Subject: 2025 USEPA CCR Surface Impoundment Annual Inspection Report - Brunner Island Ash Basin No. 6

This report presents the findings of the 2025 annual inspection and placed in the operating record in 2025 for the Brunner Island Ash Basin No. 6 facility. This inspection was performed by a qualified Talen Energy employee on August 5th, 2025. The annual inspection was conducted in accordance with the requirements of the United States Environmental Protection Agency (USEPA) 40 CFR Parts 257 and 261 Hazardous and Solid Waste Management System; and Disposal of Coal Combustion Residuals from Electric Utilities; Final Rule, April 17, 2015 (CCR Final Rule).

1.0 Executive Summary

Brunner Island Ash Basin No. 6 is an inactive Coal Combustion Residual (CCR) surface impoundment that initiated closure activities in June, 2019. The final receipt of waste entering the basin from CCR and non-CCR waste streams occurred on May 31st, 2019. While the basin is undergoing closure, it is required to comply with the operating criteria of the CCR Rule. The basin is owned and operated by Brunner Island, LLC, a wholly owned subsidiary of Talen Energy (Talen). The ash basin is formed by an earthen embankment dam with a maximum height of approximately 30 feet when measuring the height of the dam to the surrounding surface elevation outside of the basin. The ash basin is, therefore, required to have an annual inspection performed by a qualified engineer in accordance with the CCR Final Rule. The ash basin is also subject to regulation by the Pennsylvania Department of Environmental Protection (PADEP) and is classified as Size B, Hazard Classification 3 under the PADEP Dam Safety Guidelines, corresponding to a medium-sized, significant-hazard-potential dam.

The CCR Final Rule requires that the annual inspection includes the following:

- a review of available information to verify that the design, construction, operation, and maintenance of the CCR unit is consistent with recognized and generally accepted good engineering standards;
- a visual inspection of the CCR unit to identify signs of distress or malfunction of the CCR unit and appurtenant structures; and
- a visual inspection of any hydraulic structures underlying the base of the CCR unit or passing through the dike of the CCR unit for structural integrity and continued safe and reliable operation.

The supporting studies required by the rule were completed in 2016 and in 2021. The project documentation indicates that Ash Basin No. 6 was designed and constructed in accordance with good engineering standards that were recognized and generally accepted at the time of design and construction between 1975 and 1979.

No signs of significant distress or malfunction of the CCR unit, appurtenant structures, and hydraulic structures passing through the dike were observed during the visual inspection. The project is generally operated and maintained in accordance with recognized and generally accepted good engineering standards and the CCR Final Rule. Continued attention to the items noted below is appropriate to adequately satisfy the CCR Final Rule inspection requirements for surface impoundments:

- Maintenance of vegetation on the slopes of the embankment, and periodic repair of ruts, sloughs, and slope irregularities;

- Monitoring of seepage and slope stability, with additional action conducted as necessary if conditions change significantly or evidence of internal erosion is observed. This should include monitoring of downstream slopes following recession of flooding of the Susquehanna River;
- Maintenance of the outlet system including vegetation removal, to maintain the hydraulic capacity.

2.0 Project Description and History

Ash Basin No. 6 is located between Black Gut Creek and the Susquehanna River at the southern end of Brunner Island in East Manchester Township, York County, Pennsylvania. The island is located along the western shore of the river and can be located on the York Haven U.S. Geological Survey (USGS) 7.5 Minute Quadrangle Map at 40º04′59″N, 76º40′58″W. The global positioning system (GPS) address is 1281 Wago Rd, York Haven, PA 17370. The basin was originally owned by PPL Brunner Island, LLC (PPL). In June of 2015, the company changed its name to Brunner Island, LLC, which is a subsidiary of Talen Energy (Talen).

The ash basin was designed and constructed between 1975 and 1979. The basin is formed by an oval-shaped, above-ground embankment constructed with random earth fill and includes a 10-foot-thick clay liner covering the upstream slope, from bedrock to elevation 287.5 feet. The maximum height of the embankment is approximately 30 feet when measuring from the top of crest to the outside toe of slope of the dam and approximately 38 feet when measuring from the top of crest to the inside toe of slope within the impoundment. The nominal crest elevation of the embankment is 290 feet. Overall, the embankment is about 8,300 feet long and the impoundment has a surface area of about 70 acres. The basin is subdivided into three main areas. The northern part of the main basin was filled with ash when the basin was still receiving ash and removal efforts to excavate the ash are underway. The southern part of the main basin was not completely filled and retains a small amount of open water. To the south of the main basin is a polishing pond separated from the main basin by a dike which also retains open water. Elevations in this report refer to Plant datum. The Plant vertical datum, National Geodetic Vertical Datum of 1929 (NGVD 29), is approximately 0.76 feet higher than the North American Vertical Datum of 1988 (NAVD 88) at Ash Basin 6.

Water enters the polishing pond from the ash basin for final treatment via a pump (installed in 4Q 2019/1Q 2020) into the original flow-through concrete drop structure. The original structure consists of a weir-type riser and a drop structure that discharges into one 48-inch-diameter, reinforced-concrete pipe that transitions to fiberglass as it exits the splitter dike and discharges to the polishing pond. Gated perforations in the weir-type riser were made in 2019, once the basin stopped receiving wastewater, to assist the with the drawdown using skimmers and now the use of a pump.

The terminal outlet structure is located in the polishing pond and consists of two 60-inch-diameter, reinforced-concrete riser pipes with skimmers draining into a single 48-inch-diameter, reinforced-concrete discharge pipe that discharges into the Susquehanna River. A flapper gate and an outlet control structure are provided at the river-end of the discharge pipe to prevent river water from entering the ash basin during high tailwater conditions.

Talen began the ash harvesting activities in 2015, while the surface impoundment was still active and operating, in accordance with the PADEP approved closure plan. Talen is no longer discharging CCR or non-CCR waste streams into the basin and closure was initiated on June 3rd, 2019.

In accordance with the CCR Final Rule inspection requirements for surface impoundments, the following information is required.

2.1 Changes in Geometry since the Previous Inspection

No quantities of CCR are currently being discharged into the basin and the basin is currently undergoing closure by removal. The changes in geometry include a reduction of surface elevation due to the removal activities. The main basin was mostly dry with an approximate water elevation of 252.5' during the inspection. The pump was sitting within a very small pool of water. Floating skimmer devices were installed in the outlet structure in June 2019 and additional valves were installed to control the rate of drawdown preventing unstable rapid drawdown conditions. Later in the year, once the floating skimmers were at the same elevation as the outlet structure, the skimmers were replaced with a floating pump. The water surface in the polishing pond was slightly below the sill level at elevation 267.8'.

2.2 Location and Type of Instrumentation

Refer to Section 5 of this report for a discussion of instrumentation.

2.3 Approximate Minimum, Maximum, and Present Depth of and Elevation of Impounded Water and CCR

Elevations and depths of CCR and free water are shown in Table 1 below. These are based on the original ash basin topography, as shown on Drawing E158595 sheet 1, Revision 6, as well as field observations made on the day of the inspection with correspondence with the contractor. Note that portions of the bottom of the basin were previously thought to contain sands and gravels and it has been determined that they are not present and the bottom of the basin is to the original bedrock elevation of approximately 252'. Contours shown on the attached survey in appendix C, which was revised in 2025, were based on a survey date of March 27, 2025.

Table 1
Elevations and Depths of CCR and Free Water

CCR Surface Elevation (feet)	Original Ground Surface (feet)	Water Surface Elevation (feet)	Ash Depth (feet)	Free Standing Water Depth (feet)	Location
290' (dam crest elevation) or dry stacked up to 308' as noted on 2025 aerial survey	Approximately 252'	Dry	13' at the shallowest (252' to 265'') up to 56' at the deepest (252' to 308') considering dry stacked piles	None	Northern 3/4 End of Main Basin
Ash varies from 252' to 270'	Approximately 252'	*252.5'	0' at the shallowest to 18' at the deepest (252' to 270')	0.5' at the deepest (252' to about 252.5')	Southern 1/4 end of Main Basin

The volume of free-standing water within the basin has reduced to a very small amount around the pump to be approximately 0.03 acre-feet which is the same as the previous inspection and a significant reduction from when the basin was operating (a reduction of about 118 acre-feet of water since the basin began closure). The polishing pond held approximately 5.4 acre-feet of water. The depth of water in the polishing pond is approximately 13.45 feet deep.

Talen reported that the CCR Removal Project has resulted in the removal of 83,545 tons in 2015, 182,559 tons in 2016, 189,704 tons in 2017, 145,588 tons in 2018, 142,297 tons in 2019, 152,192 tons in 2020, 143,148 tons in 2021, 162,821 tons in 2022, 201,647 tons in 2023, 159,603 tons in 2024, and approximately 72,131 tons in 2025 as of the date of inspection resulting in the removal of a total of 1,635,235 tons of non-dry CCR material since ash removal began in 2015. The cement manufacturer receiving the ash has determined that the average unit weight of the non-dry CCR material in the basin is 100.3 pounds per cubic foot (pcf); however, during the drawdown of the basin and the excavation process some of the moisture in the ash is relieved and the moisture content of the ash reduces to approximately 20% as it leaves the site and has a unit weight closer to 87 pcf. Prior to the start of the CCR Removal Project, an estimated 4,500,000 tons of non-dry CCR were in the ash basin having a moisture content of 20%. This value was re-calculated in 2020 and reflects an increase of approximately 1,085,000 tons from the prior estimate given the recent determination that the previously documented non-ash material underlying much of the basin were removed prior to activating the basin and the ash extends to the top of bedrock. Subtracting what has currently been removed leaves the basin with 2,864,765 tons of non-dry impounded CCR material remaining at 87 pcf (assumed density) and is a reduction of 129,018 tons from the previous annual inspection.

2.4 CCR Storage Capacity

The total permitted CCR storage capacity of the ash basin is approximately 3,864,000 (dry) tons (approximately 2,456 acre-feet at 0% moisture). As noted earlier, an estimated 2,864,765 tons of non-dry 20% moisture CCR remains in the ash basin and when converted to dry tons equals approximately 2,291,812 tons and has a volume of about 1,456.7 acre-feet, resulting in a remaining dry CCR storage capacity of 999.3 acre-feet. This remaining storage capacity will increase annually since the plant is no longer sluicing ash into the basin and ash removal activities for beneficial reuse are active and ongoing.

3.0 Review of Supporting Technical Information

As required by the USEPA CCR Final Rule, the annual inspection is to include verification that the design, construction, operation, and maintenance of the CCR unit are consistent with recognized and generally accepted good engineering standards.

Talen established their CCR website, posted their fugitive dust control plan, continued required record keeping, provided required notifications, implemented weekly inspections, and implemented monthly monitoring of instrumentation by October 19, 2015, in accordance with the CCR Final Rule. The permanent marker required by the CCR Final Rule was installed prior to December 17, 2015.

Talen prepared the initial reports summarizing the following information by October 17, 2016 and periodic reports in October 2021, in accordance with the USEPA CCR Final Rule.

- Periodic Hazard Potential Classification Assessments;
- History of Construction;
- Liner Documentation;

- Periodic Structural Stability Assessments; and
- Periodic Safety Factor Assessments.

Talen's consultant prepared the location restriction reports and Talen submitted them to the Facility Operating Record as required by the CCR Final Rule prior to the deadline of October 17, 2018. Ash Basin No. 6 met the requirements for location restrictions with the exception to aquifer separation as outlined in 40 CFR §257.60.

Other available supporting technical information that was reviewed included the following:

- Project drawings;
- Previous annual inspection reports by HDR Engineering, Inc. and Talen;
- The 7 day inspection reports and the 30 day instrument monitoring reports completed by qualified personnel; and
- USEPA inspection report, dated December 12, 2012.

In general, the design, construction, operation, and maintenance of the CCR unit is consistent with recognized and generally accepted good engineering standards, and the documentation complies with the requirements of the CCR Final Rule. Upon review of the 30 day instrument monitoring reports, it appears that the piezometer B09-1 became blocked as early as March 25, 2017. A drilling company was hired and attempted a clean out of the piezometer. The clean out was unsuccessful and the piezometer was abandoned by over-drilling and filled the hole with grout. Piezometer B09-1N was installed and replaces B09-1 (see timeline in Section 5.0). Additional discussion regarding design, construction, and maintenance practices and documentation is presented below.

The Potential Hazard Classification Assessment (HDR 2016 and 2021) contains the information required by the CCR Final Rule. Ash Basin No. 6 has a significant hazard potential based on potential economic and environmental impacts.

Based on a review of the information described above, it appears the embankment was designed and was reportedly constructed in accordance with good engineering standards that were recognized and generally accepted at the time of design and construction between 1975 and 1979. The embankment was constructed with a 10-foot-thick (horizontally) clay liner on the upstream face of the embankment, and the embankment was constructed of controlled, compacted sandy silt to silty clay fill, with a specified compaction of 95 percent of the Standard Proctor maximum density. The embankment was constructed with an upstream slope of 2.5H to 1V, a crest width of 15 feet, and a downstream slope of 2H to 1V. The original slope stability analyses were not available for review, but the embankment slopes are consistent with common embankment construction design practices of the time.

Seepage was previously observed at the toe of the embankment at the northwestern, and previously along the southeastern sections of the embankment and those seeps along the northwestern and southeastern section were not observed during this inspection.

No seepage has been identified that is associated with the through-embankment conduit, though seepage along the underside of conduit would be difficult to view directly.

Several shallow sloughs of the downstream face of the embankment occurred previously, reportedly as significant flooding of the Susquehanna River receded. Talen, through a consultant, performed a rapid drawdown analysis of the downstream embankment slope assuming partially saturated conditions and determined that the stability of the downstream slope for critical failure surfaces satisfies the requirements of the USEPA CCR Final Rule.

The Constructed Liner Determination Report (Talen 2016) verified that the basin is considered to be unlined, as it was not constructed with a two-layer composite liner including an upper geomembrane component and lower compacted soil component.

The Initial and Periodic Structural Stability Requirement Assessments (HDR 2016 and 2021) contain the information required by the CCR Final Rule. The adequacy of the spillway was assessed previously as a result of a recommendation presented by USEPA during their inspection of the ash basin in 2012. Note that the basin is formed by an above-ground embankment for its full perimeter, so that all inflow is the result of precipitation falling directly on the basin, with no run-on from adjacent areas. The 2012 analysis determined that the ash basin could safely pass the inflow resulting from the ½ Probable Maximum Flood (PMF), which was the Inflow Design Flood (IDF) prescribed by the PADEP, provided that the discharge structures remain unobstructed during the flood. The IDF prescribed by the USEPA CCR Final Rule is the 1,000-year flood, which has significantly lower inflow than the ½ PMF. In addition, Talen has lowered the normal operating surface from approximate elevation 286.0 feet in 2012 to the current elevation of roughly 252.5 feet providing an additional 33.5 feet of usable water storage depth in the open part of the basin.

The sole spillway for the basin comprises an outlet structure at the main basin with a conduit leading to the polishing pond and an outlet structure at the polishing pond with a conduit leading to the Susquehanna River. Since the basin is undergoing closure, pumping measures are in place to pump water from the basin into the outlet structure in the basin and is maintaining a basin elevation of roughly 252.5', which is the same since the last inspection. The mixing chamber, which was located within the conduit between the main basin and the polishing pond, is no longer being used during the closure of the basin and was removed in 2025 prior to the annual inspection. This results in less of a head loss through the pipe and a lesser chance of debris accumulating within the pipe. The discharge capability of the outlet structures is adequate, provided that the outlet structures in general are maintained clear of debris. The 2021 Periodic Update to Inflow Design Flood Control System Plan notes that the dam provides adequate freeboard from overtopping even if the dewatering pump fails and an antecedent storm raises the reservoir elevation to the control weir elevation of 283.5 feet prior to the onset of the inflow design flood storm event with the polishing pond discharge flap gate closed by high flow conditions on the Susquehanna River.

As noted previously, since the basin initiated closure no CCR or non-CCR waste streams are placed into the basin. Rainwater enters the basin and no gate operations are necessary to pass the inflow design flood assuming the gates are operated in the fully open position, so that operational needs for the ash basin are limited. Since permanent drawdown has been initiated, the available freeboard has increased and provides additional protection of overtopping. Talen staff reportedly patrol the ash basin daily to observe the basin, the polishing pond, embankments, and discharge structures for any abnormalities such as excessive flow, leakage, or structural damage. Talen also performs the 30-day monitoring of the piezometers, 7-day inspections as required by the USEPA's CCR Final Rule, and annual inspection reports that are required by the PADEP and the CCR Rule.

The Initial Safety Factor Assessment (HDR 2016) contained the information required by the CCR Final Rule.

Maintenance measures include vegetation control and repair of ground disturbance that occurs during vegetation control along with the on-going ash removal activities for beneficial reuse within the impoundment. These measures are generally consistent with good practice and are described in more detail in Section 4.

An assessment of the groundwater monitoring program, sampling, analysis, and detection, as described by the CCR Final Rule, is not a required element of the visual inspection and was not included in this inspection report.

The April 17th 2017 Emergency Action Plan (EAP) and certifications were stored in the facility operating record and on Brunner Island's CCR Rule Compliance Data and Information website. The plan was later revised on March 15th, 2018, on January 24th, 2023, and again on September 8th, 2025.

4.0 Visual Inspection Site Visit

The visual inspection site visit was conducted on August 5th, 2025, by Benjamin Wilburn, P.E. who is a Talen Employee. The water level elevation of the free-standing water within the main basin was approximately elevation 252.5 feet. The weather was sunny, the temperature was 80 degrees Fahrenheit, and approximately 0.47" of rain fell nine days earlier. Relevant photographs and map locations are provided in Appendix A.

The visual inspection was conducted in accordance with the CCR Final Rule to identify signs of distress or malfunction of the CCR unit and appurtenant structures, and consisted of observations of features and conditions readily discernible by external visual inspection through reasonable efforts. An internal pipe inspection was made by a 3rd party also on August 5th, 2025.

West Embankment

A stone access road and berm exists along or downstream of the toe of the west embankment and was installed in the fall of 2014. The access road and berm are up to 10 feet high above the toe in places, about 10 feet wide, and are constructed of 4-inch stone fill. This berm connects with the gravel road running along or near the toe of the west embankment. This road was regraded with stone as part of the nearby gas line installation in 2016.

The vegetation on the downstream slope of the west embankment was satisfactory. Clearing of vegetation extended from the top of the berm to the toe was recently performed.

There was no evidence of movement, seepage, sinkholes, distress, or erosion, except as noted below. Minor slope irregularities were observed along the upper edge of the slope at the northwest corner, which were likely due to mowing equipment or road traffic and unchanged from the previous year's inspection. There was no evidence of cracking. Artesian conditions were last noted in the 2020 annual inspection report (site inspection performed in 2019) in the riser of Monitoring Well 6-1B near the northwest corner of the basin, with flow coming from a hole in the riser about 2 feet above grade. The artesian condition was not observed this year as there was no observed flow coming from the monitoring well. Seeps were previously observed flowing beyond the toe of slope in the general vicinity of the northwest corner of the dam and were not flowing during the inspection. The toe of the downstream slope in the Sedimentation Basin No. 1 (located outside of the basin at the toe of slope) was dry and no water was flowing out of the sedimentation pond's discharge pipe. The previously observed downed tree, which was partially blocking the sedimentation pond's discharge pipe, was removed since the last annual inspection. There was no evidence of piping, material deposition, or entrained fines from the embankment.

The southern part of the main basin retains a small area of water and was approximately 0.5' deep and 0.03 acres in surface area during the time of the inspection. The inside slope of the west embankment around the previously maintained open body of water was recently excavated of ash and was in satisfactory condition with vegetation continuing to become established. Some of the ash

remains and will be further excavated during the closure-by-removal process. There was no visible evidence of movement, settlement, sinkholes, cracking, or other distress.

East Embankment

The east embankment generally appeared to be in good condition. Vegetation was satisfactory. The previously observed seep at the southern end of the basin where a weighted filter blanket has previously been installed, was dry. The filter blanket extends about 20 feet upslope and is about 3 feet thick. The sedimentation ditch was dry and was constructed as part of erosion and sedimentation control measures during original construction which is now effectively part of the embankment.

There was no evidence of woodchuck burrows. There was no evidence of instability, deformation, sinkholes, cracking, or leakage.

The crest of the embankment consisted of a gravelly surface. No evidence of movement, settlement, cracking, or other distress was observed. The condition of the roadway crest was consistent around the entire ash basin. Talen periodically regrades the access road and repairs erosion rills and potholes.

The inside slope of the east embankment was in satisfactory condition. The inside slope of the east embankment along the previously maintained open body of water was excavated of ash and was in satisfactory condition with vegetation starting to become established. Some of the ash remains and will be further excavated during the closure-by-removal process. No evidence of instability, movement, sinkholes, or burrows was observed.

North Embankment

The north embankment separates Ash Basin No. 5, which is closed, and Ash Basin No. 6. The majority of the embankment has been filled on both sides and currently can only be distinguished by the presence of the access road on its crest. A pipe that previously discharged process water from the station's equalization pond which emptied into a small channel at the northeast end of Ash Basin 6, has been severed and flow has been eliminated from this pipe since May 31st, 2019.

Wet soils previously were observed at the northeastern corner of the embankment; at the time of the inspection that area was dry. No flow or any signs of instability was observed.

The process water discharge pipes cross the north dike near its west end and discharged to a pool near the west end of the basin; those pipes were permanently severed, and flow ceased on May 31st, 2019.

South Embankment/Polishing Pond

The downstream slope of the south embankment appeared to be in good condition with no visible evidence of movement, sinkholes, distress, or erosion. The vegetation had been trimmed over the downstream face and toe prior to the inspection. In the past, the toe of the downstream embankment had two areas with saturated soil conditions located at the south and southeast side, are now observed to be dry. There was no visible rutting, standing water, seepage or evidence of piping.

The upstream slope appeared to be in good condition, and the vegetation along the upstream slope had been recently mowed. Tall vegetation was growing along the water's edge and around the

structures where the mowing equipment could not reach. This vegetation should be cut manually if the mowing equipment cannot access. There was no evidence of movement, sinkholes, or distress.

Internal Channels

The internal ash process water sluice channel is no longer active since the basin stopped receiving flow on May 31st, 2019. New internal drainage channels were installed in late 2019 and 2020 to promote positive drainage during the ash reclamation project and are being modified and maintained as the reclamation continues. The surface elevation within the basin continues to be lowered as ash is removed while maintaining the outer dike elevation which continues to provide additional freeboard during rainfall events.

Intake/Outlet Structures

The outlet structure located between the main basin and the polishing pond was in good condition. Two skimmer devices were installed in the structure in 2019 to allow drawdown to occur after the basin stopped receiving flow and were eventually replaced with a single floating pump once the skimmers could no longer drain through gravity methods. Two new gates were installed to adjust the flow rate during the drawdown process, also in 2019. The modifications to install the skimmers structures were initiated on June 3rd, 2019 following the cessation of waste and wastewater disposal and the pump was installed in December 2019/January 2020. The western gate, installed in 2019, was currently closed and the eastern gate, which was also installed in 2019, was in the open position. Talen operates the two small gates in this arrangement to allow the water from the pump to pass by a turbidity meter to monitor the discharge. The concrete appeared to be in good condition, and the existing skimmer gate was in good condition. During a previous inspection, an accumulation of ash and sediment was observed at the sump of the structure located between the stoplog panels and slide gate during the inspection. Talen has reported that the material in the sump was removed in 2022 without very much accumulation returning. The walkway paint showed some signs of deterioration, although the walkway itself was sound. The impoundment water surface elevation at the time of the inspection was 252.5 feet, with a depth of about 0.5 feet, which now extends to the bedrock floor below since the ash has been substantially removed in this location.

The CCR Final Rule requires that the annual inspection include a visual inspection of any hydraulic structures underlying the base of the CCR unit or passing through the dike of the CCR unit for structural integrity and continued safe and reliable operation. Talen's 3rd party contractor performed the visual inspection of the conduit which passes through the internal splitter dike on August 5th, 2025. The pipe was thoroughly cleaned annually from 2022 through 2025 and was free of ash deposits during the inspection. The inspection was completed by manually entering the conduit and recording a video throughout. The mixing chamber was observed to be removed, and no other significant changes were observed from the previous year. The pipe appeared to be in good condition.

The outlet structure from the polishing pond to the Susquehanna River consists of an inlet in the polishing pond and a regulating structure just upstream of the discharge point. Both of these structures appeared to be in good condition during the August 5th, 2025 video inspection by a 3rd party contractor. The stem of the control gate operator on the regulating structure was replaced in early 2017 and again in the 4th quarter of 2021 due to excessive torquing by the operator. A mechanism was installed to not allow the operator to over-torque the gate. Upon review of the video, the conduit appeared to be in good condition and no unusual conditions were observed. During the August 5th, 2025 inspection the gate was in the fully open position and locked. The flapper gate, which is provided at the river-end of the discharge pipe to prevent river water from entering basin during high tailwater conditions, was in satisfactory condition with slight surface corrosion and should be monitored. The two riser

structures in the polishing pond had vegetation growing around the skimmer assembly along the water's edge, which should be removed.

5.0 Instrumentation

Four piezometers were installed in the east embankment in 2009 along two sections at approximately Stations 22+60 and 7+30 as seen in the figures in Appendix B. The piezometers at Station 22+60 were installed adjacent to a repaired sloughed area, while the piezometers at Station 7+30 were installed in an area with no nearby sloughs. Two piezometers were installed at each section; one piezometer was located in the crest road and the second was located on the slope approximately 1/4 to 1/3 of the way up from the toe. It appears that piezometer B09-1 started to become blocked in March 2017 and Talen attempted a cleanout in early 2018. Talen received approval from the PADEP Division of Dam Safety to install a new piezometer (B09-1N) in the dam crest and properly abandon the blocked piezometer (B09-1) and that work was completed in December 2018. Following the installation of the new piezometer, Talen installed pressure transducers to record measurements of the piezometers in the crest and on the embankment. Two of the transducers stopped working on July 2nd, 2022 and Talen staff took manual readings until new devices could be installed. All 4 of the transducers were replaced in 2023 and readings are now being tracked using the devices. Piezometers B09-3A and B09-3B were dry for each reading since the last inspection.

A weir was observed at the northeast corner of the basin about 50 feet downstream of the toe and measures runoff from the marshy area at the northeast corner of the ash basin. It has been reported that this weir was not considered as dam safety instrumentation and is currently dry.

Other instrumentation consists of a gage board at the riser structures in the polishing pond. A level device and gauge board, located in the main basin, has currently been removed to allow the contractor to excavate this area of the pond and measurements are being taken with a hand measurement device from a known elevation.

6.0 Closure

Based on the information provided to me, information available on Talen's CCR website, and my visual observations, this annual inspection was conducted in accordance with the requirements of the USEPA 40 CFR Parts 257 and 261 Hazardous and Solid Waste Management System; Disposal of Coal Combustion Residuals from Electric Utilities; Final Rule, April 17, 2015 (CCR Final Rule), to the best of my knowledge, information, and belief, and was conducted in accordance with professional standards of care for similar work.

7.0 Certification

By affixing my seal to this, I do hereby certify to the best of my knowledge, information, and belief that the information contained in this report is true and correct. I further certify I am licensed to practice in the Commonwealth of Pennsylvania and that it is within my professional expertise to verify the correctness of the information. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment.

Benjamin R. Wilburn, P.E.

P.E. License Number: PE080739

Signature: Benjamin R. Wilburn

Date: 9/30/2025

Appendix A: Inspection Photographs
Appendix B: Instrumentation Data
Appendix C: 2025 Survey Data

APPENDIX A
INSPECTION PHOTOGRAPHS

Inspection Survey

Inspection Type: Dam

Submitted By: E165947_TLN_ES

Date of Inspection: August 5, 2025 11:11 AM

Facility	Basin	Inspector
Brunner Island	Basin 6	Ben Wilburn P.E.
Weather	Temp (Deg F)	Date of Last Precipitation
Sunny	80	July 27, 2025
Type of Precipitation	Amount of Precipitation	
Rain	0.47	

Field Inspection Findings

Inspection Record: 080525 111119

Feature	Longitude	Latitude
Embankment	-76.6867378	40.0820852
Feature Condition		
Satisfactory		

Embankment
EmbkOutsideSlope

Feature Map Location:

Feature Images:

Inspection Record: 080525 112250

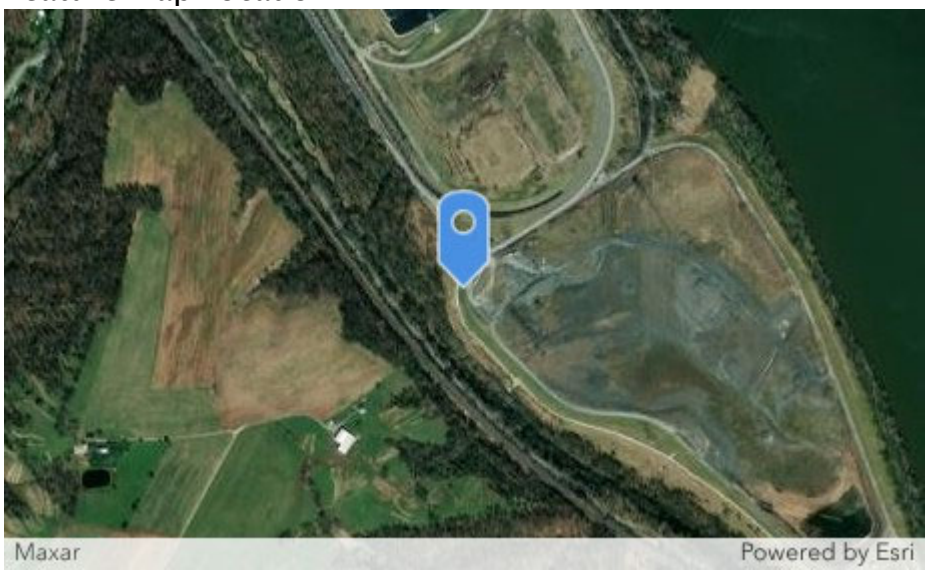
Feature	Longitude	Latitude
Embankment	-76.6878108	40.0815320

Feature Condition
Satisfactory but check carefully next inspection

Embankment	Embankment Factor
EmbkOutsideSlope	Other

Inspection Notes	Slight slope irregularity.

Feature Map Location:



Feature Images:

Inspection Record: 080525 112813

Feature	Longitude	Latitude
Embankment	-76.6883215	40.0813193
Feature Condition		
Satisfactory		

Embankment	Embankment Factor
EmbkOutsideToe	Other

Inspection Notes	Previously wet area beyond toe is dry.

Feature Map Location:

Feature Images:

Inspection Record: 080525 113153

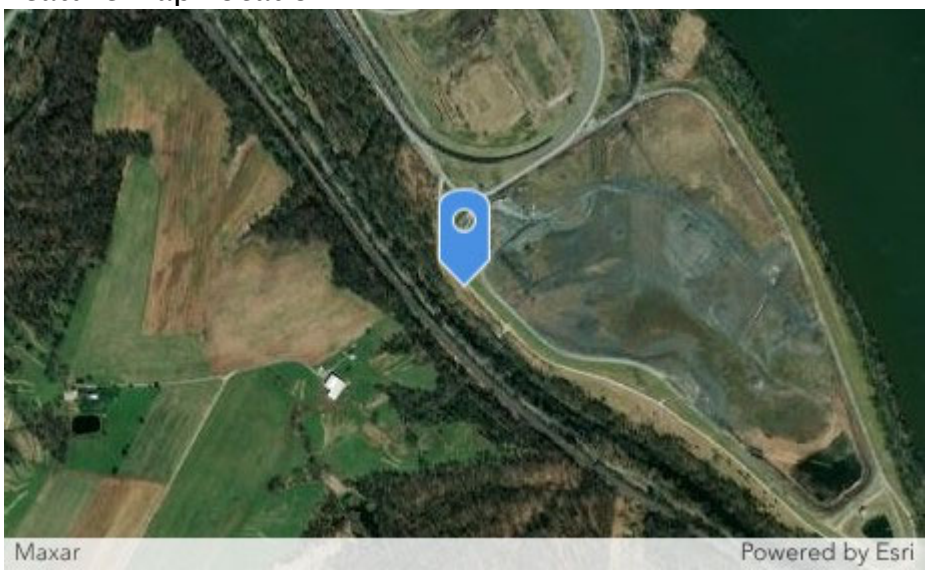
Feature	Longitude	Latitude
Embankment	-76.6875660	40.0806187

Feature Condition
Satisfactory

Embankment	Embankment Factor
EmbkOutsideToe	Other

Inspection Notes	Riser in e&s pond is dry.

Feature Map Location:



Feature Images:

Inspection Record: 080525 113829

Feature	Longitude	Latitude
Other	-76.6870747	40.0800793
Feature Condition		
Satisfactory but check carefully next inspection		

Inspection Notes	Previously observed well in artesian condition is dry.

Feature Map Location:

Feature Images:

Inspection Record: 080525 114104

Feature	Longitude	Latitude
Vegetation	-76.6877025	40.0804590

Feature Condition
Satisfactory

Vegetation	Vegetation Factor
VegOutsideSlope	Other

Inspection Notes	Previously fallen tree overtop e&s pond pipe was removed.

Feature Map Location:

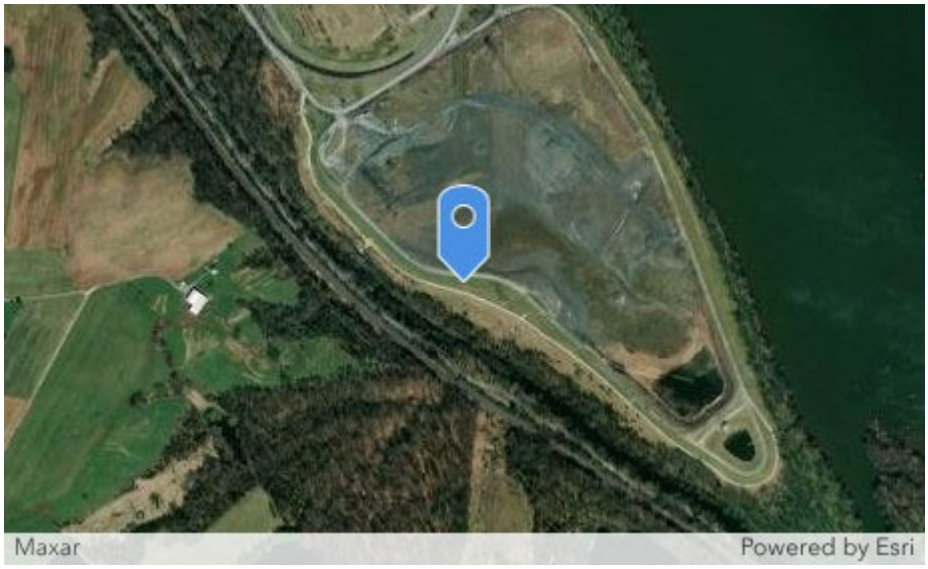
Feature Images:

Inspection Record: 080525 114550

Feature	Longitude	Latitude
Embankment	-76.6845953	40.0793202
Feature Condition		
Satisfactory		

Embankment
EmbkOutsideSlope

Feature Map Location:



Feature Images:

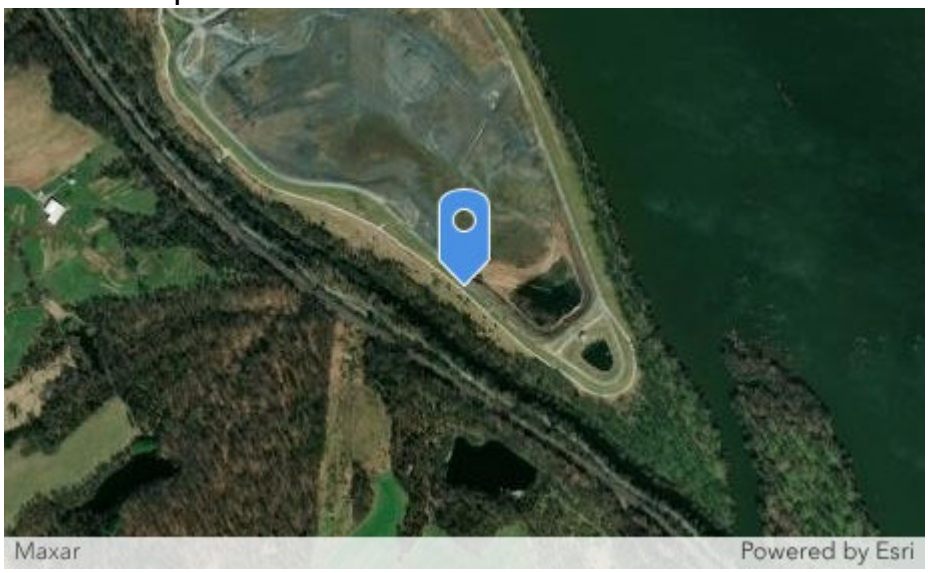
Inspection Record: 080525 115324

Feature	Longitude	Latitude
Embankment	-76.6815578	40.0777738

Feature Condition
Satisfactory

Embankment
EmbkOutsideSlope

Feature Map Location:



Feature Images:

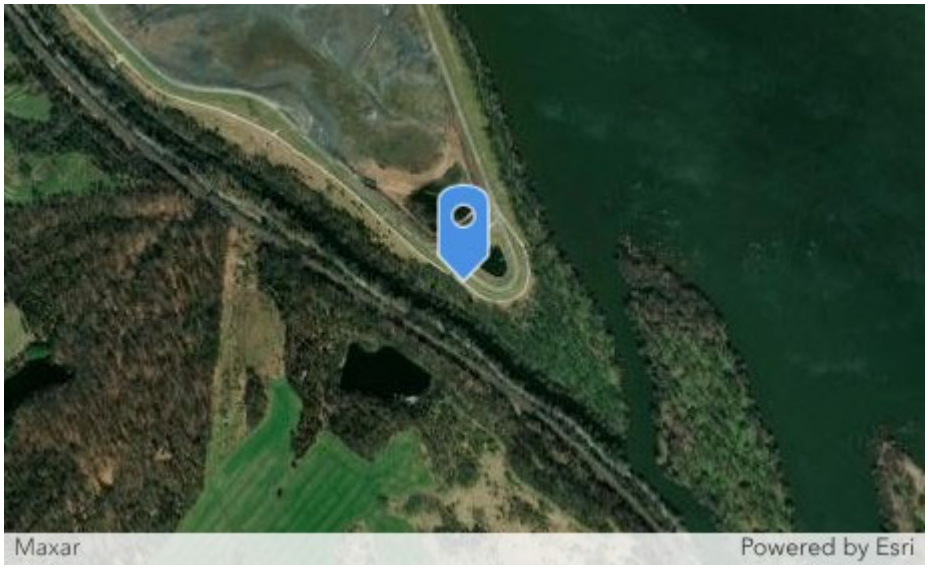
Inspection Record: 080525 115726

Feature	Longitude	Latitude
Embankment	-76.6793145	40.0762900
Feature Condition		
Satisfactory		

Embankment	Embankment Factor
EmbkOutsideToe	Other

Inspection Notes	Previously observed saturated area beyond the toe is dry.

Feature Map Location:



Feature Images:

Inspection Record: 080525 120012

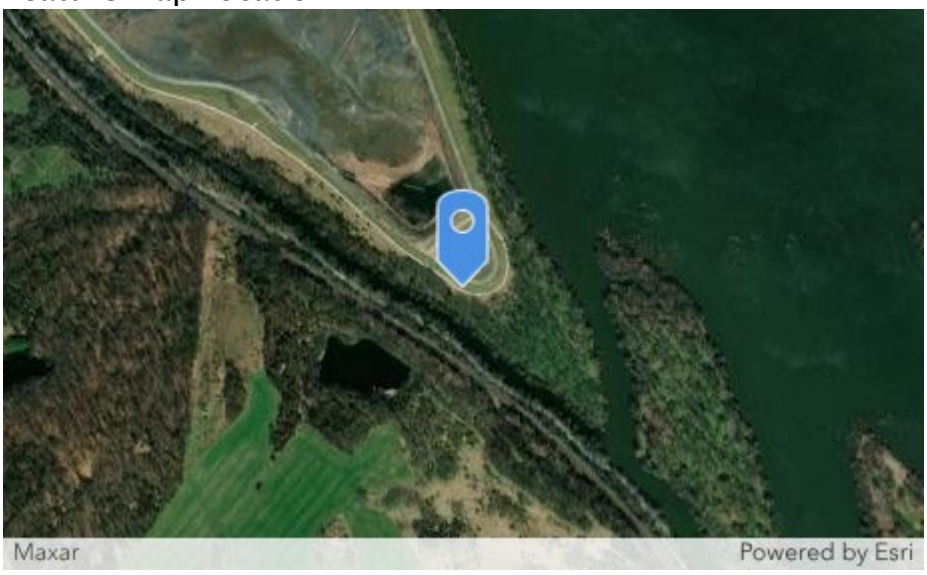
Feature	Longitude	Latitude
Embankment	-76.6788843	40.0760968

Feature Condition
Satisfactory

Embankment	Embankment Factor
EmbkOutsideToe	Other

Inspection Notes	Area is dry.

Feature Map Location:



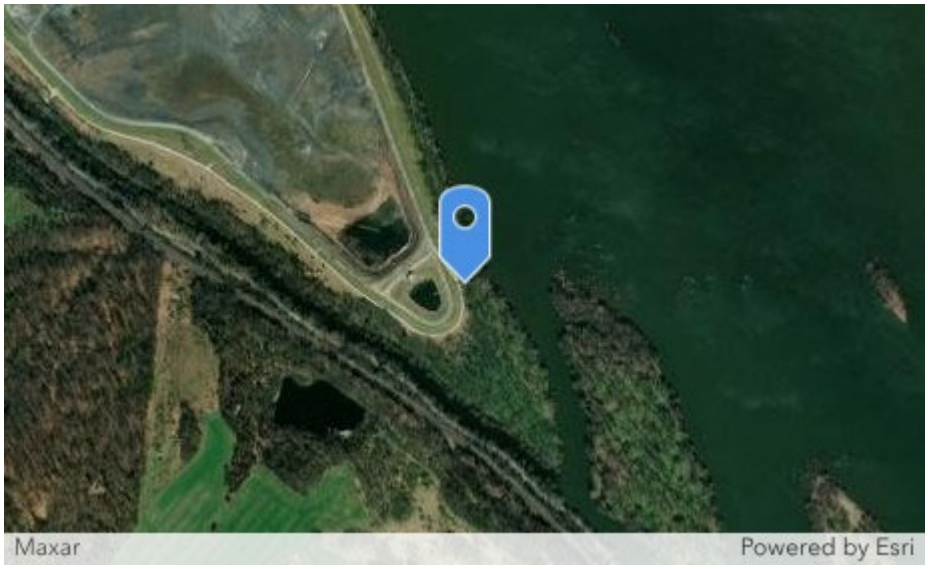
Feature Images:

Inspection Record: 080525 120238

Feature	Longitude	Latitude
Outlet Works	-76.6778863	40.0768692
Feature Condition		
Satisfactory		

Outlet Works
OutletWorksConcrete_Structure

Feature Map Location:



Feature Images:

Inspection Record: 080525 120321

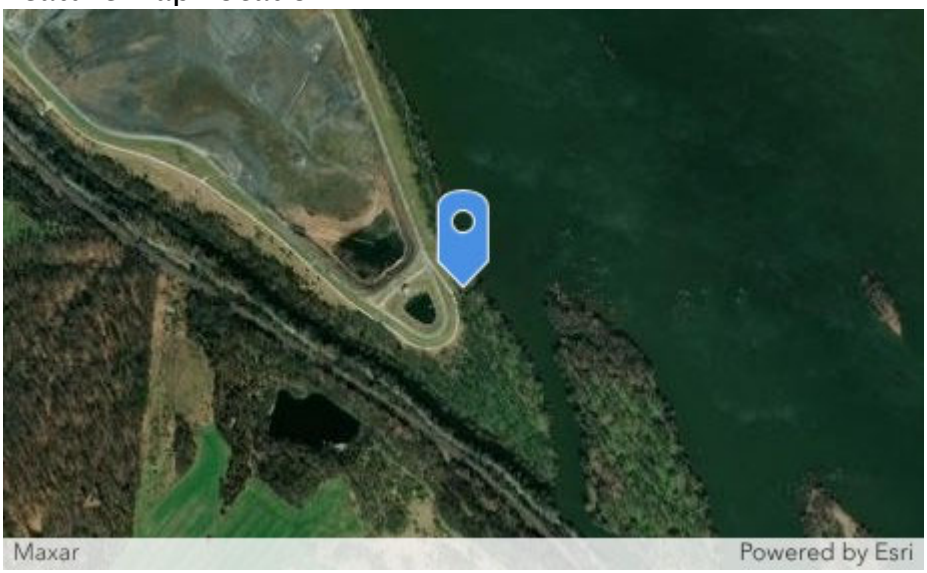
Feature	Longitude	Latitude
Outlet Works	-76.6777793	40.0769913

Feature Condition
Satisfactory but check carefully next inspection

Outlet Works	Outlet Works Factor
OutletWorksGates	Corroded

Inspection Notes	Slight corrosion on flapper gate.

Feature Map Location:



Feature Images:

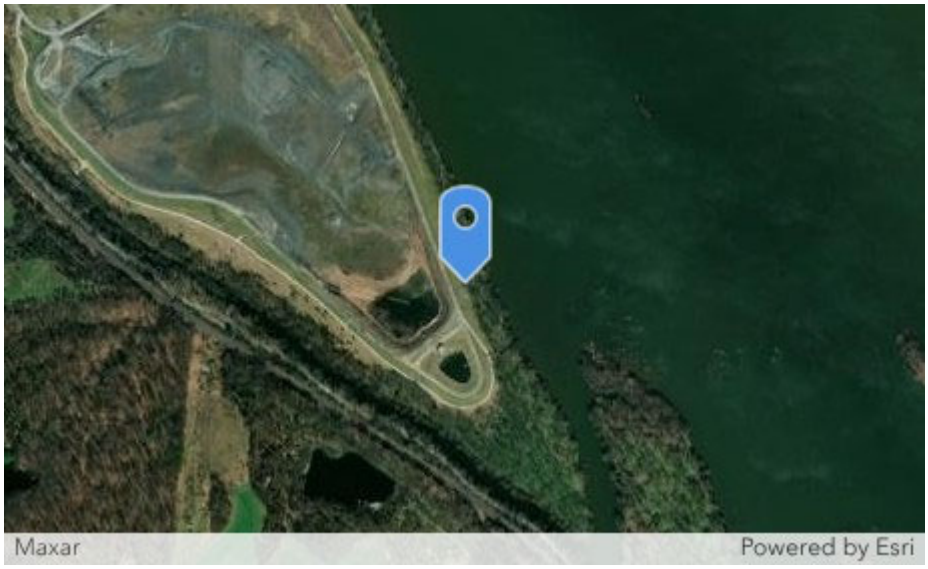
Inspection Record: 080525 120647

Feature	Longitude	Latitude
Embankment	-76.6785370	40.0780525
Feature Condition		
Satisfactory		

Embankment	Embankment Factor
EmbkOutsideSlope	Other

Inspection Notes	Area around rock filter on the embankment is dry.

Feature Map Location:



Feature Images:

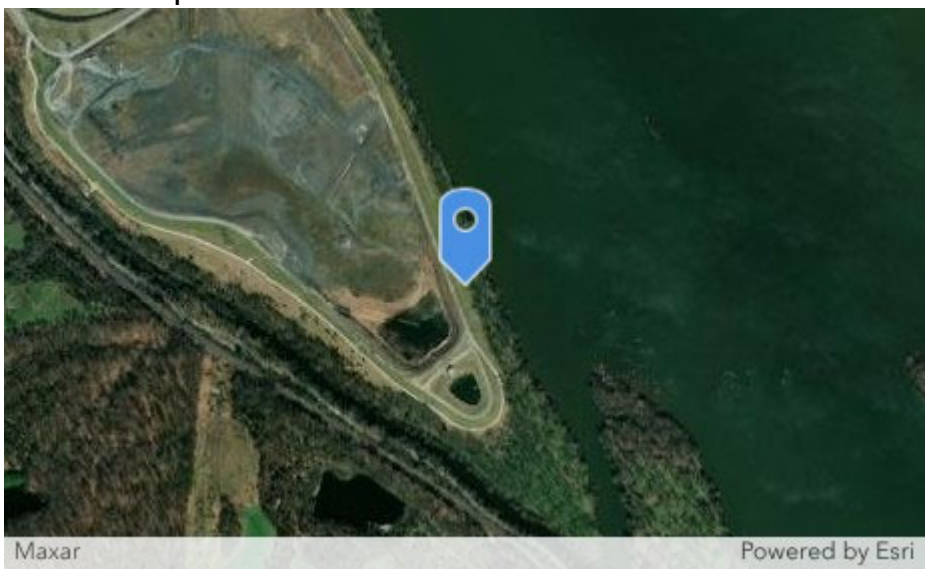
Inspection Record: 080525 120813

Feature	Longitude	Latitude
Embankment	-76.6787528	40.0783223

Feature Condition
Satisfactory

Embankment
EmbkOutsideSlope

Feature Map Location:



Feature Images:

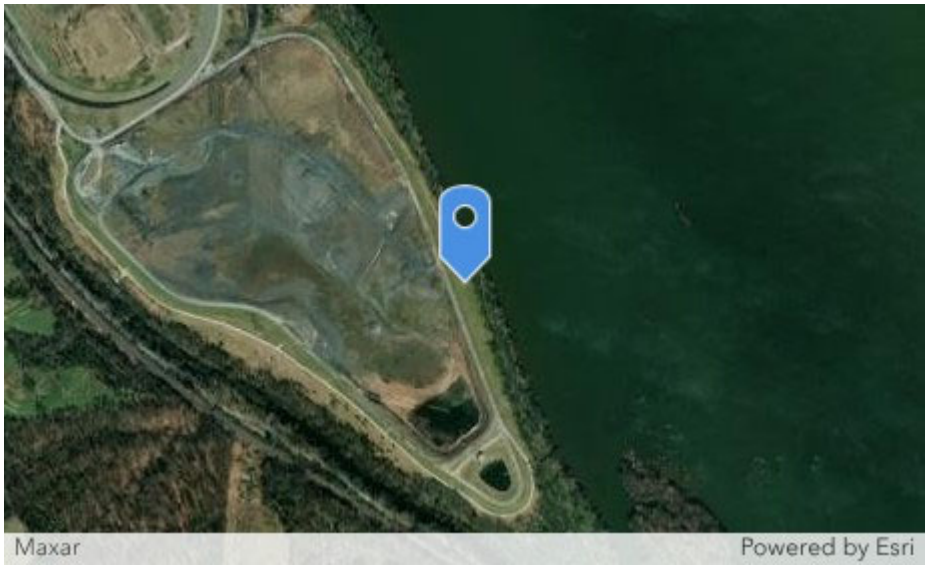
Inspection Record: 080525 121055

Feature	Longitude	Latitude
Embankment	-76.6793922	40.0798182
Feature Condition		
Satisfactory		

Embankment
EmbkOutsideSlope

Inspection Notes	Historic e&s pond is dry.

Feature Map Location:



Feature Images:

Inspection Record: 080525 122321

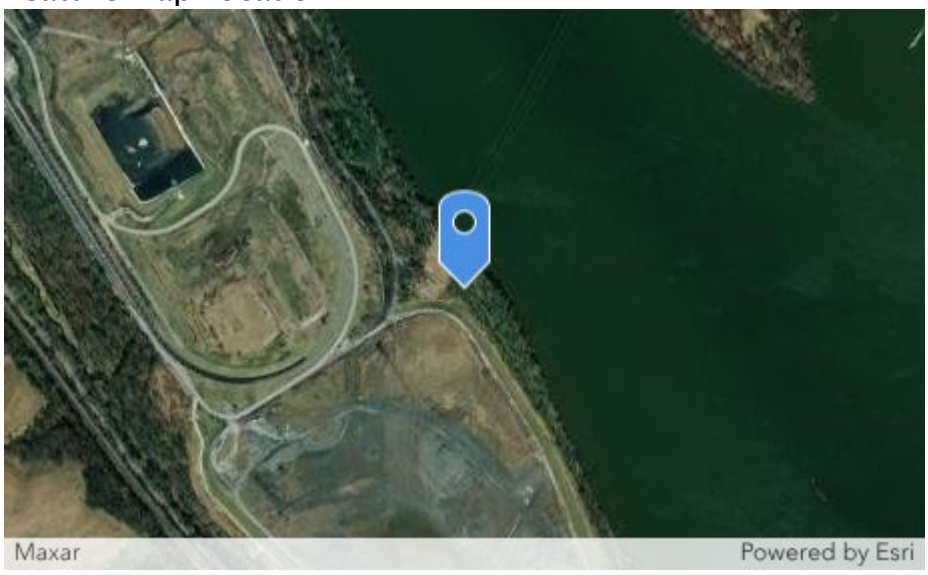
Feature	Longitude	Latitude
Outlet Works	-76.6822938	40.0842592

Feature Condition
Satisfactory

Outlet Works
OutletWorksWeirs

Inspection Notes	Previously monitored weir is dry.

Feature Map Location:



Feature Images:

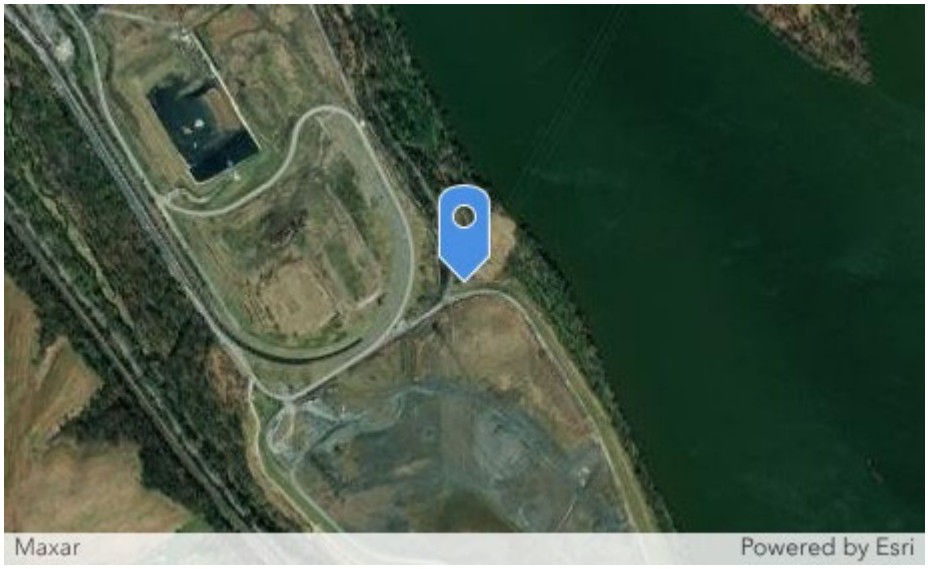
Inspection Record: 080525 122628

Feature	Longitude	Latitude
Embankment	-76.6834883	40.0840177
Feature Condition		
Satisfactory		

Embankment
EmbkOutsideSlope

Inspection Notes	Previously observed saturated area is dry.

Feature Map Location:



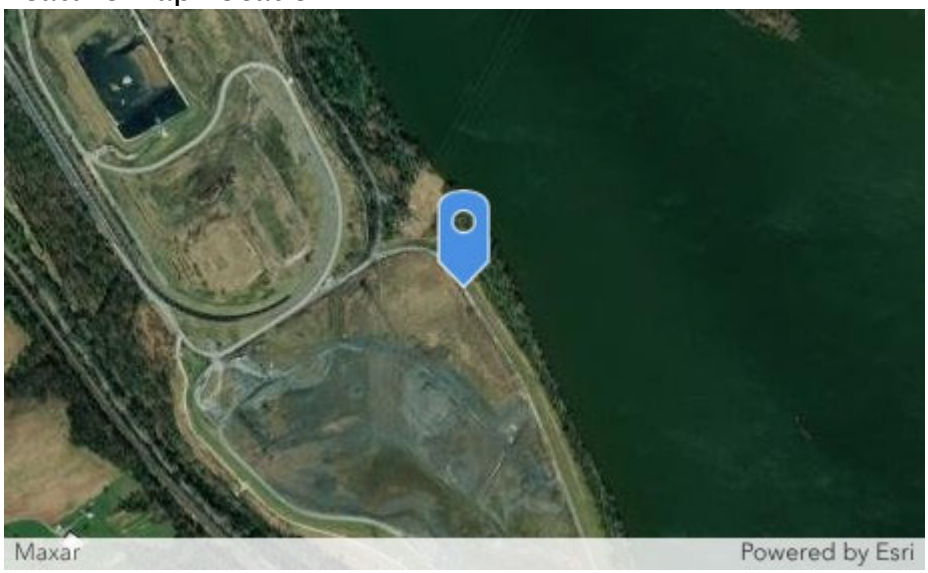
Feature Images:

Inspection Record: 080525 122822

Feature	Longitude	Latitude
Piezometer	-76.6819343	40.0832327

Feature Condition
Satisfactory

Feature Map Location:



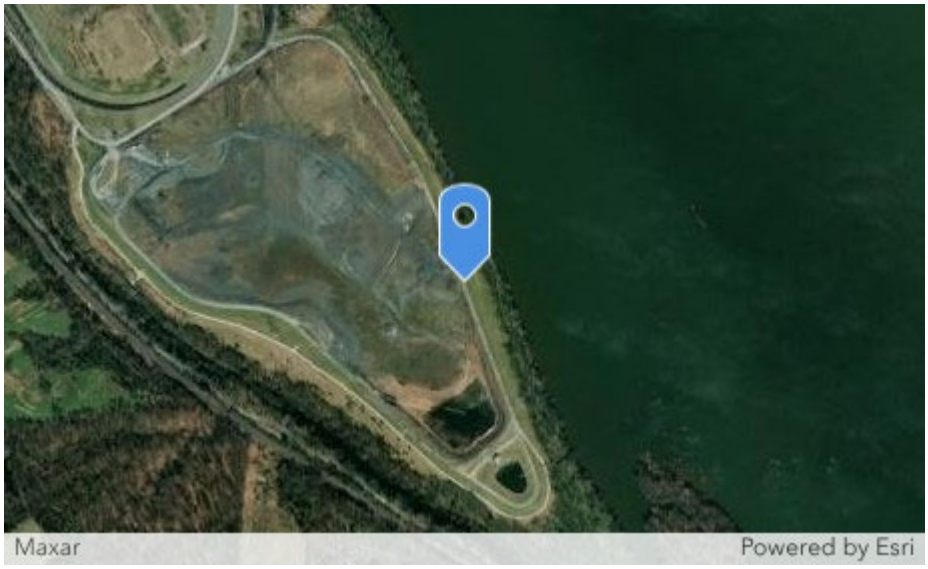
Feature Images:

Inspection Record: 080525 123307

Feature	Longitude	Latitude
Embankment	-76.6797265	40.0798303
Feature Condition		
Satisfactory		

Embankment
EmbkTopOfDike

Feature Map Location:



Feature Images:

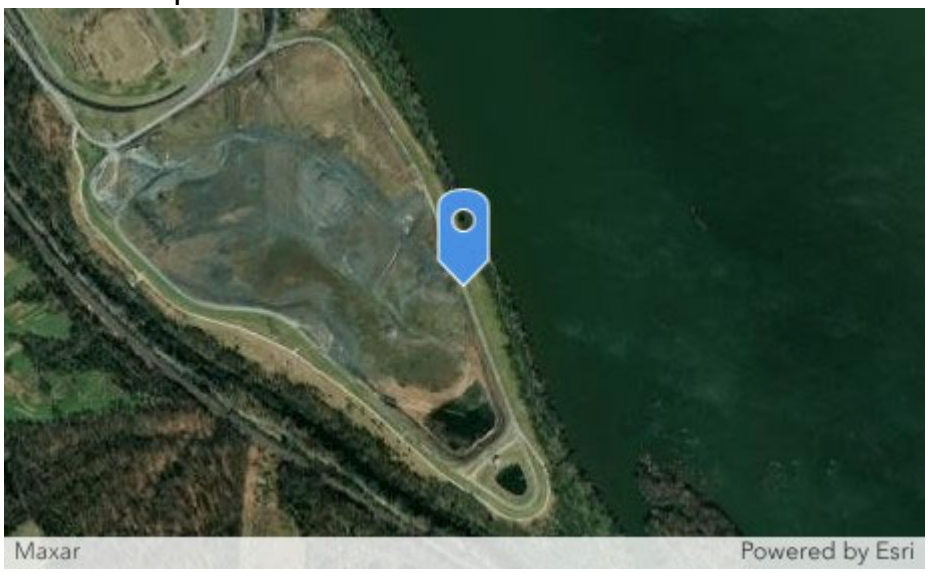
Inspection Record: 080525 123502

Feature	Longitude	Latitude
Embankment	-76.6797427	40.0798138

Feature Condition
Satisfactory

Embankment
EmbkInsideSlope

Feature Map Location:

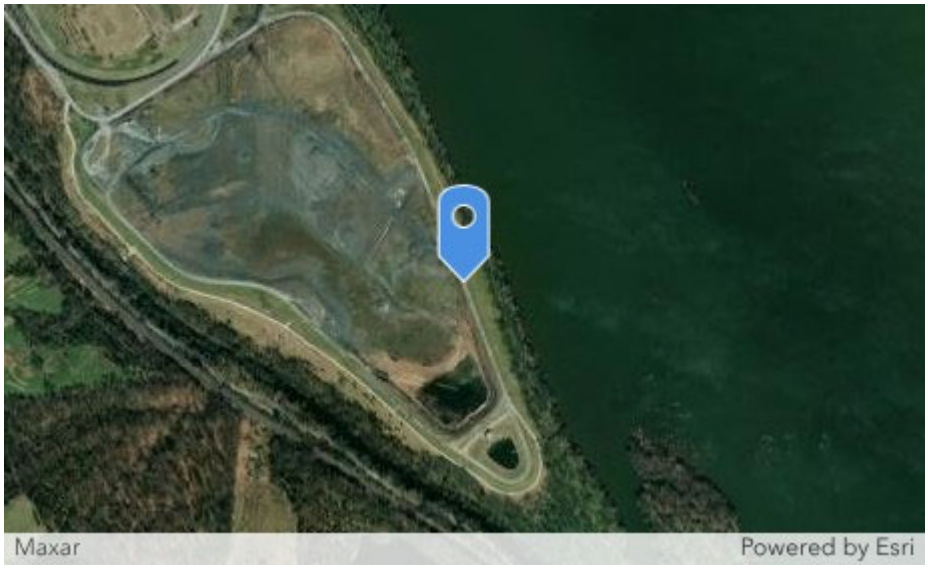


Feature Images:

Inspection Record: 080525 123636

Feature	Longitude	Latitude
Piezometer	-76.6795333	40.0794477
Feature Condition		
Satisfactory		

Feature Map Location:



Feature Images:

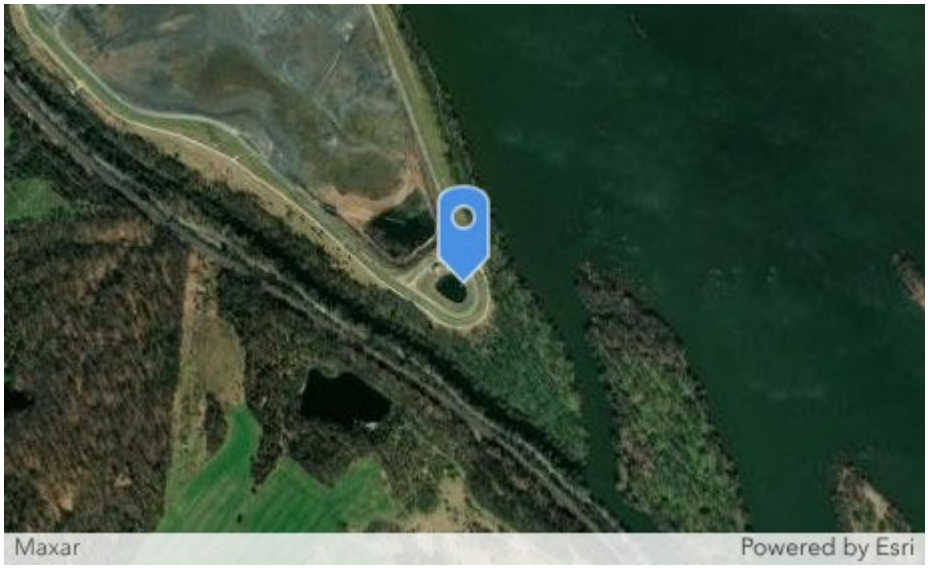
Inspection Record: 080525 124206

Feature	Longitude	Latitude
Outlet Works	-76.6784562	40.0767403
Feature Condition		
Requires action this season		

Outlet Works	Outlet Works Factor
OutletWorksDischarge_Manhole	Obstructed

Inspection Notes	Remove vegetation from risers.

Feature Map Location:



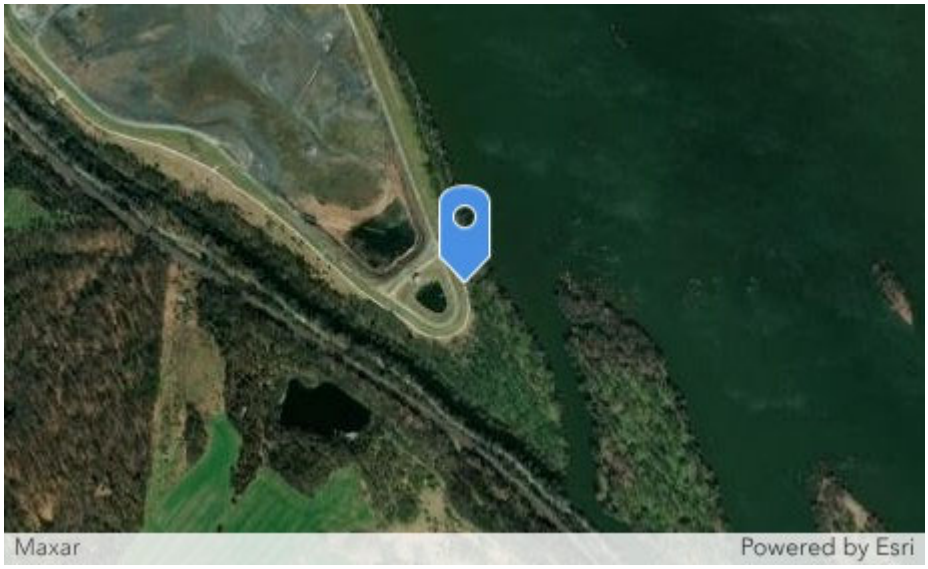
Feature Images:

Inspection Record: 080525 124409

Feature	Longitude	Latitude
Outlet Works	-76.6780087	40.0768982
Feature Condition		
Satisfactory		

Outlet Works
OutletWorksGates

Feature Map Location:



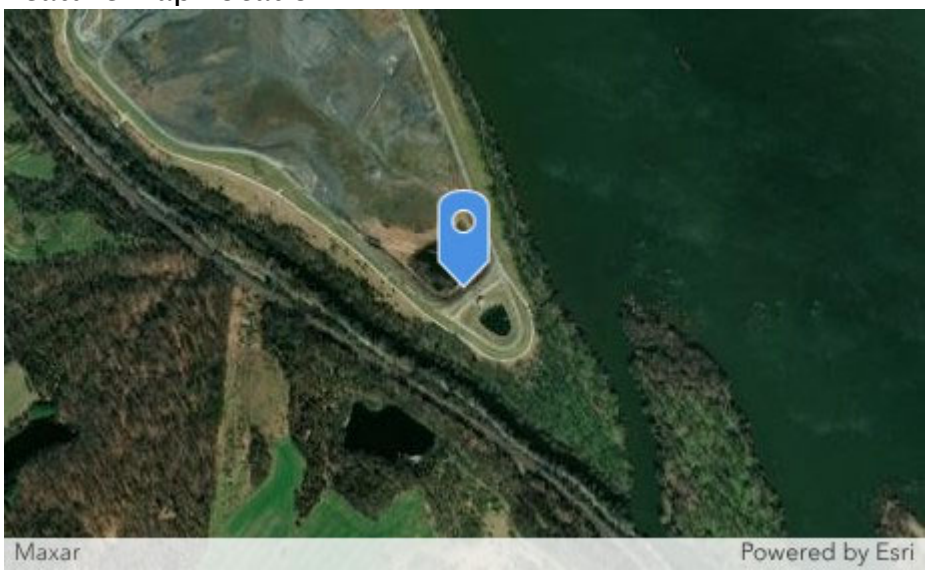
Feature Images:

Inspection Record: 080525 124712

Feature	Longitude	Latitude
Outlet Works	-76.6793577	40.0771860

Feature Condition
Satisfactory

Feature Map Location:



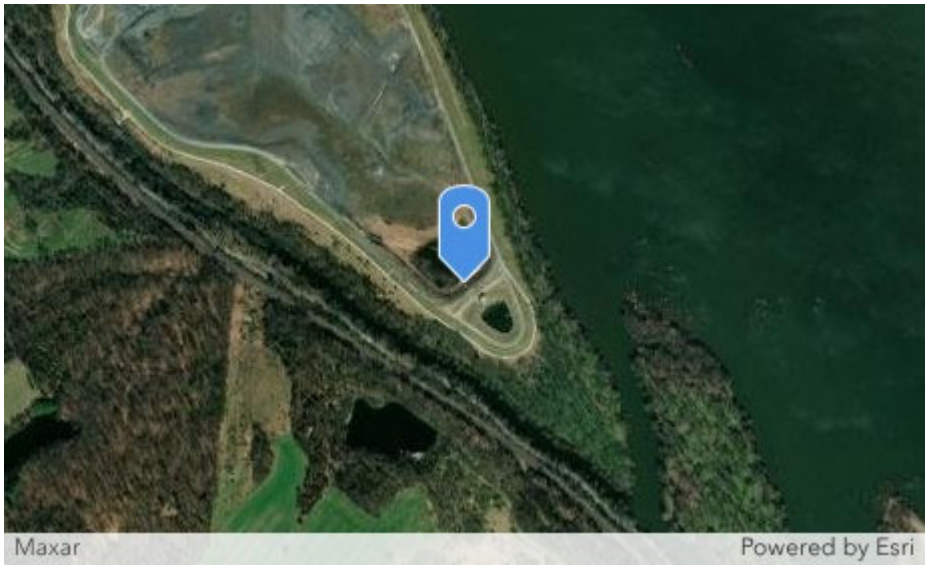
Feature Images:

Inspection Record: 080525 124740

Feature	Longitude	Latitude
Other	-76.6794132	40.0772212
Feature Condition		
Satisfactory		

Inspection Notes	CCR removal is ongoing.

Feature Map Location:



Feature Images:

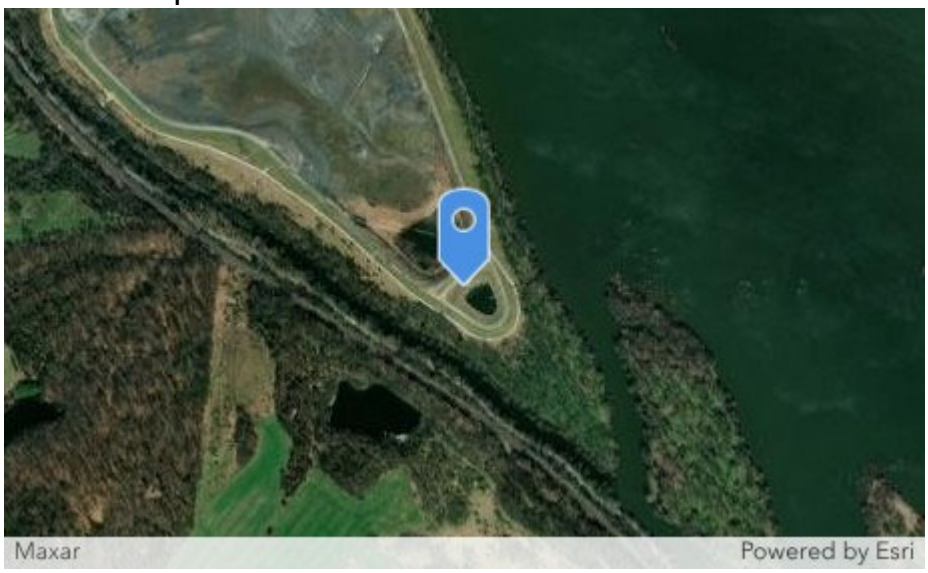
Inspection Record: 080525 124948

Feature	Longitude	Latitude
Outlet Works	-76.6790620	40.0768457

Feature Condition
Satisfactory

Outlet Works
OutletWorksOutlet_Pipes

Feature Map Location:



Feature Images:

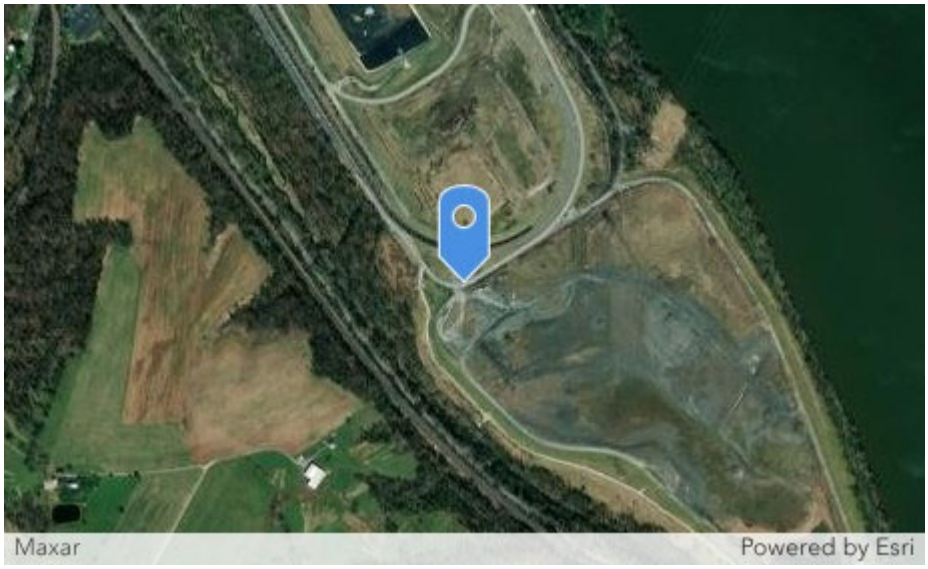
Inspection Record: 080525 131603

Feature	Longitude	Latitude
Embankment	-76.6871343	40.0821805
Feature Condition		
Satisfactory		

Embankment
EmbkTopOfDike

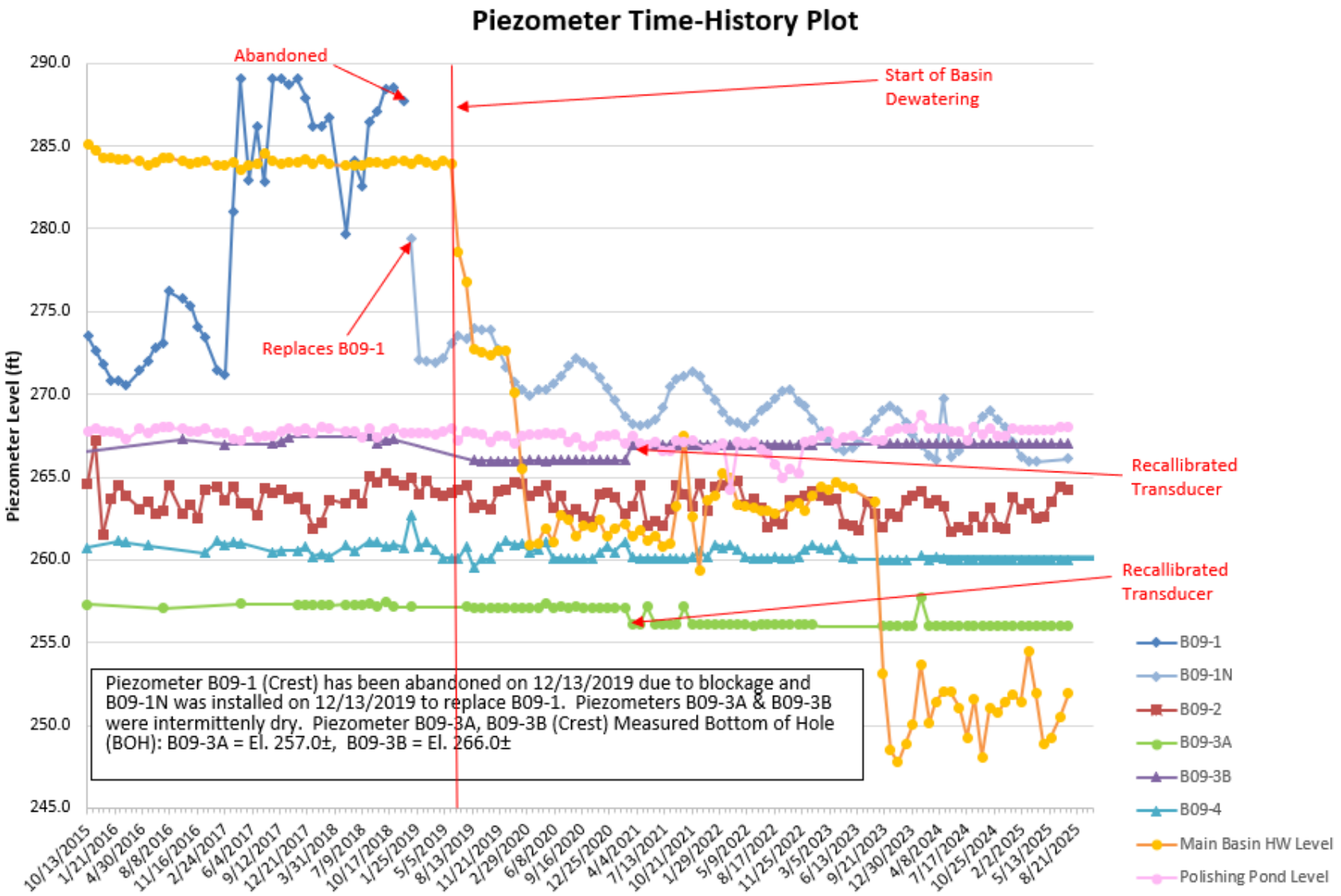
Inspection Notes	Shared dike.

Feature Map Location:



Feature Images:

APPENDIX B
INSTRUMENTATION DATA


Piezometer Time-History Plot
Abandoned
Start of Basin Dewatering
Replaces B09-1
Recallibrated Transducer
Recallibrated Transducer
Piezometer B09-1 (Crest) has been abandoned on 12/13/2019 due to blockage and B09-1N was installed on 12/13/2019 to replace B09-1. Piezometers B09-3A & B09-3B were intermittenly dry. Piezometer B09-3A, B09-3B (Crest) Measured Bottom of Hole (BOH): B09-3A = El. 257.0±, B09-3B = El. 266.0±
Piezometer Level (ft)
290.0
285.0
280.0
275.0
270.0
265.0
260.0
255.0
250.0
245.0
10/13/2015
1/21/2016
4/30/2016
8/8/2016
11/16/2016
2/24/2017
6/4/2017
9/12/2017
12/21/2017
3/31/2018
7/9/2018
10/17/2018
1/25/2019
5/5/2019
8/13/2019
11/21/2019
2/29/2020
6/8/2020
9/16/2020
12/25/2020
4/4/2021
7/13/2021
10/21/2021
1/29/2022
5/9/2022
8/17/2022
11/25/2022
3/5/2023
6/13/2023
9/21/2023
12/30/2023
4/8/2024
7/17/2024
10/25/2024
2/2/2025
5/13/2025
8/21/2025
B09-1
B09-1N
B09-2
B09-3A
B09-3B
B09-4
Main Basin HW Level
Polishing Pond Level

Project: ***Brunner Island Ash Basin No. 6 Geotechnical Exploration***
Subject: ***Water Level Readings***

Data Source: 2009 Geotechnical Exploration (Boring Logs & Piezometer Installation/Specs)

Piezometer ID	**B09-1**	**Units**	**Note:**
Screen Depth	19.0 -24.0	ft	Datum: MSL
Screen Elev.	266.0 - 271.0	ft	Elevations are estimated
Ground Surface Elev.	290.00	ft	
Top of Steel Casing Elev.	290.00	ft	
Top of PVC Riser Elev.	289.70	ft	
Stickup(TOR - GS)	-0.30	ft	

Data Source: Brunner piezo survey conducted on 5/20/2015

Piezometer ID	**B09-1**	**Units**	**Note:**
Screen Depth	19.0 -24.0	ft	Datum: NGVD 29 US FEET
Screen Elev.	266.0 - 271.0	ft	Screen elevations are estimated
Ground Surface Elev.	289.89	ft	
Top of Riser (TOR) Elev.	289.06	ft	
Top of Steel Casing (TOC) Elev.	289.30	ft	
TOC to TOR	0.24	ft	
TOC to GS	-0.59	ft	

Data Source: Brunner piezo survey conducted on 5/20/2015

Date	TOR to TOW (ft)	GWT Elev. (ft)	Main Basin HW EL (ft)	Polishing Pond Level
10/14/2015	15.55	273.5	285.1	267.8
11/11/2015	16.40	272.7	284.7	267.9
12/8/2015	17.2	271.9	284.3	267.8
1/7/2016	18.2	270.9	284.3	267.8
2/5/2016	18.2	270.9	284.2	267.7
3/3/2016	18.5	270.5	284.2	267.3
4/21/2016	17.6	271.5	284.1	267.9
5/19/2016	17.1	272.0	283.8	267.7
6/17/2016	16.2	272.86	284	267.9
7/14/2016	16.0	273.06	284.3	268
8/4/2016	12.8	276.25	284.3	268
9/23/2016	13.28	275.8	284.1	267.9
10/21/2016	13.68	275.38	283.9	267.8
11/18/2016	14.98	274.08	284	267.8
12/14/2016	15.59	273.47	284.1	267.9
1/28/2017	17.6	271.46	283.8	267.7
2/23/2017	17.9	271.16	283.8	267.7
3/25/2017	8	281.06	284	267.3
4/23/2017	0	289.06	283.6	267.2
5/22/2017	6.11	282.95	283.8	267.8
6/20/2017	2.91	286.15	283.9	267.4
7/19/2017	6.24	282.82	284.6	267.5
8/18/2017	0	289.06	284.1	267.5
9/15/2017	0	289.06	283.9	267.8
10/15/2017	0.35	288.71	284.0	267.9
11/14/2017	0.00	289.06	284.0	267.8
12/14/2017	1.14	287.92	284.2	267.9
1/11/2018	2.85	286.21	283.9	267.7
2/10/2018	2.85	286.21	284.2	268.0
3/12/2018	2.36	286.7	283.9	267.9
5/11/2018	9.37	279.69	283.8	267.8
6/9/2018	4.95	284.11	283.8	267.8
7/9/2018	6.48	282.58	283.8	267.4
8/2/2018	2.60	286.46	284.0	267.9
9/1/2018	2.00	287.06	284.0	267.4
10/1/2018	0.6	288.46	283.9	267.8
10/31/2018	0.55	288.51	284.1	267.9
12/7/2018	1.3	287.76	284.1	267.7
This Piezometer was decomissioned on 12/13/2018 and replaced with B09-1N				

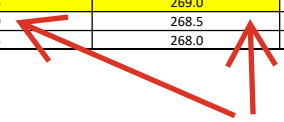
Project: ***Brunner Island Ash Basin No. 6 Geotechnical Exploration***
Subject: ***Water Level Readings***

Data Source: 2019 Kimball Survey and Val Britton Report

Piezometer ID	**B09-1N**	**Units**		**Note:**
Screen Depth	20-24	ft		Datum: NGVD 29 US FEET
Screen Elev.	265.8-268.8	ft		Screen elevations are estimated
Ground Surface Elev.	290.33	ft		
Top of Riser (TOR) Elev.	289.74	ft		
Top of Steel Casing (TOC) Elev.	290.35	ft		
TOC to TOR	0.61	ft		
TOC to GS	0.02	ft		

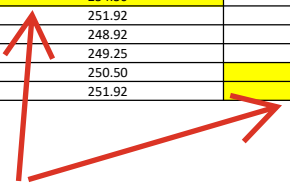
Lake Level Staff gauge installed in late 2021. 0.0' elevation is 262.79' using Plant Datum (NGVD 29).

Date	TOR to TOW (ft)	GWT Elev. (ft)	Main Basin Gauge Reading	Main Basin HW EL (ft)	Polishing Pond Level
This Piezometer was comissioned on 12/13/2018 and replaced B09-1					
1/3/2019	10.33	279.4	-	283.9	267.7
2/1/2019	17.69	272.1	-	284.2	267.7
3/2/2019	17.72	272.0	-	284	267.7
4/1/2019	17.80	271.9	-	283.8	267.6
4/30/2019	17.56	272.2	-	284.1	267.8
5/30/2019	16.63	273.1	-	283.9	267.9
6/24/2019	16.22	273.5	-	278.6	267.2
7/23/2019	16.4	273.3	-	276.8	267.8
8/20/2019	15.8	274.0	-	272.7	267.7
9/18/2019	15.9	273.9	-	272.58	267.6
10/18/2019	15.86	273.9	-	272.4	267.1
11/15/2019	16.98	272.8	-	272.6	267.5
12/13/2019	18.088	271.7	-	272.6	267.5
1/14/2020	18.969	270.8	-	270.1	267.02
2/10/2020	19.436	270.3	-	265.5	267.5
3/11/2020	19.839	269.9	-	260.9	267.6
4/8/2020	19.46	270.3	-	261	267.6
5/7/2020	19.42	270.3	-	261.9	267.7
6/3/2020	19.13	270.6	-	261.1	267.6
7/1/2020	18.64	271.1	-	262.7	267.7
7/30/2020	18.01	271.7	-	262.4	267.1
8/27/2020	17.53	272.2	-	261.4	267.4
9/22/2020	17.868	271.9	-	262.1	266.9
10/21/2020	18.06	271.7	-	262.0	266.9
11/18/2020	18.76	271.0	-	262.40	267.50
12/15/2020	19.39	270.3	-	261.40	267.50
1/13/2021	20.11	269.6	-	261.90	267.60
2/19/2021	21.07	268.7	-	262.20	267.00
3/17/2021	21.52	268.2	-	261.40	267.50
4/15/2021	21.63	268.1	-	261.81	267.03
5/12/2021	21.52	268.2	-	261.18	266.98
6/10/2021	21.30	268.4	-	261.45	267.17
7/8/2021	20.58	269.2	-	260.8	266.6
8/3/2021	19.26	270.5	-	261.0	266.6
8/26/2021	18.78	271.0	-	263.3	267.2
9/21/2021	18.652	271.1	-	267.49	267.11
10/21/2021	18.324	271.4	-	262.65	267.18
11/18/2021	18.594	271.1	-	259.4	No reading
12/16/2021	19.411	270.3	-	263.56	266.7
1/13/2022	20.051	269.7	1.10	263.89	266.73
2/9/2022	20.772	269.0	2.44	265.23	267.08
3/10/2022	21.37	268.4	2.14	264.93	264.2
4/6/2022	21.479	268.3	0.5	263.31	267.13
5/4/2022	21.712	268.0	0.5	263.24	267.05
6/1/2022	21.326	268.4	0.4	263.19	267.16
6/30/2022	20.713	269.0	0.2	262.99	266.7
7/22/2022	20.47	269.3	0.2	262.97	266.44
8/19/2022	20.02	269.7	0.0	262.79	265.81
9/15/2022	19.53	270.2	dry	#N/A	264.99
10/14/2022	19.45	270.3	0.4	263.23	265.49
11/11/2022	20.13	269.6	0.6	263.39	265.25
12/5/2022	20.48	269.3	0.2	262.99	267.12
1/4/2023	21.22	268.5	1.1	263.89	267.23
2/1/2023	22.02	267.7	1.6	264.39	267.49
3/2/2023	22.53	267.2	1.4	264.23	267.74
3/30/2023	22.96	266.8	1.9	264.65	267.05
4/26/2023	23.15	266.6	1.6	264.39	267.36
5/26/2023	23.01	266.7	1.5	264.29	267.46
6/21/2023	22.58	267.2	<1.7	No reading	No reading
7/21/2023	21.99	267.8	<1.7	No reading	No reading
8/17/2023	21.28	268.5	No reading	263.50	267.2
9/15/2023	20.75	269.0	#N/A	253.10	267.25
10/13/2023	20.48	269.3	#N/A	248.50	267.75
11/9/2023	20.74	269.0	#N/A	247.75	267.96
12/8/2023	21.42	268.3	#N/A	248.92	267.96
1/3/2024	22.16	267.6	#N/A	250.08	267.94
1/31/2024	22.8	266.9	#N/A	253.67	268.75
3/1/2024	23.4	266.3	#N/A	250.17	267.96
3/26/2024	23.72	266.0	#N/A	251.42	267.94
4/23/2024	19.97	269.8	#N/A	252.00	267.96
5/21/2024	23.51	266.2	#N/A	252.00	267.79
6/19/2024	23.2	266.5	#N/A	251.08	267.75
7/19/2024	22.65	267.1	#N/A	249.25	267.25
8/13/2024	21.73	268.0	#N/A	251.60	268
9/11/2024	21.11	268.6	#N/A	248.08	267.58
10/9/2024	20.75	269.0	#N/A	251.00	267.92
11/7/2024	21.29	268.5	#N/A	250.75	267.5
12/3/2024	21.73	268.0	#N/A	251.42	267.5



Maximum reading since last inspection.

1/2/2025	22.62	267.1	#N/A	251.83	267.92
1/30/2025	23.49	266.3	#N/A	251.42	267.83
2/26/2025	23.81	265.9	#N/A	254.50	267.83
3/27/2025	23.82	265.9	#N/A	251.92	267.83
4/23/2025	dry	#N/A	#N/A	248.92	267.83
5/21/2025	dry	#N/A	#N/A	249.25	267.83
6/20/2025	dry	#N/A	#N/A	250.50	268.00
7/21/2025	23.64	266.1	#N/A	251.92	268.00



Maximum reading since last inspection.

Project: ***Brunner Island Ash Basin No. 6 Geotechnical Exploration***
Subject: ***Water Level Readings***

Data Source: 2009 Geotechnical Exploration (Boring Logs & Piezometer Installation/Specs)

Piezometer ID	**B09-2**	**Units**	**Note:**
Screen Depth	5.0 -10.0	ft	TP = Top of PVC Riser
Screen Elev.	261.1 - 266.1	ft	Elevations are estimated
Ground Surface Elev.	271.10	ft	Datum: MSL
Top of PVC Riser Elev.	273.50	ft	
Top of Steel Casing Elev.	273.80	ft	
Stickup (TOR - GS)	2.40	ft	

Data Source: Brunner piezo survey conducted on 5/20/2015

Piezometer ID	**B09-2**	**Units**	**Note:**
Screen Depth	5.0 -10.0	ft	Datum: NGVD 29 US FEET
Screen Elev.	261.1 - 266.1	ft	Screen elevations are estimated
Ground Surface Elev.	270.76	ft	
Top of Riser (TOR) Elev.	273.73	ft	
Top of Steel Casing (TOC) Elev.	273.86	ft	
TOC to TOR	0.13	ft	
TOC to GS	3.10	ft	

Data Source: Brunner piezo survey conducted on 5/20/2015

Date	TOR to TOW (ft)	GWT Elev. (ft)	Main Basin HW EL (ft)	Polishing Pond Level
10/13/2015	9.1	264.6	285.1	267.8
11/11/2015	6.6	267.2	284.7	267.9
12/8/2015	12.2	261.5	284.3	267.8
1/7/2016	10.0	263.7	284.3	267.8
2/5/2016	9.2	264.5	284.2	267.7
3/3/2016	9.9	263.8	284.2	267.3
4/21/2016	10.7	263.1	284.1	267.9
5/19/2016	10.2	263.5	283.8	267.7
6/17/2016	10.9	262.8	284	267.9
7/14/2016	10.8	263.0	284.3	268
8/4/2016	9.2	264.5	284.30	268
9/23/2016	10.91	262.8	284.10	267.9
10/21/2016	10.38	263.3	283.90	267.8
11/18/2016	11.18	262.5	284.00	267.8
12/14/2016	9.45	264.3	284.10	267.9
1/28/2017	9.3	264.4	283.80	267.7
2/23/2017	10.13	263.6	283.80	267.7
3/25/2017	9.3	264.4	284.00	267.3
4/23/2017	10.27	263.5	283.60	267.2
5/22/2017	10.31	263.4	283.80	267.8
6/20/2017	11.06	262.7	283.90	267.4
7/19/2017	9.43	264.3	284.60	267.5
8/18/2017	9.63	264.1	284.10	267.5
9/15/2017	9.46	264.3	283.90	267.8
10/15/2017	10.08	263.6	284.0	267.9
11/14/2017	9.95	263.8	284.0	267.8
12/14/2017	10.68	263.0	284.2	267.9
1/11/2018	11.81	261.9	283.9	267.7
2/10/2018	11.44	262.3	284.2	268.0
3/12/2018	10.12	263.6	283.9	267.9
5/11/2018	10.31	263.4	283.8	267.8
6/9/2018	9.75	264.0	283.8	267.8
7/9/2018	10.32	263.4	283.8	267.4
8/2/2018	8.70	265.0	284.0	267.9
9/1/2018	9.01	264.7	284.0	267.4
10/1/2018	8.47	265.3	283.9	267.8
10/31/2018	8.91	264.8	284.1	267.9
12/7/2018	9.23	264.5	284.1	267.7
1/3/2019	8.75	265.0	283.9	267.7
2/1/2019	9.76	264.0	284.2	267.7
3/2/2019	8.95	264.8	284	267.7
4/1/2019	9.65	264.1	283.8	267.6
4/30/2019	9.83	263.9	284.1	267.8
5/30/2019	9.69	264.0	283.9	267.9
6/24/2019	9.46	264.3	278.6	267.2

7/23/2019	9.21	264.5	276.8	267.8
8/20/2019	10.57	263.2	272.7	267.7
9/18/2019	10.43	263.3	272.58	267.6
10/18/2019	10.711	263.0	272.40	267.1
11/15/2019	9.587	264.1	272.60	267.5
12/13/2019	9.468	264.3	272.60	267.5
1/14/2020	9.07	264.7	270.10	267.02
2/10/2020	9.111	264.6	265.5	267.5
3/11/2020	9.86	263.9	260.90	267.6
4/8/2020	9.56	264.2	261.00	267.6
5/7/2020	9.19	264.5	261.90	267.7
6/3/2020	10.61	263.1	261.10	267.6
7/1/2020	9.89	263.8	262.70	267.7
7/30/2020	11.07	262.7	262.40	267.1
8/27/2020	10.66	263.1	261.40	267.4
9/22/2020	11.143	262.6	262.10	266.9
10/21/2020	11.369	262.4	262.00	266.9
11/18/2020	9.777	264.0	262.40	267.5
12/15/2020	9.689	264.0	261.40	267.5
1/13/2021	9.904	263.8	261.90	267.6
2/19/2021	10.97	262.8	262.20	267
3/17/2021	10.507	263.2	261.40	267.5
4/15/2021	9.257	264.5	261.81	267.03
5/12/2021	11.65	262.079	261.18	266.98
6/10/2021	11.4	262.3	261.45	267.17
7/8/2021	11.66	262.1	260.78	266.56
8/3/2021	10.665	263.1	261.01	266.61
8/26/2021	9.214	264.5	263.27	267.21
9/21/2021	9.72	264.0	267.49	267.11
10/21/2021	10.469	263.3	262.65	267.18
11/18/2021	9.177	264.6	259.40	No Reading
12/16/2021	10.739	263.0	263.56	266.7
1/13/2022	9.307	264.4	263.89	266.73
2/9/2022	9.235	264.5	265.23	267.08
3/10/2022	8.965	264.8	264.93	264.2
4/6/2022	8.954	264.8	263.31	267.13
5/4/2022	10.415	263.3	263.24	267.05
6/1/2022	10.043	263.7	263.19	267.16
6/30/2022	10.617	263.1	262.99	266.7
7/22/2022	11.74	262.0	262.97	266.44
8/19/2022	11.42	262.3	262.79	265.81
9/15/2022	11.6	262.1	#N/A	264.99
10/14/2022	10.14	263.6	263.23	265.49
11/11/2022	10.15	263.6	263.39	265.25
12/5/2022	9.83	263.9	262.99	267.12
1/4/2023	9.54	264.2	263.89	267.23
2/1/2023	9.9	263.8	264.39	267.49
3/2/2023	10.12	263.6	264.23	267.74
3/30/2023	10.02	263.7	264.65	267.05
4/26/2023	11.59	262.1	264.39	267.36
5/26/2023	11.62	262.1	264.29	267.46
6/21/2023	11.92	261.8	No reading	No reading
7/21/2023	10.18	263.5	No reading	No reading
8/17/2023	10.97	262.8	263.50	267.2
9/15/2023	11.79	261.9	253.10	267.25
10/13/2023	10.95	262.8	248.50	267.75
11/9/2023	11.14	262.6	247.75	267.96
12/8/2023	10.09	263.6	248.92	267.96
1/3/2024	9.87	263.9	250.08	267.94
1/31/2024	9.59	264.1	253.67	268.75
3/1/2024	10.3	263.4	250.17	267.96
3/26/2024	10.16	263.6	251.42	267.94
4/23/2024	10.5	263.2	252.00	267.96
5/21/2024	12.02	261.7	252.00	267.79
6/19/2024	11.73	262.0	251.08	267.75
7/19/2024	11.95	261.8	249.25	267.25
8/13/2024	11.09	262.6	251.60	268.0000
9/11/2024	11.74	262.0	248.08	267.58
10/9/2024	10.59	263.1	251.00	267.92
11/7/2025	11.75	262.0	250.75	267.50
12/3/2024	11.85	261.9	251.42	267.50
1/2/2025	9.99	263.7	251.83	267.92

1/30/2025	10.63	263.1	251.42	267.83
2/26/2025	10.33	263.4	254.50	267.83
3/27/2025	11.18	262.5	251.92	267.83
4/23/2025	11.16	262.6	248.92	267.83
5/21/2025	10.26	263.5	249.25	267.83
6/20/2025	9.33	264.4	250.50	268.00
7/21/2025	9.45	264.3	251.92	268

Maximum reading since last inspection.

Project: ***Brunner Island Ash Basin No. 6 Geotechnical Exploration***
Subject: ***Water Level Readings***

Data Source: 2009 Geotechnical Exploration (Boring Logs & Piezometer Installation/Specs)

Piezometer ID	**B09-3A**	**Units**	**Note:**
Screen Depth	30.0 -35.0	ft	Elevations are estimated
Screen Elev.	255.0 - 260.0	ft	Datum: MSL
Ground Surface Elev.	290.00	ft	
Top of Steel Casing Elev.	290.00	ft	
Top of Riser Pipe Elev.	289.70	ft	
Stickup (TOR - GS)	-0.30	ft	

General Notes:
- TOC = Top of steel casing
- TOR = Top of PVC Riser
- TOW = Top of the water table
- MSL = Mean Sea Level

Data Source: Brunner piezo survey conducted on 5/20/2015

Piezometer ID	**B09-3A**	**Units**	**Note:**
Screen Depth	30.0 -35.0	ft	Datum: NGVD 29 US FEET
Screen Elev.	255.0 - 260.0	ft	Screen elevations are estimated
Ground Surface Elev.	290.34	ft	
Top of Riser (TOR) Elev.	289.98	ft	
Top of Steel Casing (TOC) Elev.	290.34	ft	
TOC to TOR	0.36	ft	
TOC to GS	0.00	ft	

Data Source: Brunner piezo survey conducted on 5/20/2015

Date	TOR to TOW (ft)	GWT Elev. (ft)	Main Basin HW Elevation (ft)	Polishing Pond Level
10/13/2015	32.69	257.29	285.1	267.8
11/11/2015	DRY	#N/A	284.7	267.9
12/8/2015	DRY	#N/A	284.3	267.8
1/7/2016	32.7	257.29	284.3	267.8
2/5/2016	32.8	257.18	284.2	267.7
3/3/2016	DRY	#N/A	284.2	267.3
4/21/2016	DRY	#N/A	284.1	267.9
5/19/2016	DRY	#N/A	283.8	267.7
6/17/2016	DRY	#N/A	284	267.9
7/14/2016	32.8	257.21	284.3	268
8/4/2016	Dry	#N/A	284.3	268
9/23/2016	DRY	#N/A	284.1	267.9
10/21/2016	DRY	#N/A	283.9	267.8
11/18/2016	DRY	#N/A	284	267.8
12/14/2016	DRY	#N/A	284.1	267.9
1/28/2017	DRY	#N/A	283.8	267.7
2/23/2017	DRY	#N/A	283.8	267.7
3/25/2017	DRY	#N/A	284	267.3
4/23/2017	32.52	257.46	283.6	267.2
5/22/2017	Dry	#N/A	283.8	267.8
6/20/2017	Dry	#N/A	283.9	267.4
7/19/2017	Dry	#N/A	284.6	267.5
8/18/2017	Dry	#N/A	284.1	267.5
9/15/2017	Dry	#N/A	283.9	267.8
10/15/2017	32.69	257.29	284.0	267.9
11/14/2017	32.69	257.29	284.0	267.8
12/14/2017	32.69	257.29	284.2	267.9
1/11/2018	32.72	257.26	283.9	267.7
2/10/2018	32.72	257.26	284.2	268.0
3/12/2018	32.72	257.26	283.9	267.9
5/11/2018	32.67	257.31	283.8	267.8
6/9/2018	32.67	257.31	283.8	267.8
7/9/2018	32.67	257.31	283.8	267.4
8/2/2018	32.64	257.34	284.0	267.9
9/1/2018	32.81	257.17	284.0	267.4
10/1/2018	32.54	257.44	283.9	267.8
10/31/2018	32.8	257.18	284.1	267.9
12/7/2018	dry	#N/A	284.1	267.7
1/3/2019	32.79	257.19	283.9	267.7
2/1/2019	dry	#N/A	284.2	267.7
3/2/2019	dry	#N/A	284	267.7
4/1/2019	dry	#N/A	283.8	267.6
4/30/2019	dry	#N/A	284.1	267.8
5/30/2019	dry	#N/A	283.9	267.9
6/24/2019	dry	#N/A	278.6	267.2
7/23/2019	32.82	257.16	276.8	267.8
8/20/2019	32.84	257.14	272.7	267.7
9/18/2019	32.85	257.13	272.58	267.6
10/18/2019	32.854	257.12	272.4	267.1
11/15/2019	32.849	257.13	272.6	267.5
12/13/2019	32.854	257.12	272.6	267.5
1/14/2020	32.853	257.12	270.1	267.02
2/10/2020	32.854	257.12	265.5	267.5
3/11/2020	32.846	257.13	260.9	267.6
4/8/2020	32.84	257.14	261	267.6
5/7/2020	32.57	257.41	261.9	267.7
6/3/2020	32.84	257.14	261.1	267.6

7/1/2020	32.83	257.15	262.7	267.7
7/30/2020	32.84	257.14	262.4	267.1
8/27/2020	32.83	257.15	261.4	267.4
9/22/2020	32.842	257.13	262.1	266.9
10/21/2020	32.842	257.13	262	266.9
11/18/2020	32.846	257.13	262.4	267.5
12/15/2020	32.846	257.13	261.4	267.5
1/13/2021	32.846	257.13	261.9	267.6
2/19/2021	32.85	257.13	262.2	267
3/17/2021	33.907	256.07	261.4	267.5
4/15/2021	33.902	256.07	261.81	267.03
5/12/2021	32.81	257.17	261.18	266.98
6/10/2021	33.895	256.08	261.45	267.17
7/8/2021	33.897	256.08	260.78	266.56
8/3/2021	33.905	256.07	261.01	266.61
8/26/2021	33.898	256.08	263.27	267.21
9/21/2021	32.82	257.16	267.49	267.11
10/21/2021	33.885	256.09	262.65	267.18
11/18/2021	33.885	256.09	259.4	No reading
12/16/2021	33.881	256.10	263.56	266.7
1/13/2022	33.903	256.07	263.89	266.73
2/9/2022	33.892	256.08	265.23	267.08
3/10/2022	33.894	256.08	264.93	264.2
4/6/2022	33.886	256.09	263.31	267.13
5/4/2022	33.887	256.09	263.24	267.05
6/1/2022	33.92	256.06	263.19	267.16
6/30/2022	33.885	256.09	262.99	266.7
7/22/2022	33.897	256.08	262.97	266.44
8/19/2022	33.881	256.10	262.79	265.81
9/15/2022	33.885	256.09	#N/A	264.99
10/14/2022	33.898	256.08	263.23	265.49
11/11/2022	33.864	256.11	263.39	265.25
12/5/2022	33.897	256.08	262.99	267.12
1/4/2023	33.894	256.08	263.89	267.23
2/1/2023	dry	#N/A	264.39	267.49
3/2/2023	dry	#N/A	264.23	267.74
3/30/2023	dry	#N/A	264.65	267.05
4/26/2023	dry	#N/A	264.39	267.36
5/26/2023	dry	#N/A	264.29	267.46
6/21/2023	dry	#N/A	No reading	No reading
7/21/2023	dry	#N/A	No reading	No reading
8/17/2023	dry	#N/A	263.50	267.2
9/15/2023	dry	#N/A	253.10	267.25
10/13/2023	dry	#N/A	248.50	267.75
11/9/2023	dry	#N/A	247.75	267.96
12/8/2023	dry	#N/A	248.92	267.96
1/3/2024	dry	#N/A	250.08	267.94
1/31/2024	32.22	257.76	253.67	268.75
3/1/2024	dry	#N/A	250.17	267.96
3/26/2024	dry	#N/A	251.42	267.94
4/23/2024	dry	#N/A	252.00	267.96
5/21/2024	dry	#N/A	252.00	267.79
6/19/2024	dry	#N/A	251.08	267.75
7/19/2024	dry	#N/A	249.25	267.25
8/13/2024	dry	#N/A	251.60	268
9/11/2024	dry	#N/A	248.08	267.58
10/9/2024	dry	#N/A	251.00	267.92
11/7/2025	dry	#N/A	250.75	267.5
12/3/2024	dry	#N/A	251.42	267.5
1/2/2025	dry	#N/A	251.83	267.92
1/30/2025	dry	#N/A	251.42	267.83
2/26/2025	dry	#N/A	254.50	267.83
3/27/2025	dry	#N/A	251.92	267.83
4/23/2025	dry	#N/A	248.92	267.83
5/21/2025	dry	#N/A	249.25	267.83
6/20/2025	dry	#N/A	250.50	268.00
7/21/2025	dry	#N/A	251.92	268.00

All readings were dry since last inspection.

Project: ***Brunner Island Ash Basin No. 6 Geotechnical Exploration***
Subject: ***Water Level Readings***

Data Source: 2009 Geotechnical Exploration (Boring Logs & Piezometer Installation/Specs)

Piezometer ID	**B09-3B**	**Units**	**Note:**
Screen Depth	19.0 -24.0	ft	Elevations are estimated
Screen Elev.	266.0 - 271.0	ft	Datum: MSL
Ground Surface Elev.	290.00	ft	
Top of Steel Casing Elev.	290.00	ft	
Top of PVC Riser Pipe Elev.	289.70	ft	
Stickup (TOR - GS)	-0.30	ft	

Data Source: Brunner piezo survey conducted on 5/20/2015

Piezometer ID	**B09-3B**	**Units**	**Note:**
Screen Depth	19.0 -24.0	ft	Datum: NGVD 29 US FEET
Screen Elev.	266.0 - 271.0	ft	Screen elevations are estimated
Ground Surface (GS) Elev.	290.34	ft	
Top of Riser (TOR) Elev.	289.85	ft	
Top of Steel Casing (TOC) Elev.	290.34	ft	
TOC to TOR	0.49	ft	
TOC to GS	0.00	ft	

Data Source: Brunner piezo survey conducted on 5/20/2015

Date	TOR to TOW (ft)	GWT Elev. (ft)	Main Basin HW Elevation (ft)	Polishing Pond Level
10/13/2015	DRY	#N/A	285.1	267.8
11/11/2015	DRY	#N/A	284.7	267.9
12/8/2015	DRY	#N/A	284.3	267.8
1/7/2016	23.2 - DRY	#N/A	284.3	267.8
2/5/2016	23.2 - DRY	#N/A	284.2	267.7
3/3/2016	DRY	#N/A	284.2	267.3
4/21/2016	DRY	#N/A	284.1	267.9
5/19/2016	DRY	#N/A	283.8	267.7
6/17/2016	DRY	#N/A	284	267.9
7/14/2016	23.18-Dry	#N/A	284.3	268
8/4/2016	22.7	267.15	284.30	268.00
9/23/2016	DRY	#N/A	284.10	267.90
10/21/2016	DRY	#N/A	283.90	267.80
11/18/2016	DRY	#N/A	284.00	267.80
12/14/2016	DRY	#N/A	284.10	267.90
1/28/2017	23	266.85	283.80	267.70
2/23/2017	DRY	#N/A	283.80	267.70
3/25/2017	DRY	#N/A	284.00	267.30
4/23/2017	DRY	#N/A	283.60	267.20
5/22/2017	DRY	#N/A	283.80	267.80
6/20/2017	DRY	#N/A	283.90	267.40
7/19/2017	DRY	#N/A	284.60	267.50
8/18/2017	22.82	267.03	284.10	267.50
9/15/2017	22.55	267.30	283.90	267.80
10/15/2017	22.51	267.34	284.0	267.9
11/14/2017	22.91	#N/A	284.0	267.8
12/14/2017	22.87	#N/A	284.2	267.9
1/11/2018	22.9	#N/A	283.9	267.7
2/10/2018	22.9	#N/A	284.2	268.0
3/12/2018	22.9	#N/A	283.9	267.9
5/11/2018	22.8	#N/A	283.8	267.8
6/9/2018	22.8	#N/A	283.8	267.8
7/9/2018	22.8	#N/A	283.8	267.4
8/2/2018	22.4	267.45	284.0	267.9
9/1/2018	22.78	267.07	284.0	267.4
10/1/2018	22.59	267.26	283.9	267.8
10/31/2018	22.56	267.29	284.1	267.9
12/7/2018	dry	#N/A	284.1	267.7
1/3/2019	dry	#N/A	283.9	267.7
2/1/2019	dry	#N/A	284.2	267.7
3/2/2019	dry	#N/A	284	267.7
4/1/2019	dry	#N/A	283.8	267.6
4/30/2019	dry	#N/A	284.1	267.8
5/30/2019	dry	#N/A	283.9	267.9
6/24/2019	dry	#N/A	278.6	267.2
7/23/2019	dry	#N/A	276.8	267.8
8/20/2019	23.84	266.01	272.7	267.7
9/18/2019	23.85	266.00	272.58	267.60
10/18/2019	23.86	265.99	272.40	267.10
11/15/2019	23.85	266.00	272.60	267.50

12/13/2019	23.86	265.99	272.60	267.50
1/14/2020	23.85	265.99	270.10	267.02
2/10/2020	23.856	265.99	265.5	267.5
3/11/2020	23.85	266.00	260.90	267.60
4/8/2020	23.84	266.01	261.00	267.60
5/7/2020	23.85	266.00	261.90	267.70
6/3/2020	23.84	266.01	261.10	267.60
7/1/2020	23.83	266.02	262.70	267.70
7/30/2020	23.84	266.01	262.40	267.10
8/27/2020	23.83	266.02	261.40	267.40
9/22/2020	23.84	266.01	262.10	266.90
10/21/2020	23.84	266.01	262.00	266.90
11/18/2020	23.84	266.00	262.40	267.50
12/15/2020	23.84	266.00	261.40	267.50
1/13/2021	23.84	266.00	261.90	267.60
2/19/2021	23.84	266.00	262.20	267.00
3/17/2021	22.91	266.93	261.40	267.50
4/15/2021	22.91	266.94	261.81	267.03
5/12/2021	22.94	266.91	261.18	266.98
6/10/2021	22.90	266.95	261.45	267.17
7/8/2021	22.90	266.95	260.78	266.56
8/3/2021	22.91	266.94	261.01	266.61
8/26/2021	22.90	266.95	263.27	267.21
9/21/2021	22.85	267.00	267.49	267.11
10/21/2021	22.89	266.96	262.65	267.18
11/18/2021	22.89	266.96	259.40	No reading
12/16/2021	22.89	266.96	263.56	266.70
1/13/2022	22.90	266.94	263.89	266.73
2/9/2022	22.89	266.95	265.23	267.08
3/10/2022	22.89	266.95	264.93	264.20
4/6/2022	22.89	266.96	263.31	267.13
5/4/2022	22.89	266.96	263.24	267.05
6/1/2022	22.92	266.93	263.19	267.16
6/30/2022	22.89	266.96	262.99	266.70
7/22/2022	22.90	266.95	262.97	266.44
8/19/2022	22.88	266.97	262.79	265.81
9/15/2022	22.89	266.96	#N/A	264.99
10/14/2022	22.90	266.94	263.23	265.49
11/11/2022	22.86	266.99	263.39	265.25
12/5/2022	22.90	266.95	262.99	267.12
1/4/2023	22.90	266.95	263.89	267.23
2/1/2023	dry	#N/A	264.39	267.49
3/2/2023	dry	#N/A	264.23	267.74
3/30/2023	dry	#N/A	264.65	267.05
4/26/2023	dry	#N/A	264.39	267.36
5/26/2023	dry	#N/A	264.29	267.46
6/21/2023	dry	#N/A	No reading	No reading
7/21/2023	dry	#N/A	No reading	No reading
8/17/2023	dry	#N/A	263.50	267.20
9/15/2023	dry	#N/A	253.10	267.25
10/13/2023	dry	#N/A	248.50	267.75
11/9/2023	dry	#N/A	247.75	267.96
12/8/2023	dry	#N/A	248.92	267.96
1/3/2024	dry	#N/A	250.08	267.94
1/31/2024	dry	#N/A	253.67	268.75
3/1/2024	dry	#N/A	250.17	267.96
3/26/2024	dry	#N/A	251.42	267.94
4/23/2024	dry	#N/A	252.00	267.96
5/21/2024	dry	#N/A	252.00	267.79
6/19/2024	dry	#N/A	251.08	267.75
7/19/2024	dry	#N/A	249.25	267.25
8/13/2024	dry	#N/A	251.60	268.00
9/11/2024	dry	#N/A	248.08	267.58
10/9/2024	dry	#N/A	251.00	267.92
11/7/2024	dry	#N/A	250.75	267.50
12/3/2024	dry	#N/A	251.42	267.50
1/2/2025	dry	#N/A	251.83	267.92
1/30/2025	dry	#N/A	251.42	267.83
2/26/2025	dry	#N/A	254.50	267.83
3/27/2025	dry	#N/A	251.92	267.83
4/23/2025	dry	#N/A	248.92	267.83
5/21/2025	dry	#N/A	249.25	267.83
6/20/2025	dry	#N/A	250.50	268.00
7/21/2025	dry	#N/A	251.92	268.00

All readings were dry since last inspection.

Project: ***Brunner Island Ash Basin No. 6 Geotechnical Exploration***
Subject: ***Water Level Readings***

Data Source: 2009 Geotechnical Exploration (Boring Logs & Piezometer Installation/Specs)

Piezometer ID	**B09-4**	**Units**	**Note:**
Screen Depth	3.5 -8.5	ft	TP = top of PVC riser pipe
Screen Elev.	260.7 - 265.7	ft	Elevations are estimated
Ground Surface Elev.	269.20	ft	Datum: MSL
Top of PVC Riser Elev.	272.00	ft	
Top of Steel Casing Elev.	272.30	ft	
Stickup (TOR - GS)	2.80	ft	

Data Source: Brunner piezo survey conducted on 5/20/2015

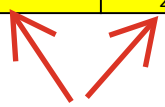
Piezometer ID	**B09-4**	**Units**	**Note:**
Screen Depth	3.5 -8.5	ft	Datum: NGVD 29 US FEET
Screen Elev.	260.7 - 265.7	ft	Screen elevations are estimated
Ground Surface (GS) Elev.	269.28	ft	
Top of Riser (TOR) Elev.	271.33	ft	
Top of Steel Casing (TOC) Elev.	271.56	ft	
TOC to TOR	0.23	ft	
TOC to GS	2.28	ft	

Data Source: Brunner piezo survey conducted on 5/20/2015

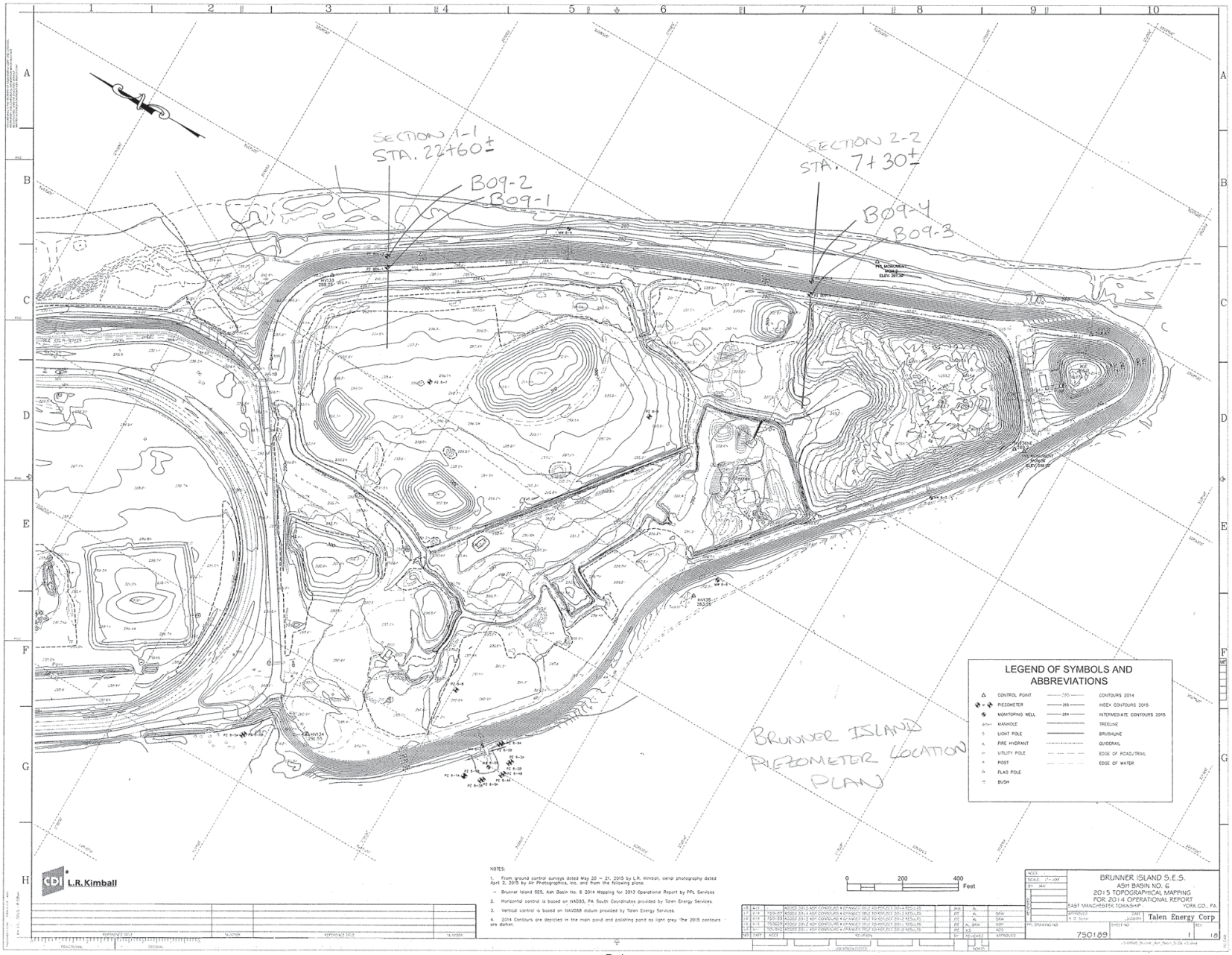
Date	TOR to TOW (ft)	GWT Elev. (ft)	Main Basin HW Elevation (ft)	Polishing Pond Level
10/13/2015	10.6	260.73	285.1	267.8
11/11/2015	DRY	#N/A	284.7	267.9
12/8/2015	DRY	#N/A	284.3	267.8
1/7/2016	11.08 - DRY	#N/A	284.3	267.8
2/5/2016	10.2	261.13	284.2	267.7
3/3/2016	10.3	261.03	284.2	267.3
4/21/2016	DRY	#N/A	284.1	267.9
5/19/2016	10.45	260.88	283.8	267.7
6/17/2016	DRY	#N/A	284	267.9
7/14/2016	11.15-Dry	#N/A	284.3	268
8/4/2017	DRY	#N/A	284.3	268
9/23/2017	DRY	#N/A	284.1	267.9
10/21/2016	DRY	#N/A	283.9	267.8
11/18/2016	DRY	#N/A	284.00	267.8
12/14/2016	10.9	260.43	284.10	267.9
1/28/2017	10.2	261.13	283.80	267.7
2/23/2017	10.41	260.92	283.80	267.7
3/25/2017	10.3	261.03	284.00	267.3
4/23/2017	10.32	261.01	283.60	267.2
5/22/2017	Dry	#N/A	283.80	267.8
6/20/2017	dry	#N/A	283.90	267.4
7/19/2017	dry	#N/A	284.60	267.5
8/18/2017	10.88	260.45	284.10	267.5
9/15/2017	10.77	260.56	283.90	267.8
10/15/2017	dry	#N/A	284.0	267.9
11/14/2017	10.78	260.55	284.0	267.8
12/14/2017	10.55	260.78	284.2	267.9
1/11/2018	11.13	260.20	283.9	267.7
2/10/2018	10.94	260.39	284.2	268.0
3/12/2018	11.14	260.19	283.9	267.9
5/11/2018	10.45	260.88	283.8	267.8
6/9/2018	10.81	260.52	283.8	267.8
7/9/2018	dry	#N/A	283.8	267.4
8/2/2018	10.25	261.08	284.0	267.9
9/1/2018	10.27	261.06	284.0	267.4
10/1/2018	10.55	260.78	283.9	267.8
10/31/2018	10.41	260.92	284.1	267.9
12/7/2018	10.61	260.72	284.1	267.7
1/3/2019	8.63	262.70	283.9	267.7
2/1/2019	10.52	260.81	284.2	267.7
3/2/2019	10.28	261.05	284	267.7
4/1/2019	10.68	260.65	283.8	267.6

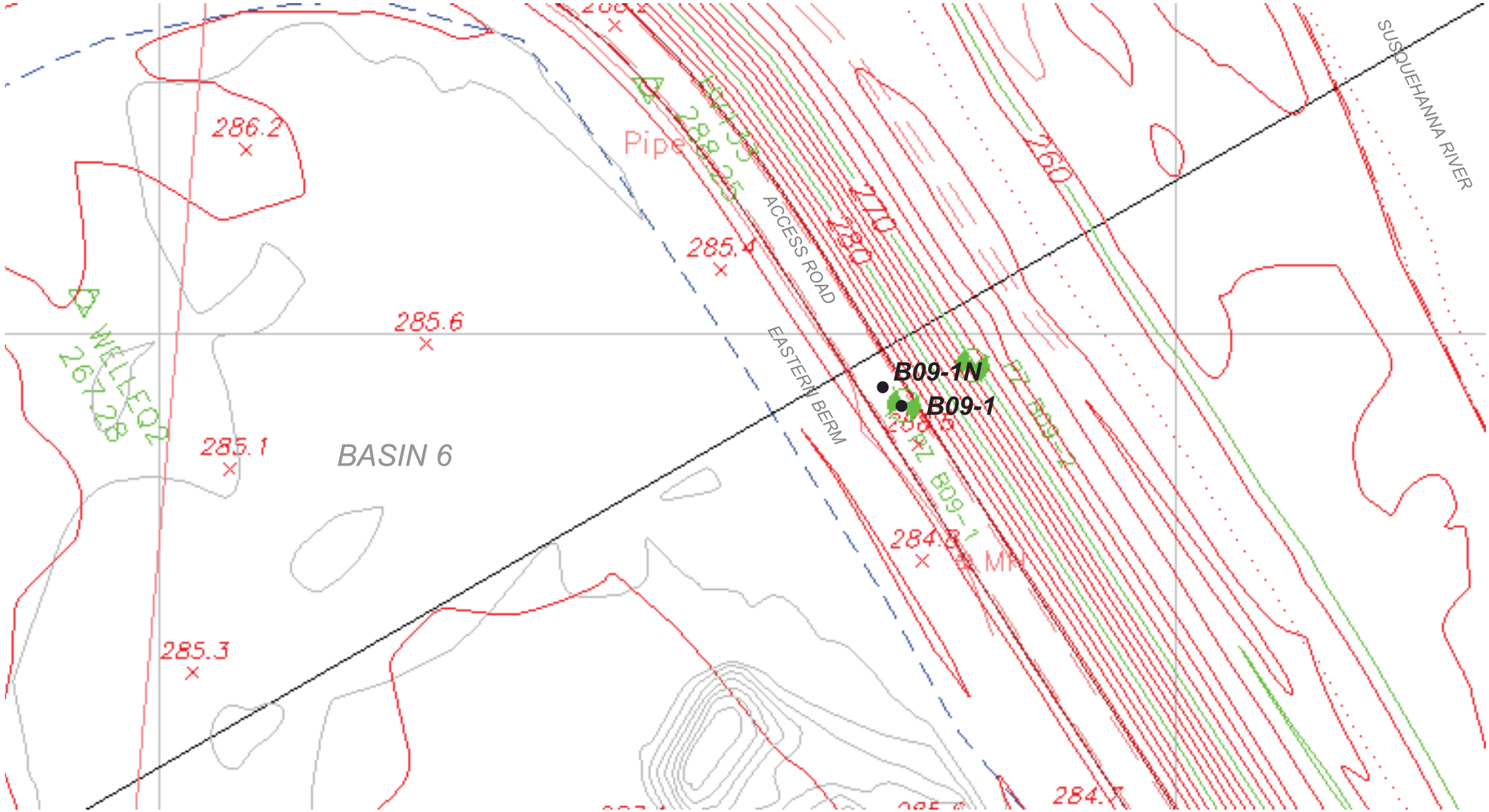
4/30/2019	11.23	260.10	284.1	267.8
5/30/2019	11.24	260.09	283.9	267.9
6/24/2019	11.24	260.09	278.6	267.2
7/23/2019	10.53	260.80	276.8	267.8
8/20/2019	11.77	259.56	272.7	267.7
9/18/2019	11.27	260.06	272.58	267.6
10/18/2019	11.284	260.046	272.40	267.1
11/15/2019	10.528	260.802	272.60	267.5
12/13/2019	10.18	261.15	272.60	267.5
1/14/2020	10.414	260.916	270.10	267.02
2/10/2020	10.38	260.95	265.5	267.5
3/11/2020	10.85	260.48	260.9	267.6
4/8/2020	10.67	260.66	261	267.6
5/7/2020	10.29	261.04	261.9	267.7
6/3/2020	11.25	260.08	261.1	267.6
7/1/2020	11.25	260.08	262.7	267.7
7/30/2020	11.26	260.07	262.4	267.1
8/27/2020	11.26	260.07	261.4	267.4
9/22/2020	11.265	260.065	262.1	266.9
10/21/2020	11.264	260.066	262	266.9
11/18/2020	10.915	260.415	262.4	267.5
12/15/2020	10.499	260.831	261.4	267.5
1/13/2021	10.861	260.469	261.9	267.5
2/19/2021	10.25	261.08	262.2	267
3/17/2021	11.202	260.128	261.40	267.5
4/15/2021	11.224	260.106	261.81	267.03
5/12/2021	11.21	260.12	261.18	266.98
6/10/2021	11.212	260.118	261.45	267.17
7/8/2021	11.214	260.116	260.78	266.56
8/3/2021	11.223	260.107	261.01	266.61
8/26/2021	11.219	260.111	263.27	267.21
9/21/2021	11.29	260.04	267.49	267.11
10/21/2021	11.205	260.125	262.65	267.18
11/18/2021	10.796	260.534	259.40	No reading
12/16/2021	11.202	260.128	263.56	266.7
1/13/2022	10.434	260.896	263.89	266.73
2/9/2022	10.579	260.751	265.23	267.08
3/10/2022	10.45	260.88	264.93	264.2
4/6/2022	10.709	260.621	263.31	267.13
5/4/2022	11.199	260.131	263.24	267.05
6/1/2022	11.23	260.1	263.19	267.16
6/30/2022	11.216	260.114	262.99	266.7
7/22/2022	11.229	260.101	262.97	266.44
8/19/2022	11.178	260.152	262.79	265.81
9/15/2022	11.206	260.124	#N/A	264.99
10/14/2022	11.221	260.109	263.23	265.49
11/11/2022	11.123	260.207	263.39	265.25
12/5/2022	10.667	260.663	262.99	267.12
1/4/2023	10.481	260.849	263.89	267.23
2/1/2023	10.63	260.7	264.39	267.49
3/2/2023	10.72	260.61	264.23	267.74
3/30/2023	10.45	260.88	264.65	267.05
4/26/2023	11.14	260.19	264.39	267.36
5/26/2023	11.25	260.08	264.29	267.46
6/21/2023	dry	#N/A	No reading	No reading
7/21/2023	dry	#N/A	No reading	No reading
8/17/2023	dry	#N/A	263.50	267.2
9/15/2023	dry	#N/A	253.10	267.25
10/13/2023	dry	#N/A	248.50	267.75
11/9/2023	dry	#N/A	247.75	267.96
12/8/2023	dry	#N/A	248.92	267.96
1/3/2034	11.29	260.04	250.08	267.94
1/31/2024	11.09	260.24	253.67	268.75
3/1/2024	dry	#N/A	250.17	267.96
3/26/2024	11.12	260.21	251.42	267.94
4/23/2024	11.28	260.05	252.00	267.96
5/21/2024	dry	#N/A	252.00	267.79
6/19/2024	dry	#N/A	251.08	267.75

7/19/2024	dry	#N/A	249.25	267.25
8/13/2024	dry	#N/A	251.60	268
9/11/2024	dry	#N/A	248.08	267.58
10/9/2024	dry	#N/A	251.00	267.92
11/7/2024	dry	#N/A	250.75	267.5
12/3/2024	dry	#N/A	251.42	267.5
1/2/2025	dry	#N/A	251.83	267.92
1/30/2025	11.22	260.11	251.42	267.83
2/26/2025	11.11	260.22	254.50	267.83
3/27/2025	dry	#N/A	251.92	267.83
4/23/2025	11.28	260.05	248.92	267.83
5/21/2025	10.66	260.67	249.25	267.83
6/20/2025	10.69	260.64	250.50	268.00
7/21/2025	10.58	260.75	251.92	268.00



Maximum reading since last inspection.


SECTION 1-1
STA. 22+60±
B09-2
B09-1
SECTION 2-2
STA. 7+30±
B09-4
B09-3
BRUNNER ISLAND
PIEZOMETER LOCATION
PLAN
LEGEND OF SYMBOLS AND ABBREVIATIONS
CONTROL POINT
PIEZOMETER
MONITORING WELL
MANHOLE
LIGHT POLE
FIRE HYDRANT
UTILITY POLE
POST
FLAG POLE
BUSH
CONTOURS 2014
INDEX CONTOURS 2015
INTERMEDIATE CONTOURS 2015
TREELINE
BRUSHLINE
GUIDERAIL
EDGE OF ROAD/TRAIL
EDGE OF WATER
L.R.Kimball
NOTES:
1. From ground control surveys dated May 20 – 21, 2015 by L.R. Kimball, aerial photography dated April 2, 2015 by Air Photographics, Inc. and from the following plans:
– Brunner Island SES, Ash Basin No. 6 2014 Mapping for 2013 Operational Report by PPL Services
2. Horizontal control is based on NAD83, PA South Coordinates provided by Talen Energy Services.
3. Vertical control is based on NAVD88 datum provided by Talen Energy Services.
4. 2014 Contours are depicted in the main pond and polishing pond as light grey. The 2015 contours are darker.
0 200 400 Feet
BRUNNER ISLAND S.E.S.
ASH BASIN NO. 6
2015 TOPOGRAPHICAL MAPPING
FOR 2014 OPERATIONAL REPORT
EAST MANCHESTER TOWNSHIP YORK CO., PA.
Talen Energy Corp
7501891
18



EXPLANATION

- **B09-1** LOCATION OF PIEZOMETER (ABANDONED ON 12/12/18). REPLACED BY B09-1N.
  (PA STATE PLANE – SOUTH - Northing (y): 274965.7, Easting (x): 2267365.8)
- **B09-1N** LOCATION OF PIEZOMETER B09-1N (REPLACEMENT FOR B09-1). INSTALLED 12/13/18.
  (PA STATE PLANE – SOUTH - Northing (y): 274974.46, Easting (x): 2267357.31)

APPROXIMATE SCALE (FEET)

0 50 100 200

N

V. F. Britton Group, LLC
ENVIRONMENTAL AND HYDROGEOLOGIC CONSULTING
326 Conestoga Road Wayne, PA 19087
610-964-1462 val@vbritton.com www.vbritton.com

B09-1 AND B09-1N LOCATION PLAN

DRAWN BY: VFB
CHECKED BY: VFB
DATE: 6/19/19

FIGURE NO. 1

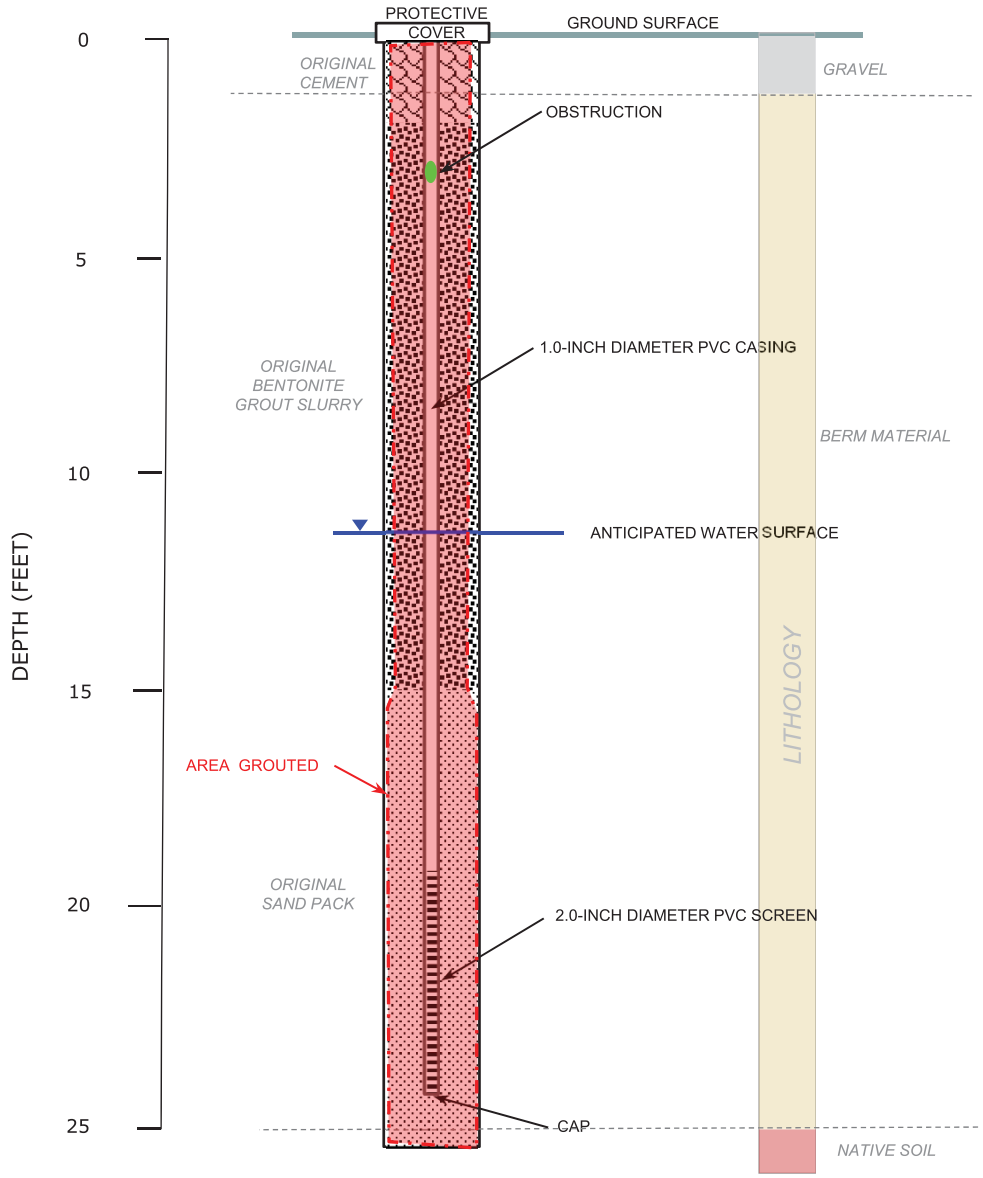
BASIN 6 – BRUNNER ISLAND SES, YORK COUNTY, PENNSYLVANIA

NOTES:

1. PIEZOMETER B09-1 WAS OVER DRILLED WITH A 6-INCH DIAMETER HOLLOW STEM AUGER THAT REMOVED ALL PORTIONS OF THE 2.0-INCH DIAMETER PVC CASING AND WELL. THE BOREHOLE WAS GROUTED TO THE SURFACE WITH A NEAT GROUT (CEMENT BENTONITE MIXTURE).

2. ORIGINAL DRILLING LOG FOR B09-1 IS ATTACHED.

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
VAL F. BRITTON
GEOLOGIST
NO. 001358



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ABANDONMENT OF PIEZOMETER B09-1 CONSTRUCTION DESIGN

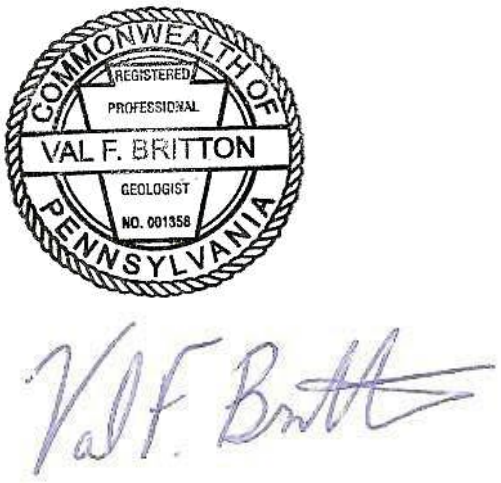
BASIN 6 – BRUNNER ISLAND SES, YORK COUNTY, PENNSYLVANIA

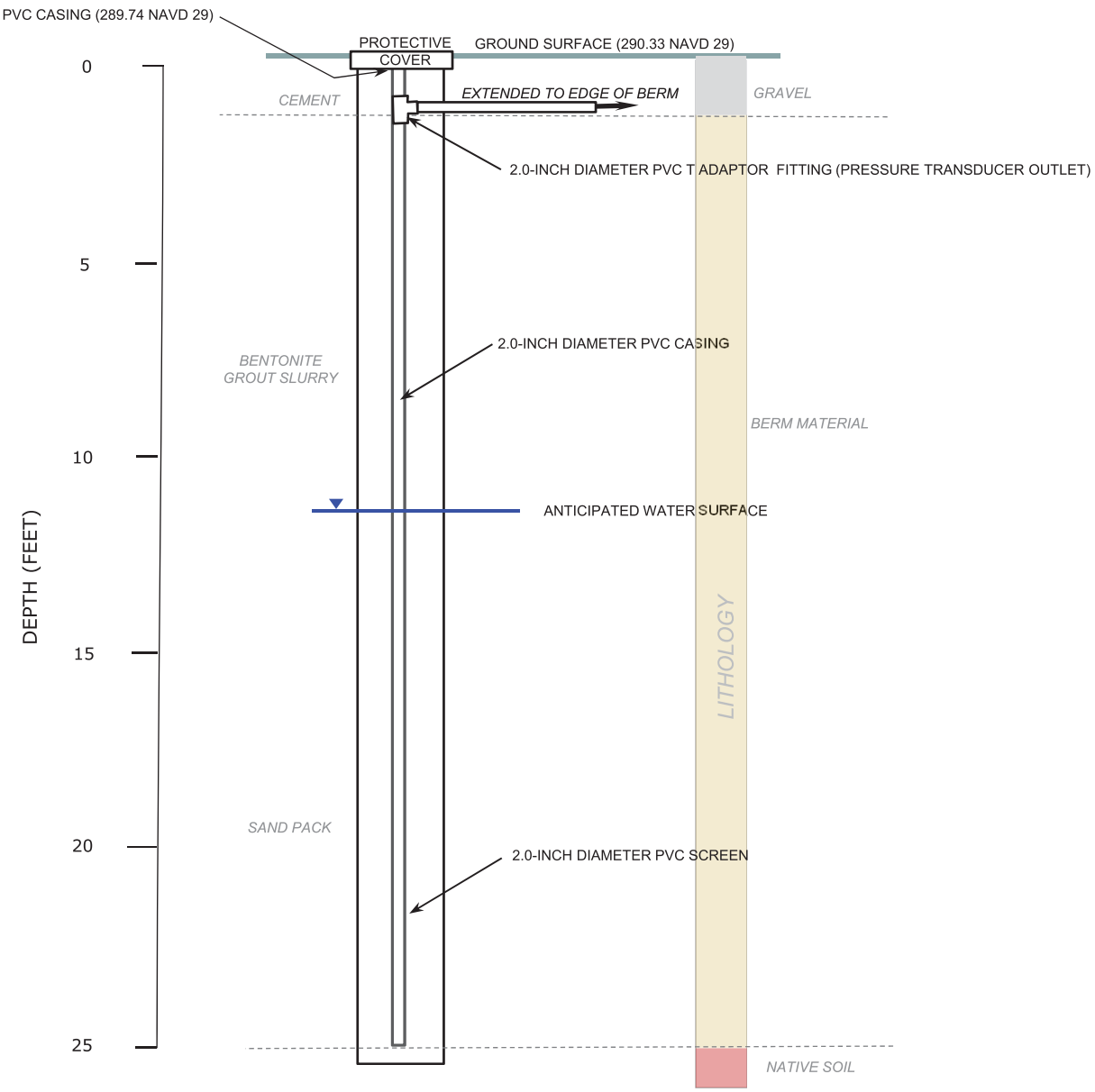
DRAWN BY:	VFB
CHECKED BY:	VFB
DATE:	6/19/19

FIGURE NO. 2

NOTES

1. REPLACEMENT PIEZOMETER FOR B09-1.
2. ORIGINAL DRILLING LOG FOR B09-1 IS ATTACHED.





V. F. Britton Group, LLC
ENVIRONMENTAL AND HYDROGEOLOGIC CONSULTING
326 Conestoga Road Wayne, PA 19087
610-964-1462 val@vbritton.com www.vbritton.com

PIEZOMETER B09-1N CONSTRUCTION DESIGN

DRAWN BY:	VFB
CHECKED BY:	VFB
DATE:	6/19/19

FIGURE NO. 3

BASIN 6 – BRUNNER ISLAND SES, YORK COUNTY, PENNSYLVANIA

V.F.Britton Group, LLC
ENVIRONMENTAL AND HYDROGEOLOGICAL CONSULTING
326 CONESTOGA ROAD
WAYNE, PA 19087
610-964-1462

Project/Location:
Ash Basin 6
Brunner Island Steam Electric Station
York Haven, Pennsylvania

Drilling Log

Pages: 1 of 1

Geologist: Val F. Britton, P.G.

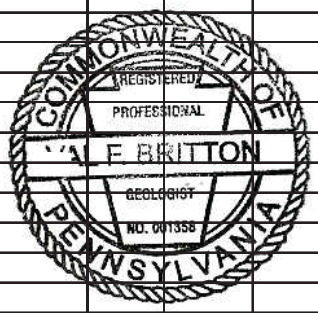
Driller/Method: Hollow Stem Auger

Boring Identification: **B09-1N**
(Replacement for B09-1)

Date: 12/13/18 | Total Depth: 24 Feet | Casing Length: 20.0 Feet | Screen Length: 4.0 Feet

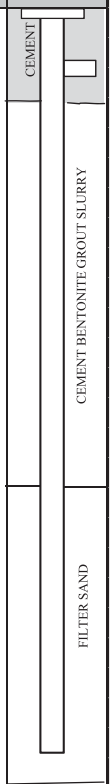
Top Casing Elevation: 289.74 (NGVD29) | Ground Elevation: 290.33 (NGVD29) | Initial Depth to Water (ft): 22.0 | Stabilized Depth to Water (ft): 13.22 (12/13/19)

Depth/ Elevation (feet)	Sample ID	Counts/ Data	Recovery (inches)	Material Description/Classification
	SS-1	41		0 to 0.5' – **Road Base Aggregate** (Course Angular Limestone Gravel)
		20		0.5 to 21' – **Berm Material**: Brown Dense Silt, some clay, fine to
		18		coarse Sand and sub-angular to well rounded poorly sorted Gravel,
		19	19	damp.
	SS-2	12		
5.0 / 285.33		22		
		17		
		14	18	
	SS-3	14		
		22		
10.0 / 280.33		17		
		14	19	
	SS-4	30		
		39		
		40		
15.0 / 275.33		36	17	
	SS-5	40		
		25		
		24		
		16	19	
20.0 / 270.33	SS-6	29		
		24		21.0 to 22' – **Berm Material**: Brown Dense Silt, Fine to Coarse Sand
		24		and sub-angular to well rounded poorly sorted Gravel, moist.
		19	18	22.0 to 24' – **Berm Material**: Brown Dense Silt, Fine to Coarse Sand
	SS-7	17		and sub-angular to well rounded poorly sorted Gravel, wet.
25.0 / 270.33		12	10	24.0 to 25' – **Native Clayey Silt (CL-ML)**: Brown to grey stiff Silt
				and clay, wet.



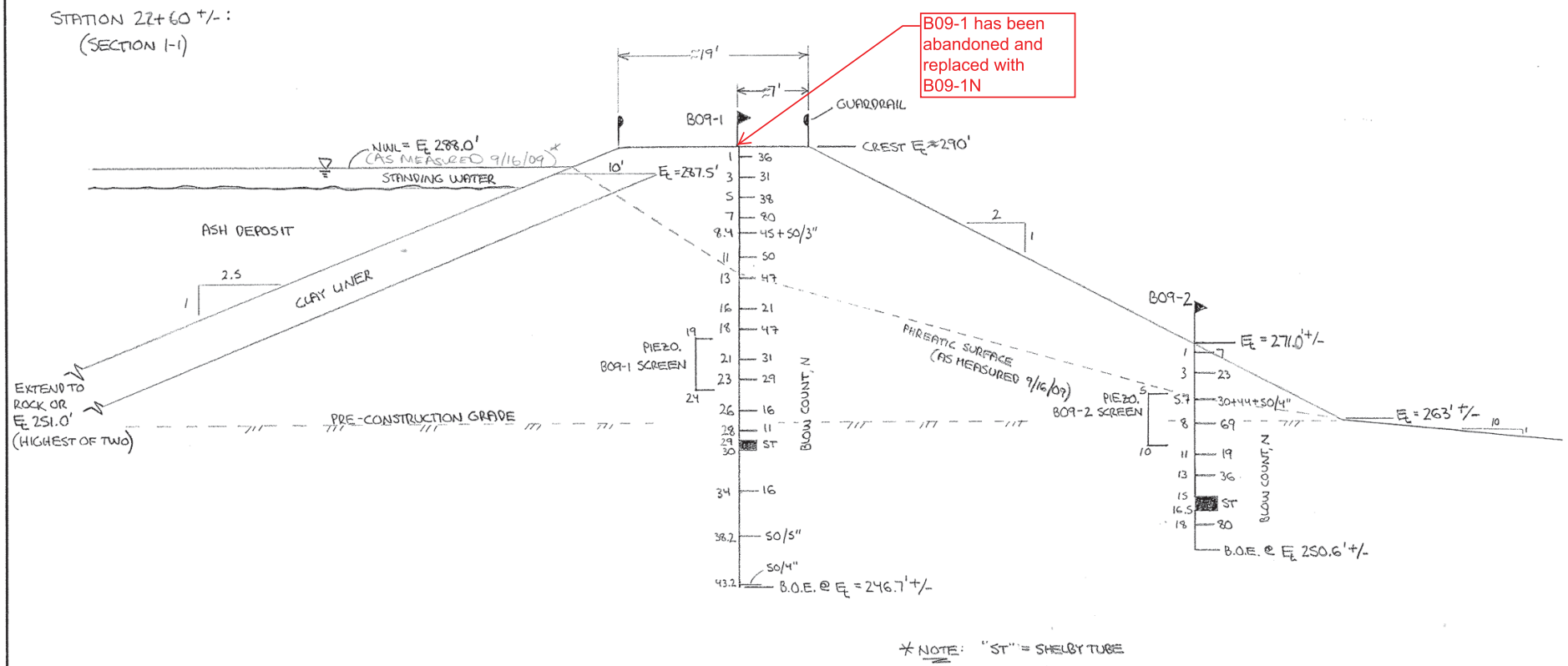
NOTES:

1. TOTAL PIEZOMETER DEPTH IS 24 FEET.
2. THIS PIEZOMETER REPLACED PIEZOMETER B09-1 WHICH WAS DAMAGED AND INACCESSIBLE.
3. 2.0 –INCH DIAMETER CASING AND SCREEN WAS INSTALLED..
4. NEAT GROUT WAS USED AS THE SLURRY (PORTLAND CEMENT, 3 TO 4% BENTONITE, WATER).
5. A 2.0-INCH DIAMETER "T" WAS USED AT THE TOP OF THE SOLID CASING AND ATTACHED TO A HORIZONTAL PIPE FOR TRANSDUCER CABLE EXITING THE PIEZOMETER.
6. FLUSH MOUNT COVER WAS PLACED ON THE TOP OF THE PIEZOMETER AND A PVC CAP WAS PLACED ON THE BOTTOM.
7. DRILLING CONTRACTOR WAS EICHELBERGERS, INC. FROM MECHANICSBURG, PENNSYLVANIA.



Piezometer Coordinates (PA Sate Plane – South): Northing (y): 274974.46
Easting (x): 2267357.31

STATION 22+60 +/- :
(SECTION 1-1)

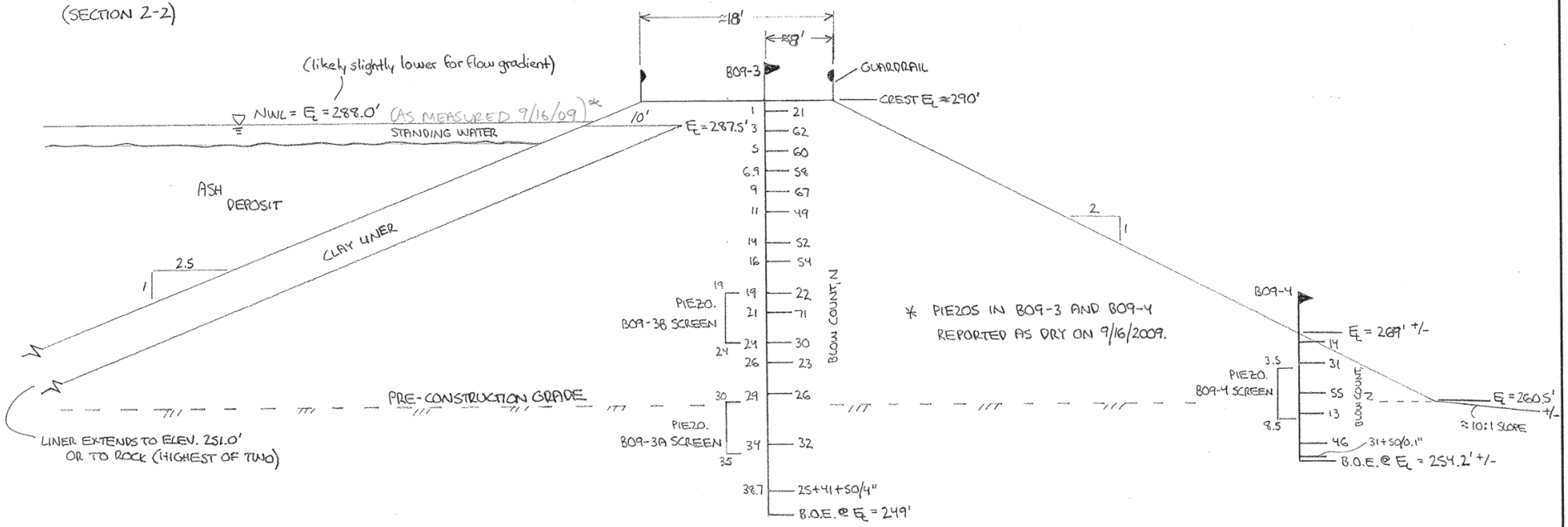


* NOTE: "ST" = SHELBY TUBE

REV	BY	DATE	CHECKED	DATE	BRUNNER ISLAND AB 6 - STATION 21+80
	NBS	9/23/09			JOB NO / CALC NO / PAGE 1 OF 2

STATION 7+30 +/- :

(SECTION 2-2)



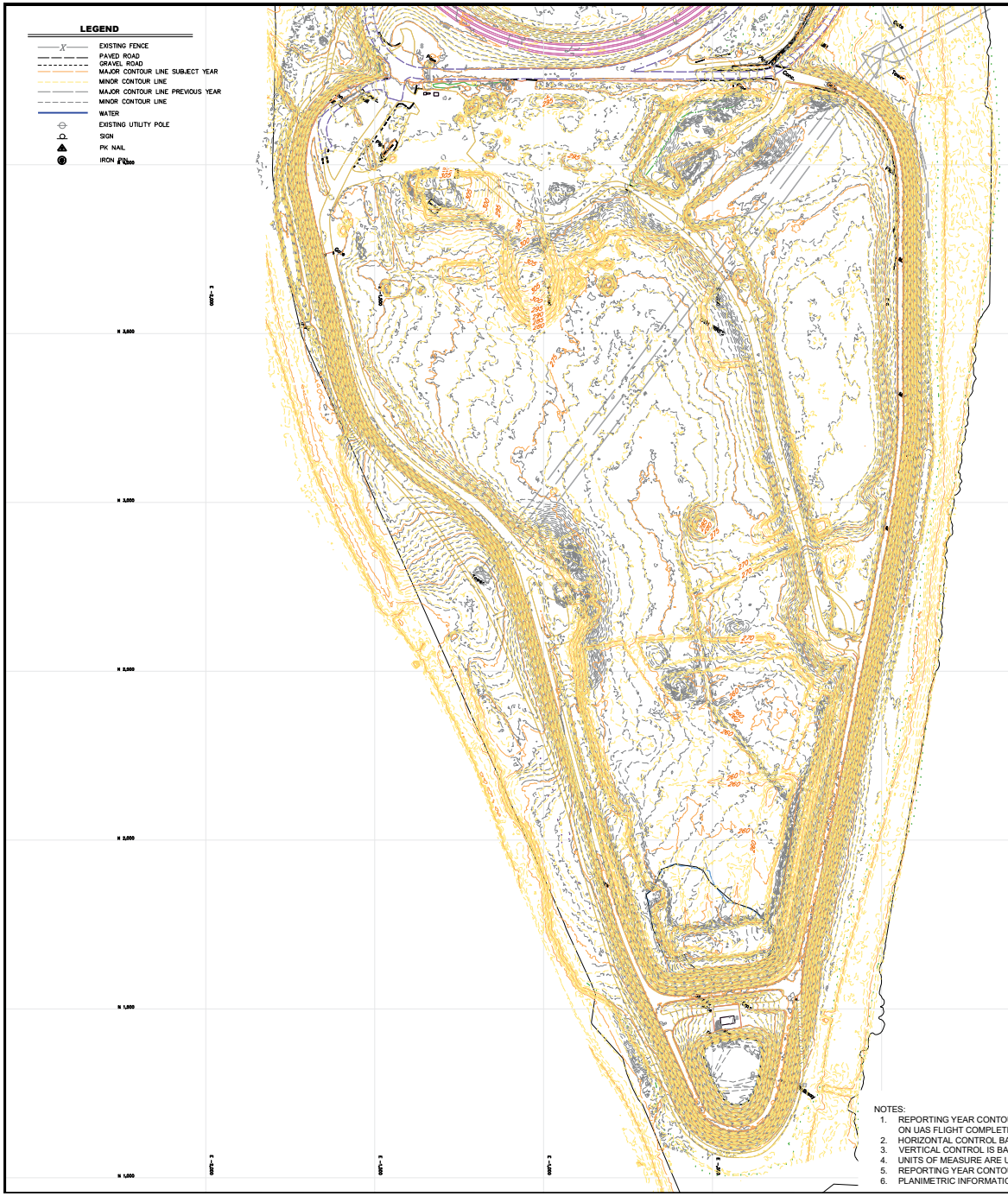
REV	BY	DATE	CHECKED	DATE
	NBS	9/23/09		

JOB NO

CALC NO

PAGE 2. OF 2.

APPENDIX C
2025 SURVEY DATA



FULL SIZE (24" x 36")
SCALE = 1" : 150'

150' 75' 0' 150'

SCALE: 1"=150'

HALF SIZE (12" x 18")
SCALE = 1" : 300'

NOTES:

1. REPORTING YEAR CONTOURS BASED ON UAS FLIGHT COMPLETED MARCH 27, 2025. PREVIOUS YEAR CONTOURS BASED ON UAS FLIGHT COMPLETED ON 04-24-2024.
2. HORIZONTAL CONTROL BASED ON PLANT GRID (LOCAL), PROVIDED BY TALEN GENERATION, LLC.
3. VERTICAL CONTROL IS BASED ON NGVD29, PROVIDED BY TALEN GENERATION, LLC
4. UNITS OF MEASURE ARE US SURVEY FEET.
5. REPORTING YEAR CONTOURS ARE IN SHADES OF TAN/ORANGE, PREVIOUS YEAR CONTOURS ARE IN SHADES OF GREY.
6. PLANIMETRIC INFORMATION PROVIDED BY TALEN GENERATION, LLC

SURVEYORS CERTIFICATE:

I, MATTHEW J. MADDEN, CERTIFY, THAT, TO THE BEST OF MY KNOWLEDGE, THE SURVEY SHOWN AND DESCRIBED HEREON IS TRUE AND CORRECT.

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL LAND SURVEYOR
MATTHEW JAMES MADDEN
No. SU075655

MATTHEW J. MADDEN, P.L.S. REG: SU075655

MONTOURSURVEYING.COM
4542 MUNCY EXCHANGE ROAD
TURBOTVILLE, PA 17772
M (570) 412-3198
MONTOUR SURVEYING, LLC

SHOWING ASH BASIN 6 (PLANT GRID)
BRUNNER ISLAND STEAM ELECTRIC STATION
EAST MANCHESTER TOWNSHIP, YORK COUNTY, PA

APPROVED

HORZ. SCALE:	AS SHOWN
DRAWN BY:	MJM
APPROVED BY:	MJM
DATE:	04-11-2025
DRAWING NO.:	MS2024111-01
SHEET 1 OF 1	REV