



TEMPORARY LINED BASIN

Project Scope Highlights

- Install, operate, and maintain 183 well points
- Excavate 46,560 CY of bottom ash
- Excavate 12,640 CY of rock
- Load, haul, and place 34,970 CY of bottom ash in basin floor and berms
- Install 6 acres of geogrid on the basin bottom and under the berms
- Place 7,800 CY of crushed stone
- Install 7 acres of liner
- Place 27,900 SF of geotextile, stone, and concrete for the forebay.
- Fuse and install 1,520 LF of 36" HDPE pipe.
- Install (3) HDPE inlet riser structures.

Project Overview

Due to new regulations, a temporary lined basin needed to be constructed to accept plant, process water. To prepare the subgrade, bottom ash and rock were excavated and removed from the site. A concrete forebay and five, 36" HDPE pipes were constructed and installed to maintain water flow. The completion of the project was the first of the multiple phases required to clean close the remaining basins.

Project Challenges and Solutions

Several items were encountered throughout the project life cycle, creating the following challenges:

- In order to deem the work area safe, the phreatic water level was monitored daily and had to remain below a specified elevation. Despite considerable effort, the basin, subgrade material did not respond to conventional dewatering methods. As a result, Trans Ash employed a water management subcontractor to install hundreds of well points and remove the sub surface water. The process was successful, and Trans Ash was able to maintain the phreatic water level below the specified elevation.
- During excavation, an unexpected section of rock was encountered. Trans Ash utilized an excavator with a hammer attachment to demolish the rock, while working concurrently on other project activities. By adapting to the changing conditions Trans Ash was able to avoid delays and maintain the construction schedule.
- While excavating to reach subgrade, many areas were still too wet. Trans Ash focused its resources on digging sumps and over excavating. The sumps were able to remove the water long enough to allow stabilization of the undercut with stone and geogrid.



Initial Excavation



Rock Removal

- The biggest challenge of the project was placing a subgrade of #57 stone, to grade, on the slopes of the forebay below the concrete. Trans employed an additional work force and multiple surveyors to continually check grade and adjustment, as necessary, to maintain grade until the concrete was ready to be poured.

“Trans Ash was able to overcome unexpected challenges and still complete the project ahead of schedule and under budget.”



Well Point Dewatering System



Subgrade Preparation



Prep for Concrete Pour



Completed Basin