



**OHIO VALLEY ELECTRIC CORPORATION**

3932 U. S. Route 23  
P. O. Box 468  
Piketon, Ohio 45661  
740-289-7200

WRITER'S DIRECT DIAL NO:  
740-289-7259

February 1, 2024

**Submitted Electronically**

Ms. Anne Vogel, Director  
Ohio Environmental Protection Agency  
50 West Town Street, Suite 700  
P.O. Box 1049  
Columbus, OH 43216-1049

Dear Ms. Vogel:

**Re: Ohio Valley Electric Corporation  
Kyger Creek Station's 2023 Annual Landfill  
Inspection Posting Notification**

As required by 40 CFR 257.106(g)(7), the Ohio Valley Electric Corporation (OVEC) is providing notification to the State Director of the Ohio Environmental Protection Agency that a qualified professional engineer has completed the 2023 CCR Annual Landfill Inspection for the OVEC's Kyger Creek Station. The inspection report has been placed in the facility's operating record as well as on the company's publicly accessible internet site, which can be viewed at <http://www.ovec.com/CCRCompliance.php>.

If you have any questions, or require any additional information, please call me at 740-289-7259.

Sincerely,

A handwritten signature in black ink that reads "Jeremy Galloway". The signature is written in a cursive, flowing style.

Jeremy Galloway  
Environmental Specialist

JDG:tlf



**2023 CCR Rule - Landfill  
Kyger Creek Landfill Inspection**



Kyger Creek Generating Station  
Cheshire, Ohio  
Gallia County

January 19, 2024

Prepared for:

Ohio Valley Electric Corporation  
Piketon, Ohio

Prepared by:

Stantec Consulting Services Inc.  
Cincinnati, Ohio



**2023 CCR RULE – LANDFILL  
KYGER CREEK LANDFILL INSPECTION**

Overview  
January 19, 2024

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**2023 CCR RULE – LANDFILL  
KYGER CREEK LANDFILL INSPECTION**

Overview  
January 19, 2024

## 1.0 OVERVIEW

Stantec Consulting Services Inc. (Stantec) performed the annual landfill inspection of the existing coal combustion residuals (CCR) landfill at the Kyger Creek Generating Station in Cheshire, Ohio on October 25, 2023.

This annual landfill inspection is intended to fulfill the requirements of 40 CFR 257.84(b) for the *Disposal of Coal Combustion Residuals from Electric Utilities* rule (CCR Rule) signed by the U.S. Environmental Protection Agency (EPA) Administrator on December 19, 2014 and published in the Federal Register on April 17, 2015.

The landfill is a residual solid waste facility (270834, RSWL018814) under the regulations of the Gallia County General Health District (GCGHD) – RW3L and the Ohio Environmental Protection Agency (OEPA), Division of Materials and Waste Management (DMWM). Below is a summary of conditions for the day of the inspection:

Date performed:	October 25, 2023
Weather:	Partly cloudy and sunny, 65°F - 72°F
Rainfall over last 72 hours:	October 22, 2023 – 0.01 inch October 23, 2023 – 0.00 inch October 24, 2023 – 0.00 inch October 25, 2023 – 0.00 inch

Precipitation data was collected by the National Centers for Environmental Information, NOAA, for Gallipolis, Ohio US (USC00333029), approximately nine miles southwest of the landfill. Precipitation during the 72-hour period prior to the site visit was about 0.01 inches.

Stantec’s team that performed the fieldwork included:

- Jacqueline Harmon, P.E., Principal, Project Manager  
28 years of experience in geotechnical engineering, including pump stations, levees, and CCR storage facility design, closure, and operation.
- Magreth Kakoko, EIT, Civil Engineer  
1.5 years of civil engineering experience with a focus on geotechnical and civil engineering.

The estimated volume of CCRs contained in the landfill is 4,801,249 cubic yards as of October 30, 2023. Inspections are being performed by plant personnel according to the CCR Rule at least once every seven days. Weekly reports performed between January 5 and October 19, 2023 were provided for review (OVEC, 2023b). The 4<sup>th</sup> Quarter 2023 Inspection was performed by GCGHD on November 15, 2023 in accordance with OEPA guidelines and provided for review (GCGHD, 2023).

Fieldwork was coordinated with Paul Hutchins, Kyger Creek Station’s Landfill Engineer. Mr. Hutchins tracks the maintenance needs and activities through the weekly and monthly inspections. Jeremy Galloway and

## 2023 CCR RULE – LANDFILL KYGER CREEK LANDFILL INSPECTION

Description of Kyger Creek Landfill  
January 19, 2024

Zachary Hammond of Ohio Valley Electric Corporation's (OVEC) Environmental Affairs group accompanied Stantec's personnel during the inspection. Observations were briefly discussed with onsite personnel during and after completion of the field activities.

### 2.0 DESCRIPTION OF KYGER CREEK LANDFILL

The Kyger Creek Generating Station, located in Cheshire, Gallia County, Ohio, is a coal combustion power plant owned and operated by the OVEC. Kyger Creek Station's five units began producing electricity in 1955 and have a total generating capacity of 1,085 megawatts (OVEC, 2016).

The CCRs produced by the Kyger Creek Generating Station are placed in the Kyger Creek restricted waste landfill. OVEC received its restricted waste permit and approval from the OEPA to begin construction in April 2009. The landfill is a 98-acre Class III residual solid waste facility, divided into five phases, with a capacity of 20.4 million cubic yards (Hull & Associates, Inc., 2008a and 2008b) that includes:

- A composite liner system consisting of an 18-inch recompacted soil liner, 30-mil polyvinyl chloride (PVC) geomembrane in Phases 1, 3, 4, and 5 with a 40-mil linear low-density polyethylene (LLDPE) geomembrane in Phase 2,
- A leachate collection system, including two lined leachate collection ponds,
- Contact and non-contact surface water management systems, including four sedimentation ponds, multiple sediment traps, drainage channels, and chimney drains,
- A groundwater monitoring system, and
- A final closure cap design.

Operation of the landfill began in 2010 with placement of Class III residual waste, including flue-gas-desulfurization (FGD) sludge, chloride purge steam filter cake, fly ash, and boiler slag. The landfill's design lifespan was estimated as 20 years (Hull & Associates, Inc., 2008a).

CCRs are transported by conveyor to a stacking pad southeast of the landfill and/or trucked to the Kyger Creek Landfill. Based on conversations with site personnel, the ash is placed in the landfill at approximately 30-percent moisture. The ash is placed in roughly one-foot lifts and then compacted. At times, the fly ash is mixed with other material, such as gypsum, with no segregation of the material during placement.

In July 2020, the OEPA Southeast District Office (SEDO) approved an alteration to the landfill's bottom liner system to meet the federal EPA CCR Rule, adding a polymer-enhanced reinforced geosynthetic clay liner (GCL) between the geomembrane/flexible membrane liner and the recompacted soil liner (OEPA, 2020). In April 2022, the OEPA SEDO approved an alteration to the bottom liner design of the landfill. The recompacted soil liner was removed, and a geotextile cushion layer was added between the base flexible membrane liner and the aggregate leachate drainage layer (OEPA, 2022).

Phase 1 of the landfill is constructed and receiving CCRs. Multiple ponds, both temporary and permanent, are associated with the landfill. See the reference drawings provided in Appendix C for pond locations and general landfill phasing. The ponds include:

- East Sedimentation Pond – a permanent pond located east of the landfill footprint.

## **2023 CCR RULE – LANDFILL KYGER CREEK LANDFILL INSPECTION**

Description of Kyger Creek Landfill  
January 19, 2024

- West Sedimentation Pond – a permanent pond located at the toe of the west slope of Phase 1.
- North Sedimentation Pond – a permanent pond proposed at the former clay borrow/topsoil stockpile area north of Phase 2. This pond will be constructed with Phase 2.
- Leachate Collection Pond – a permanent pond located east of the landfill and adjacent to the East Sedimentation Pond.
- Interim Leachate Collection Pond – a temporary pond located within Phase 3 at the east end of Phases 1 and 2.
- Sediment Pond #1 – a temporary pond used during Phase 1 construction within Phase 4. This pond has been capped.
- Sediment Pond #2 – a temporary pond located within the Proposed Clay Borrow area to the south of Phase 1.
- Temporary Contact Pond – a temporary pond located on the southeast end of Phase 2.

Stormwater sedimentation traps are located around the landfill footprint and were noted when observed during the site visit. Sedimentation trap locations are shown on the as-built map provided in Appendix C.

### **2.1 KYGER CREEK LANDFILL – PHASE 1**

Phase 1, the active waste cell, is located in the southwestern landfill footprint. A series of chimney drains lie west to east near the center of the phase and outlet into the Interim Leachate Collection Pond (Photo 12, Appendix B). Temporary soil cover has been placed and vegetated on the exterior slopes of Phase 1 where it is nearing final CCR grades. No final cover has been placed. Recent hydroseeding had been performed prior to the October 25, 2023 site visit. General limits for the hydroseeding are noted in the observations in Appendix A. Trucks were observed placing loads of CCRs in an area to be spread and compacted.

### **2.2 KYGER CREEK LANDFILL – PHASES 2 THROUGH 5**

Phases 2, 3, 4, and 5 have yet to be constructed. Phase 2 has been used as a borrow area and is vegetated and inactive. A stockpile is located on the northern side of Phase 2. It is graded and hydroseeded (Photos 19 and 20, Appendix B).

Preconstruction activities for Phase 2 began in July 2022 with materials testing, regulatory submittals, and rough grading for the North Sedimentation Pond. Construction activities within the Phase 2 cell are scheduled for 2025. Sedimentation Trap #5 was removed, and erosion and sedimentation control measures installed (Photo 23, Appendix B).

The Interim Leachate Collection Pond (ILCP) is located in the Phase 3 footprint (Photo 18, Appendix B). Phase 4's footprint includes the capped Sediment Pond #1. The contractor trailer and laydown yard are in the Phase 5 footprint. See Appendix C for the landfill's general phasing plan.

**2023 CCR RULE – LANDFILL  
KYGER CREEK LANDFILL INSPECTION**

Observations  
January 19, 2024

### **3.0 OBSERVATIONS**

The following sections present observations made during the site visit within the Phase 1 footprint and pertinent water management ponds. Observations identify maintenance items but also include photograph and slope locations and items of interest. Refer to Appendix A for figures and the observation points along with the photographs and descriptions in Appendix B. Slopes noted were estimated using a rangefinder on a handheld GPS unit.

#### **3.1 KYGER CREEK LANDFILL – PHASE 1**

Phase 1 is the active cell. The paved haul road ends at the Phase 5 boundary shown on Figure 2 in Appendix A. Trucks hauling CCRs access the active placement area from this point. Access around the perimeter of Phases 1 and 2 is maintained by graded dirt roads around the western half of the landfill. The following observations were made for Phase 1:

- The southwestern outer temporary slope is mowed, vegetated, and uniform. Slopes in this area are estimated at 4 horizontal (H) to 1 vertical (V). (Point 2, Appendix A. Photos 1 and 2, Appendix B) Recent hydroseeding is noted on the benched temporary slopes within the Phase 1 cell.
- Exposed wires were noted on the outer slopes near the Phase 5 and Phase 1 boundary (Photo 3, Appendix B).
- Points 4 and 5 locate the edge of the working CCR area within the southwestern corner of Phase 1 (Appendix A). The points are within the Phase 1 waste limits (Appendices A and C).
- Slopes from the bench to the top of hydroseeding at the southwest outer slope (Point 6, Appendix A) is estimated as 3.7 H to 1 V.
- Dormant vegetation noted at the middle of the ridge towards the western outer slope of Phase 1 (Point 7, Appendix A; Photo 7, Appendix B).
- Two erosion features are present at the toe of the landfill at Points 8 and 9. The erosion feature at Point 8 is about 8 inches deep and about 2 feet by 4 feet in size. The erosion feature at Point 9 is 6 inches deep and about of 1.5 feet by 6 feet in size. (Appendix A; Photo 8, Appendix B)
- The north and northeastern slope of Phase 1 where Phases 1 and 2 meet is hydroseeded and uniform (Photos 9-11, Appendix B). Points 12-19 indicate the berm between the hydroseeded area and the grassed area on Phase 2. The points lie within the Phase 1 waste limits (Appendices A and C).
- CCRs present at toe of Phase 1 slope within Phase 2 (Points 19-21, Appendix A; Photo 21 Appendix B).
- A graded and hydroseeded stockpile is noted on the northern edge of the Phase 2 footprint (Photos 19 and 20, Appendix B).
- The western berm of Phase 1 is uniform and mowed. The upper slope is hydroseeded. Limits of hydroseeding is noted by Points 22, 24, and 26 (Appendix A; Photos 14-16, Appendix B).



**2023 CCR RULE – LANDFILL  
KYGER CREEK LANDFILL INSPECTION**

Observations  
January 19, 2024

- The western outer slopes of Phase 1 are estimated as 4.7 H to 1 V at Point 27 and 3 H to 1 V at Point 29 (Appendix A).

### **3.2 WEST SEDIMENTATION POND**

The West Sedimentation Pond was constructed as part of the initial Phase 1 site activities. Phase 1 stormwater accesses the pond through a headwall and five culverts on the east side of the dirt access road. The outlet of the culverts is released beyond the road's western edge and flows down to the West Sedimentation Pond. Access to the pond is a grassed path from the south to the southeastern corner of the pond. The following observations were made:

- Tall, dense vegetation limits inspection of the slopes of the West Sedimentation Pond (Photos 25 and 26, Appendix B).
- Two potential scarps were identified on the west and northwest outer slopes of the pond embankment (Points 27 and 28, Appendix A. Photos 27 and 28, Appendix B). Dense vegetation limits observation of scarps.
- Dense vegetation blocks the headwall to the stormwater culverts between Phase 1 and the West Sedimentation Pond (Photo 24, Appendix B).
- Erosion of the dirt access road has exposed the culvert outlets and created erosion gullies. Erosion gully is estimated as 2 to 3 feet wide (Point 29, Appendix A; Photos 29 and 30, Appendix B).

### **3.3 EAST SEDIMENTATION POND**

The East Sedimentation Pond was constructed as part of the initial Phase 1 site activities. It manages stormwater from the eastern paved haul road and the closed Sediment Pond #1. See Appendices A and C for a plan view. The following observations were made at the East Sedimentation Pond:

- Dense, woody vegetation obscures the inner slope along the eastern side of the pond, bordering the paved haul road (Photos 31 and 32, Appendix B).
- Erosion noted in the northeastern corner of the pond close a new riprap zone (Photo 32, Appendix B).

### **3.4 INTERIM LEACHATE COLLECTION POND**

The Interim Collection Pond (ICP) is part of Phase 1 construction activities. It manages leachate from the active CCR landfill. Observations made at the Interim Leachate Collection Pond include:

- The Phase 1 eastern toe is located near the southern edge of the Interim Leachate Collection Pond. It is uniform and hydroseeded. The estimated slope is 2.5 H to 1 V (Points 30-33, Appendix A; Photo 34, Appendix B).

**2023 CCR RULE – LANDFILL  
KYGER CREEK LANDFILL INSPECTION**

RECOMMENDATIONS

January 19, 2024

- Dense vegetation limits observation of the crest and embankment slopes for the pond (Photos 35-37, Appendix B)
- Overflow structure was heard by not observed from the crest of the embankment due to dense vegetation (Photo 36, Appendix B).

### **3.5 LEACHATE COLLECTION POND**

The Leachate Collection Pond is concrete lined and was constructed as part of the initial Phase 1 site activities. It manages leachate from the active CCR landfill. Inflows are piped from the Interim Leachate Collection Pond. See Photos 34 through 37 for Leachate Collection Pond condition (Appendix B) and Appendix A for a plan view. The following observations were made during the site visit.

- The earthen slopes above the concrete appear well vegetated and uniform near the Leachate Collection Pond.
- The riprap seepage blanket on the western grass slope appears in good condition (Photo 38, Appendix B).
- Slopes for the embankment northwest of the Leachate Collection Pond were estimated between 1.8 H to 1 V and 2 H to 1 V (Points 34-36, Appendix A).

## **4.0 RECOMMENDATIONS**

The following recommendations are offered for the Kyger Creek Landfill. The recommendations are not listed in order of priority.

Stability Issues:

- Keep the vegetation around the West Sedimentation Pond mowed to understand the ongoing stability concerns in this area. This affects the western access road around Phase 1 of the landfill and the northwestern exterior slope of the West Sedimentation Pond. Characterize and remediate the scarps as needed.

Operational Issues:

- Maintain the vegetation along the interior and exterior slopes of the Interim Leachate Collection Pond and the East Sedimentation Pond. Address the interior and exterior erosion as needed to maintain integrity of the ponds.
- Continue to conduct field surveys to measure current topography and compare to design geometry. Regrade surface to conform to design if needed. Areas near final completion grade are recommended to be capped, closed, and vegetated. Further engineering evaluation of slope stability may be warranted, if deformations, steepened slopes, or sloughing indicate potential for significant instabilities.

## 2023 CCR RULE – LANDFILL KYGER CREEK LANDFILL INSPECTION

### REFERENCES

January 19, 2024

#### Maintenance Issues:

- Backfill and protect the stormwater culvert outlets near the West Sedimentation Pond to protect the access road for Phase 1. Clear vegetation near the culvert headwall to maintain flow into the culverts.
- Regrade and repair erosion gullies as noted.
- Identify and address the exposed wires as needed.
- Remove CCRs identified in Phase 2 and address grading to maintain stormwater within the Phase 1 footprint.

## 5.0 REFERENCES

Gallia County General Health District (2023). 4<sup>th</sup> Quarter 2023 Inspection. Kyger Creek Residual Waste Landfill. Letter from Joshua Sherwood, Gallia County Health Department to Paul Hutchins (OVEC). November 16.

Hull & Associates, Inc. (2009). "Ohio Valley Electric Corporation. Kyger Creek Plant Landfill, Phase 1 Construction Plans. Class III Residual Waste Facility. Cheshire, Ohio." Prepared for American Electric Power, Columbus, Ohio. March 19. Toledo, Ohio.

Hull & Associates, Inc. (2008a). Volume I of IV. Class III Residual Waste Permit to Install Application. Ohio Valley Electric Corporation. Kyger Creek Plant. Residual Waste Landfill. Gallia County, Cheshire, Ohio. Revised December.

Hull & Associates, Inc. (2008b). "Ohio Valley Electric Corporation. Kyger Creek Plant Landfill, Permit to Install Plans. Class III Residual Waste Facility. Cheshire, Ohio." Prepared for American Electric Power, Columbus, Ohio. November 20. Toledo, Ohio.

Ohio Environmental Protection Agency (OEPA) (2022). Alteration Request – Bottom Liner Design – Approval. Letter from Mark Mansfield (OEPA) to Gabriel Coriell (OVEC). Ohio Valley Electric Corporation. Kyger Creek Station Landfill. PTI – Long Term Approval. Residual Solid Waste Landfills. Gallia County. RSWL018814. April 13.

Ohio Environmental Protection Agency (OEPA) (2020). Alteration Request – Bottom Liner Design – Approval. Letter from Mark Mansfield (OEPA) to Gabriel Coriell (OVEC). Ohio Valley Electric Corporation. Kyger Creek Station Landfill. PTI – Long Term Approval. Residual Solid Waste Landfills. Gallia County. RSWL018814. August 11.

Ohio Environmental Protection Agency (OEPA) (2009). Ohio Environmental Protection Agency, Permit to Install. FINAL. Application Number 06-08283. Received March 15, 2007. Ohio Valley Electric Corporation Kyger Creek Plant Landfill. New Residual Solid Waste Landfill. Effective Date: *not listed*.

Ohio Valley Electric Corporation (OVEC) (2023). <https://www.ovec.com/CCRKyger.php>. Accessed October 2023.

**2023 CCR RULE – LANDFILL  
KYGER CREEK LANDFILL INSPECTION**

REFERENCES

January 19, 2024

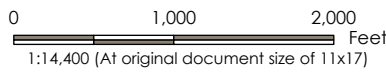
Ohio Valley Electric Corporation (OVEC) (2023). "Kyger Creek Landfill End of 2022 Landfill Topographic Map." Drawing No. KYG- 270834-1-R14, Revision date May 22, 2023. NAD83/NAVD88 Ohio South.

Ohio Valley Electric Corporation (OVEC) (2016). Closure Plan. CFR 257.102(b). CCR Landfill. Kyger Creek Station. Cheshire, Ohio. October.

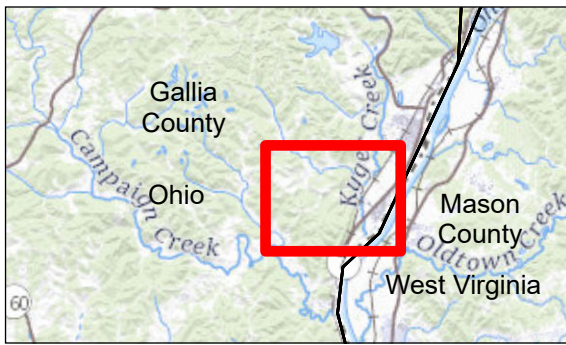
Ohio Valley Electric Corporation (OVEC) (2023). 7-Day Inspection Checklist. Kyger Creek Plant Landfill. Weekly reports for January 5 through October 19, 2023.

# **APPENDIX A**

## **Figures**



- Notes**  
1. Coordinate System: NAD 1983 StatePlane Ohio South FIPS 3402 Feet  
2. Base features - OSIP  
3. Ortho-imagery does not represent current conditions.



Project Location: Kyger Creek Station, Gallia County, OH  
Prepared by ANP on 2023-12-06  
Technical Review by MDK on 2023-12-06  
Independent Review by JSH on 2023-12-06

Client/Project: Ohio Valley Electric Corporation  
Kyger Creek Station

Figure No. 1

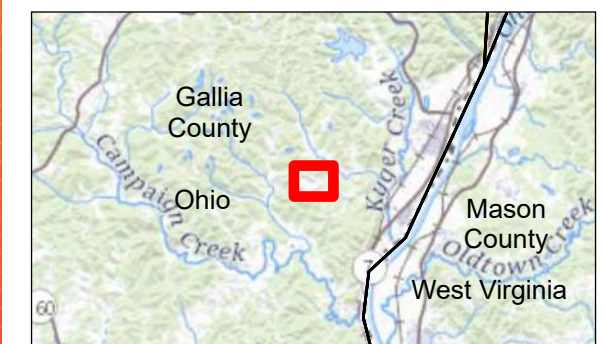
**Title**  
2023 Annual CCR Facility Inspections -  
Station Overview

Disclaimer: Stantec assumes no responsibility for data supplied in electronic format. The recipient accepts full responsibility for verifying the accuracy and completeness of the data. The recipient releases Stantec, its officers, employees, consultants and agents, from any and all claims arising in any way from the content or provision of the data.

Legend  
1 → Photo Location  
● 2023 Inspection Locations

0 200 400 Feet  
 1:4,200 (At original document size of 11x17)

Notes  
 1. Coordinate System: NAD 1983 StatePlane Ohio South FIPS 3402 Feet  
 2. Base features - OSIP III - 2020.  
 3. Ortho-imagery represents conditions as of July 2023.



Project Location 175532013  
 Kyger Creek Station Prepared by ANP on 1/18/2024 6:34 PM  
 Gallia County, OH Technical Review by MDK on 1/18/2024 6:34 PM  
 Independent Review by JSH on 1/18/2024 6:34 PM

Client/Project  
 Ohio Valley Electric Corporation  
 CCR Landfill

Figure No.  
**2**  
 Title  
**2023 Annual CCR Landfill Inspection**



GPS Data Points  
2023 Annual Inspection

Kyger Creek CCR Landfill  
Gallia County, Ohio

Point ID No.	Comment	Latitude	Longitude	Location
1	limits of new hydroseeding	38.923556320	-82.167991940	Phase 1
2	slope shot 2 (4H:1V)	38.923282080	-82.167422020	Phase 1
3	exposed wires	38.922335230	-82.167013350	Phase 1
4	Phase 1 limit point 1	38.922774370	-82.166922730	Phase 1
5	Phase 1 limit point 2	38.922704560	-82.166813520	Phase 1
6	slope shot 3 (3.7H:1V)	38.923656070	-82.167738430	Phase 1
7	middle of ridge towards west phase	38.924354120	-82.168739000	Phase 1
8	erosion point 1	38.924072510	-82.168650370	Phase 1
9	erosion point 2	38.924043720	-82.168574810	Phase 1
10	Phase 2 wedge crest	38.927159540	-82.166631710	Phase 2
11	Phase 2 wedge toe	38.927119710	-82.166730700	Phase 2
12	Northwest Phase 1 toe	38.926669730	-82.167746410	Phase 1
13	Northwest Phase 1 toe point 2	38.926553360	-82.167643840	Phase 1
14	Northwest Phase 1 toe slope shot 1	38.926369630	-82.167158550	Phase 1
15	Northwest Phase 1 toe point 4	38.926334370	-82.166736170	Phase 1
16	Northwest Phase 1 toe point 5	38.926171610	-82.166268390	Phase 1
17	Northwest Phase 1 edge of visible CCR	38.925660070	-82.165367420	Phase 1
18	Northwest Phase 1 possible edge of berm	38.926462240	-82.167345320	Phase 1
19	Northwest Phase 1 toe boiler slag area	38.926586290	-82.167392220	Phase 1
20	Northwest Phase 1 toe boiler slag area	38.926680750	-82.167303590	Phase 1
21	Northwest Phase 1 toe boiler slag area	38.926718760	-82.167025090	Phase 1
22	Western Phase 1 limit of hydroseeding	38.925485360	-82.168987290	Phase 1
23	Western Phase 1 slope shot 1 (4.7H:1V)	38.925518610	-82.169006510	Phase 1
24	Western Phase 1 limit of hydroseeding	38.924628660	-82.168980340	Phase 1
25	Western Phase 1 slope shot 2 (3H:1V)	38.924583110	-82.169229480	Phase 1
26	Western Phase 1 edge of hydroseeding 4	38.924462680	-82.169163810	Phase 1
27	Possible scarp near WSP	38.926113940	-82.170449780	West Sedimentation Pond (WSP)
28	Possible scarp 2 near WSP	38.926353830	-82.170399810	West Sedimentation Pond (WSP)
29	Exposed pipes	38.925000330	-82.169543350	West Sedimentation Pond (WSP)
30	Phase 1 toe dike near ILP point 1	38.924714260	-82.162823780	Phase 3/Interim Leachate Collection Pond (ILP)
31	Phase 1 toe dike near ILP point 2	38.924285810	-82.162878370	Phase 3/Interim Leachate Collection Pond (ILP)
32	Photo point near ILP	38.925522020	-82.162886260	Phase 3/Interim Leachate Collection Pond (ILP)
33	Slope shot of point at Phase 1 toe dam (2.5H:1V)	38.924490190	-82.162837030	Phase 3/Interim Leachate Collection Pond (ILP)
34	Riprap bed near LCP	38.925970450	-82.158000020	Leachate Collection Pond (LCP)
35	point near LCP slope shot (2H:1V)	38.925900810	-82.158156630	Leachate Collection Pond (LCP)
36	point near LCP slope shot 2 (2H:1V)	38.925780170	-82.158425790	Leachate Collection Pond (LCP)
37	point near LCP slope shot 3 (1.8H:1V)	38.925650090	-82.158645880	Leachate Collection Pond (LCP)



# **APPENDIX B**

## **Photographic Log**



**Photo 1**  
Outer slope of the southwestern side of Phase 1. Mowed, uniform vegetation.



**Photo 2, Point 1**  
Southwest outer slope of Phase 1. Limit of bench with new hydroseeding.



**Photo 3, Point 3**  
Exposed wires at a point on the outer slope southwest of Phase 1.



**Photo 4**  
Southwestern slope of Phase 1,  
looking south.



**Photo 5, Point 5**  
Southern edge of Phase 1 near the  
Phase 1-Phase 5 boundary.



**Photo 6**  
View of western crest of Phase 1,  
looking north.



**Photo 7**

Western slope of Phase 1 facing West Sedimentation Pond. Access road separates phase from pond area.



**Photo 8, Point 10**

Erosion feature at the toe west of Phase 1.



**Photo 9**

Crest of the north Phase 1 limits near Phase 1-Phase 2 boundary looking east.



**Photo 10**  
Outer slope of the northern edge of Phase 1 where Phase 1 borders Phase 2. Phase 2 located in the background.



**Photo 11**  
Top of CCRs on northern edge of Phase 1. Slope is hydroseeded.



**Photo 12**  
Chimney drain in northern Phase 1.



**Photo 13**  
Outer slope of the western edge of Phase 1 and the northern access road.



**Photo 14**  
Western edge of Phase 1, looking south along access road.



**Photo 15**  
Outer slope of the western edge of Phase 1 and the northern access road in background.



**Photo 16, Point 26**  
West of Phase 1 berm and limit of hydroseeding at the top.



**Photo 17**  
West crest of Interim Leachate Collection Pond, looking north.



**Photo 18**  
Phase 1-Phase 2 boundary, looking west across the Interim Leachate Collection Pond.



**Photo 19**

Phase 1, looking east. Hydroseeded temporary cover near active footprint.



**Photo 20**

Phase 2 looking west from north access road. Phase 1-Phase 2 boundary in the background



**Photo 21, Points 19, 20, 21**

Area of visible CCR at Phase 2 and close to Phase 1 toe.





**Photo 22**

Northern access road along north limit of Phase 2 near the North Sedimentation Pond area.



**Photo 23**

North Sedimentation Pond area near area of Sedimentation Trap #5, looking east. Erosion and sediment control in place.



**Photo 24**

Upstream headwall of culverts from Phase 1 stormwater channel to West Sedimentation Pond, looking south.



**Photo 25**  
West Sedimentation Pond. As viewed from a point close to the northern access road, looking west.



**Photo 26**  
West dike crest of West Sedimentation Pond. Area is heavily vegetated.



**Photo 27, Point 27**  
Possible scarp on west side, exterior slope of the West Sedimentation Pond.



**Photo 28, Point 28**  
Possible scarp on northwest side,  
exterior slope of the West  
Sedimentation Pond.



**Photo 29, Point 29**  
Erosion at Phase 1 stormwater culvert  
ends upstream of West Sedimentation  
Pond along access road.



**Photo 30, Point 29**  
Erosion gully at edge of road and close  
to Phase 1 stormwater culverts.



**Photo 31**  
East Sedimentation Pond as viewed from the paved road on the eastern edge of the pond.



**Photo 32**  
Area surrounding the East Sedimentation Pond with dense vegetation, looking southwest towards Phase 1 from paved road.



**Photo 33**  
Erosion close to riprap spillway from Sediment Pond #1 (within Phase 4) into East Sedimentation Pond on left.



**Photo 34, Point 30**  
Eastern toe of Phase 1 near the  
Interim Leachate Collection Pond.



**Photo 35, Point 30**  
The Interim Leachate Collection Pond  
as viewed from the southwest corner.



**Photo 36**  
Overflow structure near Interim  
Leachate Collection Pond.



**Photo 37, Point 32**

High and dense vegetation near the Interim Leachate Collection Pond.



**Photo 38, Point 34**

Riprap seepage blanket on western slope of Leachate Collection Pond.



**Photo 39**

Leachate Collection Pond as viewed from the north of the pond.

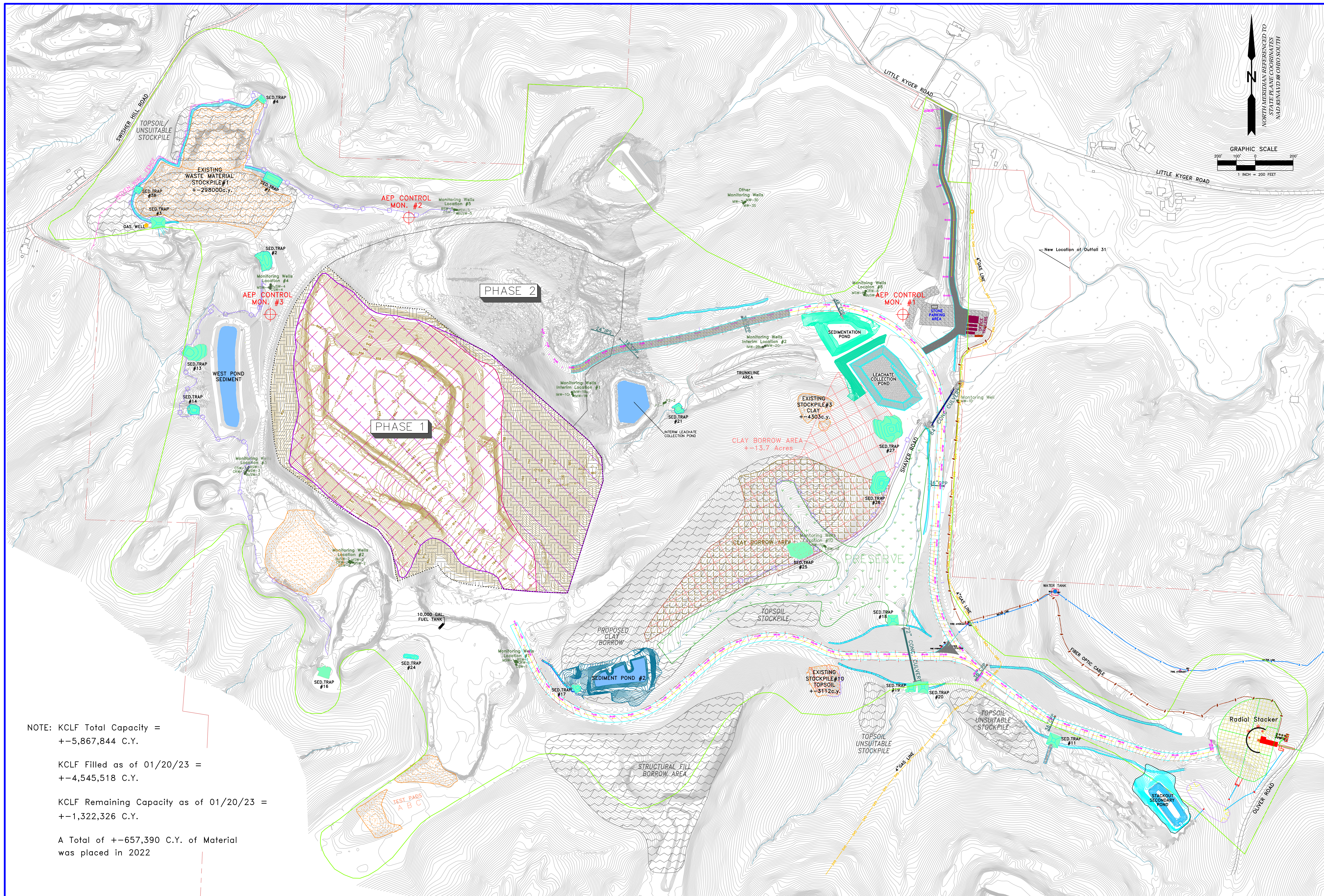


**Photo 40, Point 35**  
Leachate Collection Pond as viewed  
from the north of the pond.

# **APPENDIX C**

## **Reference Drawings**





**LEGEND**

- Denotes O.V.E.C. Boundary Line
- Denotes Permit Limits
- Denotes Super Silt Fence
- Denotes Diversion Ditch
- Denotes Gas Line
- Denotes Water Line
- Denotes Fiberoptic Line
- Denotes Culverts
- Denotes Creeks/Drains
- Denotes Woven Wire Fence
- Denotes Guardrail 2008
- Denotes Guardrail 2009
- Denotes Waste Limits
- Denotes Sediment Traps
- Denotes Sediment Pond
- Denotes Preserve Area
- Denotes Actual Clay Borrow Area
- Denotes Rip Rap
- Denotes Pavement
- Denotes Gravel
- Denotes Concrete
- Denotes Phase 1 Limits of Waste
- Denotes End of 2022 Contours
- Denotes 2022 Work Phase
- Denotes 2023 Work Phase
- Denotes Transitional or Protective Cover

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**OHIO VALLEY ELECTRIC COMPANY  
KYGER CREEK LANDFILL**  
CHESHIRE OHIO

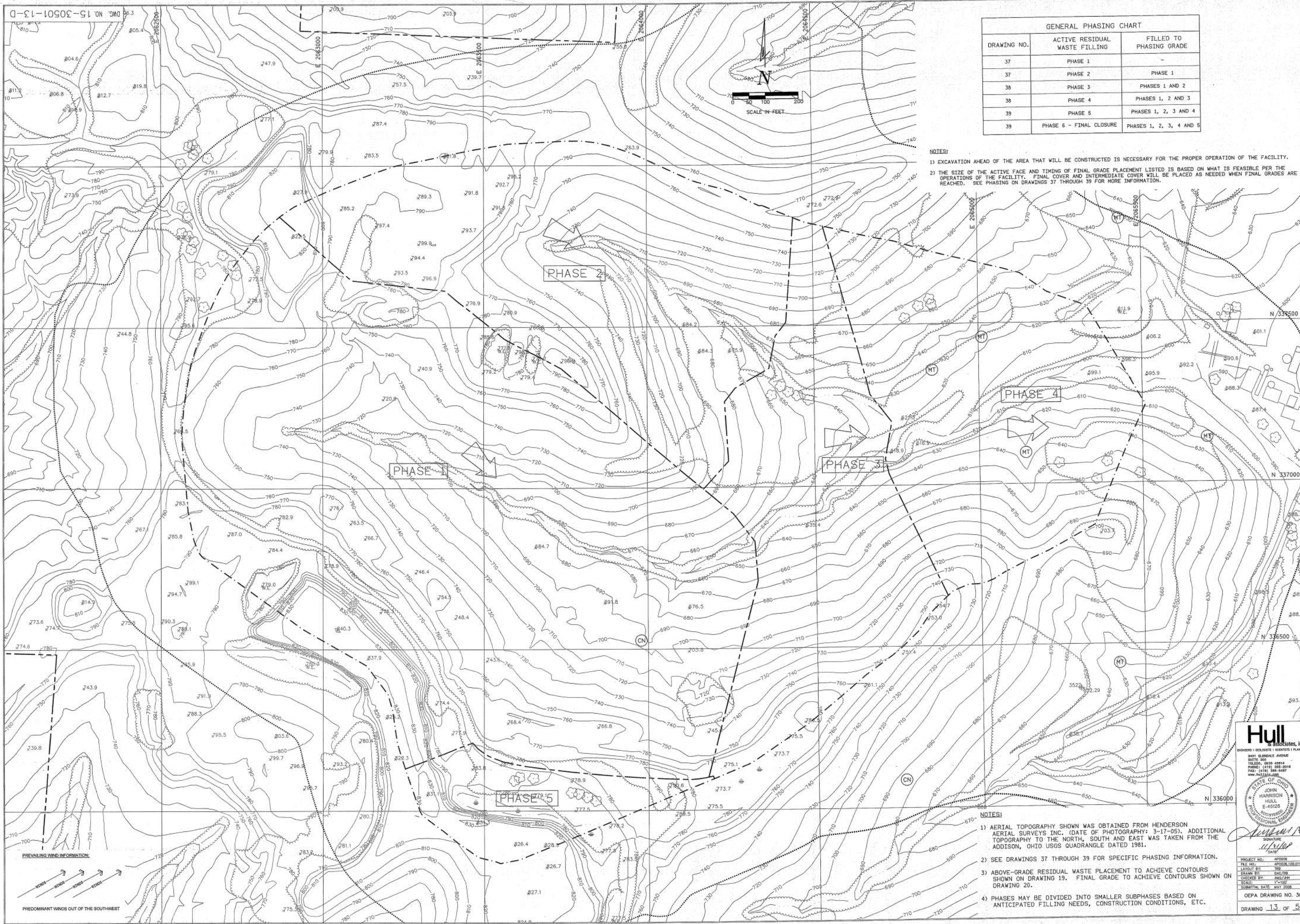
**KYGER CREEK LANDFILL  
END OF 2022  
LANDFILL TOPOGRAPHIC MAP**

NAD 83 NAVD 88 OHIO SOUTH  
CONTOUR INTERVAL = 2 Feet

Drawing Name: KYGER CREEK LANDFILL TOPOGRAPHIC MAP 2022  
Drawing Number: KYG-270834-1-R14  
SCALE: 1" = 200'  
Drawing Date: 02-18-2023  
Drawing Revision Date: 05-22-2023  
Drawn By: R.A. Shaulds

NOTE: KCLF Total Capacity = +-5,867,844 C.Y.  
KCLF Filled as of 01/20/23 = +-4,545,518 C.Y.  
KCLF Remaining Capacity as of 01/20/23 = +-1,322,326 C.Y.  
A Total of +-657,390 C.Y. of Material was placed in 2022





GENERAL PHASING CHART		
DRAWING NO.	ACTIVE RESIDUAL WASTE FILLING	FILLED TO PHASING GRADE
37	PHASE 1	-
37	PHASE 2	PHASE 1
38	PHASE 3	PHASES 1 AND 2
38	PHASE 4	PHASES 1, 2 AND 3
39	PHASE 5	PHASES 1, 2, 3 AND 4
39	PHASE 6 - FINAL CLOSURE	PHASES 1, 2, 3, 4 AND 5

NOTES:  
 1) EXCAVATION AHEAD OF THE AREA THAT WILL BE CONSTRUCTED IS NECESSARY FOR THE PROPER OPERATION OF THE FACILITY.  
 2) THE SIZE OF THE ACTIVE FACE AND TIMING OF FINAL GRADE PLACEMENT LISTED IS BASED ON WHAT IS FEASIBLE PER THE OPERATIONS OF THE FACILITY. FINAL COVER AND INTERMEDIATE COVER WILL BE PLACED AS NEEDED WHEN FINAL GRADES ARE REACHED. SEE PHASING ON DRAWINGS 37 THROUGH 39 FOR MORE INFORMATION.

LEGEND - EXISTING

---	PROPERTY LINE
---	10-FOOT CONTOUR INTERVAL
245.6	SPOT ELEVATION
---	TREE LINE
□	BUILDING
○	MORGANTOWN SANDSTONE SPRING
○	CONNELLSVILLE SANDSTONE SPRING

LEGEND - PROPOSED

---	WASTE LIMIT
→	FILL PROGRESSION
→	PREVAILING WIND DIRECTION
---	PHASE DIVISION LINE
---	FACILITY BOUNDARY / AREA OF DISTURBANCE

REFERENCE DRAWINGS

DATE	NO.	DESCRIPTION	APP'D.
11/27/08	D	NOD 3 RESPONSE	JHH
11/27/08	C	NOD 2 RESPONSE	JHH
11/27/08	B	NOD 1 RESPONSE	JHH
11/27/08	A	ISSUED FOR PERMIT	JHH

REVISIONS

DATE	NO.	DESCRIPTION	APP'D.
11/27/08	D	NOD 3 RESPONSE	JHH
11/27/08	C	NOD 2 RESPONSE	JHH
11/27/08	B	NOD 1 RESPONSE	JHH
11/27/08	A	ISSUED FOR PERMIT	JHH



PROJECT NO. AEP008  
 FILE NO. AEP008.02/01/04  
 DRAWN BY: JHH  
 CHECKED BY: JHH  
 SCALE: 1"=100'  
 SUBMITTAL DATE: MAY 2008  
 OSPA DRAWING NO. 3G  
 DRAWING 13 OF 56

OHIO VALLEY ELECTRIC CORP.  
 KYGER CREEK PLANT  
 CHESHIRE OHIO  
 KYGER CREEK PLANT LANDFILL  
 GENERAL PHASING PLAN  
 DWG. NO. 15-30501-13-D  
 SCALE: 1"=100'  
 CIVIL ENGINEERING DIVISION  
 DATE: 11/27/08  
 1 RIVERSIDE PLAZA  
 COLUMBUS, OH 43215

- NOTES:
- 1) AERIAL TOPOGRAPHY SHOWN WAS OBTAINED FROM HENDERSON AERIAL SURVEYS, INC. (DATE OF PHOTOGRAPHY: 3-17-05). ADDITIONAL TOPOGRAPHY TO THE NORTH, SOUTH AND EAST WAS TAKEN FROM THE ADDISON, OHIO USGS QUADRANGLE DATED 1981.
  - 2) SEE DRAWINGS 37 THROUGH 39 FOR SPECIFIC PHASING INFORMATION.
  - 3) ABOVE-GRADE RESIDUAL WASTE PLACEMENT TO ACHIEVE CONTOURS SHOWN ON DRAWING 19. FINAL GRADE TO ACHIEVE CONTOURS SHOWN ON DRAWING 20.
  - 4) PHASES MAY BE DIVIDED INTO SMALLER SUBPHASES BASED ON ANTICIPATED FILLING NEEDS, CONSTRUCTION CONDITIONS, ETC.

