

**A. Provide a detailed description of how the mine will be operated. Including list of equipment to be used.**

Typical equipment to be used in the mining process includes dragline, hydraulic excavator, off road haul trucks, blast hole drill(s), bulldozers, and road scrapper. The mining equipment, i.e., excavator, dragline, etc., will work in close coordination with a mobile crusher that will trail behind the mining equipment. The mining process will involve lowering the groundwater in the pit to desaturate the overburden and provide a dry work bench for the dragline and mobile crusher. Once the overburden is de-saturated, the excavator will strip the overburden. The overburden will be stored in the southeast corner of the permit area. When the storage area in the southeast reaches capacity and additional overburden stripping remains, the overburden will be placed back into previously mined areas. The exposed limestone will be drilled, explosives loaded and blasted to fragment stone into manageable sizes. Because this will be a “wet” mining operation, most, if not all the limestone stratum, will be beneath the water surface. The dragline will excavate the fragmented limestone and stack it parallel to the working face to drain excess moisture. Depending on the mining phase (location of the active mine area within the pit), some of the fragmented limestone will be used to raise the elevation of the active work bench.

Mining will occur in four phases. Each phase is generally based upon the elevation that groundwater can be lowered within the active mine area and still maintain an estimated groundwater level of 2 feet above top of limestone at mine permit boundaries. The estimated elevation to which groundwater will be lowered in the three phases has been modeled by GZA GeoEnvironmental, Inc. This information will be used to determine the working bench elevation to maintain dry working conditions by managing the groundwater elevation and in the later mine phases, by using fragmented limestone to increase the working bench elevation.

In phase 1, the groundwater elevation is projected to be at approximately 57 feet msl. Based upon top of limestone elevation and distances to the permit boundaries, the phase 1 active working bench is projected to operate from the top of limestone without artificially increasing the height of the pad with fragmented limestone. Also, groundwater levels at the permit boundary are projected to be in compliance without need for groundwater recharge through the infiltration channel. However, the pit water discharge will be routed to an existing channel around portions of the planned pit area to a NPDES outfall.

The groundwater in phase 2 is projected to be lowered to an approximate elevation of 62 feet msl. Based upon the top of limestone elevation and decreasing distance to nearby permit boundaries, the active phase 2 working bench elevation and groundwater management will be adjusted to maintain the 2 feet above top of limestone compliance point at the permit boundary. With the increase of groundwater levels in the active pit, the working bench will be increased in height with fragmented limestone. Also, the pit water being removed will be routed into a perimeter infiltration channel to recharge groundwater system to maintain compliance at the permit boundary.

In the Phase 3 mining, the groundwater will be lowered to an approximate elevation of 67 feet msl. The active working bench will continue to be increased in height with fragmented limestone and perimeter infiltration channel operational for the entire pit perimeter to maintain compliance with groundwater levels at the mine permit boundary.

Phase 4 is the area north and east of phase 3 and south of phase 1 where the groundwater level is projected to fall below the 2-foot above top of limestone requirement at the permit boundary from mine dewatering. Mining will only proceed into phase 4 if experience demonstrates or mining techniques are adjusted to maintain groundwater levels at or above 2 feet above top of limestone at the property boundary. Dewatering elevation and work pad details are to be determined at a later date.

The projected groundwater elevations as stated are considered a guide to aid in mine planning. The groundwater elevations as stated in the phases are not absolute. As mining progresses and site experience increases, the groundwater elevations in the active pit may be slightly modified. However, the groundwater will always be maintained at a minimum of 2 feet above the top of limestone at the mine permit boundary.

Seven groundwater monitoring wells are located at the permit boundary around the perimeter of the pit. The top of limestone has been identified in each well by a professional geologist to establish the groundwater compliance levels.