required as all associated samples are non-detect for these compounds.

Inorganic Non-Metals

The MSD associated with batch 87985 recovered Sulfate marginally outside of method criteria due to suspected matrix interferences.

Dissolved Gasses

The analysis for Dissolved Gasses has been performed by Pace Gulf Coast. This data is on a separate reported provided by Pace Gulf Coast.

Sample Summary
TRC Companies, Inc.
Lot Number: WC29029

Sample Number	Sample ID	Matrix	Date Sampled	Date Received
001	DPT-23	Aqueous	03/25/2021 0830	03/29/2021
002	DPT-23A	Aqueous	03/25/2021 0925	03/29/2021
003	DPT-23B	Aqueous	03/25/2021 1030	03/29/2021
004	DPT-22	Aqueous	03/25/2021 1145	03/29/2021
005	DPT-22A	Aqueous	03/25/2021 1225	03/29/2021
006	DPT-22B	Aqueous	03/25/2021 1330	03/29/2021
007	DPT-21	Aqueous	03/26/2021 0825	03/29/2021
008	DPT-21A	Aqueous	03/26/2021 0915	03/29/2021
009	DPT-21B	Aqueous	03/26/2021 1030	03/29/2021
010	DU-21105	Aqueous	03/25/2021	03/29/2021
011	DPT-20	Aqueous	03/26/2021 1200	03/29/2021
012	DPT-20A	Aqueous	03/26/2021 1230	03/29/2021
013	DPT-20B	Aqueous	03/26/2021 1400	03/29/2021
014	TBLK-21111	Aqueous	03/26/2021	03/29/2021

(14 samples)

Detection Summary

TRC Companies, Inc.

Lot Number: WC29029

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
001	DPT-23	Aqueous	Bromide	300.0	0.18	J	mg/L	6
001	DPT-23	Aqueous	Sulfate	300.0	0.81	J	mg/L	6
001	DPT-23	Aqueous	Tetrachloroethene	8260D	66		ug/L	7
001	DPT-23	Aqueous	Trichlorofluoromethane	8260D	0.43	J	ug/L	7
002	DPT-23A	Aqueous	Tetrachloroethene	8260D	500		ug/L	9
002	DPT-23A	Aqueous	Trichloroethene	8260D	2.2	J	ug/L	9
002	DPT-23A	Aqueous	Trichlorofluoromethane	8260D	3.0	J	ug/L	9
003	DPT-23B	Aqueous	Tetrachloroethene	8260D	26		ug/L	11
003	DPT-23B	Aqueous	Trichlorofluoromethane	8260D	0.74	J	ug/L	11
004	DPT-22	Aqueous	Bromide	300.0	0.21		mg/L	12
004	DPT-22	Aqueous	Sulfate	300.0	45		mg/L	12
004	DPT-22	Aqueous	2-Butanone (MEK)	8260D	15	J	ug/L	12
004	DPT-22	Aqueous	cis-1,2-Dichloroethene	8260D	61		ug/L	12
004	DPT-22	Aqueous	Tetrachloroethene	8260D	350		ug/L	13
004	DPT-22	Aqueous	Trichloroethene	8260D	75		ug/L	13
005	DPT-22A	Aqueous	Bromide	300.0	2.0		mg/L	14
005	DPT-22A	Aqueous	Sulfate	300.0	0.37	J	mg/L	14
005	DPT-22A	Aqueous	Tetrachloroethene	8260D	2200		ug/L	15
005	DPT-22A	Aqueous	Trichloroethene	8260D	22		ug/L	15
006	DPT-22B	Aqueous	Bromide	300.0	0.18	J	mg/L	16
006	DPT-22B	Aqueous	Sulfate	300.0	0.35	J	mg/L	16
006	DPT-22B	Aqueous	Carbon disulfide	8260D	7.1		ug/L	16
006	DPT-22B	Aqueous	Tetrachloroethene	8260D	400		ug/L	17
006	DPT-22B	Aqueous	Trichloroethene	8260D	23		ug/L	17
007	DPT-21	Aqueous	Bromide	300.0	0.18	J	mg/L	18
007	DPT-21	Aqueous	Sulfate	300.0	16	S	mg/L	18
007	DPT-21	Aqueous	cis-1,2-Dichloroethene	8260D	92		ug/L	18
007	DPT-21	Aqueous	Methyl acetate	8260D	4.1		ug/L	19
007	DPT-21	Aqueous	Tetrachloroethene	8260D	17		ug/L	19
007	DPT-21	Aqueous	Trichloroethene	8260D	1.0		ug/L	19
007	DPT-21	Aqueous	Vinyl chloride	8260D	1.3		ug/L	19
008	DPT-21A	Aqueous	Bromide	300.0	0.56		mg/L	20
008	DPT-21A	Aqueous	Sulfate	300.0	0.51	J	mg/L	20
008	DPT-21A	Aqueous	Acetone	8260D	110		ug/L	20
008	DPT-21A	Aqueous	2-Butanone (MEK)	8260D	110		ug/L	20
008	DPT-21A	Aqueous	Carbon disulfide	8260D	3.3		ug/L	20
008	DPT-21A	Aqueous	1,1-Dichloroethene	8260D	0.69	J	ug/L	20
008	DPT-21A	Aqueous	cis-1,2-Dichloroethene	8260D	70		ug/L	20
008	DPT-21A	Aqueous	Methyl acetate	8260D	16		ug/L	21
008	DPT-21A	Aqueous	Tetrachloroethene	8260D	130		ug/L	21
008	DPT-21A	Aqueous	Trichloroethene	8260D	79		ug/L	21
008	DPT-21A	Aqueous	Vinyl chloride	8260D	0.49	J	ug/L	21
009	DPT-21B	Aqueous	Bromide	300.0	0.086	J	mg/L	22
009	DPT-21B	Aqueous	Sulfate	300.0	0.33	J	mg/L	22
009	DPT-21B	Aqueous	Acetone	8260D	15	J	ug/L	22

Sample	Sample ID	Matrix	Parameter	Method	Result	Q	Units	Page
009	DPT-21B	Aqueous	2-Butanone (MEK)	8260D	250		ug/L	22
009	DPT-21B	Aqueous	cis-1,2-Dichloroethene	8260D	9.0		ug/L	22
009	DPT-21B	Aqueous	Methyl acetate	8260D	9.3		ug/L	23
009	DPT-21B	Aqueous	Tetrachloroethene	8260D	150		ug/L	23
009	DPT-21B	Aqueous	Trichloroethene	8260D	4.9		ug/L	23
010	DU-21105	Aqueous	Bromide	300.0	0.083	J	mg/L	24
010	DU-21105	Aqueous	Sulfate	300.0	0.43	J	mg/L	24
010	DU-21105	Aqueous	Acetone	8260D	15	J	ug/L	24
010	DU-21105	Aqueous	2-Butanone (MEK)	8260D	240		ug/L	24
010	DU-21105	Aqueous	cis-1,2-Dichloroethene	8260D	9.6		ug/L	24
010	DU-21105	Aqueous	Methyl acetate	8260D	7.9		ug/L	25
010	DU-21105	Aqueous	Tetrachloroethene	8260D	190		ug/L	25
010	DU-21105	Aqueous	Trichloroethene	8260D	5.6		ug/L	25
011	DPT-20	Aqueous	Bromide	300.0	0.37		mg/L	26
011	DPT-20	Aqueous	Sulfate	300.0	38		mg/L	26
011	DPT-20	Aqueous	Acetone	8260D	26	J	ug/L	26
011	DPT-20	Aqueous	Carbon disulfide	8260D	5.1		ug/L	26
011	DPT-20	Aqueous	cis-1,2-Dichloroethene	8260D	310		ug/L	26
011	DPT-20	Aqueous	Tetrachloroethene	8260D	410		ug/L	27
011	DPT-20	Aqueous	Trichloroethene	8260D	30		ug/L	27
012	DPT-20A	Aqueous	Bromide	300.0	0.39		mg/L	28
012	DPT-20A	Aqueous	Sulfate	300.0	1.1		mg/L	28
012	DPT-20A	Aqueous	Tetrachloroethene	8260D	4300		ug/L	29
013	DPT-20B	Aqueous	Bromide	300.0	0.083	J	mg/L	30
013	DPT-20B	Aqueous	Sulfate	300.0	6.8		mg/L	30
013	DPT-20B	Aqueous	Tetrachloroethene	8260D	360		ug/L	31

(71 detections)

Client: TRC Companies, Inc.
Description: DPT-23
Date Sampled: 03/25/2021 0830
Date Received: 03/29/2021

Laboratory ID: WC29029-001
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	04/02/2021 0306	AMR		87784
1		(Sulfate) 300.0	1	04/02/2021 0306	AMR		87779

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.18	J	0.20	0.050	mg/L	1
Sulfate		300.0	0.81	J	1.0	0.25	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	04/06/2021 0414	CJL2		88045

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: DPT-23
Date Sampled: 03/25/2021 0830
Date Received: 03/29/2021

Laboratory ID: WC29029-001
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	04/06/2021 0414	CJL2		88045

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	66		1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260D	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	0.43	J	1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		112	70-130
1,2-Dichloroethane-d4		100	70-130
Toluene-d8		112	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Pace Analytical Services, LLC *(formerly Shealy Environmental Services, Inc.)*
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Client: TRC Companies, Inc.
Description: DPT-23A
Date Sampled: 03/25/2021 0925
Date Received: 03/29/2021

Laboratory ID: WC29029-002
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	04/02/2021 0325	AMR		87784
1		(Sulfate) 300.0	1	04/02/2021 0325	AMR		87779

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	ND		0.20	0.050	mg/L	1
Sulfate		300.0	ND		1.0	0.25	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	5	04/06/2021 1826	BWS		88113

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		100	25	ug/L	1
Benzene	71-43-2	8260D	ND		5.0	2.0	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		5.0	2.0	ug/L	1
Bromoform	75-25-2	8260D	ND		5.0	2.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		10	2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		50	10	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		5.0	2.0	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		5.0	2.0	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		5.0	2.0	ug/L	1
Chloroethane	75-00-3	8260D	ND		10	2.0	ug/L	1
Chloroform	67-66-3	8260D	ND		5.0	2.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		5.0	2.5	ug/L	1
Cyclohexane	110-82-7	8260D	ND		5.0	2.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		5.0	2.0	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		5.0	2.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		5.0	2.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		5.0	2.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		5.0	2.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		5.0	2.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		10	3.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		5.0	2.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		5.0	2.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		5.0	2.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		5.0	2.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		5.0	2.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		5.0	2.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		5.0	2.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		5.0	2.0	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		5.0	2.0	ug/L	1
2-Hexanone	591-78-6	8260D	ND		50	10	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: DPT-23A
Date Sampled: 03/25/2021 0925
Date Received: 03/29/2021

Laboratory ID: WC29029-002
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	5	04/06/2021 1826	BWS		88113

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Isopropylbenzene	98-82-8	8260D	ND		5.0	2.0	ug/L	1
Methyl acetate	79-20-9	8260D	ND		5.0	2.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		5.0	2.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		50	10	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		25	2.0	ug/L	1
Methylene chloride	75-09-2	8260D	ND		5.0	2.0	ug/L	1
Styrene	100-42-5	8260D	ND		5.0	2.1	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		5.0	2.0	ug/L	1
Tetrachloroethene	127-18-4	8260D	500		5.0	2.0	ug/L	1
Toluene	108-88-3	8260D	ND		5.0	2.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		5.0	2.1	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		5.0	2.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		5.0	2.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		5.0	2.0	ug/L	1
Trichloroethene	79-01-6	8260D	2.2	J	5.0	2.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	3.0	J	5.0	2.0	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		5.0	2.0	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		5.0	2.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		112	70-130
1,2-Dichloroethane-d4		106	70-130
Toluene-d8		110	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

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Client: TRC Companies, Inc.
Description: DPT-23B
Date Sampled: 03/25/2021 1030
Date Received: 03/29/2021

Laboratory ID: WC29029-003
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	04/02/2021 0344	AMR		87784
1		(Sulfate) 300.0	1	04/02/2021 0344	AMR		87779

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	ND		0.20	0.050	mg/L	1
Sulfate		300.0	ND		1.0	0.25	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	04/06/2021 0439	CJL2		88045

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: DPT-23B
Date Sampled: 03/25/2021 1030
Date Received: 03/29/2021

Laboratory ID: WC29029-003
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	04/06/2021 0439	CJL2		88045

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	26		1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260D	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	0.74	J	1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		111	70-130
1,2-Dichloroethane-d4		100	70-130
Toluene-d8		112	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

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106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Client: TRC Companies, Inc.
Description: DPT-22
Date Sampled: 03/25/2021 1145
Date Received: 03/29/2021

Laboratory ID: WC29029-004
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	04/02/2021 0441	AMR		87784
1		(Sulfate) 300.0	1	04/02/2021 0441	AMR		87779

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.21		0.20	0.050	mg/L	1
Sulfate		300.0	45		1.0	0.25	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	5	04/06/2021 1851	BWS		88113

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		100	25	ug/L	1
Benzene	71-43-2	8260D	ND		5.0	2.0	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		5.0	2.0	ug/L	1
Bromoform	75-25-2	8260D	ND		5.0	2.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		10	2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	15	J	50	10	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		5.0	2.0	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		5.0	2.0	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		5.0	2.0	ug/L	1
Chloroethane	75-00-3	8260D	ND		10	2.0	ug/L	1
Chloroform	67-66-3	8260D	ND		5.0	2.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		5.0	2.5	ug/L	1
Cyclohexane	110-82-7	8260D	ND		5.0	2.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		5.0	2.0	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		5.0	2.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		5.0	2.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		5.0	2.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		5.0	2.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		5.0	2.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		10	3.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		5.0	2.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		5.0	2.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		5.0	2.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	61		5.0	2.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		5.0	2.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		5.0	2.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		5.0	2.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		5.0	2.0	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		5.0	2.0	ug/L	1
2-Hexanone	591-78-6	8260D	ND		50	10	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: DPT-22
Date Sampled: 03/25/2021 1145
Date Received: 03/29/2021

Laboratory ID: WC29029-004
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	5	04/06/2021 1851	BWS		88113

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Isopropylbenzene	98-82-8	8260D	ND		5.0	2.0	ug/L	1
Methyl acetate	79-20-9	8260D	ND		5.0	2.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		5.0	2.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		50	10	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		25	2.0	ug/L	1
Methylene chloride	75-09-2	8260D	ND		5.0	2.0	ug/L	1
Styrene	100-42-5	8260D	ND		5.0	2.1	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		5.0	2.0	ug/L	1
Tetrachloroethene	127-18-4	8260D	350		5.0	2.0	ug/L	1
Toluene	108-88-3	8260D	ND		5.0	2.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		5.0	2.1	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		5.0	2.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		5.0	2.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		5.0	2.0	ug/L	1
Trichloroethene	79-01-6	8260D	75		5.0	2.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		5.0	2.0	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		5.0	2.0	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		5.0	2.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		110	70-130
1,2-Dichloroethane-d4		101	70-130
Toluene-d8		113	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
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L = LCS/LCSD failure
S = MS/MSD failure

Pace Analytical Services, LLC *(formerly Shealy Environmental Services, Inc.)*
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Client: TRC Companies, Inc.
Description: DPT-22A
Date Sampled: 03/25/2021 1225
Date Received: 03/29/2021

Laboratory ID: WC29029-005
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	04/02/2021 0500	AMR		87784
1		(Sulfate) 300.0	1	04/02/2021 0500	AMR		87779

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	2.0		0.20	0.050	mg/L	1
Sulfate		300.0	0.37	J	1.0	0.25	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	20	04/06/2021 2006	BWS		88113

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		400	100	ug/L	1
Benzene	71-43-2	8260D	ND		20	8.0	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		20	8.0	ug/L	1
Bromoform	75-25-2	8260D	ND		20	8.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		40	8.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		200	40	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		20	8.0	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		20	8.0	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		20	8.0	ug/L	1
Chloroethane	75-00-3	8260D	ND		40	8.0	ug/L	1
Chloroform	67-66-3	8260D	ND		20	8.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		20	10	ug/L	1
Cyclohexane	110-82-7	8260D	ND		20	8.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		20	8.0	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		20	8.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		20	8.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		20	8.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		20	8.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		20	8.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		40	12	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		20	8.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		20	8.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		20	8.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		20	8.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		20	8.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		20	8.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		20	8.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		20	8.0	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		20	8.0	ug/L	1
2-Hexanone	591-78-6	8260D	ND		200	40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
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E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: DPT-22A
Date Sampled: 03/25/2021 1225
Date Received: 03/29/2021

Laboratory ID: WC29029-005
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	20	04/06/2021 2006	BWS		88113

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Isopropylbenzene	98-82-8	8260D	ND		20	8.0	ug/L	1
Methyl acetate	79-20-9	8260D	ND		20	8.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		20	8.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		200	40	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		100	8.0	ug/L	1
Methylene chloride	75-09-2	8260D	ND		20	8.0	ug/L	1
Styrene	100-42-5	8260D	ND		20	8.2	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		20	8.0	ug/L	1
Tetrachloroethene	127-18-4	8260D	2200		20	8.0	ug/L	1
Toluene	108-88-3	8260D	ND		20	8.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		20	8.4	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		20	8.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		20	8.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		20	8.0	ug/L	1
Trichloroethene	79-01-6	8260D	22		20	8.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		20	8.0	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		20	8.0	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		20	8.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		114	70-130
1,2-Dichloroethane-d4		106	70-130
Toluene-d8		111	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
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Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

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106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Client: TRC Companies, Inc.
Description: DPT-22B
Date Sampled: 03/25/2021 1330
Date Received: 03/29/2021

Laboratory ID: WC29029-006
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	04/02/2021 1603	AMR		87991
1		(Sulfate) 300.0	1	04/02/2021 1603	AMR		87985

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.18	J	0.20	0.050	mg/L	1
Sulfate		300.0	0.35	J	1.0	0.25	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	5	04/06/2021 1916	BWS		88113

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		100	25	ug/L	1
Benzene	71-43-2	8260D	ND		5.0	2.0	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		5.0	2.0	ug/L	1
Bromoform	75-25-2	8260D	ND		5.0	2.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		10	2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		50	10	ug/L	1
Carbon disulfide	75-15-0	8260D	7.1		5.0	2.0	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		5.0	2.0	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		5.0	2.0	ug/L	1
Chloroethane	75-00-3	8260D	ND		10	2.0	ug/L	1
Chloroform	67-66-3	8260D	ND		5.0	2.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		5.0	2.5	ug/L	1
Cyclohexane	110-82-7	8260D	ND		5.0	2.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		5.0	2.0	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		5.0	2.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		5.0	2.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		5.0	2.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		5.0	2.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		5.0	2.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		10	3.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		5.0	2.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		5.0	2.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		5.0	2.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		5.0	2.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		5.0	2.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		5.0	2.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		5.0	2.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		5.0	2.0	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		5.0	2.0	ug/L	1
2-Hexanone	591-78-6	8260D	ND		50	10	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: DPT-22B
Date Sampled: 03/25/2021 1330
Date Received: 03/29/2021

Laboratory ID: WC29029-006
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	5	04/06/2021 1916	BWS		88113

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Isopropylbenzene	98-82-8	8260D	ND		5.0	2.0	ug/L	1
Methyl acetate	79-20-9	8260D	ND		5.0	2.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		5.0	2.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		50	10	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		25	2.0	ug/L	1
Methylene chloride	75-09-2	8260D	ND		5.0	2.0	ug/L	1
Styrene	100-42-5	8260D	ND		5.0	2.1	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		5.0	2.0	ug/L	1
Tetrachloroethene	127-18-4	8260D	400		5.0	2.0	ug/L	1
Toluene	108-88-3	8260D	ND		5.0	2.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		5.0	2.1	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		5.0	2.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		5.0	2.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		5.0	2.0	ug/L	1
Trichloroethene	79-01-6	8260D	23		5.0	2.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		5.0	2.0	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		5.0	2.0	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		5.0	2.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		107	70-130
1,2-Dichloroethane-d4		101	70-130
Toluene-d8		111	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

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Client: TRC Companies, Inc.
Description: DPT-21
Date Sampled: 03/26/2021 0825
Date Received: 03/29/2021

Laboratory ID: WC29029-007
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	04/02/2021 1620	AMR		87991
1		(Sulfate) 300.0	1	04/02/2021 1620	AMR		87985

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.18	J	0.20	0.050	mg/L	1
Sulfate		300.0	16	S	1.0	0.25	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	04/06/2021 0504	CJL2		88045

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	92		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: DPT-21
Date Sampled: 03/26/2021 0825
Date Received: 03/29/2021

Laboratory ID: WC29029-007
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	04/06/2021 0504	CJL2		88045

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	4.1		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	17		1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260D	1.0		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	1.3		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		110	70-130
1,2-Dichloroethane-d4		100	70-130
Toluene-d8		109	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: DPT-21A
Date Sampled: 03/26/2021 0915
Date Received: 03/29/2021

Laboratory ID: WC29029-008
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	04/02/2021 1710	AMR		87991
1		(Sulfate) 300.0	1	04/02/2021 1710	AMR		87985

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.56		0.20	0.050	mg/L	1
Sulfate		300.0	0.51	J	1.0	0.25	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	04/06/2021 0529	CJL2		88045

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	110		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	110		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	3.3		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	0.69	J	1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	70		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: DPT-21A
Date Sampled: 03/26/2021 0915
Date Received: 03/29/2021

Laboratory ID: WC29029-008
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	04/06/2021 0529	CJL2		88045

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	16		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	130		1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260D	79		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	0.49	J	1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		113	70-130
1,2-Dichloroethane-d4		100	70-130
Toluene-d8		114	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Pace Analytical Services, LLC *(formerly Shealy Environmental Services, Inc.)*
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Client: TRC Companies, Inc.
Description: DPT-21B
Date Sampled: 03/26/2021 1030
Date Received: 03/29/2021

Laboratory ID: WC29029-009
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	04/02/2021 1727	AMR		87991
1		(Sulfate) 300.0	1	04/02/2021 1727	AMR		87985

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.086	J	0.20	0.050	mg/L	1
Sulfate		300.0	0.33	J	1.0	0.25	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	04/06/2021 0553	CJL2		88045

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	15	J	20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	250		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	9.0		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: DPT-21B
Date Sampled: 03/26/2021 1030
Date Received: 03/29/2021

Laboratory ID: WC29029-009
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	04/06/2021 0553	CJL2		88045

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	9.3		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	150		1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260D	4.9		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		109	70-130
1,2-Dichloroethane-d4		100	70-130
Toluene-d8		109	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Pace Analytical Services, LLC *(formerly Shealy Environmental Services, Inc.)*
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Client: TRC Companies, Inc.
Description: DU-21105
Date Sampled: 03/25/2021
Date Received: 03/29/2021

Laboratory ID: WC29029-010
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	04/02/2021 1744	AMR		87991
1		(Sulfate) 300.0	1	04/02/2021 1744	AMR		87985

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.083	J	0.20	0.050	mg/L	1
Sulfate		300.0	0.43	J	1.0	0.25	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	04/06/2021 0618	CJL2		88045

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	15	J	20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	240		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	9.6		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: DU-21105
Date Sampled: 03/25/2021
Date Received: 03/29/2021

Laboratory ID: WC29029-010
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	04/06/2021 0618	CJL2		88045

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	7.9		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	190		1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260D	5.6		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		110	70-130
1,2-Dichloroethane-d4		99	70-130
Toluene-d8		109	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: DPT-20
Date Sampled: 03/26/2021 1200
Date Received: 03/29/2021

Laboratory ID: WC29029-011
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	04/02/2021 1801	AMR		87991
1		(Sulfate) 300.0	1	04/02/2021 1801	AMR		87985

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.37		0.20	0.050	mg/L	1
Sulfate		300.0	38		1.0	0.25	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	5	04/07/2021 1615	BWS		88245

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	26	J	100	25	ug/L	1
Benzene	71-43-2	8260D	ND		5.0	2.0	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		5.0	2.0	ug/L	1
Bromoform	75-25-2	8260D	ND		5.0	2.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		10	2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		50	10	ug/L	1
Carbon disulfide	75-15-0	8260D	5.1		5.0	2.0	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		5.0	2.0	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		5.0	2.0	ug/L	1
Chloroethane	75-00-3	8260D	ND		10	2.0	ug/L	1
Chloroform	67-66-3	8260D	ND		5.0	2.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		5.0	2.5	ug/L	1
Cyclohexane	110-82-7	8260D	ND		5.0	2.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		5.0	2.0	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		5.0	2.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		5.0	2.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		5.0	2.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		5.0	2.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		5.0	2.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		10	3.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		5.0	2.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		5.0	2.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		5.0	2.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	310		5.0	2.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		5.0	2.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		5.0	2.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		5.0	2.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		5.0	2.0	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		5.0	2.0	ug/L	1
2-Hexanone	591-78-6	8260D	ND		50	10	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: DPT-20
Date Sampled: 03/26/2021 1200
Date Received: 03/29/2021

Laboratory ID: WC29029-011
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	5	04/07/2021 1615	BWS		88245

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Isopropylbenzene	98-82-8	8260D	ND		5.0	2.0	ug/L	1
Methyl acetate	79-20-9	8260D	ND		5.0	2.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		5.0	2.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		50	10	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		25	2.0	ug/L	1
Methylene chloride	75-09-2	8260D	ND		5.0	2.0	ug/L	1
Styrene	100-42-5	8260D	ND		5.0	2.1	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		5.0	2.0	ug/L	1
Tetrachloroethene	127-18-4	8260D	410		5.0	2.0	ug/L	1
Toluene	108-88-3	8260D	ND		5.0	2.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		5.0	2.1	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		5.0	2.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		5.0	2.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		5.0	2.0	ug/L	1
Trichloroethene	79-01-6	8260D	30		5.0	2.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		5.0	2.0	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		5.0	2.0	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		5.0	2.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		104	70-130
1,2-Dichloroethane-d4		92	70-130
Toluene-d8		104	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Pace Analytical Services, LLC *(formerly Shealy Environmental Services, Inc.)*
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Client: TRC Companies, Inc.
Description: DPT-20A
Date Sampled: 03/26/2021 1230
Date Received: 03/29/2021

Laboratory ID: WC29029-012
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	04/02/2021 1852	AMR		87991
1		(Sulfate) 300.0	1	04/02/2021 1852	AMR		87985

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.39		0.20	0.050	mg/L	1
Sulfate		300.0	1.1		1.0	0.25	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	50	04/07/2021 1745	BWS		88245

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		1000	250	ug/L	1
Benzene	71-43-2	8260D	ND		50	20	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		50	20	ug/L	1
Bromoform	75-25-2	8260D	ND		50	20	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		100	20	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		500	100	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		50	20	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		50	20	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		50	20	ug/L	1
Chloroethane	75-00-3	8260D	ND		100	20	ug/L	1
Chloroform	67-66-3	8260D	ND		50	20	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		50	25	ug/L	1
Cyclohexane	110-82-7	8260D	ND		50	20	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		50	20	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		50	20	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		50	20	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		50	20	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		50	20	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		50	20	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		100	30	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		50	20	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		50	20	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		50	20	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		50	20	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		50	20	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		50	20	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		50	20	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		50	20	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		50	20	ug/L	1
2-Hexanone	591-78-6	8260D	ND		500	100	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: DPT-20A
Date Sampled: 03/26/2021 1230
Date Received: 03/29/2021

Laboratory ID: WC29029-012
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	50	04/07/2021 1745	BWS		88245

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Isopropylbenzene	98-82-8	8260D	ND		50	20	ug/L	1
Methyl acetate	79-20-9	8260D	ND		50	20	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		50	20	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		500	100	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		250	20	ug/L	1
Methylene chloride	75-09-2	8260D	ND		50	20	ug/L	1
Styrene	100-42-5	8260D	ND		50	21	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		50	20	ug/L	1
Tetrachloroethene	127-18-4	8260D	4300		50	20	ug/L	1
Toluene	108-88-3	8260D	ND		50	20	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		50	21	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		50	20	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		50	20	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		50	20	ug/L	1
Trichloroethene	79-01-6	8260D	ND		50	20	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		50	20	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		50	20	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		50	20	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		108	70-130
1,2-Dichloroethane-d4		95	70-130
Toluene-d8		111	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Pace Analytical Services, LLC *(formerly Shealy Environmental Services, Inc.)*
106 Vantage Point Drive West Columbia, SC 29172 (803) 791-9700 Fax (803) 791-9111 www.pacelabs.com

Client: TRC Companies, Inc.
Description: DPT-20B
Date Sampled: 03/26/2021 1400
Date Received: 03/29/2021

Laboratory ID: WC29029-013
Matrix: Aqueous

Inorganic non-metals

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1		(Bromide) 300.0	1	04/02/2021 1909	AMR		87991
1		(Sulfate) 300.0	1	04/02/2021 1909	AMR		87985

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Bromide		300.0	0.083	J	0.20	0.050	mg/L	1
Sulfate		300.0	6.8		1.0	0.25	mg/L	1

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	5	04/07/2021 0705	CJL2		88181

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		100	25	ug/L	1
Benzene	71-43-2	8260D	ND		5.0	2.0	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		5.0	2.0	ug/L	1
Bromoform	75-25-2	8260D	ND		5.0	2.0	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		10	2.0	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		50	10	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		5.0	2.0	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		5.0	2.0	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		5.0	2.0	ug/L	1
Chloroethane	75-00-3	8260D	ND		10	2.0	ug/L	1
Chloroform	67-66-3	8260D	ND		5.0	2.0	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		5.0	2.5	ug/L	1
Cyclohexane	110-82-7	8260D	ND		5.0	2.0	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		5.0	2.0	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		5.0	2.0	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		5.0	2.0	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		5.0	2.0	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		5.0	2.0	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		5.0	2.0	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		10	3.0	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		5.0	2.0	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		5.0	2.0	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		5.0	2.0	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		5.0	2.0	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		5.0	2.0	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		5.0	2.0	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		5.0	2.0	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		5.0	2.0	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		5.0	2.0	ug/L	1
2-Hexanone	591-78-6	8260D	ND		50	10	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: DPT-20B
Date Sampled: 03/26/2021 1400
Date Received: 03/29/2021

Laboratory ID: WC29029-013
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	5	04/07/2021 0705	CJL2		88181

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Isopropylbenzene	98-82-8	8260D	ND		5.0	2.0	ug/L	1
Methyl acetate	79-20-9	8260D	ND		5.0	2.0	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		5.0	2.0	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		50	10	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		25	2.0	ug/L	1
Methylene chloride	75-09-2	8260D	ND		5.0	2.0	ug/L	1
Styrene	100-42-5	8260D	ND		5.0	2.1	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		5.0	2.0	ug/L	1
Tetrachloroethene	127-18-4	8260D	360		5.0	2.0	ug/L	1
Toluene	108-88-3	8260D	ND		5.0	2.0	ug/L	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		5.0	2.1	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		5.0	2.0	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		5.0	2.0	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		5.0	2.0	ug/L	1
Trichloroethene	79-01-6	8260D	ND		5.0	2.0	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		5.0	2.0	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		5.0	2.0	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		5.0	2.0	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		102	70-130
1,2-Dichloroethane-d4		106	70-130
Toluene-d8		103	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

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Client: TRC Companies, Inc.
Description: TBLK-21111
Date Sampled: 03/26/2021
Date Received: 03/29/2021

Laboratory ID: WC29029-014
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	04/01/2021 2153	CJL2		87673

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
Acetone	67-64-1	8260D	ND		20	5.0	ug/L	1
Benzene	71-43-2	8260D	ND		1.0	0.40	ug/L	1
Bromodichloromethane	75-27-4	8260D	ND		1.0	0.40	ug/L	1
Bromoform	75-25-2	8260D	ND		1.0	0.40	ug/L	1
Bromomethane (Methyl bromide)	74-83-9	8260D	ND		2.0	0.40	ug/L	1
2-Butanone (MEK)	78-93-3	8260D	ND		10	2.0	ug/L	1
Carbon disulfide	75-15-0	8260D	ND		1.0	0.40	ug/L	1
Carbon tetrachloride	56-23-5	8260D	ND		1.0	0.40	ug/L	1
Chlorobenzene	108-90-7	8260D	ND		1.0	0.40	ug/L	1
Chloroethane	75-00-3	8260D	ND		2.0	0.40	ug/L	1
Chloroform	67-66-3	8260D	ND		1.0	0.40	ug/L	1
Chloromethane (Methyl chloride)	74-87-3	8260D	ND		1.0	0.50	ug/L	1
Cyclohexane	110-82-7	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromo-3-chloropropane (DBCP)	96-12-8	8260D	ND		1.0	0.40	ug/L	1
Dibromochloromethane	124-48-1	8260D	ND		1.0	0.40	ug/L	1
1,2-Dibromoethane (EDB)	106-93-4	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichlorobenzene	95-50-1	8260D	ND		1.0	0.40	ug/L	1
1,3-Dichlorobenzene	541-73-1	8260D	ND		1.0	0.40	ug/L	1
1,4-Dichlorobenzene	106-46-7	8260D	ND		1.0	0.40	ug/L	1
Dichlorodifluoromethane	75-71-8	8260D	ND		2.0	0.60	ug/L	1
1,1-Dichloroethane	75-34-3	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloroethane	107-06-2	8260D	ND		1.0	0.40	ug/L	1
1,1-Dichloroethene	75-35-4	8260D	ND		1.0	0.40	ug/L	1
cis-1,2-Dichloroethene	156-59-2	8260D	ND		1.0	0.40	ug/L	1
trans-1,2-Dichloroethene	156-60-5	8260D	ND		1.0	0.40	ug/L	1
1,2-Dichloropropane	78-87-5	8260D	ND		1.0	0.40	ug/L	1
cis-1,3-Dichloropropene	10061-01-5	8260D	ND		1.0	0.40	ug/L	1
trans-1,3-Dichloropropene	10061-02-6	8260D	ND		1.0	0.40	ug/L	1
Ethylbenzene	100-41-4	8260D	ND		1.0	0.40	ug/L	1
2-Hexanone	591-78-6	8260D	ND		10	2.0	ug/L	1
Isopropylbenzene	98-82-8	8260D	ND		1.0	0.40	ug/L	1
Methyl acetate	79-20-9	8260D	ND		1.0	0.40	ug/L	1
Methyl tertiary butyl ether (MTBE)	1634-04-4	8260D	ND		1.0	0.40	ug/L	1
4-Methyl-2-pentanone	108-10-1	8260D	ND		10	2.0	ug/L	1
Methylcyclohexane	108-87-2	8260D	ND		5.0	0.40	ug/L	1
Methylene chloride	75-09-2	8260D	ND		1.0	0.40	ug/L	1
Styrene	100-42-5	8260D	ND		1.0	0.41	ug/L	1
1,1,2,2-Tetrachloroethane	79-34-5	8260D	ND		1.0	0.40	ug/L	1
Tetrachloroethene	127-18-4	8260D	ND		1.0	0.40	ug/L	1
Toluene	108-88-3	8260D	ND		1.0	0.40	ug/L	1

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

Client: TRC Companies, Inc.
Description: TBLK-21111
Date Sampled: 03/26/2021
Date Received: 03/29/2021

Laboratory ID: WC29029-014
Matrix: Aqueous

Volatile Organic Compounds by GC/MS

Run	Prep Method	Analytical Method	Dilution	Analysis Date	Analyst	Prep Date	Batch
1	5030B	8260D	1	04/01/2021 2153	CJL2		87673

Parameter	CAS Number	Analytical Method	Result	Q	LOQ	DL	Units	Run
1,1,2-Trichloro-1,2,2-Trifluoroethane	76-13-1	8260D	ND		1.0	0.42	ug/L	1
1,2,4-Trichlorobenzene	120-82-1	8260D	ND		1.0	0.40	ug/L	1
1,1,1-Trichloroethane	71-55-6	8260D	ND		1.0	0.40	ug/L	1
1,1,2-Trichloroethane	79-00-5	8260D	ND		1.0	0.40	ug/L	1
Trichloroethene	79-01-6	8260D	ND		1.0	0.40	ug/L	1
Trichlorofluoromethane	75-69-4	8260D	ND		1.0	0.40	ug/L	1
Vinyl chloride	75-01-4	8260D	ND		1.0	0.40	ug/L	1
Xylenes (total)	1330-20-7	8260D	ND		1.0	0.40	ug/L	1

Surrogate	Q	Run 1 % Recovery	Acceptance Limits
Bromofluorobenzene		100	70-130
1,2-Dichloroethane-d4		104	70-130
Toluene-d8		101	70-130

LOQ = Limit of Quantitation
ND = Not detected at or above the DL
H = Out of holding time
B = Detected in the method blank
N = Recovery is out of criteria
W = Reported on wet weight basis
E = Quantitation of compound exceeded the calibration range
P = The RPD between two GC columns exceeds 40%
DL = Detection Limit
J = Estimated result < LOQ and ≥ DL
Q = Surrogate failure
L = LCS/LCSD failure
S = MS/MSD failure

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QC Summary

Inorganic non-metals - MB

Sample ID: WQ87779-001
Batch: 87779
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Sulfate	ND		1	1.0	0.25	mg/L	04/01/2021 1701

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: WQ87779-002
Batch: 87779
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Sulfate	20	19		1	97	90-110	04/01/2021 1913

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCSD

Sample ID: WQ87779-003
Batch: 87779
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	%Rec Limit	% RPD Limit	Analysis Date
Sulfate	20	19		1	97	0.20	90-110	20	04/01/2021 1932

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: WQ87784-001
Batch: 87784
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Bromide	ND		1	0.20	0.050	mg/L	04/01/2021 1701

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: WQ87784-002
Batch: 87784
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Bromide	8.0	8.1		1	102	90-110	04/01/2021 1913

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCSD

Sample ID: WQ87784-003
Batch: 87784
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	%Rec Limit	% RPD Limit	Analysis Date
Bromide	8.0	8.2		1	102	0.099	90-110	20	04/01/2021 1932

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: WQ87985-001
Batch: 87985
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Sulfate	ND		1	1.0	0.25	mg/L	04/02/2021 1512

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: WQ87985-002
Batch: 87985
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Sulfate	20	20		1	98	90-110	04/02/2021 1546

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Sample ID: WC29029-007MS
Batch: 87985
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Sulfate	16	10	25		1	90	90-110	04/02/2021 1637

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: WC29029-007MD
Batch: 87985
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	%Rec Limit	% RPD Limit	Analysis Date
Sulfate	16	10	25	N	1	89	0.57	90-110	20	04/02/2021 1653

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Sample ID: WC29029-013MS
Batch: 87985
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Sulfate	6.8	10	16		1	92	90-110	04/02/2021 1926

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: WC29029-013MD
Batch: 87985
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	%Rec Limit	% RPD Limit	Analysis Date
Sulfate	6.8	10	16		1	92	0.44	90-110	20	04/02/2021 1943

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MB

Sample ID: WQ87991-001
Batch: 87991
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Bromide	ND		1	0.20	0.050	mg/L	04/02/2021 1512

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - LCS

Sample ID: WQ87991-002
Batch: 87991
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Bromide	8.0	8.3		1	103	90-110	04/02/2021 1546

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Sample ID: WC29029-007MS
Batch: 87991
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Bromide	0.18	4.0	3.9		1	94	90-110	04/02/2021 1637

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: WC29029-007MD
Batch: 87991
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	%Rec Limit	% RPD Limit	Analysis Date
Bromide	0.18	4.0	3.9		1	94	0.069	90-110	20	04/02/2021 1653

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MS

Sample ID: WC29029-013MS
Batch: 87991
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Bromide	0.083	4.0	3.9		1	95	90-110	04/02/2021 1926

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Inorganic non-metals - MSD

Sample ID: WC29029-013MD
Batch: 87991
Analytical Method: 300.0
Matrix: Aqueous

Parameter	Sample Amount (mg/L)	Spike Amount (mg/L)	Result (mg/L)	Q	Dil	% Rec	% RPD	%Rec Limit	% RPD Limit	Analysis Date
Bromide	0.083	4.0	3.9		1	95	0.072	90-110	20	04/02/2021 1943

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: WQ87673-001
Batch: 87673
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Acetone	ND		1	20	5.0	ug/L	04/01/2021 1940
Benzene	ND		1	1.0	0.40	ug/L	04/01/2021 1940
Bromodichloromethane	ND		1	1.0	0.40	ug/L	04/01/2021 1940
Bromoform	ND		1	1.0	0.40	ug/L	04/01/2021 1940
Bromomethane (Methyl bromide)	ND		1	2.0	0.40	ug/L	04/01/2021 1940
2-Butanone (MEK)	ND		1	10	2.0	ug/L	04/01/2021 1940
Carbon disulfide	0.44	J	1	1.0	0.40	ug/L	04/01/2021 1940
Carbon tetrachloride	ND		1	1.0	0.40	ug/L	04/01/2021 1940
Chlorobenzene	ND		1	1.0	0.40	ug/L	04/01/2021 1940
Chloroethane	ND		1	2.0	0.40	ug/L	04/01/2021 1940
Chloroform	ND		1	1.0	0.40	ug/L	04/01/2021 1940
Chloromethane (Methyl chloride)	ND		1	1.0	0.50	ug/L	04/01/2021 1940
Cyclohexane	ND		1	1.0	0.40	ug/L	04/01/2021 1940
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	0.40	ug/L	04/01/2021 1940
Dibromochloromethane	ND		1	1.0	0.40	ug/L	04/01/2021 1940
1,2-Dibromoethane (EDB)	ND		1	1.0	0.40	ug/L	04/01/2021 1940
1,2-Dichlorobenzene	ND		1	1.0	0.40	ug/L	04/01/2021 1940
1,3-Dichlorobenzene	ND		1	1.0	0.40	ug/L	04/01/2021 1940
1,4-Dichlorobenzene	ND		1	1.0	0.40	ug/L	04/01/2021 1940
Dichlorodifluoromethane	ND		1	2.0	0.60	ug/L	04/01/2021 1940
1,1-Dichloroethane	ND		1	1.0	0.40	ug/L	04/01/2021 1940
1,2-Dichloroethane	ND		1	1.0	0.40	ug/L	04/01/2021 1940
1,1-Dichloroethene	ND		1	1.0	0.40	ug/L	04/01/2021 1940
cis-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	04/01/2021 1940
trans-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	04/01/2021 1940
1,2-Dichloropropane	ND		1	1.0	0.40	ug/L	04/01/2021 1940
cis-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	04/01/2021 1940
trans-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	04/01/2021 1940
Ethylbenzene	ND		1	1.0	0.40	ug/L	04/01/2021 1940
2-Hexanone	ND		1	10	2.0	ug/L	04/01/2021 1940
Isopropylbenzene	ND		1	1.0	0.40	ug/L	04/01/2021 1940
Methyl acetate	ND		1	1.0	0.40	ug/L	04/01/2021 1940
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	0.40	ug/L	04/01/2021 1940
4-Methyl-2-pentanone	ND		1	10	2.0	ug/L	04/01/2021 1940
Methylcyclohexane	ND		1	5.0	0.40	ug/L	04/01/2021 1940
Methylene chloride	ND		1	1.0	0.40	ug/L	04/01/2021 1940
Styrene	ND		1	1.0	0.41	ug/L	04/01/2021 1940
1,1,2,2-Tetrachloroethane	ND		1	1.0	0.40	ug/L	04/01/2021 1940
Tetrachloroethene	ND		1	1.0	0.40	ug/L	04/01/2021 1940
Toluene	ND		1	1.0	0.40	ug/L	04/01/2021 1940
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	0.42	ug/L	04/01/2021 1940
1,2,4-Trichlorobenzene	0.64	J	1	1.0	0.40	ug/L	04/01/2021 1940
1,1,1-Trichloroethane	ND		1	1.0	0.40	ug/L	04/01/2021 1940
1,1,2-Trichloroethane	ND		1	1.0	0.40	ug/L	04/01/2021 1940

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: WQ87673-001
Batch: 87673
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Trichloroethene	ND		1	1.0	0.40	ug/L	04/01/2021 1940
Trichlorofluoromethane	ND		1	1.0	0.40	ug/L	04/01/2021 1940
Vinyl chloride	ND		1	1.0	0.40	ug/L	04/01/2021 1940
Xylenes (total)	ND		1	1.0	0.40	ug/L	04/01/2021 1940

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		100	70-130
1,2-Dichloroethane-d4		100	70-130
Toluene-d8		101	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: WQ87673-002
Batch: 87673
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Acetone	100	130		1	133	60-140	04/01/2021 1855
Benzene	50	47		1	94	70-130	04/01/2021 1855
Bromodichloromethane	50	46		1	92	70-130	04/01/2021 1855
Bromoform	50	49		1	98	70-130	04/01/2021 1855
Bromomethane (Methyl bromide)	50	48		1	96	70-130	04/01/2021 1855
2-Butanone (MEK)	100	93		1	93	70-130	04/01/2021 1855
Carbon disulfide	50	48		1	97	70-130	04/01/2021 1855
Carbon tetrachloride	50	48		1	95	70-130	04/01/2021 1855
Chlorobenzene	50	45		1	89	70-130	04/01/2021 1855
Chloroethane	50	50		1	99	70-130	04/01/2021 1855
Chloroform	50	46		1	91	70-130	04/01/2021 1855
Chloromethane (Methyl chloride)	50	44		1	88	60-140	04/01/2021 1855
Cyclohexane	50	46		1	93	70-130	04/01/2021 1855
1,2-Dibromo-3-chloropropane (DBCP)	50	42		1	83	70-130	04/01/2021 1855
Dibromochloromethane	50	47		1	94	70-130	04/01/2021 1855
1,2-Dibromoethane (EDB)	50	45		1	89	70-130	04/01/2021 1855
1,2-Dichlorobenzene	50	46		1	91	70-130	04/01/2021 1855
1,3-Dichlorobenzene	50	45		1	90	70-130	04/01/2021 1855
1,4-Dichlorobenzene	50	44		1	87	70-130	04/01/2021 1855
Dichlorodifluoromethane	50	52		1	105	60-140	04/01/2021 1855
1,1-Dichloroethane	50	46		1	91	70-130	04/01/2021 1855
1,2-Dichloroethane	50	44		1	89	70-130	04/01/2021 1855
1,1-Dichloroethene	50	45		1	91	70-130	04/01/2021 1855
cis-1,2-Dichloroethene	50	45		1	90	70-130	04/01/2021 1855
trans-1,2-Dichloroethene	50	47		1	94	70-130	04/01/2021 1855
1,2-Dichloropropane	50	46		1	93	70-130	04/01/2021 1855
cis-1,3-Dichloropropene	50	48		1	95	70-130	04/01/2021 1855
trans-1,3-Dichloropropene	50	46		1	92	70-130	04/01/2021 1855
Ethylbenzene	50	45		1	91	70-130	04/01/2021 1855
2-Hexanone	100	94		1	94	70-130	04/01/2021 1855
Isopropylbenzene	50	46		1	92	70-130	04/01/2021 1855
Methyl acetate	50	46		1	91	70-130	04/01/2021 1855
Methyl tertiary butyl ether (MTBE)	50	46		1	92	70-130	04/01/2021 1855
4-Methyl-2-pentanone	100	96		1	96	70-130	04/01/2021 1855
Methylcyclohexane	50	47		1	95	70-130	04/01/2021 1855
Methylene chloride	50	45		1	89	70-130	04/01/2021 1855
Styrene	50	47		1	95	70-130	04/01/2021 1855
1,1,2,2-Tetrachloroethane	50	45		1	90	70-130	04/01/2021 1855
Tetrachloroethene	50	47		1	94	70-130	04/01/2021 1855
Toluene	50	46		1	92	70-130	04/01/2021 1855
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	48		1	96	70-130	04/01/2021 1855
1,2,4-Trichlorobenzene	50	41		1	82	70-130	04/01/2021 1855
1,1,1-Trichloroethane	50	47		1	95	70-130	04/01/2021 1855
1,1,2-Trichloroethane	50	46		1	92	70-130	04/01/2021 1855

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: WQ87673-002
Batch: 87673
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Trichloroethene	50	46		1	92	70-130	04/01/2021 1855
Trichlorofluoromethane	50	51		1	102	70-130	04/01/2021 1855
Vinyl chloride	50	47		1	93	70-130	04/01/2021 1855
Xylenes (total)	100	92		1	92	70-130	04/01/2021 1855

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		101	70-130
1,2-Dichloroethane-d4		96	70-130
Toluene-d8		94	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: WQ88045-001
Batch: 88045
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Acetone	ND		1	20	5.0	ug/L	04/06/2021 0211
Benzene	ND		1	1.0	0.40	ug/L	04/06/2021 0211
Bromodichloromethane	ND		1	1.0	0.40	ug/L	04/06/2021 0211
Bromoform	ND		1	1.0	0.40	ug/L	04/06/2021 0211
Bromomethane (Methyl bromide)	ND		1	2.0	0.40	ug/L	04/06/2021 0211
2-Butanone (MEK)	ND		1	10	2.0	ug/L	04/06/2021 0211
Carbon disulfide	ND		1	1.0	0.40	ug/L	04/06/2021 0211
Carbon tetrachloride	ND		1	1.0	0.40	ug/L	04/06/2021 0211
Chlorobenzene	ND		1	1.0	0.40	ug/L	04/06/2021 0211
Chloroethane	ND		1	2.0	0.40	ug/L	04/06/2021 0211
Chloroform	ND		1	1.0	0.40	ug/L	04/06/2021 0211
Chloromethane (Methyl chloride)	ND		1	1.0	0.50	ug/L	04/06/2021 0211
Cyclohexane	ND		1	1.0	0.40	ug/L	04/06/2021 0211
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	0.40	ug/L	04/06/2021 0211
Dibromochloromethane	ND		1	1.0	0.40	ug/L	04/06/2021 0211
1,2-Dibromoethane (EDB)	ND		1	1.0	0.40	ug/L	04/06/2021 0211
1,2-Dichlorobenzene	ND		1	1.0	0.40	ug/L	04/06/2021 0211
1,3-Dichlorobenzene	ND		1	1.0	0.40	ug/L	04/06/2021 0211
1,4-Dichlorobenzene	ND		1	1.0	0.40	ug/L	04/06/2021 0211
Dichlorodifluoromethane	ND		1	2.0	0.60	ug/L	04/06/2021 0211
1,1-Dichloroethane	ND		1	1.0	0.40	ug/L	04/06/2021 0211
1,2-Dichloroethane	ND		1	1.0	0.40	ug/L	04/06/2021 0211
1,1-Dichloroethene	ND		1	1.0	0.40	ug/L	04/06/2021 0211
cis-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	04/06/2021 0211
trans-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	04/06/2021 0211
1,2-Dichloropropane	ND		1	1.0	0.40	ug/L	04/06/2021 0211
cis-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	04/06/2021 0211
trans-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	04/06/2021 0211
Ethylbenzene	ND		1	1.0	0.40	ug/L	04/06/2021 0211
2-Hexanone	ND		1	10	2.0	ug/L	04/06/2021 0211
Isopropylbenzene	ND		1	1.0	0.40	ug/L	04/06/2021 0211
Methyl acetate	ND		1	1.0	0.40	ug/L	04/06/2021 0211
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	0.40	ug/L	04/06/2021 0211
4-Methyl-2-pentanone	ND		1	10	2.0	ug/L	04/06/2021 0211
Methylcyclohexane	ND		1	5.0	0.40	ug/L	04/06/2021 0211
Methylene chloride	ND		1	1.0	0.40	ug/L	04/06/2021 0211
Styrene	ND		1	1.0	0.41	ug/L	04/06/2021 0211
1,1,2,2-Tetrachloroethane	ND		1	1.0	0.40	ug/L	04/06/2021 0211
Tetrachloroethene	ND		1	1.0	0.40	ug/L	04/06/2021 0211
Toluene	ND		1	1.0	0.40	ug/L	04/06/2021 0211
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	0.42	ug/L	04/06/2021 0211
1,2,4-Trichlorobenzene	ND		1	1.0	0.40	ug/L	04/06/2021 0211
1,1,1-Trichloroethane	ND		1	1.0	0.40	ug/L	04/06/2021 0211
1,1,2-Trichloroethane	ND		1	1.0	0.40	ug/L	04/06/2021 0211

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: WQ88045-001
Batch: 88045
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Trichloroethene	ND		1	1.0	0.40	ug/L	04/06/2021 0211
Trichlorofluoromethane	ND		1	1.0	0.40	ug/L	04/06/2021 0211
Vinyl chloride	ND		1	1.0	0.40	ug/L	04/06/2021 0211
Xylenes (total)	ND		1	1.0	0.40	ug/L	04/06/2021 0211

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		112	70-130
1,2-Dichloroethane-d4		102	70-130
Toluene-d8		109	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: WQ88045-002
Batch: 88045
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Acetone	100	91		1	91	60-140	04/06/2021 0059
Benzene	50	50		1	99	70-130	04/06/2021 0059
Bromodichloromethane	50	49		1	98	70-130	04/06/2021 0059
Bromoform	50	46		1	92	70-130	04/06/2021 0059
Bromomethane (Methyl bromide)	50	54		1	108	70-130	04/06/2021 0059
2-Butanone (MEK)	100	110		1	112	70-130	04/06/2021 0059
Carbon disulfide	50	52		1	104	70-130	04/06/2021 0059
Carbon tetrachloride	50	49		1	97	70-130	04/06/2021 0059
Chlorobenzene	50	49		1	99	70-130	04/06/2021 0059
Chloroethane	50	48		1	96	70-130	04/06/2021 0059
Chloroform	50	46		1	91	70-130	04/06/2021 0059
Chloromethane (Methyl chloride)	50	46		1	93	60-140	04/06/2021 0059
Cyclohexane	50	46		1	93	70-130	04/06/2021 0059
1,2-Dibromo-3-chloropropane (DBCP)	50	43		1	85	70-130	04/06/2021 0059
Dibromochloromethane	50	46		1	91	70-130	04/06/2021 0059
1,2-Dibromoethane (EDB)	50	52		1	105	70-130	04/06/2021 0059
1,2-Dichlorobenzene	50	49		1	99	70-130	04/06/2021 0059
1,3-Dichlorobenzene	50	50		1	101	70-130	04/06/2021 0059
1,4-Dichlorobenzene	50	48		1	97	70-130	04/06/2021 0059
Dichlorodifluoromethane	50	48		1	96	60-140	04/06/2021 0059
1,1-Dichloroethane	50	48		1	95	70-130	04/06/2021 0059
1,2-Dichloroethane	50	44		1	88	70-130	04/06/2021 0059
1,1-Dichloroethene	50	52		1	104	70-130	04/06/2021 0059
cis-1,2-Dichloroethene	50	49		1	98	70-130	04/06/2021 0059
trans-1,2-Dichloroethene	50	50		1	99	70-130	04/06/2021 0059
1,2-Dichloropropane	50	51		1	103	70-130	04/06/2021 0059
cis-1,3-Dichloropropene	50	53		1	106	70-130	04/06/2021 0059
trans-1,3-Dichloropropene	50	44		1	88	70-130	04/06/2021 0059
Ethylbenzene	50	52		1	104	70-130	04/06/2021 0059
2-Hexanone	100	95		1	95	70-130	04/06/2021 0059
Isopropylbenzene	50	53		1	107	70-130	04/06/2021 0059
Methyl acetate	50	54		1	108	70-130	04/06/2021 0059
Methyl tertiary butyl ether (MTBE)	50	48		1	97	70-130	04/06/2021 0059
4-Methyl-2-pentanone	100	110		1	105	70-130	04/06/2021 0059
Methylcyclohexane	50	54		1	107	70-130	04/06/2021 0059
Methylene chloride	50	48		1	96	70-130	04/06/2021 0059
Styrene	50	55		1	110	70-130	04/06/2021 0059
1,1,2,2-Tetrachloroethane	50	53		1	107	70-130	04/06/2021 0059
Tetrachloroethene	50	50		1	100	70-130	04/06/2021 0059
Toluene	50	51		1	101	70-130	04/06/2021 0059
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	52		1	104	70-130	04/06/2021 0059
1,2,4-Trichlorobenzene	50	52		1	105	70-130	04/06/2021 0059
1,1,1-Trichloroethane	50	48		1	95	70-130	04/06/2021 0059
1,1,2-Trichloroethane	50	50		1	101	70-130	04/06/2021 0059

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: WQ88045-002
Batch: 88045
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Trichloroethene	50	49		1	98	70-130	04/06/2021 0059
Trichlorofluoromethane	50	50		1	99	70-130	04/06/2021 0059
Vinyl chloride	50	52		1	105	70-130	04/06/2021 0059
Xylenes (total)	100	110		1	106	70-130	04/06/2021 0059

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		93	70-130
1,2-Dichloroethane-d4		81	70-130
Toluene-d8		91	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: WQ88113-001
Batch: 88113
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Acetone	ND		1	20	5.0	ug/L	04/06/2021 1137
Benzene	ND		1	1.0	0.40	ug/L	04/06/2021 1137
Bromodichloromethane	ND		1	1.0	0.40	ug/L	04/06/2021 1137
Bromoform	ND		1	1.0	0.40	ug/L	04/06/2021 1137
Bromomethane (Methyl bromide)	ND		1	2.0	0.40	ug/L	04/06/2021 1137
2-Butanone (MEK)	ND		1	10	2.0	ug/L	04/06/2021 1137
Carbon disulfide	ND		1	1.0	0.40	ug/L	04/06/2021 1137
Carbon tetrachloride	ND		1	1.0	0.40	ug/L	04/06/2021 1137
Chlorobenzene	ND		1	1.0	0.40	ug/L	04/06/2021 1137
Chloroethane	ND		1	2.0	0.40	ug/L	04/06/2021 1137
Chloroform	ND		1	1.0	0.40	ug/L	04/06/2021 1137
Chloromethane (Methyl chloride)	ND		1	1.0	0.50	ug/L	04/06/2021 1137
Cyclohexane	ND		1	1.0	0.40	ug/L	04/06/2021 1137
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	0.40	ug/L	04/06/2021 1137
Dibromochloromethane	ND		1	1.0	0.40	ug/L	04/06/2021 1137
1,2-Dibromoethane (EDB)	ND		1	1.0	0.40	ug/L	04/06/2021 1137
1,2-Dichlorobenzene	ND		1	1.0	0.40	ug/L	04/06/2021 1137
1,3-Dichlorobenzene	ND		1	1.0	0.40	ug/L	04/06/2021 1137
1,4-Dichlorobenzene	ND		1	1.0	0.40	ug/L	04/06/2021 1137
Dichlorodifluoromethane	ND		1	2.0	0.60	ug/L	04/06/2021 1137
1,1-Dichloroethane	ND		1	1.0	0.40	ug/L	04/06/2021 1137
1,2-Dichloroethane	ND		1	1.0	0.40	ug/L	04/06/2021 1137
1,1-Dichloroethene	ND		1	1.0	0.40	ug/L	04/06/2021 1137
cis-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	04/06/2021 1137
trans-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	04/06/2021 1137
1,2-Dichloropropane	ND		1	1.0	0.40	ug/L	04/06/2021 1137
cis-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	04/06/2021 1137
trans-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	04/06/2021 1137
Ethylbenzene	ND		1	1.0	0.40	ug/L	04/06/2021 1137
2-Hexanone	ND		1	10	2.0	ug/L	04/06/2021 1137
Isopropylbenzene	ND		1	1.0	0.40	ug/L	04/06/2021 1137
Methyl acetate	ND		1	1.0	0.40	ug/L	04/06/2021 1137
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	0.40	ug/L	04/06/2021 1137
4-Methyl-2-pentanone	ND		1	10	2.0	ug/L	04/06/2021 1137
Methylcyclohexane	ND		1	5.0	0.40	ug/L	04/06/2021 1137
Methylene chloride	ND		1	1.0	0.40	ug/L	04/06/2021 1137
Styrene	ND		1	1.0	0.41	ug/L	04/06/2021 1137
1,1,2,2-Tetrachloroethane	ND		1	1.0	0.40	ug/L	04/06/2021 1137
Tetrachloroethene	ND		1	1.0	0.40	ug/L	04/06/2021 1137
Toluene	ND		1	1.0	0.40	ug/L	04/06/2021 1137
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	0.42	ug/L	04/06/2021 1137
1,2,4-Trichlorobenzene	ND		1	1.0	0.40	ug/L	04/06/2021 1137
1,1,1-Trichloroethane	ND		1	1.0	0.40	ug/L	04/06/2021 1137
1,1,2-Trichloroethane	ND		1	1.0	0.40	ug/L	04/06/2021 1137

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: WQ88113-001
Batch: 88113
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Trichloroethene	ND		1	1.0	0.40	ug/L	04/06/2021 1137
Trichlorofluoromethane	ND		1	1.0	0.40	ug/L	04/06/2021 1137
Vinyl chloride	ND		1	1.0	0.40	ug/L	04/06/2021 1137
Xylenes (total)	ND		1	1.0	0.40	ug/L	04/06/2021 1137

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		106	70-130
1,2-Dichloroethane-d4		101	70-130
Toluene-d8		104	70-130

LOQ = Limit of Quantitation
DL = Detection Limit

ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria

N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: WQ88113-002
Batch: 88113
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Acetone	100	120		1	120	60-140	04/06/2021 1031
Benzene	50	53		1	106	70-130	04/06/2021 1031
Bromodichloromethane	50	51		1	101	70-130	04/06/2021 1031
Bromoform	50	44		1	88	70-130	04/06/2021 1031
Bromomethane (Methyl bromide)	50	54		1	108	70-130	04/06/2021 1031
2-Butanone (MEK)	100	120		1	121	70-130	04/06/2021 1031
Carbon disulfide	50	56		1	112	70-130	04/06/2021 1031
Carbon tetrachloride	50	50		1	101	70-130	04/06/2021 1031
Chlorobenzene	50	52		1	105	70-130	04/06/2021 1031
Chloroethane	50	41		1	83	70-130	04/06/2021 1031
Chloroform	50	49		1	98	70-130	04/06/2021 1031
Chloromethane (Methyl chloride)	50	44		1	89	60-140	04/06/2021 1031
Cyclohexane	50	49		1	98	70-130	04/06/2021 1031
1,2-Dibromo-3-chloropropane (DBCP)	50	45		1	89	70-130	04/06/2021 1031
Dibromochloromethane	50	46		1	92	70-130	04/06/2021 1031
1,2-Dibromoethane (EDB)	50	53		1	107	70-130	04/06/2021 1031
1,2-Dichlorobenzene	50	55		1	110	70-130	04/06/2021 1031
1,3-Dichlorobenzene	50	55		1	110	70-130	04/06/2021 1031
1,4-Dichlorobenzene	50	52		1	105	70-130	04/06/2021 1031
Dichlorodifluoromethane	50	42		1	85	60-140	04/06/2021 1031
1,1-Dichloroethane	50	51		1	102	70-130	04/06/2021 1031
1,2-Dichloroethane	50	47		1	94	70-130	04/06/2021 1031
1,1-Dichloroethene	50	55		1	111	70-130	04/06/2021 1031
cis-1,2-Dichloroethene	50	52		1	105	70-130	04/06/2021 1031
trans-1,2-Dichloroethene	50	54		1	108	70-130	04/06/2021 1031
1,2-Dichloropropane	50	53		1	105	70-130	04/06/2021 1031
cis-1,3-Dichloropropene	50	54		1	108	70-130	04/06/2021 1031
trans-1,3-Dichloropropene	50	44		1	89	70-130	04/06/2021 1031
Ethylbenzene	50	54		1	108	70-130	04/06/2021 1031
2-Hexanone	100	94		1	94	70-130	04/06/2021 1031
Isopropylbenzene	50	57		1	114	70-130	04/06/2021 1031
Methyl acetate	50	54		1	109	70-130	04/06/2021 1031
Methyl tertiary butyl ether (MTBE)	50	50		1	99	70-130	04/06/2021 1031
4-Methyl-2-pentanone	100	110		1	105	70-130	04/06/2021 1031
Methylcyclohexane	50	57		1	114	70-130	04/06/2021 1031
Methylene chloride	50	51		1	102	70-130	04/06/2021 1031
Styrene	50	57		1	115	70-130	04/06/2021 1031
1,1,2,2-Tetrachloroethane	50	55		1	111	70-130	04/06/2021 1031
Tetrachloroethene	50	52		1	104	70-130	04/06/2021 1031
Toluene	50	52		1	105	70-130	04/06/2021 1031
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	57		1	114	70-130	04/06/2021 1031
1,2,4-Trichlorobenzene	50	59		1	117	70-130	04/06/2021 1031
1,1,1-Trichloroethane	50	51		1	103	70-130	04/06/2021 1031
1,1,2-Trichloroethane	50	51		1	103	70-130	04/06/2021 1031

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: WQ88113-002
Batch: 88113
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Trichloroethene	50	51		1	102	70-130	04/06/2021 1031
Trichlorofluoromethane	50	45		1	90	70-130	04/06/2021 1031
Vinyl chloride	50	51		1	102	70-130	04/06/2021 1031
Xylenes (total)	100	110		1	111	70-130	04/06/2021 1031

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		102	70-130
1,2-Dichloroethane-d4		88	70-130
Toluene-d8		97	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: WQ88181-001
Batch: 88181
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Acetone	ND		1	20	5.0	ug/L	04/06/2021 2219
Benzene	ND		1	1.0	0.40	ug/L	04/06/2021 2219
Bromodichloromethane	ND		1	1.0	0.40	ug/L	04/06/2021 2219
Bromoform	ND		1	1.0	0.40	ug/L	04/06/2021 2219
Bromomethane (Methyl bromide)	ND		1	2.0	0.40	ug/L	04/06/2021 2219
2-Butanone (MEK)	ND		1	10	2.0	ug/L	04/06/2021 2219
Carbon disulfide	ND		1	1.0	0.40	ug/L	04/06/2021 2219
Carbon tetrachloride	ND		1	1.0	0.40	ug/L	04/06/2021 2219
Chlorobenzene	ND		1	1.0	0.40	ug/L	04/06/2021 2219
Chloroethane	ND		1	2.0	0.40	ug/L	04/06/2021 2219
Chloroform	ND		1	1.0	0.40	ug/L	04/06/2021 2219
Chloromethane (Methyl chloride)	ND		1	1.0	0.50	ug/L	04/06/2021 2219
Cyclohexane	ND		1	1.0	0.40	ug/L	04/06/2021 2219
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	0.40	ug/L	04/06/2021 2219
Dibromochloromethane	ND		1	1.0	0.40	ug/L	04/06/2021 2219
1,2-Dibromoethane (EDB)	ND		1	1.0	0.40	ug/L	04/06/2021 2219
1,2-Dichlorobenzene	ND		1	1.0	0.40	ug/L	04/06/2021 2219
1,3-Dichlorobenzene	ND		1	1.0	0.40	ug/L	04/06/2021 2219
1,4-Dichlorobenzene	ND		1	1.0	0.40	ug/L	04/06/2021 2219
Dichlorodifluoromethane	ND		1	2.0	0.60	ug/L	04/06/2021 2219
1,1-Dichloroethane	ND		1	1.0	0.40	ug/L	04/06/2021 2219
1,2-Dichloroethane	ND		1	1.0	0.40	ug/L	04/06/2021 2219
1,1-Dichloroethene	ND		1	1.0	0.40	ug/L	04/06/2021 2219
cis-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	04/06/2021 2219
trans-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	04/06/2021 2219
1,2-Dichloropropane	ND		1	1.0	0.40	ug/L	04/06/2021 2219
cis-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	04/06/2021 2219
trans-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	04/06/2021 2219
Ethylbenzene	ND		1	1.0	0.40	ug/L	04/06/2021 2219
2-Hexanone	ND		1	10	2.0	ug/L	04/06/2021 2219
Isopropylbenzene	ND		1	1.0	0.40	ug/L	04/06/2021 2219
Methyl acetate	ND		1	1.0	0.40	ug/L	04/06/2021 2219
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	0.40	ug/L	04/06/2021 2219
4-Methyl-2-pentanone	ND		1	10	2.0	ug/L	04/06/2021 2219
Methylcyclohexane	ND		1	5.0	0.40	ug/L	04/06/2021 2219
Methylene chloride	ND		1	1.0	0.40	ug/L	04/06/2021 2219
Styrene	ND		1	1.0	0.41	ug/L	04/06/2021 2219
1,1,2,2-Tetrachloroethane	ND		1	1.0	0.40	ug/L	04/06/2021 2219
Tetrachloroethene	ND		1	1.0	0.40	ug/L	04/06/2021 2219
Toluene	ND		1	1.0	0.40	ug/L	04/06/2021 2219
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	0.42	ug/L	04/06/2021 2219
1,2,4-Trichlorobenzene	ND		1	1.0	0.40	ug/L	04/06/2021 2219
1,1,1-Trichloroethane	ND		1	1.0	0.40	ug/L	04/06/2021 2219
1,1,2-Trichloroethane	ND		1	1.0	0.40	ug/L	04/06/2021 2219

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: WQ88181-001
Batch: 88181
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Trichloroethene	ND		1	1.0	0.40	ug/L	04/06/2021 2219
Trichlorofluoromethane	ND		1	1.0	0.40	ug/L	04/06/2021 2219
Vinyl chloride	ND		1	1.0	0.40	ug/L	04/06/2021 2219
Xylenes (total)	ND		1	1.0	0.40	ug/L	04/06/2021 2219

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		96	70-130
1,2-Dichloroethane-d4		101	70-130
Toluene-d8		97	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: WQ88181-002
Batch: 88181
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Acetone	100	110		1	107	60-140	04/06/2021 2056
Benzene	50	48		1	95	70-130	04/06/2021 2056
Bromodichloromethane	50	49		1	98	70-130	04/06/2021 2056
Bromoform	50	50		1	100	70-130	04/06/2021 2056
Bromomethane (Methyl bromide)	50	41		1	81	70-130	04/06/2021 2056
2-Butanone (MEK)	100	110		1	109	70-130	04/06/2021 2056
Carbon disulfide	50	45		1	90	70-130	04/06/2021 2056
Carbon tetrachloride	50	43		1	86	70-130	04/06/2021 2056
Chlorobenzene	50	47		1	94	70-130	04/06/2021 2056
Chloroethane	50	43		1	87	70-130	04/06/2021 2056
Chloroform	50	46		1	92	70-130	04/06/2021 2056
Chloromethane (Methyl chloride)	50	38		1	77	60-140	04/06/2021 2056
Cyclohexane	50	47		1	94	70-130	04/06/2021 2056
1,2-Dibromo-3-chloropropane (DBCP)	50	47		1	95	70-130	04/06/2021 2056
Dibromochloromethane	50	49		1	98	70-130	04/06/2021 2056
1,2-Dibromoethane (EDB)	50	51		1	102	70-130	04/06/2021 2056
1,2-Dichlorobenzene	50	47		1	93	70-130	04/06/2021 2056
1,3-Dichlorobenzene	50	47		1	93	70-130	04/06/2021 2056
1,4-Dichlorobenzene	50	46		1	92	70-130	04/06/2021 2056
Dichlorodifluoromethane	50	33		1	66	60-140	04/06/2021 2056
1,1-Dichloroethane	50	47		1	94	70-130	04/06/2021 2056
1,2-Dichloroethane	50	49		1	98	70-130	04/06/2021 2056
1,1-Dichloroethene	50	46		1	91	70-130	04/06/2021 2056
cis-1,2-Dichloroethene	50	46		1	91	70-130	04/06/2021 2056
trans-1,2-Dichloroethene	50	45		1	91	70-130	04/06/2021 2056
1,2-Dichloropropane	50	51		1	101	70-130	04/06/2021 2056
cis-1,3-Dichloropropene	50	49		1	97	70-130	04/06/2021 2056
trans-1,3-Dichloropropene	50	48		1	97	70-130	04/06/2021 2056
Ethylbenzene	50	48		1	95	70-130	04/06/2021 2056
2-Hexanone	100	120		1	115	70-130	04/06/2021 2056
Isopropylbenzene	50	46		1	93	70-130	04/06/2021 2056
Methyl acetate	50	55		1	110	70-130	04/06/2021 2056
Methyl tertiary butyl ether (MTBE)	50	46		1	91	70-130	04/06/2021 2056
4-Methyl-2-pentanone	100	110		1	112	70-130	04/06/2021 2056
Methylcyclohexane	50	46		1	92	70-130	04/06/2021 2056
Methylene chloride	50	47		1	94	70-130	04/06/2021 2056
Styrene	50	50		1	101	70-130	04/06/2021 2056
1,1,2,2-Tetrachloroethane	50	53		1	106	70-130	04/06/2021 2056
Tetrachloroethene	50	44		1	88	70-130	04/06/2021 2056
Toluene	50	46		1	93	70-130	04/06/2021 2056
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	48		1	95	70-130	04/06/2021 2056
1,2,4-Trichlorobenzene	50	43		1	85	70-130	04/06/2021 2056
1,1,1-Trichloroethane	50	45		1	90	70-130	04/06/2021 2056
1,1,2-Trichloroethane	50	51		1	102	70-130	04/06/2021 2056

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: WQ88181-002
Batch: 88181
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Trichloroethene	50	45		1	90	70-130	04/06/2021 2056
Trichlorofluoromethane	50	42		1	83	70-130	04/06/2021 2056
Vinyl chloride	50	41		1	83	70-130	04/06/2021 2056
Xylenes (total)	100	93		1	93	70-130	04/06/2021 2056

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		91	70-130
1,2-Dichloroethane-d4		92	70-130
Toluene-d8		87	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: WC29029-013MS
Batch: 88181
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Acetone	ND	500	450		5	91	60-140	04/07/2021 0730
Benzene	ND	250	280		5	110	70-130	04/07/2021 0730
Bromodichloromethane	ND	250	270		5	106	70-130	04/07/2021 0730
Bromoform	ND	250	240		5	98	70-130	04/07/2021 0730
Bromomethane (Methyl bromide)	ND	250	260		5	103	70-130	04/07/2021 0730
2-Butanone (MEK)	ND	500	500		5	100	70-130	04/07/2021 0730
Carbon disulfide	ND	250	270		5	107	70-130	04/07/2021 0730
Carbon tetrachloride	ND	250	270		5	107	70-130	04/07/2021 0730
Chlorobenzene	ND	250	260		5	105	70-130	04/07/2021 0730
Chloroethane	ND	250	280		5	113	70-130	04/07/2021 0730
Chloroform	ND	250	260		5	105	70-130	04/07/2021 0730
Chloromethane (Methyl chloride)	ND	250	280		5	112	60-140	04/07/2021 0730
Cyclohexane	ND	250	310		5	122	70-130	04/07/2021 0730
1,2-Dibromo-3-chloropropane (DBCP)	ND	250	240		5	95	70-130	04/07/2021 0730
Dibromochloromethane	ND	250	260		5	103	70-130	04/07/2021 0730
1,2-Dibromoethane (EDB)	ND	250	260		5	102	70-130	04/07/2021 0730
1,2-Dichlorobenzene	ND	250	260		5	103	70-130	04/07/2021 0730
1,3-Dichlorobenzene	ND	250	260		5	104	70-130	04/07/2021 0730
1,4-Dichlorobenzene	ND	250	260		5	102	70-130	04/07/2021 0730
Dichlorodifluoromethane	ND	250	290		5	118	60-140	04/07/2021 0730
1,1-Dichloroethane	ND	250	270		5	108	70-130	04/07/2021 0730
1,2-Dichloroethane	ND	250	260		5	102	70-130	04/07/2021 0730
1,1-Dichloroethene	ND	250	280		5	110	70-130	04/07/2021 0730
cis-1,2-Dichloroethene	ND	250	260		5	103	70-130	04/07/2021 0730
trans-1,2-Dichloroethene	ND	250	270		5	106	70-130	04/07/2021 0730
1,2-Dichloropropane	ND	250	280		5	114	70-130	04/07/2021 0730
cis-1,3-Dichloropropene	ND	250	270		5	108	70-130	04/07/2021 0730
trans-1,3-Dichloropropene	ND	250	260		5	104	70-130	04/07/2021 0730
Ethylbenzene	ND	250	280		5	111	70-130	04/07/2021 0730
2-Hexanone	ND	500	540		5	107	70-130	04/07/2021 0730
Isopropylbenzene	ND	250	280		5	112	70-130	04/07/2021 0730
Methyl acetate	ND	250	250		5	101	70-130	04/07/2021 0730
Methyl tertiary butyl ether (MTBE)	ND	250	240		5	95	70-130	04/07/2021 0730
4-Methyl-2-pentanone	ND	500	540		5	108	70-130	04/07/2021 0730
Methylcyclohexane	ND	250	300		5	119	70-130	04/07/2021 0730
Methylene chloride	ND	250	260		5	103	70-130	04/07/2021 0730
Styrene	ND	250	280		5	112	70-130	04/07/2021 0730
1,1,2,2-Tetrachloroethane	ND	250	270		5	108	70-130	04/07/2021 0730
Tetrachloroethene	360	250	640		5	112	70-130	04/07/2021 0730
Toluene	ND	250	270		5	106	70-130	04/07/2021 0730
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	250	290		5	116	70-130	04/07/2021 0730
1,2,4-Trichlorobenzene	ND	250	240		5	96	70-130	04/07/2021 0730
1,1,1-Trichloroethane	ND	250	270		5	110	70-130	04/07/2021 0730
1,1,2-Trichloroethane	ND	250	270		5	106	70-130	04/07/2021 0730

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MS

Sample ID: WC29029-013MS
Batch: 88181
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Trichloroethene	ND	250	270		5	106	70-130	04/07/2021 0730
Trichlorofluoromethane	ND	250	280		5	113	70-130	04/07/2021 0730
Vinyl chloride	ND	250	310		5	123	70-130	04/07/2021 0730
Xylenes (total)	ND	500	540		5	109	70-130	04/07/2021 0730

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		99	70-130
1,2-Dichloroethane-d4		96	70-130
Toluene-d8		99	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MSD

Sample ID: WC29029-013MD
Batch: 88181
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	%Rec Limit	% RPD Limit	Analysis Date
Acetone	ND	500	450		5	89	1.6	60-140	20	04/07/2021 0755
Benzene	ND	250	270		5	108	2.5	70-130	20	04/07/2021 0755
Bromodichloromethane	ND	250	260		5	105	1.1	70-130	20	04/07/2021 0755
Bromoform	ND	250	240		5	98	0.39	70-130	20	04/07/2021 0755
Bromomethane (Methyl bromide)	ND	250	260		5	104	1.1	70-130	20	04/07/2021 0755
2-Butanone (MEK)	ND	500	480		5	97	3.6	70-130	20	04/07/2021 0755
Carbon disulfide	ND	250	280		5	110	2.6	70-130	20	04/07/2021 0755
Carbon tetrachloride	ND	250	270		5	108	1.4	70-130	20	04/07/2021 0755
Chlorobenzene	ND	250	260		5	104	1.5	70-130	20	04/07/2021 0755
Chloroethane	ND	250	290		5	116	2.3	70-130	20	04/07/2021 0755
Chloroform	ND	250	260		5	103	1.4	70-130	20	04/07/2021 0755
Chloromethane (Methyl chloride)	ND	250	280		5	113	1.4	60-140	20	04/07/2021 0755
Cyclohexane	ND	250	300		5	120	2.0	70-130	20	04/07/2021 0755
1,2-Dibromo-3-chloropropane (DBCP)	ND	250	240		5	95	0.28	70-130	20	04/07/2021 0755
Dibromochloromethane	ND	250	250		5	101	1.4	70-130	20	04/07/2021 0755
1,2-Dibromoethane (EDB)	ND	250	250		5	102	0.48	70-130	20	04/07/2021 0755
1,2-Dichlorobenzene	ND	250	260		5	103	0.38	70-130	20	04/07/2021 0755
1,3-Dichlorobenzene	ND	250	260		5	104	0.41	70-130	20	04/07/2021 0755
1,4-Dichlorobenzene	ND	250	250		5	101	1.3	70-130	20	04/07/2021 0755
Dichlorodifluoromethane	ND	250	300		5	120	1.8	60-140	20	04/07/2021 0755
1,1-Dichloroethane	ND	250	270		5	109	0.51	70-130	20	04/07/2021 0755
1,2-Dichloroethane	ND	250	250		5	101	1.5	70-130	20	04/07/2021 0755
1,1-Dichloroethene	ND	250	280		5	111	0.57	70-130	20	04/07/2021 0755
cis-1,2-Dichloroethene	ND	250	260		5	103	0.060	70-130	20	04/07/2021 0755
trans-1,2-Dichloroethene	ND	250	260		5	104	1.7	70-130	20	04/07/2021 0755
1,2-Dichloropropane	ND	250	280		5	111	2.4	70-130	20	04/07/2021 0755
cis-1,3-Dichloropropene	ND	250	270		5	107	0.89	70-130	20	04/07/2021 0755
trans-1,3-Dichloropropene	ND	250	260		5	104	0.20	70-130	20	04/07/2021 0755
Ethylbenzene	ND	250	270		5	109	2.4	70-130	20	04/07/2021 0755
2-Hexanone	ND	500	520		5	104	3.2	70-130	20	04/07/2021 0755
Isopropylbenzene	ND	250	280		5	111	1.2	70-130	20	04/07/2021 0755
Methyl acetate	ND	250	240		5	97	3.3	70-130	20	04/07/2021 0755
Methyl tertiary butyl ether (MTBE)	ND	250	240		5	95	0.21	70-130	20	04/07/2021 0755
4-Methyl-2-pentanone	ND	500	530		5	105	2.2	70-130	20	04/07/2021 0755
Methylcyclohexane	ND	250	290		5	116	2.5	70-130	20	04/07/2021 0755
Methylene chloride	ND	250	260		5	103	0.0082	70-130	20	04/07/2021 0755
Styrene	ND	250	280		5	111	1.0	70-130	20	04/07/2021 0755
1,1,2,2-Tetrachloroethane	ND	250	270		5	106	1.6	70-130	20	04/07/2021 0755
Tetrachloroethene	360	250	620		5	105	2.7	70-130	20	04/07/2021 0755
Toluene	ND	250	260		5	105	1.1	70-130	20	04/07/2021 0755
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	250	280		5	114	1.9	70-130	20	04/07/2021 0755
1,2,4-Trichlorobenzene	ND	250	240		5	95	0.95	70-130	20	04/07/2021 0755
1,1,1-Trichloroethane	ND	250	270		5	109	0.78	70-130	20	04/07/2021 0755
1,1,2-Trichloroethane	ND	250	260		5	104	1.9	70-130	20	04/07/2021 0755

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MSD

Sample ID: WC29029-013MD
Batch: 88181
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Sample Amount (ug/L)	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	% RPD	%Rec Limit	% RPD Limit	Analysis Date
Trichloroethene	ND	250	260		5	104	1.9	70-130	20	04/07/2021 0755
Trichlorofluoromethane	ND	250	290		5	115	1.7	70-130	20	04/07/2021 0755
Vinyl chloride	ND	250	310		5	124	1.0	70-130	20	04/07/2021 0755
Xylenes (total)	ND	500	540		5	107	1.7	70-130	20	04/07/2021 0755

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		98	70-130
1,2-Dichloroethane-d4		95	70-130
Toluene-d8		98	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: WQ88245-001
Batch: 88245
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Acetone	ND		1	20	5.0	ug/L	04/07/2021 1047
Benzene	ND		1	1.0	0.40	ug/L	04/07/2021 1047
Bromodichloromethane	ND		1	1.0	0.40	ug/L	04/07/2021 1047
Bromoform	ND		1	1.0	0.40	ug/L	04/07/2021 1047
Bromomethane (Methyl bromide)	ND		1	2.0	0.40	ug/L	04/07/2021 1047
2-Butanone (MEK)	ND		1	10	2.0	ug/L	04/07/2021 1047
Carbon disulfide	ND		1	1.0	0.40	ug/L	04/07/2021 1047
Carbon tetrachloride	ND		1	1.0	0.40	ug/L	04/07/2021 1047
Chlorobenzene	ND		1	1.0	0.40	ug/L	04/07/2021 1047
Chloroethane	ND		1	2.0	0.40	ug/L	04/07/2021 1047
Chloroform	ND		1	1.0	0.40	ug/L	04/07/2021 1047
Chloromethane (Methyl chloride)	ND		1	1.0	0.50	ug/L	04/07/2021 1047
Cyclohexane	ND		1	1.0	0.40	ug/L	04/07/2021 1047
1,2-Dibromo-3-chloropropane (DBCP)	ND		1	1.0	0.40	ug/L	04/07/2021 1047
Dibromochloromethane	ND		1	1.0	0.40	ug/L	04/07/2021 1047
1,2-Dibromoethane (EDB)	ND		1	1.0	0.40	ug/L	04/07/2021 1047
1,2-Dichlorobenzene	ND		1	1.0	0.40	ug/L	04/07/2021 1047
1,3-Dichlorobenzene	ND		1	1.0	0.40	ug/L	04/07/2021 1047
1,4-Dichlorobenzene	ND		1	1.0	0.40	ug/L	04/07/2021 1047
Dichlorodifluoromethane	ND		1	2.0	0.60	ug/L	04/07/2021 1047
1,1-Dichloroethane	ND		1	1.0	0.40	ug/L	04/07/2021 1047
1,2-Dichloroethane	ND		1	1.0	0.40	ug/L	04/07/2021 1047
1,1-Dichloroethene	ND		1	1.0	0.40	ug/L	04/07/2021 1047
cis-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	04/07/2021 1047
trans-1,2-Dichloroethene	ND		1	1.0	0.40	ug/L	04/07/2021 1047
1,2-Dichloropropane	ND		1	1.0	0.40	ug/L	04/07/2021 1047
cis-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	04/07/2021 1047
trans-1,3-Dichloropropene	ND		1	1.0	0.40	ug/L	04/07/2021 1047
Ethylbenzene	ND		1	1.0	0.40	ug/L	04/07/2021 1047
2-Hexanone	ND		1	10	2.0	ug/L	04/07/2021 1047
Isopropylbenzene	ND		1	1.0	0.40	ug/L	04/07/2021 1047
Methyl acetate	ND		1	1.0	0.40	ug/L	04/07/2021 1047
Methyl tertiary butyl ether (MTBE)	ND		1	1.0	0.40	ug/L	04/07/2021 1047
4-Methyl-2-pentanone	ND		1	10	2.0	ug/L	04/07/2021 1047
Methylcyclohexane	ND		1	5.0	0.40	ug/L	04/07/2021 1047
Methylene chloride	ND		1	1.0	0.40	ug/L	04/07/2021 1047
Styrene	ND		1	1.0	0.41	ug/L	04/07/2021 1047
1,1,2,2-Tetrachloroethane	ND		1	1.0	0.40	ug/L	04/07/2021 1047
Tetrachloroethene	ND		1	1.0	0.40	ug/L	04/07/2021 1047
Toluene	ND		1	1.0	0.40	ug/L	04/07/2021 1047
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1	1.0	0.42	ug/L	04/07/2021 1047
1,2,4-Trichlorobenzene	ND		1	1.0	0.40	ug/L	04/07/2021 1047
1,1,1-Trichloroethane	ND		1	1.0	0.40	ug/L	04/07/2021 1047
1,1,2-Trichloroethane	ND		1	1.0	0.40	ug/L	04/07/2021 1047

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - MB

Sample ID: WQ88245-001
Batch: 88245
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Result	Q	Dil	LOQ	DL	Units	Analysis Date
Trichloroethene	ND		1	1.0	0.40	ug/L	04/07/2021 1047
Trichlorofluoromethane	ND		1	1.0	0.40	ug/L	04/07/2021 1047
Vinyl chloride	ND		1	1.0	0.40	ug/L	04/07/2021 1047
Xylenes (total)	ND		1	1.0	0.40	ug/L	04/07/2021 1047

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		100	70-130
1,2-Dichloroethane-d4		92	70-130
Toluene-d8		102	70-130

LOQ = Limit of Quantitation
DL = Detection Limit

ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria

N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: WQ88245-002
Batch: 88245
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Acetone	100	130		1	128	60-140	04/07/2021 0903
Benzene	50	48		1	95	70-130	04/07/2021 0903
Bromodichloromethane	50	47		1	93	70-130	04/07/2021 0903
Bromoform	50	51		1	103	70-130	04/07/2021 0903
Bromomethane (Methyl bromide)	50	46		1	92	70-130	04/07/2021 0903
2-Butanone (MEK)	100	98		1	98	70-130	04/07/2021 0903
Carbon disulfide	50	48		1	97	70-130	04/07/2021 0903
Carbon tetrachloride	50	48		1	97	70-130	04/07/2021 0903
Chlorobenzene	50	48		1	97	70-130	04/07/2021 0903
Chloroethane	50	50		1	99	70-130	04/07/2021 0903
Chloroform	50	47		1	93	70-130	04/07/2021 0903
Chloromethane (Methyl chloride)	50	48		1	95	60-140	04/07/2021 0903
Cyclohexane	50	49		1	98	70-130	04/07/2021 0903
1,2-Dibromo-3-chloropropane (DBCP)	50	49		1	99	70-130	04/07/2021 0903
Dibromochloromethane	50	51		1	102	70-130	04/07/2021 0903
1,2-Dibromoethane (EDB)	50	50		1	100	70-130	04/07/2021 0903
1,2-Dichlorobenzene	50	52		1	105	70-130	04/07/2021 0903
1,3-Dichlorobenzene	50	50		1	100	70-130	04/07/2021 0903
1,4-Dichlorobenzene	50	51		1	102	70-130	04/07/2021 0903
Dichlorodifluoromethane	50	53		1	105	60-140	04/07/2021 0903
1,1-Dichloroethane	50	47		1	94	70-130	04/07/2021 0903
1,2-Dichloroethane	50	45		1	90	70-130	04/07/2021 0903
1,1-Dichloroethene	50	46		1	92	70-130	04/07/2021 0903
cis-1,2-Dichloroethene	50	47		1	93	70-130	04/07/2021 0903
trans-1,2-Dichloroethene	50	46		1	92	70-130	04/07/2021 0903
1,2-Dichloropropane	50	49		1	98	70-130	04/07/2021 0903
cis-1,3-Dichloropropene	50	48		1	97	70-130	04/07/2021 0903
trans-1,3-Dichloropropene	50	52		1	103	70-130	04/07/2021 0903
Ethylbenzene	50	50		1	100	70-130	04/07/2021 0903
2-Hexanone	100	100		1	101	70-130	04/07/2021 0903
Isopropylbenzene	50	53		1	106	70-130	04/07/2021 0903
Methyl acetate	50	47		1	93	70-130	04/07/2021 0903
Methyl tertiary butyl ether (MTBE)	50	47		1	95	70-130	04/07/2021 0903
4-Methyl-2-pentanone	100	95		1	95	70-130	04/07/2021 0903
Methylcyclohexane	50	51		1	101	70-130	04/07/2021 0903
Methylene chloride	50	46		1	92	70-130	04/07/2021 0903
Styrene	50	51		1	103	70-130	04/07/2021 0903
1,1,2,2-Tetrachloroethane	50	54		1	109	70-130	04/07/2021 0903
Tetrachloroethene	50	51		1	101	70-130	04/07/2021 0903
Toluene	50	50		1	101	70-130	04/07/2021 0903
1,1,2-Trichloro-1,2,2-Trifluoroethane	50	49		1	99	70-130	04/07/2021 0903
1,2,4-Trichlorobenzene	50	53		1	105	70-130	04/07/2021 0903
1,1,1-Trichloroethane	50	48		1	95	70-130	04/07/2021 0903
1,1,2-Trichloroethane	50	50		1	99	70-130	04/07/2021 0903

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

Volatile Organic Compounds by GC/MS - LCS

Sample ID: WQ88245-002
Batch: 88245
Analytical Method: 8260D

Matrix: Aqueous
Prep Method: 5030B

Parameter	Spike Amount (ug/L)	Result (ug/L)	Q	Dil	% Rec	%Rec Limit	Analysis Date
Trichloroethene	50	46		1	92	70-130	04/07/2021 0903
Trichlorofluoromethane	50	47		1	93	70-130	04/07/2021 0903
Vinyl chloride	50	48		1	95	70-130	04/07/2021 0903
Xylenes (total)	100	100		1	100	70-130	04/07/2021 0903

Surrogate	Q	% Rec	Acceptance Limit
Bromofluorobenzene		96	70-130
1,2-Dichloroethane-d4		86	70-130
Toluene-d8		95	70-130

LOQ = Limit of Quantitation
DL = Detection Limit
ND = Not detected at or above the DL
J = Estimated result < LOQ and ≥ DL
* = RSD is out of criteria
N = Recovery is out of criteria
P = The RPD between two GC columns exceeds 40%
+ = RPD is out of criteria

Note: Calculations are performed before rounding to avoid round-off errors in calculated results

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and

Miscellaneous Documents

Pace Analytical®

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www.pacelabs.com

Number L17092

Client: TRC	Report to Contact: Lisa Clark	Telephone No. / E-mail:	Quote No.
Address: 50 International Dr Ste. 150	Sampler's Signature: x [signature]	Analysis (Attach list if more space is needed)	Page 1 of 2
City: Greenville / State: SC / Zip Code: 29615	Printed Name: David Szymal		WC29029
Project Name: WPTI Clemson			LJD
Project No: 300688.0.0.12	P.O. No.		Elements / Cooler I.D.

Sample ID / Description (Containers for each sample may be combined on one line.)	Collection Date(s)	Collection Time (Military)	Soil/Solid, Oil, Water, Wipe, Air, Other	Matrix	No. of Containers / Preservative Type	VOCs	SM Subs + Bromide	Dissolved gases
DPT-23	3-25-21	0830	6	X	1 3 3	X	X	X
DPT-23A	3-25-21	0925	6	X	1 3 3	X	X	X
DPT-23B	3-25-21	1030	6	X	1 3 3	X	X	X
DPT-22	3-25-21	1145	6	X	1 3 3	X	X	X
DPT-22A	3-25-21	1225	6	X	1 3 3	X	X	X
DPT-22B	3-25-21	1330	6	X	1 3 3	X	X	X
DPT-21	3-26-21	0825	6	X	1 3 3	X	X	X
DPT-21A	3-26-21	0915	6	X	1 3 3	X	X	X
DPT-21B	3-26-21	1030	6	X	1 3 3	X	X	X
DU-21105			6	X	1 3 3	X	X	X

Turn Around Time Required (Prior lab approval required for expedited TAT.): X Standard ☐ Rush (Specify)

Sample Disposal: ☐ Return to Client X Disposal by Lab

Possible Hazard Identification: X Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown

QC Requirements (Specify)

	Date	Time		Date	Time
1. Relinquished by: [signature]	3/26/21	1600	1. Received by: TRC Sample Storage	3/26/21	1600
2. Relinquished by: TRC Sample Storage	3/29/21	1100	2. Received by: [signature]	3/29/21	1100
3. Relinquished by: [signature]	3/29/21	1320	3. Received by:	Date	Time
4. Relinquished by	Date	Time	4. Laboratory received by: Jay Woodward	3/29/21	1320

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY — Received on Ice (Circle): (Yes) No Ice Pack — Receipt Temp: 2.9 °C — Temp Blank: ☐Y ☐N

DISTRIBUTION: WHITE & YELLOW-Return to laboratory with Sample(s); PINK-Field/Client Copy

Document Number: ME009N2-01

PACE ANALYTICAL SERVICES, LLC

PACE ANALYTICAL SERVICES, LLC
106 Vantage Point Drive • West Columbia, SC 29172
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Number L17093

Client: TRC	Report to Contact: Lisa Clark	Telephone No. / Email:	Quote No.
Address: 50 International Dr Ste 150	Sampler's Signature: X	Analysis (Attach list if more space is needed)	Page 2 of 2
City: Greenville	State: SC	Zip Code: 29615	
Project Name: WPH Clemson	Printed Name: David Szymal		WC29029
Project No.: 300688.0.0.12	P.O. No.		

Sample ID / Description (Containers for each sample may be combined on one line.)	Collection Date(s)	Collection Time (Military)	Grab / Composite	Matrix: Aqueous	Matrix: Solid	Matrix: Wipe	Matrix: Air	Type	No of Containers by Preservative Type: Unpres.	Hydroch.	HNO3	NaOH	ZnAc/NaOH	Na2S2O3	Other (Specify)	VOCs	Sulfate + Bromide	Dissolved gases						Remarks / Cooler I.D.
DPT-20	3-26-21	1200	G	X					1	3		3				X	X	X						
DPT-20A	3-26-21	1230	G	X					1	3		3				X	X	X						
DPT-20B	3-26-21	1400	G	X					1	3		3				X	X	X						
TBLK-21111	3-26-21											3				X								

Turn Around Time Required (Prior lab approval required for expedited TAT.)	Sample Disposal	Possible Hazard Identification	QC Requirements (Specify)
☑ Standard ☐ Rush (Specify)	☐ Return to Client ☒ Disposal by Lab	☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison ☐ Unknown	

	Date	Time		Date	Time
1. Relinquished by	3/26/21	1600	1. Received by: TRC sample Storage	3/26/21	1600
2. Relinquished by: TRC Sample Storage	3/29/21	1100	2. Received by: Matt DR	3/29/21	1100
3. Relinquished by: Matt DR	3/29/21	1320	3. Received by	Date	Time
4. Relinquished by	Date	Time	4. Laboratory received by: Joy Hardwin	3/29/21	1320

Note: All samples are retained for four weeks from receipt unless other arrangements are made.

LAB USE ONLY
Received on Ice (Circle) (Yes) No Ice Pack — Receipt Temp. 2.9 °C — Temp Blank ☑ Y ☐ N

DISTRIBUTION: WHITE & YELLOW Return to laboratory with Sample(s); PINK-Field/Client Copy

Document Number: MF003N9-01

Pace Analytical

Samples Receipt Checklist (SRC) (MF0018C-15)
Issuing Authority: Pace ENV - WCOL

Revised:9/29/2020
Page 1 of 1

Sample Receipt Checklist (SRC)

Client: TRC Cooler Inspected by/date: JRG2 / 03/29/2021 Lot #: WC29029

Means of receipt: ☑ Pace ☐ Client ☐ UPS ☐ FedEx ☐ Other:

☐ Yes	☑ No		1. Were custody seals present on the cooler?
☐ Yes	☐ No	☑ NA	2. If custody seals were present, were they intact and unbroken?

pH Strip ID: NA Chlorine Strip ID: NA Tested by: NA

Original temperature upon receipt / Derived (Corrected) temperature upon receipt %Solid Snap-Cup ID: NA

2.9 / 2.9 °C NA / NA °C NA / NA °C NA / NA °C

Method: ☑ Temperature Blank ☐ Against Bottles IR Gun ID: 6 IR Gun Correction Factor: 0 °C

Method of coolant: ☑ Wet Ice ☐ Ice Packs ☐ Dry Ice ☐ None

☐ Yes	☐ No	☑ NA	3. If temperature of any cooler exceeded 6.0°C, was Project Manager Notified? PM was Notified by: phone / email / face-to-face (circle one).
☐ Yes	☐ No	☑ NA	4. Is the commercial courier's packing slip attached to this form?
☑ Yes	☐ No		5. Were proper custody procedures (relinquished/received) followed?
☑ Yes	☐ No		6. Were sample IDs listed on the COC?
☑ Yes	☐ No		7. Were sample IDs listed on all sample containers?
☑ Yes	☐ No		8. Was collection date & time listed on the COC?
☑ Yes	☐ No		9. Was collection date & time listed on all sample containers?
☑ Yes	☐ No		10. Did all container label information (ID, date, time) agree with the COC?
☑ Yes	☐ No		11. Were tests to be performed listed on the COC?
☑ Yes	☐ No		12. Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)?
☑ Yes	☐ No		13. Was adequate sample volume available?
☐ Yes	☑ No		14. Were all samples received within ½ the holding time or 48 hours, whichever comes first?
☐ Yes	☑ No		15. Were any samples containers missing/excess (circle one) samples Not listed on COC?
☐ Yes	☑ No	☐ NA	16. For VOA and RSK-175 samples, were bubbles present >"pea-size" (¼"or 6mm in diameter) in any of the VOA vials?
☐ Yes	☐ No	☑ NA	17. Were all DRO/metals/nutrient samples received at a pH of < 2?
☐ Yes	☐ No	☑ NA	18. Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?
☐ Yes	☐ No	☑ NA	19. Were all applicable NH3/TKN/cyanide/phenol/625.1/608.3 (< 0.5mg/L) samples free of residual chlorine?
☐ Yes	☐ No	☑ NA	20. Were client remarks/requests (i.e. requested dilutions, MS/MSD designations, etc…) correctly transcribed from the COC into the comment section in LIMS?
☐ Yes	☑ No		21. Was the quote number listed on the container label? If yes, Quote # NA

Sample Preservation (Must be completed for any sample(s) incorrectly preserved or with headspace.)

Sample(s) NA were received incorrectly preserved and were adjusted accordingly in sample receiving with NA mL of circle one: H2SO4, HNO3, HCl, NaOH using SR # NA. Time of preservation NA. If more than one preservative is needed, please note in the comments below.

Sample(s) NA were received with bubbles >6 mm in diameter.

Samples(s) NA were received with TRC > 0.5 mg/L. (If #19 is *no*) and were adjusted accordingly in sample receiving with sodium thiosulfate ($Na_2S_2O_3$) with Shealy ID: NA.

SR barcode labels applied by: JRG2 Date: 03/29/2021

Comments:

LELAP CERTIFICATE NUMBER: 01955
DOD-ELAP ACCREDITATION NUMBER: 74960

ANALYTICAL RESULTS

PERFORMED BY

Pace Analytical Gulf Coast
7979 Innovation Park Dr.
Baton Rouge, LA 70820
(225) 769-4900

Report Date 04/09/2021

Report # 221033158

Project WC29029 WPH Clemson

Deliver To	***Additional Recipients***
Lucas Odom Pace Analytical Services South Carolina 106 Vantage Point Drive West Columbia, SC 29172 803 791 9700	NONE

Laboratory Data Quality Review Notes

Project Name: WPH-Clemson, SC

Project Number: 300688.0000.0000 Phase 11

Lab Report: **WC29029** Pace Analytical Services, LLC (formerly Shealy Environmental Services, Inc.), West Columbia, SC; subcontracted report: **221033158** Pace Analytical Gulf Coast, Baton Rouge, LA

Samples and Analyses: Twelve groundwater samples (plus one field duplicate), collected 25-Mar and 26-Mar-2021, and analyzed for volatile organic compounds (VOCs), bromide, and sulfate; one trip blank (TB), analyzed for VOCs only. Analysis of the groundwater samples for dissolved hydrocarbon gases (ethane, ethene, methane) was subcontracted and was reported separately (as noted above).

Chain of Custody, Sample Temperature, Sample Preservation: Chain of custody (COC) forms were signed; cooler temperature was ≤6 ^{o}C upon arrival at each laboratory; samples were preserved properly. No sample receipt anomalies were noted.

Holding Time: Sample analyses were performed within acceptable holding times.

Surrogates: VOC surrogate recoveries were within laboratory quality control (QC) limits.

Method Blank: Laboratory method blanks were appropriately associated with all analyses. The following target analytes were detected in the laboratory method blanks:

- Carbon disulfide (0.44 J µg/L) and 1,2,4-trichlorobenzene (0.64 J µg/L) were detected in one VOCs laboratory method blank, associated only with the TB sample**.** Qualification was not required since these analytes were non-detect (ND) in the TB.

Trip Blank: No target analytes were detected in the TB (TBLK-21111).

Field Blank: A field blank was not collected with these samples.

Equipment Rinse Blank: An equipment rinse blank was not collected with these samples.

LCS/LCSD: LCS analyses were performed appropriately for all analyses; some analytical or preparation batches also included analysis of LCSD samples. The LCS and LCSD recoveries and LCS/LCSD relative percent differences (RPDs) were within the laboratory QC limits.

MS/MSD: MS/MSD analyses were performed for bromide, sulfate, and VOCs using sample DPT-20B as the associated parent sample, and a second set of MS/MSD analyses were performed for bromide and sulfate using sample DPT-21. The MS and MSD recoveries and MS/MSD RPDs were within QC criteria, with the following exception:

- The MSD recovery for sulfate in sample DPT-21 was slightly below the QC limits. **Therefore, the positive results for sulfate were qualified "j-" (estimated, with a potential low bias), and the ND results were qualified "uj" (estimated LOQ).**

Duplicates: No laboratory duplicates were included with these analyses. A field duplicate (DU-21105) was collected for sample DPT-21B. Duplicate RPDs were calculated for analytes detected above 5× the LOQ in both samples; the absolute difference (AbsD) was used to evaluate analytes detected below 5× the LOQ in one or both samples. RPD values were ≤ 30%, and AbsD values were ≤LOQ, with the following exceptions:

- The calculated field duplicate RPDs for ethane and methane in samples DPT-21B and DU-21105 (33% and 38%, respectively) exceeded the QC limit of 30%. **Therefore, the DPT-21B and DU-21105 results for ethane and methane were qualified "j" (estimated).**

Dilutions: The following sample analyses were performed with dilution, as indicated:

DPT-23A	VOCs (5×)
DPT-22	VOCs (5×)
DPT-22A	VOCs (20×)
DPT-22B	VOCs (5×)
DPT-20	VOCs (5×)
DPT-20A	VOCs (50×)
DPT-20B	VOCs (5×)

The laboratory reports did not indicate the dilution reason(s), but the dilutions appear to have been performed in order to bring the concentrations of target analytes into the appropriate instrument calibration range. The ND results in the noted VOC analyses were associated with correspondingly elevated detection limit (DL) and LOQ values.

Validation qualifiers were applied in this review, as summarized in the following table.

Data Reviewer: Amy Bass; TRC Environmental Corporation; 28-Apr-2021

Summary of qualifiers assigned by the data quality reviewer.

WC299029 **Sample ID**	**Analyte**	**Lab Result [LOQ]**	**Qualifier Assigned**	**Qualified Result**	**Basis**
DPT-23	sulfate	0.81 J [1.0]	j-	0.81 J-	low MS recovery
DPT-22		45 [1.0]		45 J-	
DPT-22A		0.37 J [1.0]		0.37 J-	
DPT-22B		0.35 J [1.0]		0.35 J-	
DPT-21		16 [1.0]		16 J-	
DPT-21A		0.51 J [1.0]		0.51 J-	
DPT-21B		0.33 J [1.0]		0.33 J-	
DU-21105		0.43 J [1.0]		0.43 J-	
DPT-20		38 [1.0]		38 J-	
DPT-20A		1.1 [1.0]		1.1 J-	
DPT-20B		6.8 [1.0]		3.8 J-	
DPT-23A, DPT-23B		ND [1.0]	uj	< 1.0 UJ	
DPT-21B	ethane	12 [1.0]	j	12 J	FD comparison
DU-21105		8.6 [1.0]		8.6 J	
DPT-21B	methane	280 [5.0]	j	280 J	FD comparison
DU-21105		190 [5.0]		190 J	

FD: field duplicate LOQ: limit of quantitation MS: matrix spike and/or duplicate ND: non-detect

Validation qualifiers applied: “j” (estimated); “j-“ (estimated, with a potential low bias); “uj” (estimated LOQ)

Laboratory Endorsement

Sample analysis was performed in accordance with approved methodologies provided by the Environmental Protection Agency or other recognized agencies. The samples and their corresponding extracts will be maintained for a period of 30 days unless otherwise arranged. Following this retention period the samples will be disposed in accordance with Pace Gulf Coast's Standard Operating Procedures.

Common Abbreviations that may be Utilized in this Report

ND	Indicates the result was Not Detected at the specified reporting limit
NO	Indicates the sample did not ignite when preliminary test performed for EPA Method 1030
DO	Indicates the result was Diluted Out
MI	Indicates the result was subject to Matrix Interference
TNTC	Indicates the result was Too Numerous To Count
SUBC	Indicates the analysis was Sub-Contracted
FLD	Indicates the analysis was performed in the Field
DL	Detection Limit
LOD	Limit of Detection
LOQ	Limit of Quantitation
RE	Re-analysis
CF	HPLC or GC Confirmation
00:01	Reported as a time equivalent to 12:00 AM

Reporting Flags that may be Utilized in this Report

J or I	Indicates the result is between the MDL and LOQ
J	DOD flag on analyte in the parent sample for MS/MSD outside acceptance criteria
U	Indicates the compound was analyzed for but not detected
B or V	Indicates the analyte was detected in the associated Method Blank
Q	Indicates a non-compliant QC Result (See Q Flag Application Report)
*****	Indicates a non-compliant or not applicable QC recovery or RPD – see narrative
E	Organics - The result is estimated because it exceeded the instrument calibration range
E	Metals - % diference for the serial dilution is > 10%
L	Reporting Limits adjusted to meet risk-based limit.
P	RPD between primary and confirmation result is greater than 40
DL	Diluted analysis – when appended to Client Sample ID

Sample receipt at Pace Gulf Coast is documented through the attached chain of custody. In accordance with NELAC, this report shall be reproduced only in full and with the written permission of Pace Gulf Coast. The results contained within this report relate only to the samples reported. The documented results are presented within this report.

This report pertains only to the samples listed in the Report Sample Summary and should be retained as a permanent record thereof. The results contained within this report are intended for the use of the client. Any unauthorized use of the information contained in this report is prohibited.

I certify that this data package is in compliance with The NELAC Institute (TNI) Standard 2009 and terms and conditions of the contract and Statement of Work both technically and for completeness, for other than the conditions in the case narrative. Release of the data contained in this hardcopy data package and in the computer readable data submitted has been authorized by the Quality Assurance Manager or his/her designee, as verified by the following signature.

Estimated uncertainty of measurement is available upon request. This report is in compliance with the DOD QSM as specified in the contract if applicable.

Authorized Signature
Pace Gulf Coast Report 221033158

Certifications

Certification	Certification Number
DOD ELAP	74960
Alabama	01955
Arkansas	88-0655
Colorado	01955
Delaware	01955
Florida	E87854
Georgia	01955
Hawaii	01955
Idaho	01955
Illinois	200048
Indiana	01955
Kansas	E-10354
Kentucky	95
Louisiana	01955
Maryland	01955
Massachusetts	01955
Michigan	01955
Mississippi	01955
Missouri	01955
Montana	N/A
Nebraska	01955
New Mexico	01955
North Carolina	618
North Dakota	R-195
Oklahoma	9403
South Carolina	73006001
South Dakota	01955
Tennessee	01955
Texas	T104704178
Vermont	01955
Virginia	460215
Washington	C929
USDA Soil Permit	P330-16-00234

Case Narrative

Client: Pace Analytical Services South Carolina **Report:** 221033158

Pace Analytical Gulf Coast received and analyzed the sample(s) listed
on the Report Sample Summary page of this report. Receipt of the sample(s) is documented
by the attached chain of custody. This applies only to the sample(s) listed in this report.
No sample integrity or quality control exceptions were identified unless noted below.

No anomalies were found for the analyzed sample(s).

Sample Summary

LAB ID	Client ID	Matrix	Collect Date	Receive Date
22103315801	DPT-23	Water	03/25/2021 08:30	03/31/2021 10:20
22103315802	DPT-23A	Water	03/25/2021 09:25	03/31/2021 10:20
22103315803	DPT-23B	Water	03/25/2021 10:30	03/31/2021 10:20
22103315804	DPT-22	Water	03/25/2021 11:45	03/31/2021 10:20
22103315805	DPT-22A	Water	03/25/2021 12:25	03/31/2021 10:20
22103315806	DPT-22B	Water	03/25/2021 13:30	03/31/2021 10:20
22103315807	DPT-21	Water	03/26/2021 08:25	03/31/2021 10:20
22103315808	DPT-21A	Water	03/26/2021 09:15	03/31/2021 10:20
22103315809	DPT-21B	Water	03/26/2021 10:30	03/31/2021 10:20
22103315810	DU-21105	Water	03/25/2021 00:01	03/31/2021 10:20
22103315811	DPT-20	Water	03/26/2021 12:00	03/31/2021 10:20
22103315812	DPT-20A	Water	03/26/2021 12:30	03/31/2021 10:20
22103315813	DPT-20B	Water	03/26/2021 14:00	03/31/2021 10:20

Detect Summary

LAB ID	Client ID	Method	Parameter	Result	Units
22103315801	DPT-23	AM20GAX	Methane	8.4	ug/L
22103315802	DPT-23A	AM20GAX	Methane	9.0	ug/L
22103315803	DPT-23B	AM20GAX	Ethane	0.19J	ug/L
22103315803	DPT-23B	AM20GAX	Ethene	0.18J	ug/L
22103315803	DPT-23B	AM20GAX	Methane	6.4	ug/L
22103315804	DPT-22	AM20GAX	Ethane	8.6	ug/L
22103315804	DPT-22	AM20GAX	Ethene	0.55J	ug/L
22103315804	DPT-22	AM20GAX	Methane	2100	ug/L
22103315805	DPT-22A	AM20GAX	Ethane	2.0	ug/L
22103315805	DPT-22A	AM20GAX	Ethene	1.1	ug/L
22103315805	DPT-22A	AM20GAX	Methane	11	ug/L
22103315806	DPT-22B	AM20GAX	Ethane	1.4	ug/L
22103315806	DPT-22B	AM20GAX	Ethene	0.93J	ug/L
22103315806	DPT-22B	AM20GAX	Methane	25	ug/L
22103315807	DPT-21	AM20GAX	Ethane	6.2	ug/L
22103315807	DPT-21	AM20GAX	Ethene	6.6	ug/L
22103315807	DPT-21	AM20GAX	Methane	7200	ug/L
22103315808	DPT-21A	AM20GAX	Ethane	60	ug/L
22103315808	DPT-21A	AM20GAX	Ethene	3.9	ug/L
22103315808	DPT-21A	AM20GAX	Methane	5900	ug/L
22103315809	DPT-21B	AM20GAX	Ethane	12	ug/L
22103315809	DPT-21B	AM20GAX	Ethene	2.0	ug/L
22103315809	DPT-21B	AM20GAX	Methane	280	ug/L
22103315810	DU-21105	AM20GAX	Ethane	8.6	ug/L
22103315810	DU-21105	AM20GAX	Ethene	1.6	ug/L
22103315810	DU-21105	AM20GAX	Methane	190	ug/L
22103315811	DPT-20	AM20GAX	Ethane	8.9	ug/L
22103315811	DPT-20	AM20GAX	Ethene	0.42J	ug/L
22103315811	DPT-20	AM20GAX	Methane	1600	ug/L
22103315812	DPT-20A	AM20GAX	Ethane	0.24J	ug/L
22103315812	DPT-20A	AM20GAX	Methane	20	ug/L
22103315813	DPT-20B	AM20GAX	Ethane	0.38J	ug/L
22103315813	DPT-20B	AM20GAX	Ethene	0.23J	ug/L
22103315813	DPT-20B	AM20GAX	Methane	11	ug/L

Sample Results

DPT-23

Collect Date	03/25/2021 08:30	LAB ID	22103315801
Receive Date	03/31/2021 10:20	Matrix	Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/08/2021 22:56	JCK2	708102

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	Ethane	0.075U	0.075	1.0	ug/L
74-85-1	Ethene	0.12U	0.12	1.0	ug/L
74-82-8	**Methane**	**8.4**	**2.5**	**5.0**	**ug/L**

DPT-23A

Collect Date	03/25/2021 09:25	LAB ID	22103315802
Receive Date	03/31/2021 10:20	Matrix	Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/08/2021 12:56	JCK2	708037

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	Ethane	0.075U	0.075	1.0	ug/L
74-85-1	Ethene	0.12U	0.12	1.0	ug/L
74-82-8	**Methane**	**9.0**	**2.5**	**5.0**	**ug/L**

DPT-23B

Collect Date	03/25/2021 10:30	LAB ID	22103315803
Receive Date	03/31/2021 10:20	Matrix	Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/08/2021 13:08	JCK2	708037

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	**Ethane**	**0.19J**	**0.075**	**1.0**	**ug/L**
74-85-1	**Ethene**	**0.18J**	**0.12**	**1.0**	**ug/L**
74-82-8	**Methane**	**6.4**	**2.5**	**5.0**	**ug/L**

DPT-22

Collect Date	03/25/2021 11:45	LAB ID	22103315804
Receive Date	03/31/2021 10:20	Matrix	Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/08/2021 13:20	JCK2	708037

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	**Ethane**	**8.6**	**0.075**	**1.0**	**ug/L**
74-85-1	**Ethene**	**0.55J**	**0.12**	**1.0**	**ug/L**
74-82-8	**Methane**	**2100**	**2.5**	**5.0**	**ug/L**

Sample Results

DPT-22A

Collect Date	03/25/2021 12:25	LAB ID	22103315805
Receive Date	03/31/2021 10:20	Matrix	Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/08/2021 13:32	JCK2	708037

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	Ethane	2.0	0.075	1.0	ug/L
74-85-1	Ethene	1.1	0.12	1.0	ug/L
74-82-8	Methane	11	2.5	5.0	ug/L

DPT-22B

Collect Date	03/25/2021 13:30	LAB ID	22103315806
Receive Date	03/31/2021 10:20	Matrix	Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/08/2021 13:48	JCK2	708037

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	Ethane	1.4	0.075	1.0	ug/L
74-85-1	Ethene	0.93J	0.12	1.0	ug/L
74-82-8	Methane	25	2.5	5.0	ug/L

DPT-21

Collect Date	03/26/2021 08:25	LAB ID	22103315807
Receive Date	03/31/2021 10:20	Matrix	Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/08/2021 13:59	JCK2	708037

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	Ethane	6.2	0.075	1.0	ug/L
74-85-1	Ethene	6.6	0.12	1.0	ug/L
74-82-8	Methane	7200	2.5	5.0	ug/L

DPT-21A

Collect Date	03/26/2021 09:15	LAB ID	22103315808
Receive Date	03/31/2021 10:20	Matrix	Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/08/2021 14:11	JCK2	708037

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	Ethane	60	0.075	1.0	ug/L
74-85-1	Ethene	3.9	0.12	1.0	ug/L
74-82-8	Methane	5900	2.5	5.0	ug/L

Sample Results

DPT-21B

Collect Date	03/26/2021 10:30	LAB ID	22103315809
Receive Date	03/31/2021 10:20	Matrix	Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/08/2021 14:23	JCK2	708037

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	Ethane	12	0.075	1.0	ug/L
74-85-1	Ethene	2.0	0.12	1.0	ug/L
74-82-8	Methane	280	2.5	5.0	ug/L

DU-21105

Collect Date	03/25/2021 00:01	LAB ID	22103315810
Receive Date	03/31/2021 10:20	Matrix	Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/08/2021 14:35	JCK2	708037

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	Ethane	8.6	0.075	1.0	ug/L
74-85-1	Ethene	1.6	0.12	1.0	ug/L
74-82-8	Methane	190	2.5	5.0	ug/L

DPT-20

Collect Date	03/26/2021 12:00	LAB ID	22103315811
Receive Date	03/31/2021 10:20	Matrix	Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/08/2021 23:09	JCK2	708102

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	Ethane	8.9	0.075	1.0	ug/L
74-85-1	Ethene	0.42J	0.12	1.0	ug/L
74-82-8	Methane	1600	2.5	5.0	ug/L

DPT-20A

Collect Date	03/26/2021 12:30	LAB ID	22103315812
Receive Date	03/31/2021 10:20	Matrix	Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/08/2021 23:20	JCK2	708102

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	Ethane	0.24J	0.075	1.0	ug/L
74-85-1	Ethene	0.12U	0.12	1.0	ug/L
74-82-8	Methane	20	2.5	5.0	ug/L

Sample Results

DPT-20B				
	Collect Date	03/26/2021 14:00	LAB ID	22103315813
	Receive Date	03/31/2021 10:20	Matrix	Water

AM20GAX

Prep Date	Prep Batch	Prep Method	Dilution	Analysis Date	By	Analytical Batch
NA	NA	NA	1	04/08/2021 23:32	JCK2	708102

CAS#	Parameter	Result	DL	LOQ	Units
74-84-0	Ethane	0.38J	0.075	1.0	ug/L
74-85-1	Ethene	0.23J	0.12	1.0	ug/L
74-82-8	Methane	11	2.5	5.0	ug/L

General Chromatography QC Summary

Analytical Batch	Client ID	MB708037		LCS708037				LCSD708037				
708037	LAB ID	2167867		2167868				2167869				
	Sample Type	MB		LCS				LCSD				
	Prep Date											
	Analysis Date	04/08/21 10:46		04/08/21 09:58				04/08/21 10:10				
	Matrix	Water		Water				Water				
AM20GAX		Units Result	ug/L DL	Spike Added	Result	%R	Control Limits%R	Spike Added	Result	%R	RPD	RPD Limit
Ethane	74-84-0	0.075U	0.075	100	99	98	70 - 130	100	100	102	4	20
Ethene	74-85-1	0.12U	0.12	140	140	99	70 - 130	140	150	103	4	20
Methane	74-82-8	2.5U	2.5	490	460	94	70 - 130	490	480	98	5	20

Analytical Batch	Client ID	MB708102		LCS708102				LCSD708102				
708102	LAB ID	2168317		2168318				2168319				
	Sample Type	MB		LCS				LCSD				
	Prep Date											
	Analysis Date	04/08/21 22:33		04/08/21 21:45				04/08/21 21:58				
	Matrix	Water		Water				Water				
AM20GAX		Units Result	ug/L DL	Spike Added	Result	%R	Control Limits%R	Spike Added	Result	%R	RPD	RPD Limit
Ethane	74-84-0	0.075U	0.075	100	100	102	70 - 130	100	100	102	0	20
Ethene	74-85-1	0.12U	0.12	140	140	101	70 - 130	140	140	102	1	20
Methane	74-82-8	2.5U	2.5	490	480	97	70 - 130	490	470	96	1	20

Client ID: Shealy Envir - Pace Analytical Services South Carolina
SDG: 221033158
PM: RWe

Pace Analytical

Chain of Custody

Workorder: WC29029 Workorder Name: WPH Clemson Owner Received Date: 3/29/2021 Results Requested By: 4/9/2021

Report To:	Subcontract To:
Lucas Odom	Project # 300688.0000.0000.00011
Pace Analytical	
106 Vantage Point Drive	Pace Gulf Coast
Columbia SC, 29223	7979 Innovation Park Drive,
803-227-2704	Baton Rouge, LA 70820
lucas.odom@pacelabs.com	

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers: TSP	Requested Analysis: Dissolved Gasses (MEE)	LAB USE ONLY
1	DPT-23	G	03/25/21 @ 0830	WC29029-001				1
2	DPT-23A	G	03/25/21 @ 0925	WC29029-002		x	X	2
3	DPT-23B	G	03/25/21 @ 1030	WC29029-003		x	x	3
4	DPT-22	G	03/25/21 @ 1145	WC29029-004		x	x	4
5	DPT-22A	G	03/25/21 @ 1225	WC29029-005		x	x	5
6	DPT-22B	G	03/25/21 @ 1330	WC29029-006		x	x	6
7	DPT-21	G	03/26/21 @ 0825	WC29029-007		x	x	7
8	DPT-21A	G	03/26/21 @ 0915	WC29029-008		x	x	8
9	DPT-21B	G	03/26/21 @ 1030	WC29029-009		x	x	9
10	DU-21105	G	03/25/21 @ 0000	WC29029-010		x	x	10

Transfers	Released By	Date/Time	Reveived By	Date/Time	Comments
1		3/30/21 1800			
2	Feller	3.31.21 1020	Lauren Feller	3.31.21 1020	
3					

Cooler Temperature on Receipt _____ °C	Custody Seal Y or N	Received on Ice Y or N	Sample Intact Y or N

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC
This chain of custody is considered complete as is since this information is available in the owner laboratory.

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1613 3465 2810 0.8E26 51CPM

Client ID: Shealy Envir - Pace Analytical Services South Carolina
SDG: 221033158
PM: RWe

Chain of Custody

Pace Analytical

Workorder: WC29029 Workorder Name: WPH Clemson Owner Received Date: 3/29/2021 Results Requested By: 4/9/2021

Report To:	Subcontract To:
Lucas Odom	Project # 300688.0000.0000.00011
Pace Analytical	
106 Vantage Point Drive	Pace Gulf Coast
Columbia SC, 29223	7979 Innovation Park Drive,
803-227-2704	Baton Rouge, LA 70820
lucas.odom@pacelabs.com	

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	Preserved Containers: TSP	Requested Analysis: Dissolved Gasses (MEE)	LAB USE ONLY
1	DPT-20	G	03/26/21 @ 1200	WC29029-011				12
2	DPT-20A	G	03/26/21 @ 1230	WC29029-012		x	X	13
3	DPT-20B	G	03/26/21 @ 1400	WC29029-013		x	x	
4		G						
5		G						
6		G						
7		G						
8		G						
9		G						
10								

Transfers	Released By	Date/Time	Reveived By	Date/Time	Comments
1		3/29/21 1800			
2	Fedex	3.31.21 1020	Lauren Heller	3.31.21 1020	
3					

Cooler Temperature on Receipt _____ °C	Custody Seal Y or N	Received on Ice Y or N	Sample Intact Y or N

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC
This chain of custody is considered complete as is since this information is available in the owner laboratory.

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1643 3445 2810 0.8E24 51cpm

SAMPLE RECEIVING CHECKLIST

SAMPLE DELIVERY GROUP 221033158	
Client **PM** RWe Shealy Envir - Pace Analytical Services South Carolina	**Transport Method** FEDEX
Profile Number 290459	**Received By** Jenkins, Mark A.
Line Item(s) 1 - MEE	**Receive Date(s)** 03/31/21

CHECKLIST	YES	NO
Samples received with proper thermal preservation?	☑	☐
Radioactivity is <1600 cpm? If no, record cpm value in notes section.	☑	☐
COC relinquished and complete (including sampleIDs, collect times, and sampler)?	☑	☐
All containers received in good condition and within hold time?	☑	☐
All sample labels and containers received match the chain of custody?	☑	☐
Preservative added to any containers?	☐	☑
If received, was headspace for VOC water containers < 6mm?	☑	☐
Samples collected in containers provided by Pace Gulf Coast?	☑	☐

COOLERS

Airbill	Thermometer ID: E26	Temp °C
		0.8

DISCREPANCIES

None

LAB PRESERVATIONS

None

NOTES