



Mining Form MR-500

S.C. DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL BUREAU OF LAND AND WASTE MANAGEMENT DIVISION OF MINING AND SOLID WASTE PERMITTING 2600 Bull Street, Columbia, SC 29201 Telephone Number: (803) 896-4261 Fax Number: (803) 896-4801

RECLAMATION PLAN DHEC FORM 500 DATE VERSION ADOPTED 7/1/94

As required in Section 48-20-90 of the South Carolina Mining Act, "An operator shall submit with his application for an operating permit a proposed reclamation plan. The reclamation plan for an operating permit only must be furnished to the local soil and water conservation district in which the mining operation is to be conducted. The plan must include as a minimum each of the elements specified in the definition of 'reclamation plan' in Section 48-20-40 and information required by the department. The reclamation plan must provide that reclamation activities, particularly those relating to control of erosion, to the extent feasible, must be conducted simultaneously with mining operations and be initiated at the earliest practicable time after completion or termination of mining on a segment of the permitted land. The plan must provide that reclamation activities must be completed within two years after completion or termination of mining on each segment of the area for which an operation permit is requested unless a longer period specifically is permitted by the department."

I. APPLICANT INFORMATION

- 1. Name of Company: DORCHESTER LOGISTICS, INC
2. Name of Proposed Mine: DLI PLANTATION EGERIA County: DORCHESTER
3. Home Office Address: 26 SEVEN MILE RD/PO BOX 365 843-462-2600 HARLEVILLE SC 29448 843-462-2929
4. Local Office Address: SAMIE
5. Name of company personnel and their title to be the contact for official business and correspondence: MICHAEL TODD MUCKENFUSS - VICE PRESIDENT
6. Location of Mine: S-18-28 BEIDLER FOREST RD DORCHESTER SC

II. ENVIRONMENTAL PROTECTION

- 1. Describe practices to protect adjacent resources such as roads, wildlife areas, woodland, cropland and others during mining and reclamation. SOIL BERM, FILTER CLOTH, SWALES, RETENTION PONDS
2. Describe proposed methods to limit significant adverse effects on adjacent surface water and groundwater resources. ANY DISTURBED AREA RUN-OFF WILL BE CHANNELLED TO MAIN PIT. FILTER CLOTH WILL BE USED ON DIAT BERMS AND SEEDED TO PREVENT SEDIMENT RUN-OFF.
3. Describe proposed methods to limit significant adverse effects on known significant cultural or historic sites within the proposed permitted area. NO SITES ON PROPERTY.

4. Describe method to prevent or eliminate conditions that could be hazardous to animal or fish life in or adjacent to the permitted area.

NO FISH LIFE IN AREA. BANK OF PIT WILL BE SLOPED IN ONE AREA FOR ESCAPE OF ANY WILDLIFE WHICH ENTER PIT.

5. Describe how applicant will comply with State air quality and water quality standards as established by the S.C. Department of Health and Environmental Control.

ALL EQUIPMENT WILL BE IN GOOD MAINTENANCE. PREVENTATIVE MAINTENANCE WILL BE CONDUCTED TO PREVENT ANY AIR OR GROUND WATER POLLUTION.

III. RECLAMATION OF AFFECTED AREA

6. State useful purpose(s) the affected land is being proposed for reclamation. More than one purpose may be checked, but information should be submitted to support the feasibility for each proposed purpose.

- | | | | |
|-----------------|--|---------------|---|
| a. Lake or pond | <input checked="" type="checkbox"/> STOCK w/ fish | f. Grassland | <input type="checkbox"/> |
| b. Agriculture | <input type="checkbox"/> | g. Recreation | <input checked="" type="checkbox"/> fishing, Duck hunting |
| c. Woodlands | <input type="checkbox"/> | h. Wetlands | <input type="checkbox"/> |
| d. Residential | <input checked="" type="checkbox"/> possible home site | i. Park | <input type="checkbox"/> |
| e. Commercial | <input type="checkbox"/> | j. Other | <input type="checkbox"/> |

7. State the final maximum surface gradient(s) (slope) in soil, sand, or other unconsolidated materials on reclaimed land. Surface gradients steeper than 3H:1V (18 degrees or 33 percent) may be required to submit geotechnical data and studies to demonstrate that the steeper slopes will remain stable following final reclamation.

FINAL SLOPE 3:1 AND SEEDED

8. How will the final slopes in unconsolidated material be accomplished? If the slope will be by backfilling, demonstrate that there is adequate material to accomplish the stated final gradient. If gradient is to be achieved by bringing in material from outside the permitted area, state the nature of the material and approximate quantities. If the gradient is to be achieved by grading, show that there is adequate area for grading to achieve gradient (i.e., adequate distance between the property line and edge of highwall). Operator should show calculations or other appropriate information to demonstrate that there is adequate materials in backfilling and grading to meet the requirements for final slope.

FINAL SLOPE WILL BE WORKED IN AS MINING PRESSES. ADEQUATE SETBACKS AND BERMS WILL BE IN PLACE TO ACHIEVE REQUIRED SLOPE

9. Describe the plan for revegetation or other surface treatment of affected area(s). The revegetation plan shall include but not be limited to the following: (a) planned soil test; (b) site preparation and fertilization; (c) seed or plant selection; (d) rate of seeding or amount of planting per acre; (e) maintenance.

ALL OF THE ABOVE. OPERATOR HAS HYDRO SEEDER WHICH WILL BE USED TO SEED + MAINTAIN SLOPE.

10. Provide, as a separate document, a closure plan of the mine and permitted facilities to prevent a release of contaminants from being harmful to the environment. A closure plan is not necessary for all mines, but is required where the possibility exists for (a) acid rock drainage; (b) where the National Pollutant Discharge Elimination Systems (NPDES) Permit has discharge limitation parameters other than pH and Total Suspended Solids (TSS); (c) chemically treated tailings or stockpiles (excludes fertilizer or lime for revegetation purposes).

Should NOT apply. ONLY MINING OF SAND/CLAY WILL BE DONE, THEN RETURN PIT TO RECREATION FISHING LAKE

11. Method of control of contaminants and disposal of mine waste soil, rock, mineral, scrap, tailings, slimes, and other material directly connected with the mining, cleaning, and preparation of mineral substances mined and includes all waste materials deposited on or in the permit area from any source.

Should NOT apply, MINING OF FILL DIRT ONLY.

12. Method of reclaiming settling and/or sediment ponds.

WILL BE PART OF MAIN LAKE WHEN COMPLETED.

13. Describe method of restoration or establishment of stream channels, stream banks and site drainage to a condition minimizing erosion, siltation and other pollution.

SLOPE ON BANKS WILL BE MAINTAINED TO KEEP EROSION INSIDE EXISTING PIT. FINISHED BANKS WILL BE 3:1 AND SEEDED WHEN COMPLETED.

14. What are the maintenance plans to insure that the reclamation practices established on the affected land will not deteriorate before released by the Department?

OPERATOR, EMPLOYEES AND OWNER WILL MONITOR SITE. SITE CONDITIONS WILL INFLUENCE OVERALL FINAL RESULTS. IT IS IN OUR BEST INTEREST TO MAINTAIN SITE IN EXCELLENT

15. For final reclamation, submit information about practices to provide for safety to persons and to adjoining property in all excavations. Identify areas of potential danger (vertical walls, unstable slopes, unstable surface on clay slimes, etc.) and provide appropriate safety provisions. These provisions can include but are not limited to setbacks, fencing,

ALL SLOPES WILL BE GRADED AS REQUIRED, GATES WILL BE LOCKED AND SIGNS WILL BE POSTED ABOUT MINING SITES AND NO TRESPASSING

16. What provisions will be taken to prevent noxious, odorous, or foul pools of water from collecting and remaining on the mined area? For mines to be reclaimed as lakes or ponds, provide supporting information that a minimum water depth of four (4) feet on at least fifty percent (50%) of the pond surface area can be maintained.

MINE PIT DEPTH WILL BE 20'±. THIS DEPTH WILL PREVENT WEEDS FROM GROWING AND WATER FROM WARMING. WATER TABLE IN AREA IS 4-5' WHICH WILL BE SUFFICIENT TO KEEP LAKE AT AN ACCEPTABLE LEVEL AND WATER QUALITY ACCEPTABLE.

17. Identify any structures (e.g. buildings, roads) that are proposed to remain as part of final reclamation. Provide justification for leaving any structures.

NO BUILDINGS OR STRUCTURES WILL REMAIN.

18. Attach two (2) copies of a map of the area (referred to as the RECLAMATION MAP) that shows the reclamation practices and conservation practices to be implemented. The following should be shown:

- ✓ A. The outline of the proposed final limits of the excavation during the number of years for which the permit is requested.
- ✓ B. The approximate final surface gradient(s) and contour(s) of the area to be reclaimed. This would include the sides and bottoms of mines reclaimed ponds and lakes.
- N/A C. The outline of the tailings disposal area.
- N/A D. The outline of disposal areas for spoil and refuse (exclusive of tailings ponds).
- ✓ E. The approximate location of the mean shore line of any impoundment or water body and inlet and/or outlet structures which will remain upon final reclamation.
- ✓ F. The approximate locations of access roads, haul roads, ramps or buildings which will remain upon final reclamation. GRASS ROAD AROUND LAKE, BOAT RAMP
- ✓ G. The approximate locations of various vegetative treatments. GRASS + TREES
- N/A H. The proposed locations of re-established streams, ditches or drainage channels to provide for site drainage.
- ✓ I. The proposed locations of diversions, terraces, silt fences, brush barriers or other Best Management Practices to be used for preventing or controlling erosion and off-site siltation.
- ✓ J. Proposed locations of the measures to provide safety to persons and adjoining property.
- ✓ K. Segments of the mine that can be mined and reclaimed as an ongoing basis.
- ✓ L. The boundaries of the permitted area.
- ✓ M. The boundaries of the affected area for the anticipated life of the mine.
- ✓ N. The boundaries of the 100-year floodplain, where appropriate.
- ✓ O. Identify sections of mine where the final surface gradient will be achieved by grading and/or backfilling. 50' SETBACK OF WETLANDS - FILLING + GRADING
- ✓ P. A legend showing the name of the applicant, the name of the proposed mine, the north arrow, the county, the scale, the date of preparation and the name and title of the person who prepared the map.

THE REQUIRED RECLAMATION MAP SHALL HAVE A NEAT, LEGIBLE APPEARANCE AND BE OF SUFFICIENT SCALE TO CLEARLY SHOW THE REQUIRED INFORMATION LISTED ABOVE. THE BASE FOR THE MAP SHALL BE EITHER A SPECIALLY PREPARED LINE DRAWING, AERIAL PHOTOGRAPH, ENLARGED USGS TOPOGRAPHIC MAP OR A RECENTLY PREPARED L.A.I. RECLAMATION MAP SHOULD BE THE SAME SCALE USED FOR THE SITE MAP.

IV. SCHEDULE FOR IMPLEMENTATION OF CONSERVATION AND RECLAMATION PRACTICES

19. As stated in Section 48-20-80 of the S.C. Mining Act, reclamation activities, to the extent feasible, must be conducted simultaneously with mining operations. Identify which areas or segments of the mine are not feasible to reclaim simultaneously with mining. Provide reasons why reclamation can not proceed simultaneously with mining in these areas.

GRADING OF SIDE WALLS WILL BE COMPLETED AS MINING IS COMPLETED ON CERTAIN SECTION TO STABILIZE THE WALL.

20. Section 48-20-40(16)(1) of the S.C. Mining Act requires a time schedule, including the anticipated years for completion of reclamation by segments. This time schedule should meet the requirements of Section 48-20-90 of the Mining Act.

SCHEDULE FOR IMPLEMENTING CONSERVATION AND RECLAMATION PRACTICES

Conservation & Reclamation Practices	Segment # or Area	Planned		*Applied		Notes
		Amount	Year	Amount	Month/Year	
Excavation initiated under GP1-001844	GP1	4.0				GP1 incorporated
Install survey control markers	PA		GP1			See Note 1, maintain LOM
Flag buffer area	PA		2017			See Note 2, maintain LOM
Post Warning signs	PA		2017			Maintain LOM
Install stormwater BMPs along wetlands, access road; basin	PA		2017			See Note 3
Clear/ stockpile topsoil	AA	24.0	2017-2024			See Note 4
Remove/ stockpile overburden	AA	24.0	2017-2024			See Note 5
Excavate	AA	24.0	2017-2024			See Note 5
Grade final side slopes 3H:1V	final banks	~4.0	2017-2024			See Note 6
Topsoil, fertilize, seed slopes	final banks	~4.0	2017-2024			See Note 7
Grade out sediment basin	basin		2024			once mining is completed
Inspect, repair, maintain	final banks	24.0	2017-2024			See Note 8

Notes:

- Two permanent survey markers within the permitted area shall be located at least 100 feet apart as required in R.89-130.
- Markers should be located prior to the start of mining. Permanently flag buffers associated with property line and wetlands
- Best Management Practices shall be installed and maintained as necessary to ensure stormwater is retained on site. Water discharged from the mine must be discharged through an outfall regulated by a NPDES permit.
- Enough topsoil for reclamation must be stockpiled at the site
- Minimize the amount of disturbed acreage to reduce the potential for offsite sediment and erosion control concerns.
- Slopes shall be graded as excavations progress.
- Topsoil placement, fertilizing, seeding of final banks shall be done as soon as feasible
- Reclamation/ vegetation shall be inspected on a regular basis and corrective measures taken to prevent erosion of final slopes

AA – Affected Area BMPs – Best Management Practices LOM – Life of Mine PA – Permitted Area PL – Property Line ST – Sediment Traps SW – Stormwater TS – Topsoil WL - Wetlands

* Completed by the Department

Egeria Mine – Modification 20-1

20. Section 48-20-40(16)(1) of the S.C. Mining Act requires a time schedule, including the anticipated years for completion of reclamation by segments. This time schedule should meet the requirements of Section 48-20-90 of the Mining Act.

SCHEDULE FOR IMPLEMENTING CONSERVATION AND RECLAMATION PRACTICES

Conservation & Reclamation Practices	Segment or Area	Planned		*Applied		Notes
		Amount	Year	Amount	Month/Year	
Flag buffer, post warning signs	Segs 2 – 4	62.3 ac	2021			
Install stormwater BMPs along wetlands, road & Sediment Basin 2	Segs 2 – 4	62.3 ac	2021 - end of mining			Starting with segment 2 and continuing through segs 3 & 4 in advance of mining
Strip & stockpile topsoil & Excavate	Seg 2	10.4 ac	2021			
Grade final side slopes to 3:1, place topsoil, fertilize & seed	Seg 2	2.0 ac	2024			Reclamation to Pond
Strip & stockpile topsoil & excavate	Seg 3	14.0 ac	TBD			
Grade final side slopes to 3:1, place topsoil, fertilize & seed	Seg 3	2.1 ac	TBD			Reclamation to Pond
Strip & stockpile topsoil & excavate	Seg 4	15.1 ac	TBD			
Grade final side slopes to 3:1, place topsoil, fertilize & seed	Seg 4	2.7 ac	TBD			Reclamation to Pond
Inspect, repair and maintain vegetation and pond depths until accepted by DHEC	Segs 2 - 4	62.3 ac	End of Mining			Final Reclamation
				MODIFICATION		
				Approved by:		
				Section Manager		
				Date: <u>12/2/2021</u>		

AA – Affected Area BMPs – Best Management Practices Fert. – Fertilize LOM – Life of Mine MW - Monitoring Well PA – Permitted Area
 PL – Property Line SB – Sediment Basin ST – Sediment Traps SW – Stormwater TS – Topsoil WL – Wetlands

* Completed by the Department

YOU ARE NOTIFIED THAT:

- 1) You, the operator, must file an application to modify the reclamation plan in the event actual reclamation varies from the set forth hereinabove; and
- 2) If at any time it appears to the Department that the activities under the reclamation plan are failing to achieve the purposes and requirements of the S.C. Mining Act, the Department may modify the RECLAMATION PLAN in accordance to Section 48-20-150.

Michael Todd Muckenfuss
Signature of Applicant/Operator or his Authorized Representative

Michael Todd Muckenfuss
Printed Name of Applicant/Operator or his Authorized Representative

V.P.
Title

6-1-17
Date

Department Use Only

Permit No.: I-002170 Date Application Approved: 2/9/18 Date Bond Rec'd: 2/7/18

Bond Amount: \$25,000.00 Blanket or Single Bond: single Permit Issuance Date: 2/9/18

ACTION TAKEN ON THIS RECLAMATION PLAN

Approved Denied Approved with Additional Terms and Conditions

By: [Signature]
DIVISION DIRECTOR

Date: February 9, 2018