September 2024
Monthly Compliance Report

Solid Waste Permit No. 588
Bristol Integrated Solid Waste Management Facility
2655 Valley Drive
Bristol, VA 24201
(276) 645-7233

SCS ENGINEERS

02218208.05-30 | October 10, 2024

15521 Midlothian Turnpike Suite 305
Midlothian, VA 23113
804-378-7440

Table of Contents

Table of Contents

Figures

Table of Contents

Section Page

Tables

Appendices

INTRODUCTION

On behalf of the City of Bristol, Virginia (City), SCS Engineers has prepared this report to the Virginia Department of Environmental Quality (VDEQ) in accordance with item 8.iii in Appendix A of the Consent Decree between the City and VDEQ. This report provides updates regarding the progress towards completion of the items outlined in Appendix A of the Consent Decree between the City and VDEQ. The following sections outline progress during the month of September 2024 related to Solid Waste Permit (SWP) No. 588.

1.0 GAS COLLECTION

The following sections describe the steps the City, in collaboration with its consultants and contractors, has taken to improve the operation, monitoring, and performance of the facility's landfill gas collection and control system (GCCS).

1.1 SURFACE AND LEACHATE COLLECTION EMISSIONS

1.1.1 Surface Emissions

1.1.1.1 Quarterly SEM

SCS performed the Third Quarter surface emissions monitoring event on September 23, 2024. The surface emission monitoring route included the entire waste footprint of the Permit No. 588 landfill. Sampling was conducted with a Thermo Scientific TVA-2020 Flame Ionization Detector (FID) at 30-meter intervals and where visual observations indicated the potential for elevated concentrations of LFG, such as distressed vegetation and surface cover cracks. In addition, in accordance with 40 CFR 63.1958(d)(ii)(2) and 40 CFR 60.34f(d), monitoring was conducted at all surface cover penetrations within the waste footprint outside of the active filling area.

One exceedance was detected during this quarterly monitoring event on the serpentine route, and seven exceedances were detected at surface cover pipe penetrations. This monitoring event also represented the weekly monitoring event for that week. A quarterly SEM report documenting corrective actions and re-monitoring results will be submitted to the VDEQ as part of the Semi-Annual Report. In addition, monitoring results were presented to the VDEQ in a letter dated October 2, 2024.

1.1.1.2 Weekly SEM

In addition to the standard regulatory quarterly surface emissions monitoring, SCS performed additional surface emissions monitoring on September 5, 2024; September 9, 2024; September 16, 2024: and September 23, 2024. These weekly surface emissions monitoring (SEM) events were performed in accordance with item 1.i in Appendix A of the Consent Decree between the City and VDEQ.

The monitoring in September generally conformed to the requirements of 40 CFR 63.1960(c) and (d), and 40 CFR 60.36f(c) and (d), and 40 CFR 60, Appendix A, Method 21. The landfill gas (LFG) collection system is required to operate such that the methane concentration is less than 500 ppm above background at the landfill surface.

The surface emission monitoring route included the entire waste footprint of the Permit No. 588 landfill. Sampling was conducted with a Thermo Scientific TVA-2020 Flame Ionization Detector (FID)

at 30-meter intervals and where visual observations indicated the potential for elevated concentrations of LFG, such as distressed vegetation and surface cover cracks. In addition, in accordance with 40 CFR 63.1958(d)(ii)(2) and 40 CFR 60.34f(d), monitoring was conducted at all surface cover penetrations within the waste footprint, with the exception of EW-55, which was being cut by SCS-FS on the day of monitoring and could not be accessed.

The Facility submitted letters to VDEQ outlining the results of the September monitoring events on September 11, 2024; September 18, 2024; September 25, 2024; and October 2, 2024.

Table 1. Summary of September Surface Emissions Monitoring

Description	September 5, 2024	September 9, 2024	September 16, 2024	September 23, 2024[1]
Number of Points Sampled	167	167	167	166
Number of Points in Serpentine Route	100	100	100	100
Number of Points at Surface Cover Penetrations	67	67	67	66
Number of Exceedances	4	7	8	8
Number of Serpentine Exceedances	0	0	1	1
Number of Pipe Penetration Exceedances	4	7	7	7

[1] Third Quarter 2024 SEM Event

During the September monitoring events, no new exceedances were detected on the serpentine route. However, new exceedances were detected at four surface cover pipe penetrations (EW-67, W-75, EW-80, and EW-96). The new exceedances at EW-75 and EW-80 were identified in the north-central portion of the landfill, where vacuum at these wellheads has been reduced. The new exceedances at EW-67 and EW-96 were likely a result of insufficient cover at the surface cover pipe penetration. Corrective actions to address the ongoing exceedances, likely involving well adjustments and/or installation of new vacuum header and laterals to increase vacuum at these locations, as well as additional soil placement are planned for the Fourth Quarter 2024.

Furthermore, the Facility is taking proactive steps to limit fugitive surface emissions including placement of additional soil, continued and improved dewatering activities, and well tuning to increase gas extraction.

1.1.2 Leachate Collection Emissions

SCS Field Services (SCS-FS) visited the Bristol Landfill on September 30, 2024, and performed monitoring of the leachate, witness zone, northern cleanouts, and gradient control clean-outs at the southern end of the landfill. The results of that monitoring are included in Table 2. Table 2 also lists the cleanout pipe description based on site records and a review of correspondence.

Please note that LC07 is not connected to the LFG collection system. During connection of the other leachate cleanouts to the LFGCCS in 2020, measurements of gas composition in LC07 indicated low levels of landfill gas in this cleanout.

Table 2. Leachate Cleanout Pipe Monitoring Results

Description	ID#	Record Date	CH4 (% by Vol)	CO2 (% by Vol)	O2 (% by Vol)	Balance Gas (% by Vol)	Initial Temp (°F)	Adj Temp (°F)	Initial Static Pressure (in H2O)	Adj Static Pressure (in H2O)	System Pressure (in H2O)
Southern Cleanouts Gradient West	LC01	9/30/2024 8:23:58 AM	51.8	46.2	0.0	2.0	63.4	63.4	-12.82	-12.82	-16.64
Southern Cleanouts Gradient East	LC02	9/30/2024 8:41:51 AM	45.5	44.0	0.0	10.5	63.9	63.9	-13.13	-13.13	-15.72
Southern Cleanouts Leachate Center	LC03	9/30/2024 8:45:29 AM	18.6	13.2	14.1	54.1	64.4	64.4	-16.36	-16.46	-16.64
Southern Cleanouts Witness East	LC04	9/30/2024 8:48:38 AM	9.3	8.7	18.0	64.0	64.9	64.8	-16.49	-16.49	-16.61
Southern Cleanouts Leachate West	LC05	9/30/2024 8:51:59 AM	49.4	45.1	0.0	5.5	64.6	64.6	-13.80	-13.13	-16.59
Southern Cleanouts Gradient Center West	LC06	9/30/2024 8:55:39 AM	50.4	23.3	5.0	21.4	65.3	65.2	-0.83	-2.80	-16.51
Southern Cleanouts Leachate East	LC08	9/30/2024 9:01:14 AM	43.2	45.4	0.0	11.5	63.9	63.9	-13.27	-13.13	-16.69
Southern Cleanouts Gradient Center East	LC09	9/30/2024 9:04:44 AM	14.6	8.9	16.5	60.0	66.2	66.2	-9.79	-9.76	-16.76
Southern Cleanouts Leachate West	LC10	9/30/2024 9:07:22 AM	0.3	0.2	21.8	77.8	67.0	67.0	-8.08	-8.08	-16.59
Northern Cleanouts Leachate East	NC01	9/30/2024 9:26:35 AM	0.1	0.0	21.8	78.2	66.4	66.4	-10.10	-10.10	0.09
Northern Cleanouts Leachate Center	NC02	9/30/2024 9:28:44 AM	0.1	0.0	21.8	78.1	66.8	66.7	-10.10	-10.10	0.10
Northern Cleanouts Leachate West	NC03	9/30/2024 9:31:24 AM	0.3	0.1	21.7	78.0	66.9	66.9	-10.10	-10.10	0.08
Northern Cleanouts Witness East	NC04	9/30/2024 9:32:52 AM	0.0	0.0	21.7	78.3	67.0	66.9	-10.77	-10.77	0.08
Northern Cleanouts Witness Center	NC05	9/30/2024 9:35:32 AM	0.0	0.0	21.8	78.2	67.0	67.0	-10.77	-10.77	0.10
Northern Cleanouts Witness West	NC06	9/30/2024 9:39:40 AM	0.0	0.0	21.8	78.2	67.4	67.3	-10.76	-10.77	0.10
Northern Cleanouts Gradient East	NC07	9/30/2024 9:41:34 AM	0.0	0.0	21.6	78.4	67.4	67.4	-13.13	-13.13	0.10
Northern Cleanouts Gradient Center East	NC08	9/30/2024 9:43:19 AM	8.9	4.2	13.9	73.0	67.9	67.9	-12.86	-12.83	0.10
Northern Cleanouts Gradient Center West	NC09	9/30/2024 9:45:49 AM	18.6	10.4	4.0	67.0	67.5	67.6	-12.82	-12.82	0.09
Northern Cleanouts Gradient West	NC10	9/30/2024 9:48:01 AM	0.4	0.1	21.5	78.0	68.2	68.2	-12.86	-12.87	0.10

1.2 EXISTING GAS EXTRACTION SYSTEM PERFORMANCE

SCS and SCS-FS have been coordinating with the City to improve the performance of the existing gas system. Specific actions taken to maintain and improve the system are detailed in the following sections of this report.

Additional actions taken by SCS-FS include the following:

- Adjustments to LFGCCS
- Maintenance of air lines and pressurized air infrastructure
- Maintenance of wellhead and other gas collection infrastructure

- Removal of liquids from landfill gas headers

1.3 REMOTE MONITORING SYSTEM

In the Fall of 2022, SCS Remote Monitoring & Control (SCS-RMC) installed 25 industrial internet of things (IIoT) temperature sensors in the landfill gas wellheads. The purpose of the sensors is to record and transmit well-head gas temperatures via a cellular connection to a database managed by SCS-RMC.

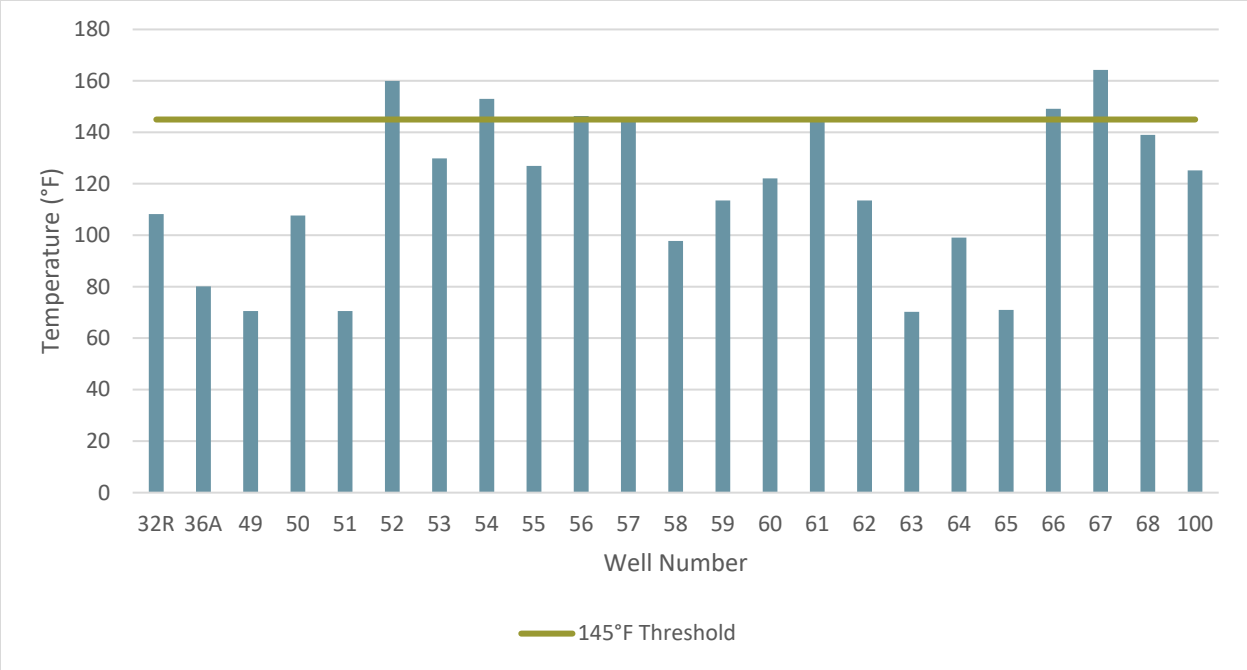
The City is providing average temperatures recorded by the sensors to VDEQ on a daily basis via email. Average daily temperatures recorded by the remote monitoring system during the month of September are included in Appendix C. In addition, SCS previously prepared semi-monthly status updates to satisfy the conditions of compliance provision no. 2 of the Environmental Protection Agency (EPA) Region III letter, Approval of Higher Operating Temperature Values for Landfill Gas Wells and Submission of Gas Treatment Alternatives at the Bristol Virginia Integrated Solid Waste Management Facility, dated August 23, 2021. On August 2, 2023, VDEQ requested that such updates be included in the monthly compliance reports going forward. Accordingly, this section is a summary of temperature monitoring activities during the monthly monitoring period of September 2024.

1.3.1 Automated Wellhead Temperature Measurements

SCS reviewed the automated hourly temperature measurements from September 2024, and identified the following trends:

- **Temperatures over 145°F:** Temperatures over the NESHAP AAAA compliance threshold of 145°F were recorded at EW-52, 54, 56, 57, 61, 66, and 67. Average temperatures at EW-52, 54, 56, 66, and 67 were above the compliance threshold throughout the monitoring period. The highest average temperature, 164.2°F, was measured at EW-67 (see Figure 1). The average LFG temperatures recorded by automated wellhead sensors for the month of September were similar to the values measured in August.
- **Temperature probes removed at decommissioned wells:** Temperature probes at EW-34 and EW-40 were removed in December of 2023 due to the decommissioning of the wells. Additionally, the temperature probe at EW-35 was removed in May 2024, due to the decommissioning of the well. One probe was added to EW-61 in August 2024, and SCS was informed of the City's plans to purchase additional temperature sensors.
- **Signal issue at EW-52**: EW-52 went offline starting September 21, 2024. SCS-FS reported that the sensor at EW-52 often needs reset, which does temporarily resolve the issue. SCS-RMC staff are working to identify the source of the issue to find a more permanent solution.

Figure 1. Average Automated Wellhead Temperatures

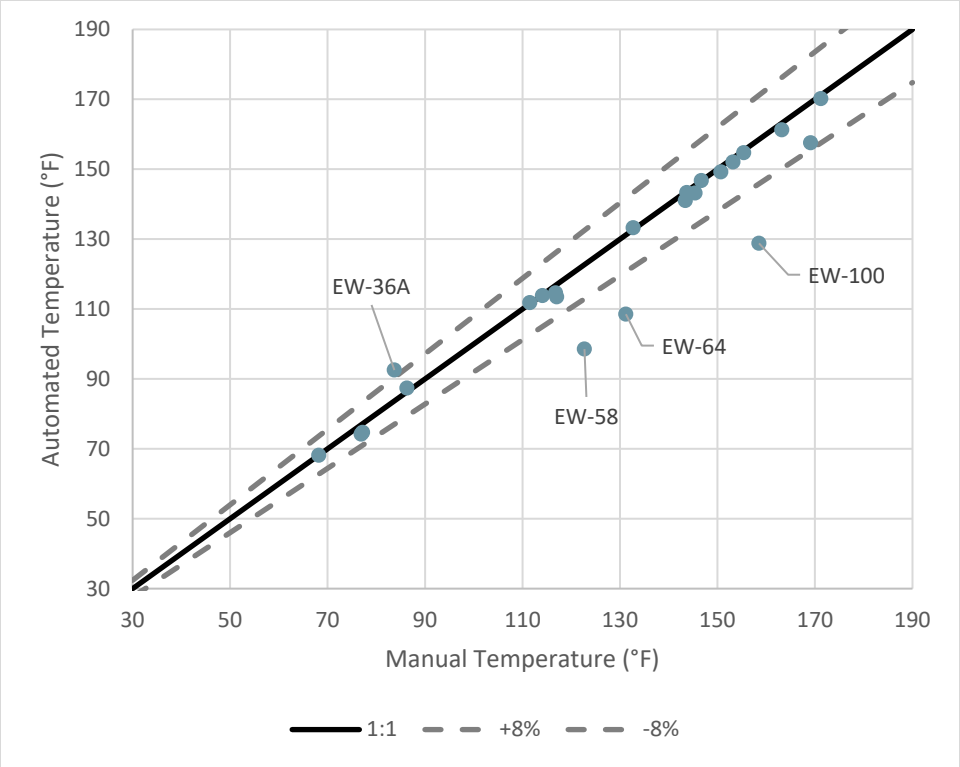


1.3.2 Comparison with Manual Temperature Measurements

Per the approval issued by VDEQ on August 2, 2023, the Facility ceased dedicated daily manual temperature measurements in the Permit No. 588 Landfill. In lieu of these measurements, the City has agreed to compare instantaneous hourly automated temperature measurements with temperatures measured at each wellhead with a handheld sensor during monthly compliance monitoring. These comparisons are shown in Figure 2, with the ±8% deviation goals as prescribed in the VDEQ approval.

Temperature comparisons outside the ±8% deviation goal lines were found again at EW-58, 64 and 100. The disparity between automated and manual temperature measurements at EW-58, 64, and 100 continued to be significant without evidence of low LFG flow rates, which have sometimes caused the automated temperature probes to record lower temperatures than manual measurements. Additionally, the EW-36A automated temperature measurement was outside the ±8% deviation goal this month. Unlike EW-58, 64, and 100, the automated temperature measurement at EW-36A was greater than manual temperature measurement. SCS investigated whether the automated temperature measurements in the hours surrounding the date/time comparison shown in Figure 2 showed that the well's temperature was changing, which could cause the automated temperature shown at the nearest hour to differ from the manual measurement. However, the surrounding hourly automated measurements did not show much fluctuation.

Figure 2. Automated vs. Manual Temperature Measurements



1.3.3 Monthly Regulatory Wellhead Temperature Measurements

Routine monthly temperature monitoring for purposes of complying with 40 CFR 60.36f(a)(5) was conducted September 12, 2024. During this monitoring period, temperature exceedances were resolved at EW-49, EW-52, EW-54, EW-82, EW-89, and EW-94. Table 3 provides the status of all exceedances recorded during this monitoring period.

Table 3. September Temperature Exceedance Summary

Well ID	Initial Exceedance Date	Last date/temperature measured	Duration of Exceedance	Status as of 9/24/2024
EW-52	9/9/24	9/12/24 156.1°F	4 days	Resolved within 15-day timeline
EW-56	7/29/24	8/22/24 144.0°F	25 days	Resolved within 60-day timeline
EW-56	9/9/24	9/25/24 146.4°F	22 days	Ongoing, within 60-day timeline
EW-60	9/9/24	9/12/24 126.6°F	4 days	Resolved within 15-day timeline
EW-60	9/25/24	9/25/24 162.9°F	6 days	Ongoing, within 15-day timeline
EW-66	5/1/24	9/25/24 151.3°F	140 days	Resolved, HOV approved on 9/18/24

Well ID	Initial Exceedance Date	Last date/temperature measured	Duration of Exceedance	Status as of 9/24/2024
EW-68	9/9/24	9/12/24 140.0°F	4 days	Resolved within 15-day timeline
EW-87	9/25/24	9/25/24 137.8°F	1 day	Resolved within 15-day timeline
EW-89	9/9/24	9/25/24 189.3°F	22 days	Ongoing, within 60-day timeline
EW-94	8/27/24	9/5/24 133.4°F	9 days	Resolved within 15-day timeline
EW-94	9/25/24	9/25/24 157.4°F	1 day	Ongoing, within 15-day timeline

1.3.4 LFG Sampling

SCS collected weekly LFG samples from wells with temperature exceedances lasting more than seven days using 1.5-L Summa canisters. The samples were sent to Enthalpy Analytical for lab analysis of carbon monoxide (CO) and hydrogen (H_2) content. As of October 1, 2024, the City is in possession of lab results for sampling on August 22, August 29, September 5, September 12, and September 19, 2024 to fulfill the requirement in 40 CFR 63.1961(a)(5). Lab results are summarized in Table 4.

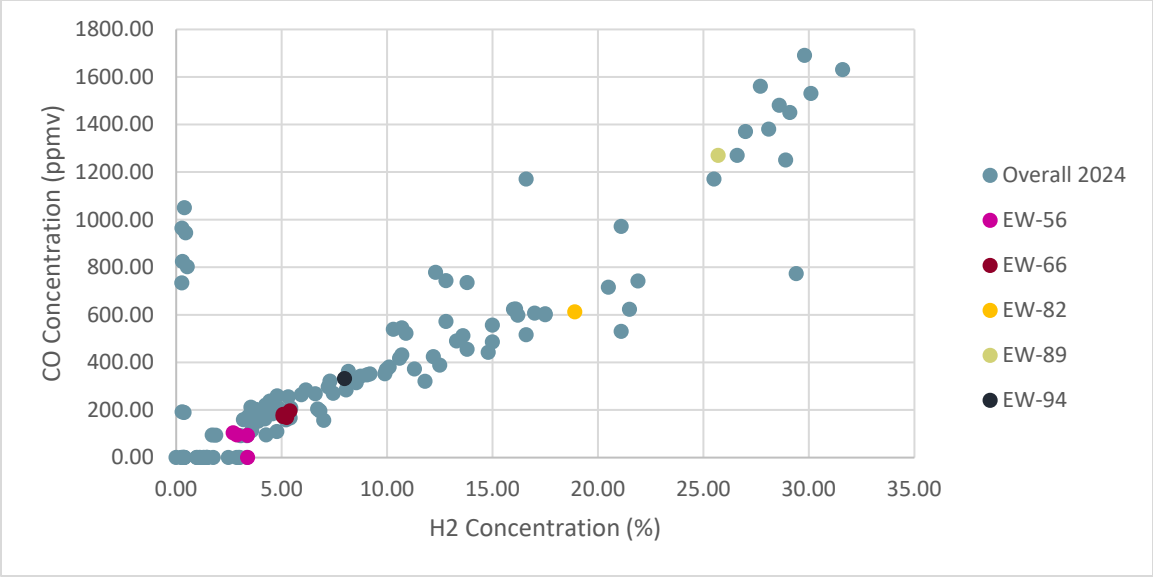
Table 4. LFG Wellhead Sampling Summary

Sample Date		8/22/24	8/29/24	9/5/24	9/12/24	9/19/24
EW-56	CO (ppmv)	95.2	104		ND	93.0
	H2 (Vol. %)	2.88	2.71		3.39	3.38
EW-66	CO (ppmv)	168	172	196	181	
	H2 (Vol. %)	5.24	5.07	5.40	5.07	
EW-82	CO (ppmv)	612				
	H2 (Vol. %)	18.9				
EW-89	CO (ppmv)				1210	1270
	H2 (Vol. %)				25.4	25.7
EW-94	CO (ppmv)		332			
	H2 (Vol. %)		7.99			

The presence of hydrogen in the samples collected during this monitoring period indicates that combustion reactions are unlikely.

As shown in Figure 3, the majority of the carbon monoxide and hydrogen data during this period appear to be consistent with sampling data at other wells collected in 2024. The elevated CO and H_2 found at EW-89 is consistent with other data with greater than 25% hydrogen. This well has exhibited similar carbon monoxide and hydrogen composition in previous samples.

Figure 3. CO and H_2 Concentration Scatter Plot



1.4 LARGE-DIAMETER DUAL-PHASE EXTRACTION WELLS

SCS completed design work on an expansion of the existing GCCS during the month of December 2022. The expansion included at least 5 large diameter dual-phase extraction wells. The wells and supporting infrastructure were completed by October 12, 2023.

1.5 VDEQ CONCURRENCE ON WELLS

As described in previous monthly compliance reports, the City engaged with VDEQ in discussions about the proposed approach for landfill GCCS improvements and expansions. Upon completion of the landfill gas collection system, SCS will submit updated as-built drawings to VDEQ that depict the completed system.

2.0 SIDEWALL ODOR MITIGATION

The City has designed and constructed a system to control fugitive emissions emanating from the quarry sidewalls. Specific aspects of the proposed design features are described in the following sections.

2.1 PERIMETER GAS COLLECTION SYSTEM

SCS's design of the GCCS expansion described in Section 1.4 included perimeter LFG wells. These wells are closer to the sidewall to intercept landfill gas that potentially could migrate to the quarry wall. These wells supplement the sidewall odor mitigation system described in Section 2.2. As described in the April 2023 Monthly Compliance Report for the SWP No. 588 Landfill, construction of the perimeter gas collection system was completed.

2.2 SIDEWALL ODOR MITIGATION SYSTEM

On behalf of the City and in an effort to capture emissions from the quarry sidewall, SCS designed a sidewall odor mitigation system (SOMS) during the month of October 2022. The design of this system was prepared and submitted to VDEQ on November 1, 2022.

2.3 PILOT SYSTEM CONSTRUCTION

SCS-CONS completed substantial construction of Phase 1 of the SOMS during the month of February 2023, SCS-FS began monitoring Phase 1 connected Horizontal Collector (HC) wellheads during the month of March 2023, and SCS-FS continued weekly wellhead monitoring into the month of May 2023. Phase 1 is considered the pilot system portion of the SOMS. SCS submitted a design engineer certification to VDEQ on February 10, 2023 that documented the substantial completion of Phase 1 of the SOMS. Details of Phase 1 construction progress and monitoring can be found in the monthly compliance reports for the SWP No. 588 landfill.

2.4 FULL SYSTEM CONSTRUCTION

SCS-CONS substantially completed construction of Phase 2 of the SOMS during the month of June 2023 as Phase 2 was connected to vacuum as of June 14, 2023. Cover soil placement continued into the month of October 2023, and ceased when the construction crew left site on October 12, 2023 upon project final completion.

During the month of September 2024, SCS-FS collected monitoring data at each wellhead under vacuum. A summary of those measurements is shown in Table 5.

Table 5. System Averages of Sidewall Wellhead Gas Quality

Record Date	Average CH_4 [%]	Average CO_2 [%]	Average O_2 [%]	Average Bal Gas [%]
9/3/2024	5.3	8.5	16.8	69.4
9/16/2024	4.4	7.5	17.7	70.4

The sidewall system average gas composition indicates lower methane content than typical landfill gas collection systems. The gas quality measurements indicate that the SOMS is functioning as designed because landfill gas is being withdrawn and oxygen intrusion is acceptable.

3.0 WASTE TEMPERATURE MONITORING

On behalf of the City, SCS designed a temperature monitoring system to collect temperature data throughout the waste mass. The steps taken by the City to implement this system are described in the following sections.

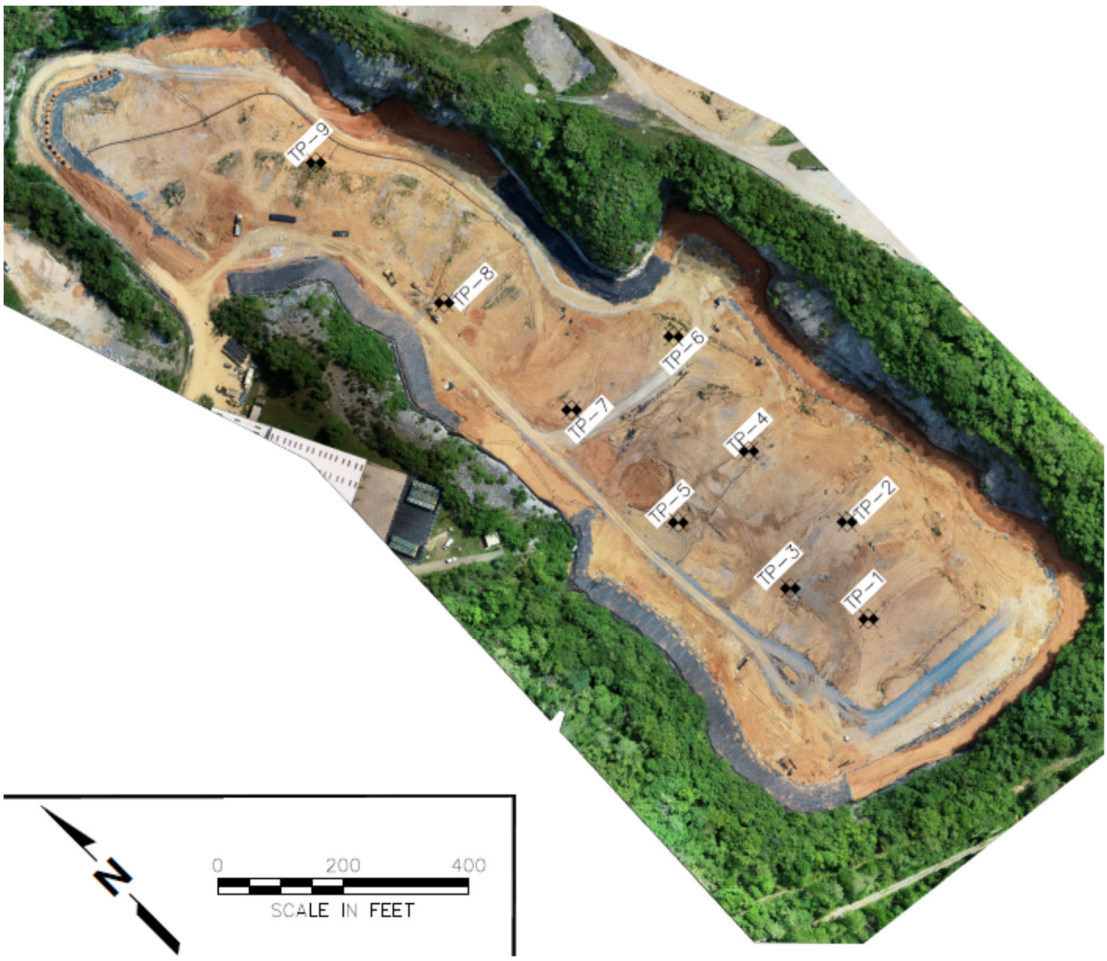
3.1 TEMPERATURE MONITORING SYSTEM DESIGN

The temperature monitoring system consists of nine boreholes drilled into the waste mass. A steel casing was placed in each borehole and the hole was backfilled around the casing with aggregate. A series of temperature sensors was placed inside the steel casing. At the top of each borehole, an IIoT transmitter collects the data from the sensors and transmits it to a cloud-based RMC system. The City submitted design of the temperature monitoring system to VDEQ on November 30, 2022.

3.2 TEMPERATURE MONITORING SYSTEM INSTALLATION

Installation of the in-situ Landfill Temperature Monitoring System began in October of 2022 and installation of replacement sensors was completed in February of 2023. Details of construction progress can be found in the monthly compliance reports for the SWP No. 588 Landfill. The locations of the temperature probes are shown in Figure 4.

Figure 4. Temperature Monitoring Probe Locations



SCS began collecting temperature data daily on February 15, 2023. The temperature sensors continued to transmit temperature data during the month of September 2024. Average daily temperatures recorded by the sensors for the Month of September are included in Appendix D. Each

week the average temperatures from a select day of that week are downloaded and compared to temperatures recorded during the previous week. Average daily temperatures recorded on select days during the month of September are shown in Appendix B. The average temperatures recorded for select months between September 2023 through September 2024 are shown in Figures 5 through 13 on the following pages.

Figure 5 shows daily average temperatures recorded by Temperature Probe 1 (TP-1) during the months of September 2023, December 2023, March 2024, June 2024, and September 2024. Based on the data, temperatures have stayed generally consistent based on measurements collected in the last year, with some decrease in temperatures between June 2024 and September 2024.

TP-1 was originally drilled to a depth of 180 feet, but the contractor was unable to install the casing beyond a depth of 160 feet. TP-1 did not record temperatures between July 23, 2023 and July 30, 2023 due to a dead battery. The battery was replaced and TP-1 began recording temperatures again on July 31, 2023.

Figure 5. TP-1 Average Temperatures for the Months of September 2023, December 2023, March 2024, June 2024, and September 2024

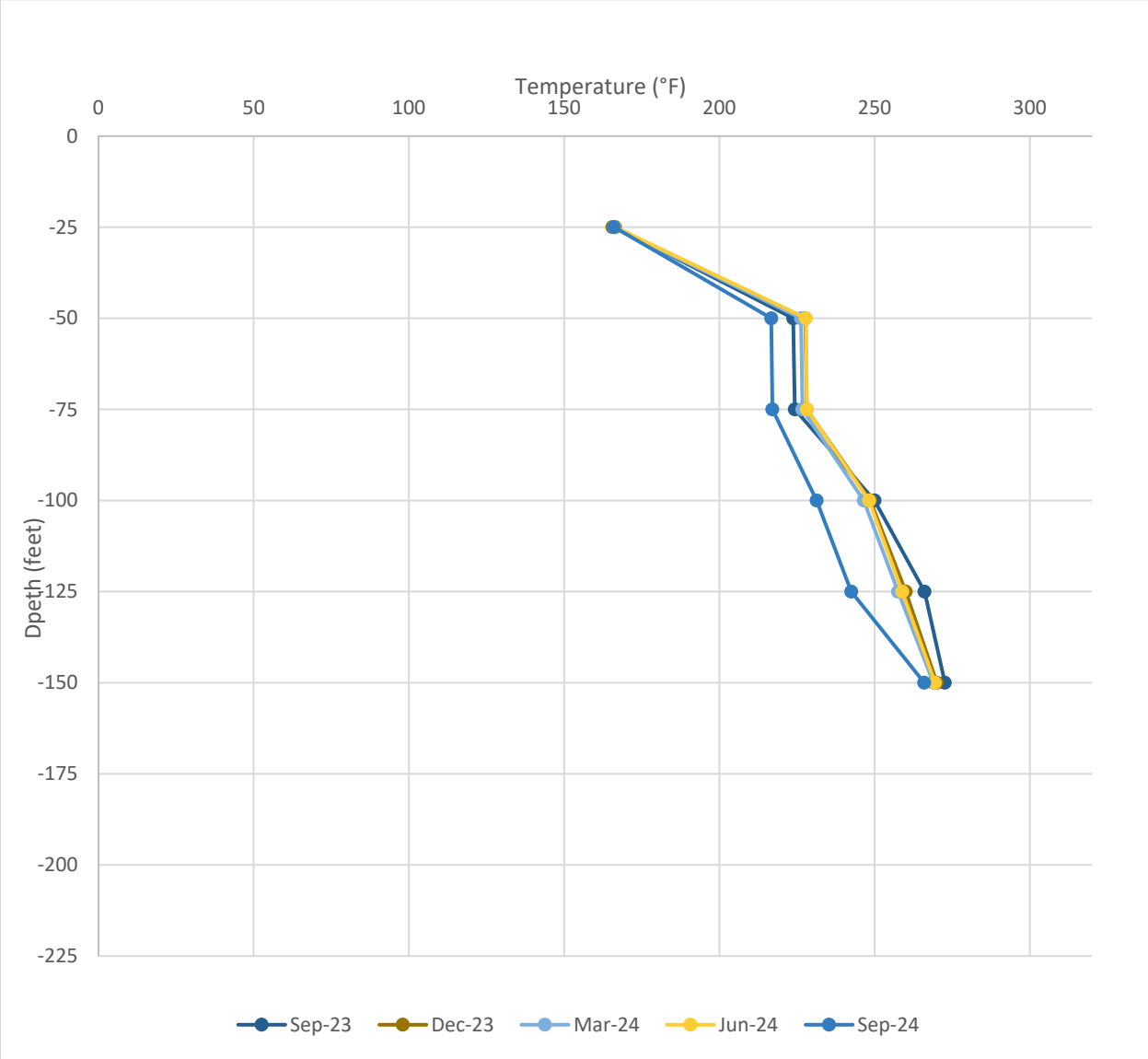


Figure 6 shows daily average temperatures in Temperature Probe 2 (TP-2) during the months of September 2023, December 2023, March 2024, June 2024, and September 2024. Based on the data, temperatures have been consistent during the last year.

TP-2 was originally drilled to a depth of 160 feet. TP-2 did not record temperatures between August 15, 2023 and September 17, 2023 due to a dead battery. A replacement battery was installed in September of 2023 and TP-2 recording temperatures again on September 18, 2023.

Figure 6. TP-2 Average Temperatures for the Months of September 2023, December 2023, March 2024, June 2024, and September 2024

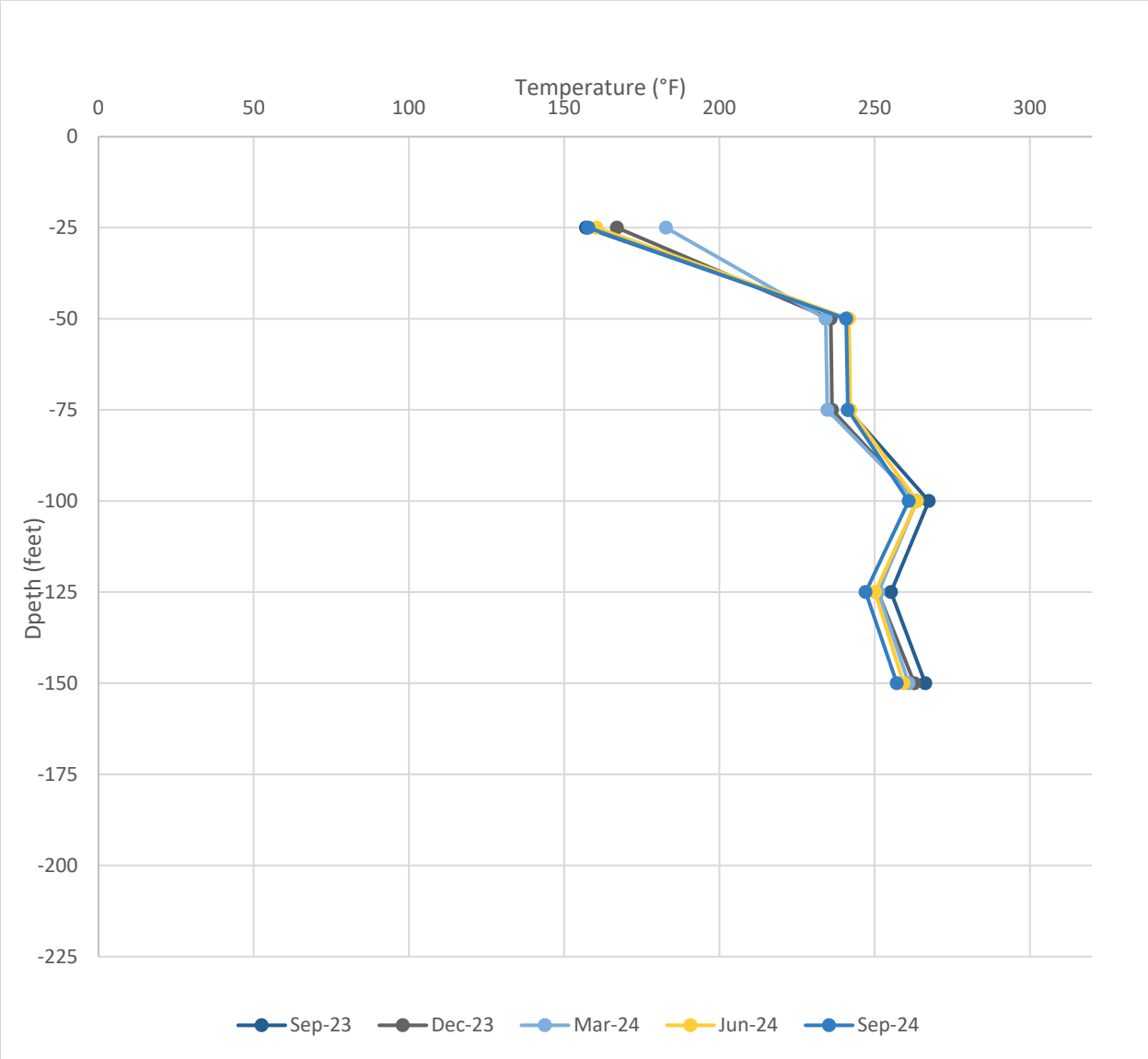


Figure 7 shows daily average temperatures in Temperature Probe 3 (TP-3) during the months of September 2023, December 2023, March 2024, June 2024, and September 2024. Based on the data, temperatures have been generally consistent below the 100-foot depth during the last year. Temperatures above the 100-foot depth dropped between June 2024 to September 2024.

Figure 7. TP-3 Average Temperatures for the Months of September 2023, December 2023, March 2024, June 2024, and September 2024

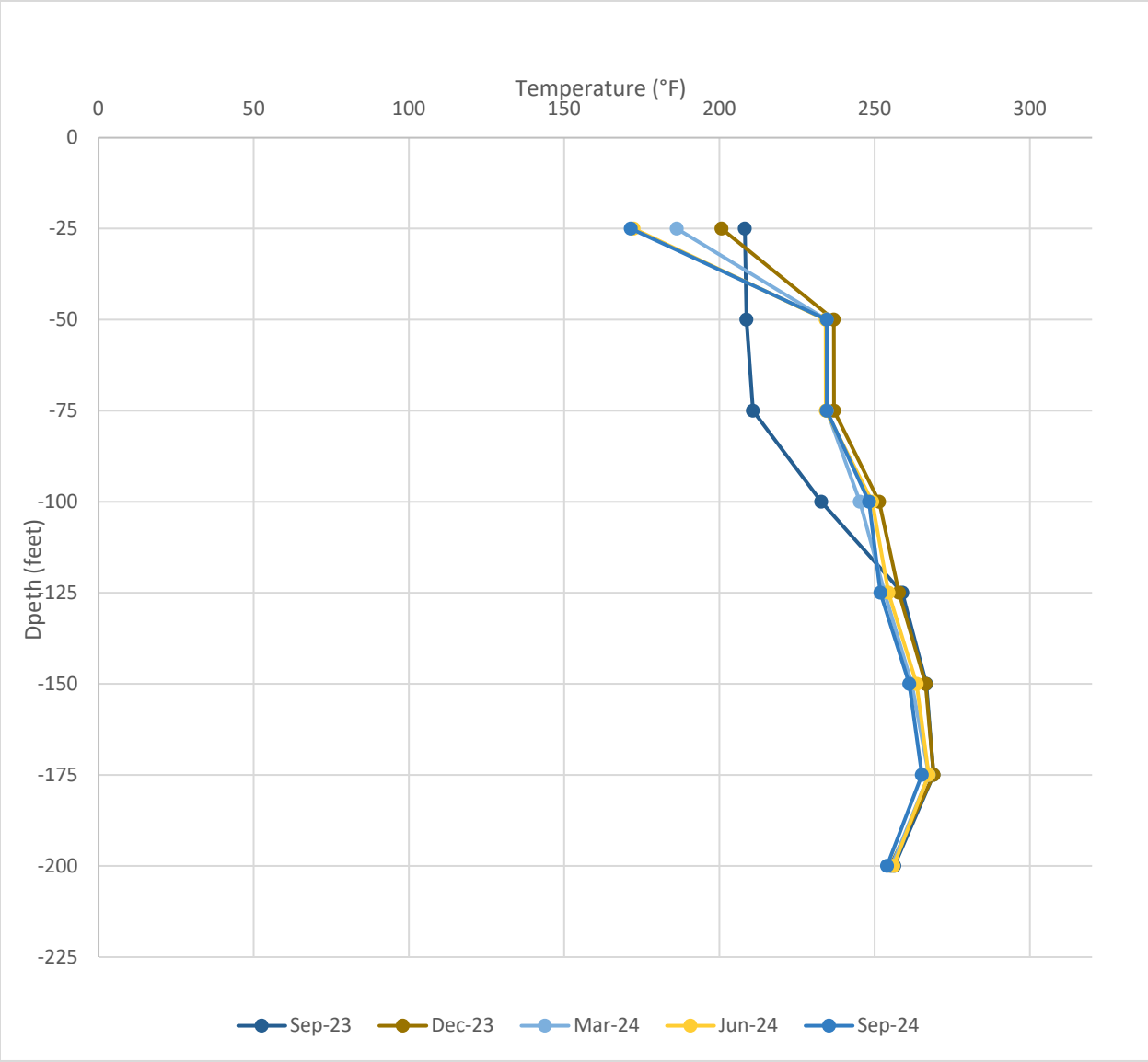


Figure 8 shows daily average temperatures in Temperature Probe 4 (TP-4) during the months of September 2023, December 2023, March 2024, June 2024, and September 2024. The temperatures during this time have been somewhat inconsistent, rising at some depths and lowering at others.

Figure 8. TP-4 Average Temperatures for the Months of September 2023, December 2023, March 2024, June 2024, and September 2024

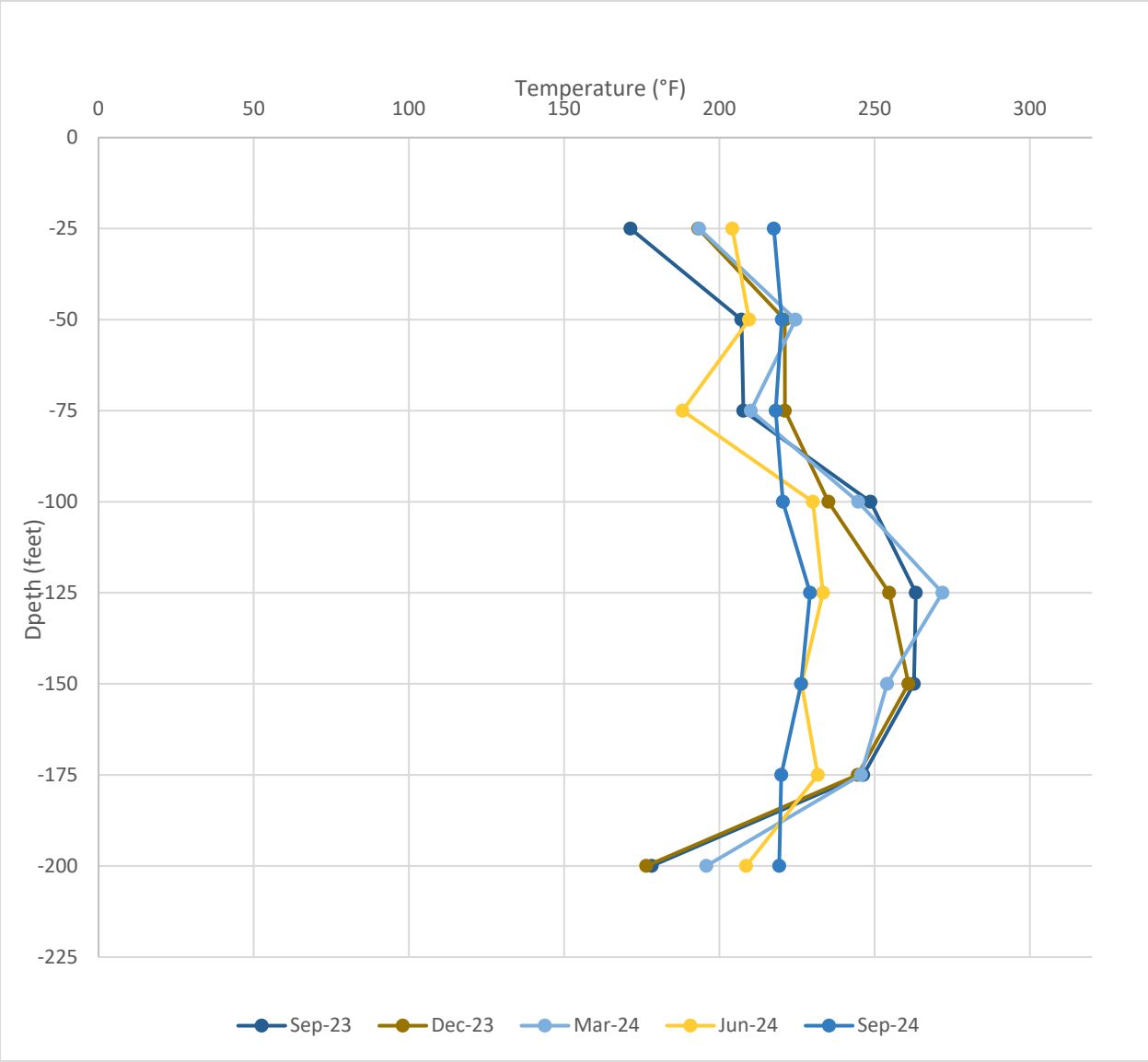


Figure 9 shows daily average temperatures in Temperature Probe 5 (TP-5) during the months of September 2023, December 2023, April 2024, June 2024, and September 2024. Based on the data, temperatures have been consistent with fluctuations below the 100-foot depth. Between September 2023 and September 2024, temperatures dropped at the 125-foot, 150-foot, and 175-foot levels.

TP-5 was damaged in late October 2023 and the sensors at the 125-foot, 150-foot, 175-foot, and 200-foot depths stopped functioning. SCS completed troubleshooting during the month of November 2023 and the sensors returned to operation later that month. TP-5 appears to have stopped recording temperatures again during the latter half of February 2024 due to a dead battery. The battery for the temperature probe was replaced in early April 2024 and has been in operation since.

Figure 9. TP-5 Average Temperatures for the Months September 2023, December 2023, April 2024, June 2024, and September 2024

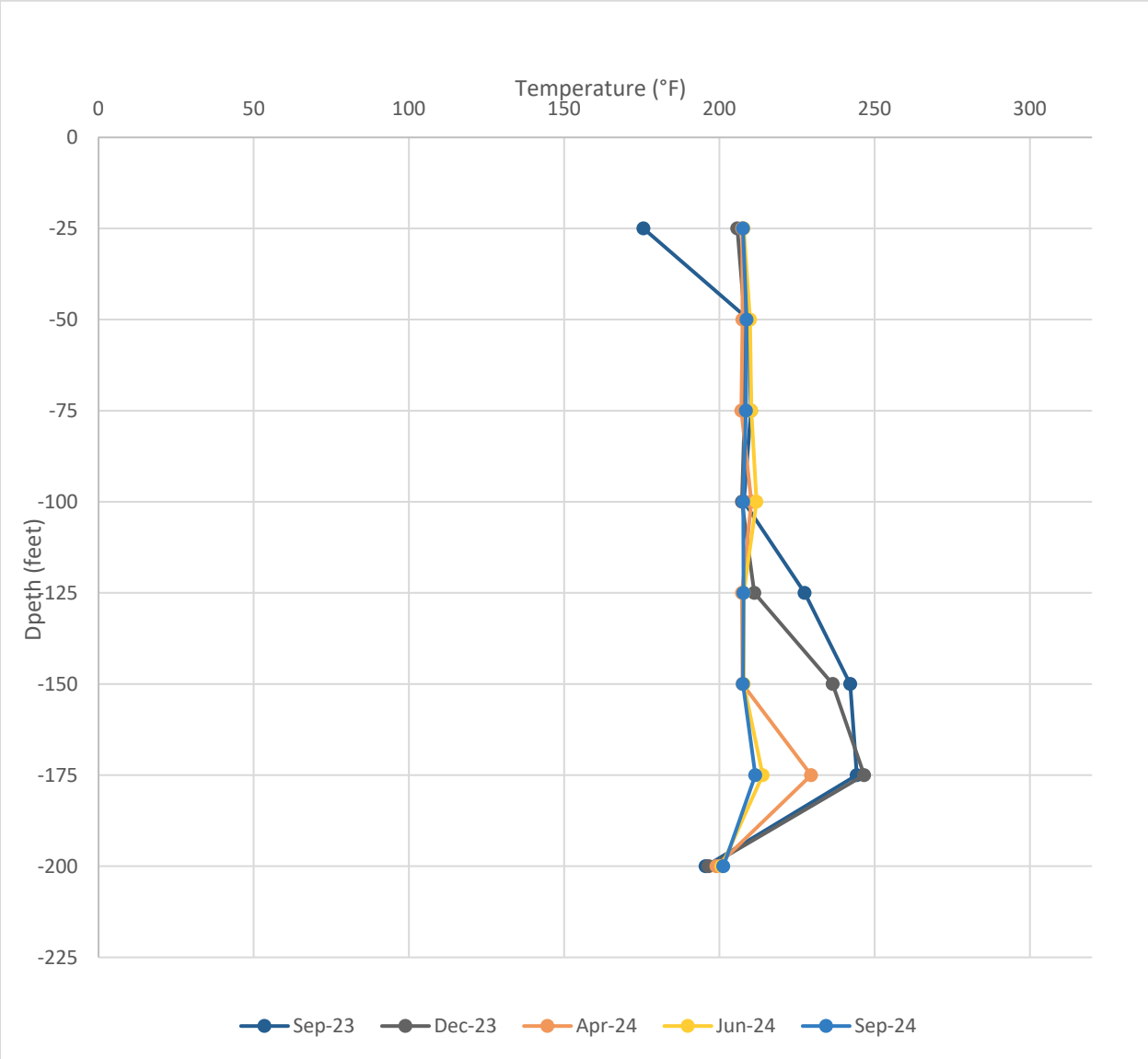


Figure 10 shows daily average temperatures in Temperature Probe 6 (TP-6) during the months of September 2023, December 2023, March 2024, June 2024, and September 2024. In June of 2024 the temperature sensor reported temperature at the 125-foot level exceeding 300 degrees. These readings correlated to decreases in temperature for the sensor at the 100-foot level. SCS believes that these readings are erroneous given the conflicting data from the sensor above. The City is working with SCS-RMC to identify the cause of these errors and is considering replacement of the sensors. In September of 2024 temperatures returned to the typical operating range based on historical data and have even shown some long-term decrease.

TP-6 was originally drilled to a depth of 208 feet and casing was installed to the full depth. During the installation of the installation of replacement sensors, a blockage within the casing prevented placement of sensors below the 125-foot depth.

Figure 10. TP-6 Average Temperatures for the Months of September 2023, December 2023, March 2024, June 2024, and September 2024

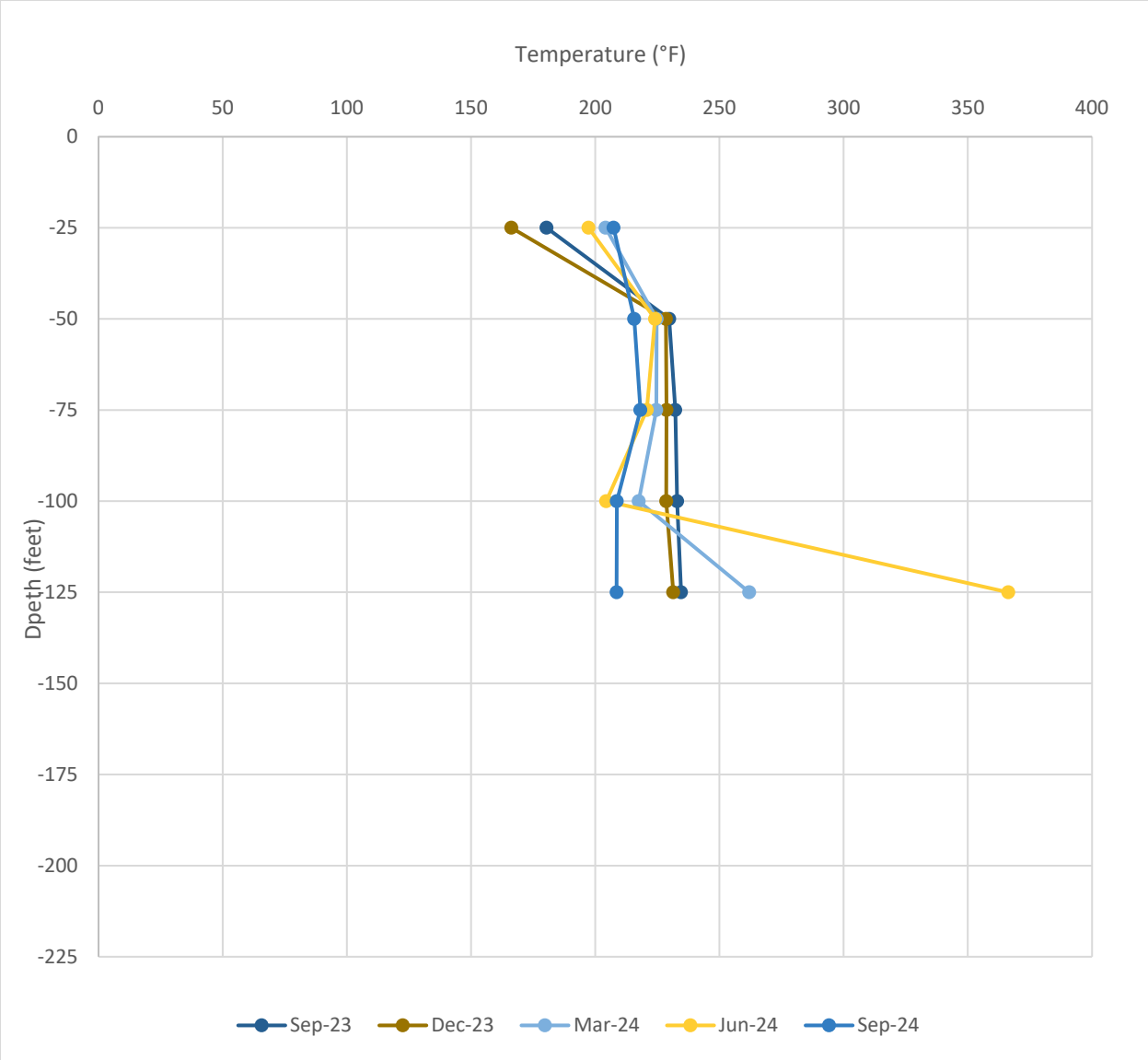


Figure 11 shows daily average temperatures in Temperature Probe 7 (TP-7) during the months of September 2023, December 2023, March 2024, June 2024, and September 2024. Based on the data, temperatures have fluctuated greatly over the last year, with temperatures at depth dropping. Observations of adjacent wells indicate that there may be below grade settlement of waste occurring in this area.

TP-7 did not record temperatures between August 15, 2023 and September 17, 2023 due to a dead battery. A replacement battery was installed in September of 2023 and TP-7 recording temperatures again on September 18, 2023.

Figure 11. TP-7 Average Temperatures for the Months of September 2023, December 2023, March 2024, June 2024, and September 2024

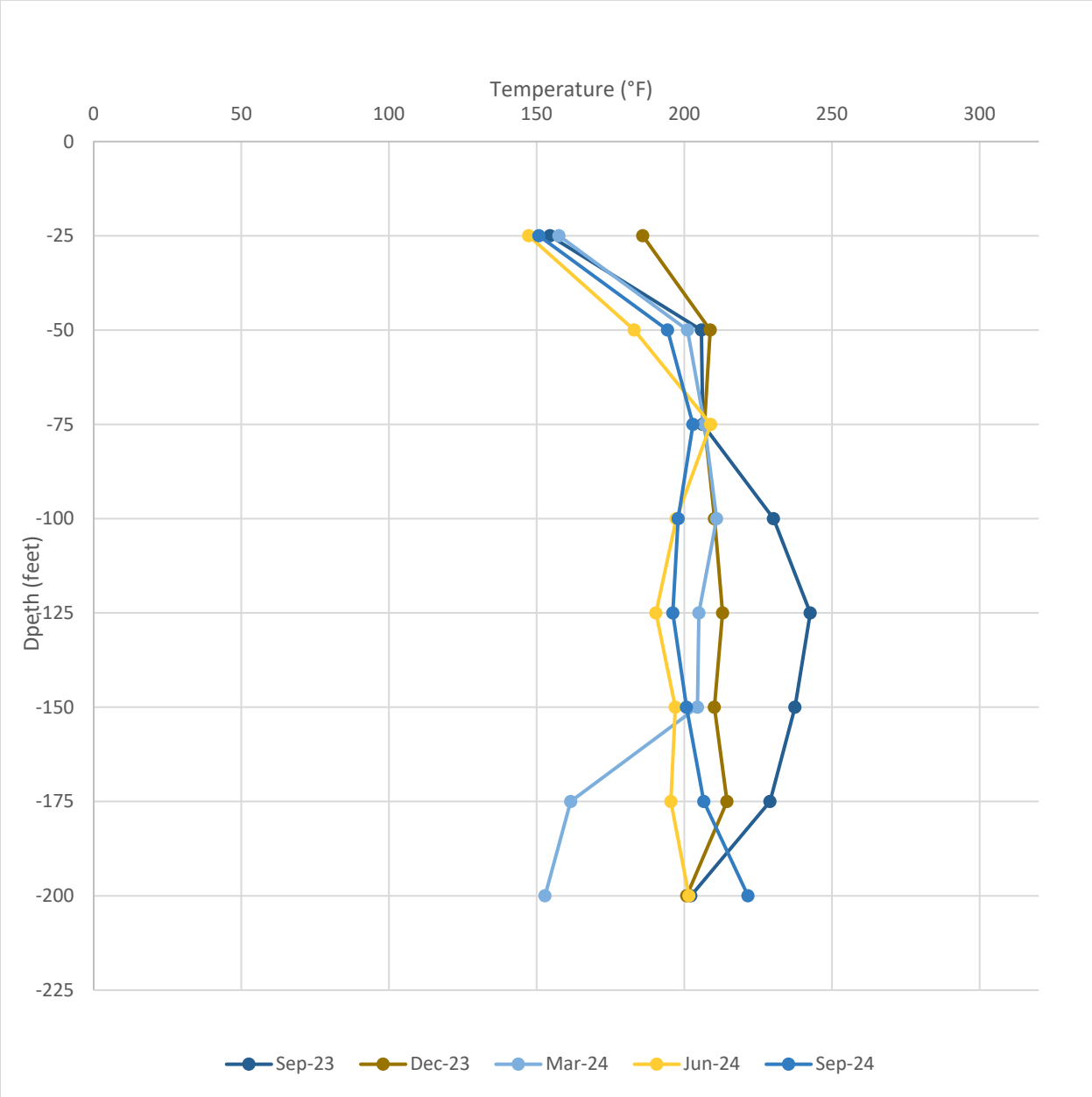


Figure 12 shows daily average temperatures in Temperature Probe 8 (TP-8) during the months of September 2023, December 2023, March 2024, June 2024, and September 2024. Based on the data, temperatures have been consistent over the past year.

TP-8 did not record temperatures from November 8, 2023 to November 27, 2023 due to a faulty battery which was replaced on November 28, 2023. Recordings from August 30, 2024 to September 6, 2024 became inconsistent and the cause is currently being investigated.

Figure 12. TP-8 Average Temperatures for the Months of September 2023, December 2023, March 2024, June 2024, and September 2024

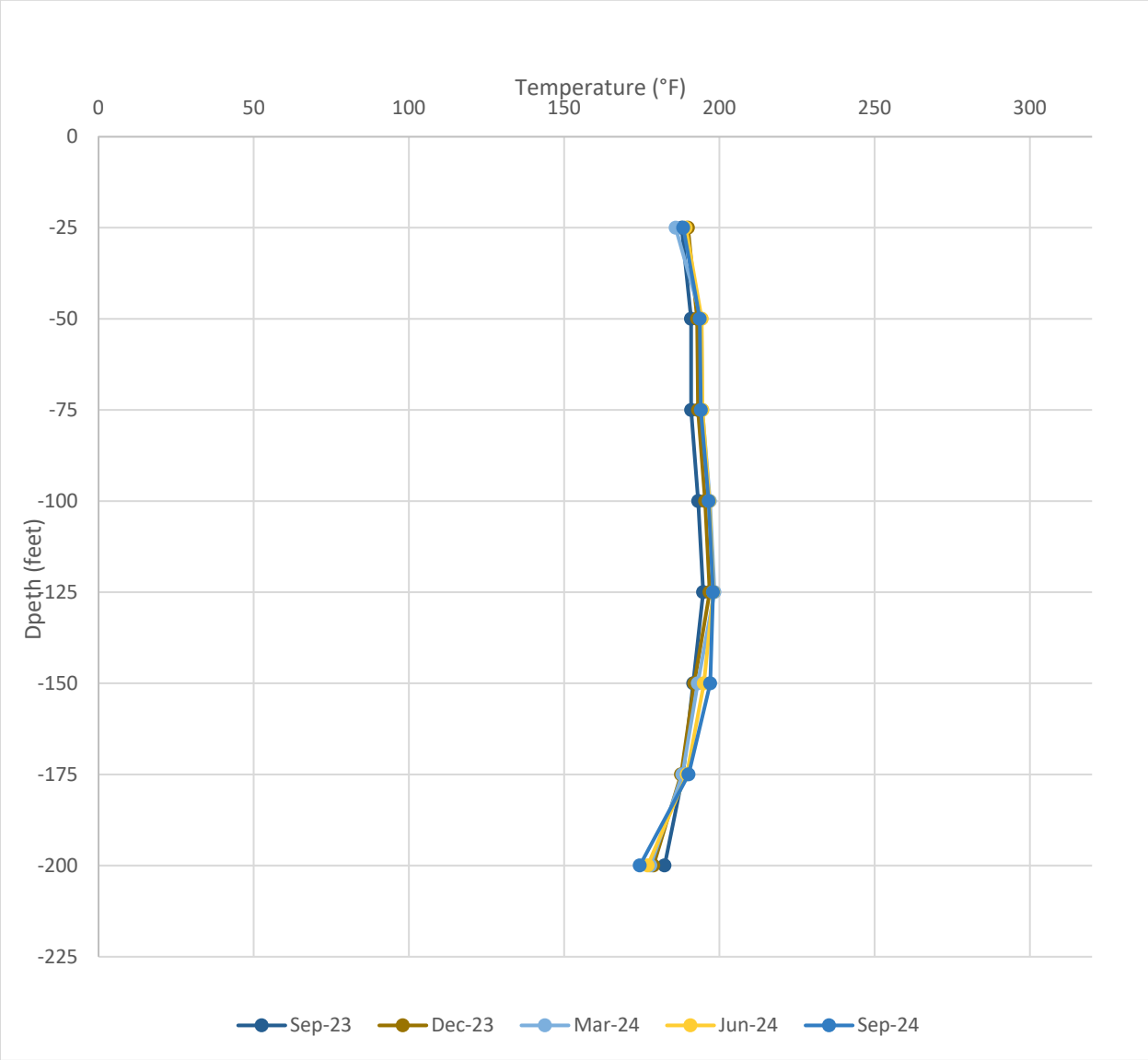
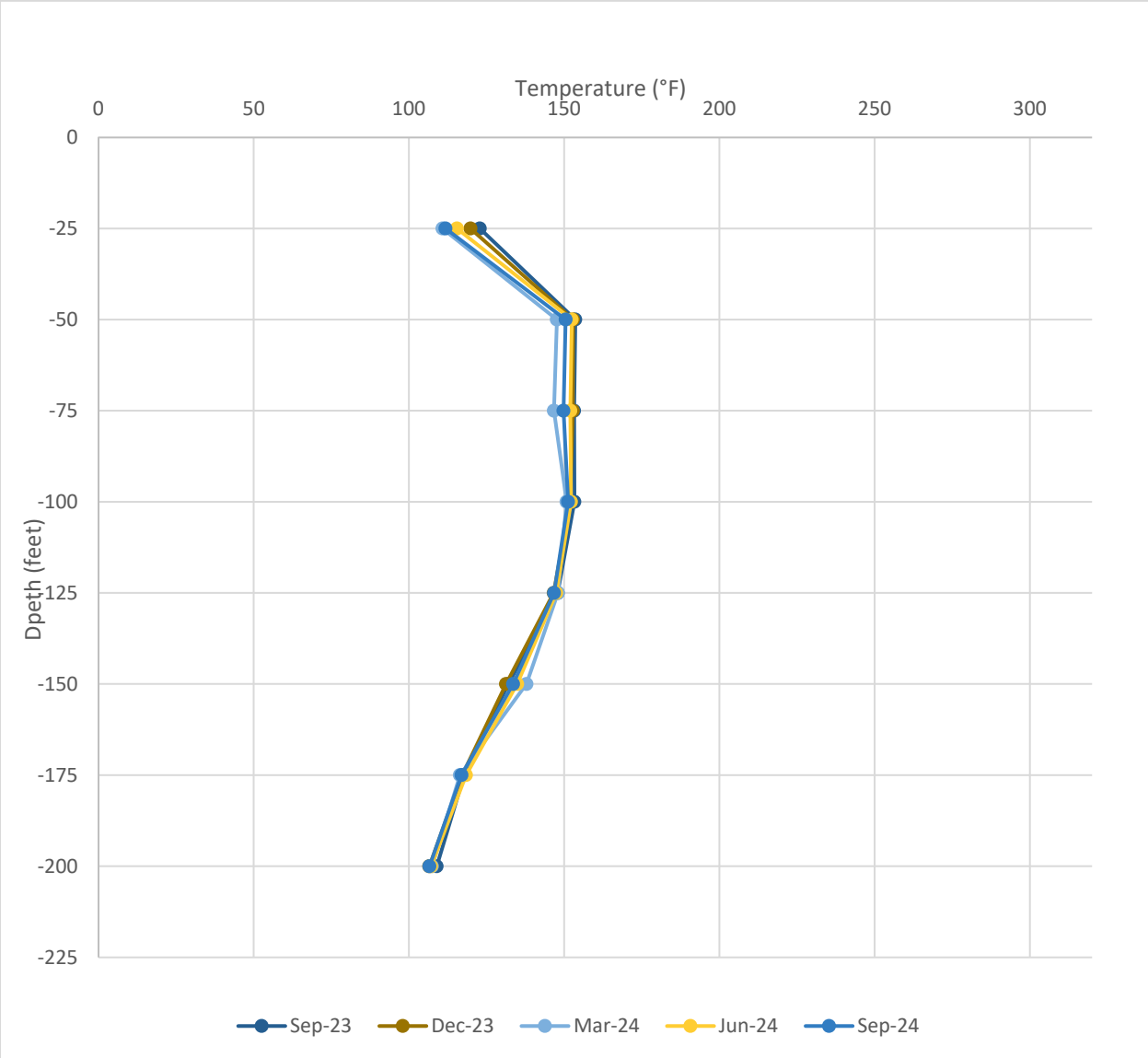


Figure 13 shows daily average temperatures in Temperature Probe 9 (TP-9) during the months of September 2023, December 2023, March 2024, June 2024, and September 2024. Based on the data, temperatures have been consistent during the last year.

Figure 13. TP-9 Average Temperatures for the Months of September 2023, December 2023, March 2024, June 2024, and September 2024



This data indicates that temperatures within the landfill are generally stable and are typical of those observed at elevated temperature landfills (ETLFs). During the months of May 2023 through September 2023, substantial construction occurred at the landfill including deep dual extraction wells that may have impacted temperatures within the waste mass adjacent to the probes. While quantifying the effect of the construction of addition wells is difficult, changes in wellhead temperature have been observed in existing wells adjacent to newly installed wells. The temperatures recorded are substantially lower than those associated with landfill fires or other

combustion processes, which can exceed 1000°F. This further indicates that the elevated temperatures are due to sources other than combustion.

4.0 LEACHATE EXTRACTION AND MONITORING

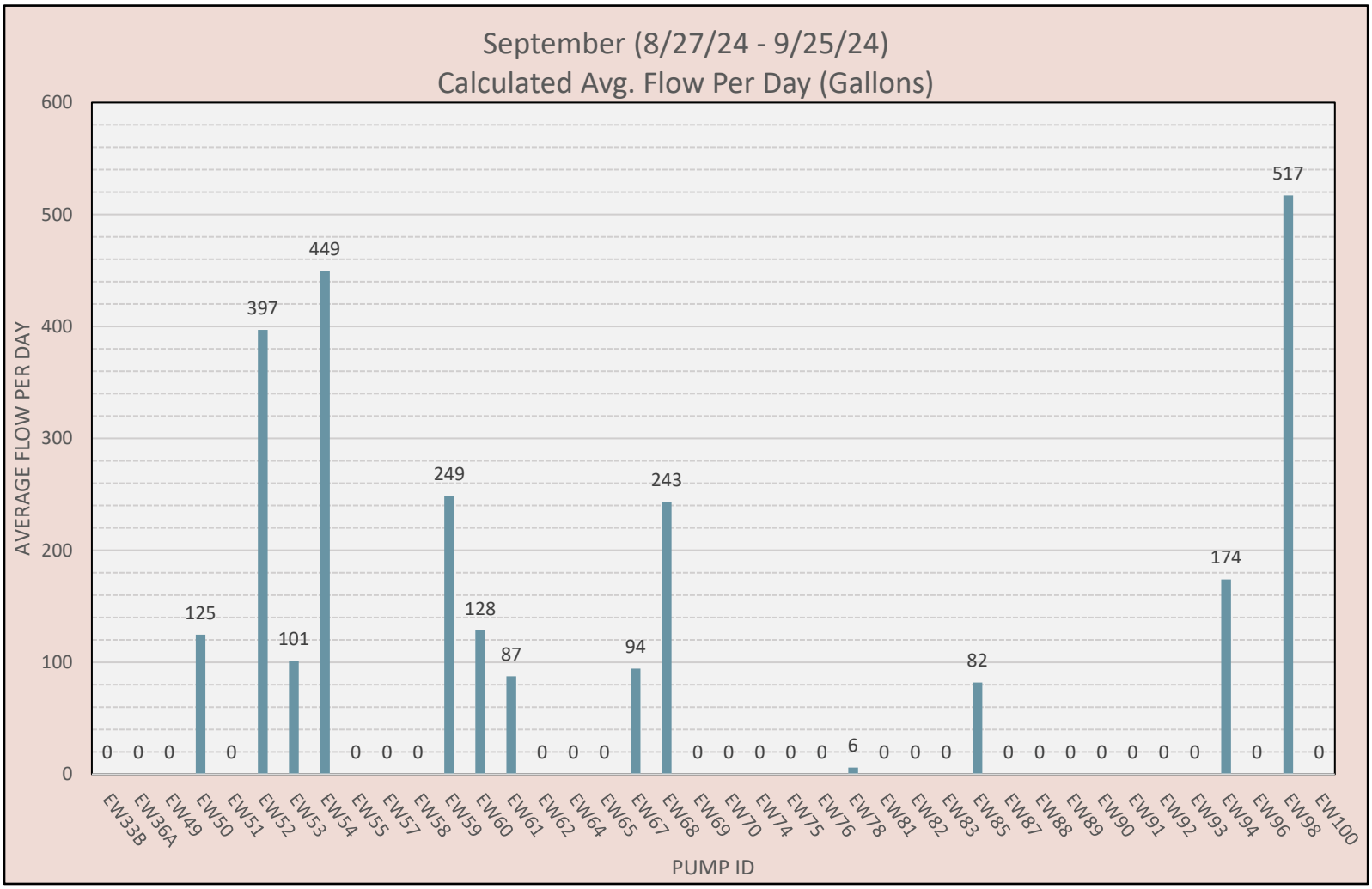
The City is taking steps to improve the extraction of leachate from the waste mass and collect analytical data on leachate characteristics. The following sections detail steps taken to achieve these goals.

4.1 EXISTING SYSTEM OPTIMIZATION

During the monthly liquid depth measurement event, SCS also collected stroke counter data from the pumps installed in the GCCS extraction wells. These stroke counts were collected from 40 wells from August 27 – September 25, 2024.

Based on this data, SCS can estimate the number of gallons of liquid pumped from each well. SCS assumed that each stroke from a float-style pneumatic pump correlates to approximately 0.3 gallons of liquid removed from the well. Additionally, Blackhawk piston-style pumps remove approximately 0.11 gallons per stroke recorded. Estimates of the quantities of liquids removed from each well during September are shown in Figure 14.

Figure 14. Estimated September Dewatering Liquid Removal by Well



SCS-FS continues to implement a routine maintenance schedule for landfill gas liquids removal pumps. The pumps at wells EW-52, EW-54, and EW-98 removed the most liquid in September, according to the stroke count data. Several of the pumps that are not stroking, i.e. wells with no calculated flow in Figure 14, are either lodged in wells or are experiencing a buildup of solids that makes them inoperable. Several pumps have already been replaced and repaired due to experiencing significant wear and tear from ETLF conditions. Listed below are the documented repairs and replacements that occurred for landfill gas liquids removal pumps during the month of September:

- **Week of September 2:** Cleaning and maintenance of spare pumps and parts
- **Week of September 9:** Pump swapped in EW-53, EW-61, and EW-67; pulled and cleaned ARV-2; replaced check valve at EW-53; pump cleaning and maintenance
- **Weeks of September 16 and 23:** Pump swapped in EW-85 and EW-88 and replaced tri-tubing; pump removed from EW-55; pump cleaning and maintenance.

- **Week of September 30:** Blackhawk representative onsite and worked on the Blackhawk pumps installed in the well field, including pumps at EW-81, EW-36A, EW-82, EW-83, and EW-96 which were all restored to operational status

In some cases, low volumes of landfill liquids removed correlate to low measured liquid levels within the gas wells. This was true of well EW-69 in September 2024. When this condition is identified, pumps may be relocated to wells with consistently higher liquid levels.

The City and SCS understand that operations of dewatering pumps are critical to address issues related to heat, odors, and the efficient operation of the GCCS. The landfill conditions present a challenging environment for pump operations. Pumps require servicing after relatively short intervals. The SWP No. 588 Landfill's float-style pumps are bump-checked daily, and Blackhawk piston drive rods are cleaned routinely each week.

Daily pump checks and maintenance of spare pumps will continue in the coming month along with pump replacements as needed. The City, along with SCS-FS, has determined that the best pumps for the landfill's current conditions are QED. The City placed an order for an additional eight pumps which are expected in October. The additional pumps will help with the rotation of field pumps needing maintenance and replacement.

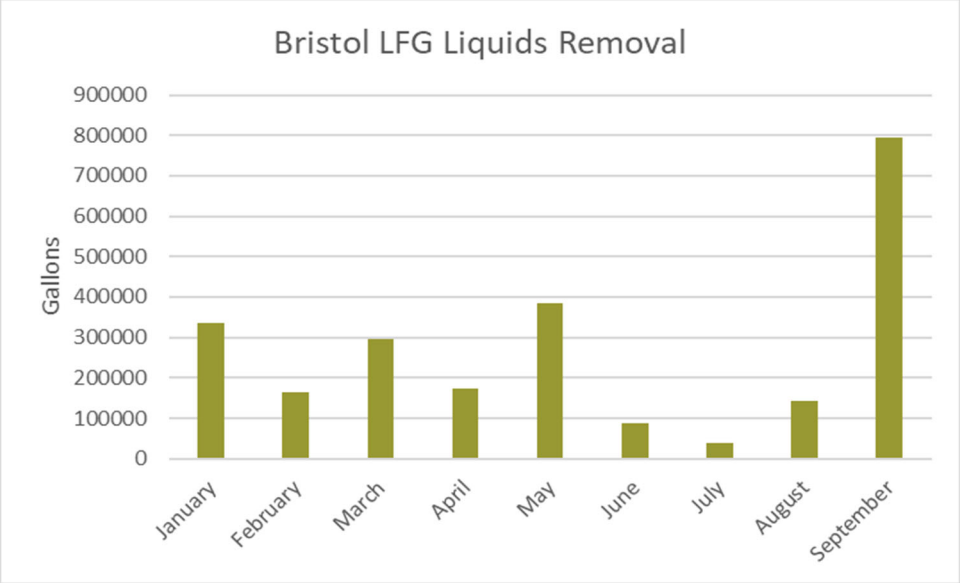
4.1.1 Total LFG Liquids Removal

To improve the accuracy of the total landfill gas liquids flow rate, two flow meters were installed on the landfill gas liquid forcemains in December 2023. One flow meter was installed on the SWP No. 588 primary landfill gas liquid forcemain. The other was installed on the SWP No. 588 alternate landfill gas liquids forcemain, which also serves as the conduit for condensate from the temporary perennial flare and the SWP No. 588 stormwater pump. The SWP No. 588 alternate landfill gas liquids forcemain will also serve as the SWP No. 498 landfill gas liquids forcemain in the future.

The progress in landfill gas liquids removal over the past nine months is depicted in Figure 15. Given the improved accuracy of a flowmeter compared to flow estimates based on collected stroke counter data, SCS and the City will only use calculated flow rates to track individual pump performance going forward, not the total liquids removal from the system.

In September, the total liquids flow recorded by the SWP No. 588 primary landfill gas liquids flowmeter was 793,000 gallons. SCS estimates an approximate volume of 695,000 gallons of the liquid recorded by this flowmeter may be attributed to a manual flush of the forcemain pipes by SCS-FS during September, however, cleaning efforts noted in the previous section may also be contributing to the increase in total liquids removal.

Figure 15. Estimated Volume of Liquids Removed from Landfill Gas Wells



4.2 SAMPLING AND ANALYSIS PLAN

On November 1, 2022, SCS submitted to VDEQ the Dual Phase Landfill Gas Extraction Well Leachate Monitoring Plan for the Bristol Integrated Solid Waste Management Facility Solid Waste Permit No. 588 Landfill and the plan was subsequently revised on December 1, 2022. Refer to the November 2022 and December 2022 Compliance Reports for the SWP No. 588 Landfill for additional information.

4.2.1 Sample Collection

On September 11, 2024, SCS collected leachate samples from three Dual Phase LFG extraction wells (EW-52, EW-54, and EW-68). At the time of sample collection only oxidation-reduction potential and turbidity were measured and recorded as the meter was displaying an error for dissolved oxygen, pH, specific conductance, and temperature which is likely caused by the temperature being outside of the range of the meter. The associated field logs are included in **Appendix F**. SCS' field staff were not able to collect samples from select wells as summarized in **Table 6**.

Table 6. Summary Wells Unable to be Sampled for Leachate

Wells With Pumps	Wells Without Pumps
• Pump was not running at the time of monitoring for the following wells: EW-36A, EW-50, EW-59, EW-60, EW-61, EW-62, EW-69, EW-78, EW-85, and EW-98. • Pump was not running at the time of monitoring for the following wells and the liquid level could not be gauged as well was under vacuum thus unsafe to open for water level: EW-33B, EW-49, EW-64, EW-65, EW-81, and EW-83. • Air for pump operation was turned off at the time of monitoring for EW-51 and EW-53. • Pump was disconnected at the time of monitoring for EW-57, EW-67, EW-82, EW-87, EW-88, EW-90, EW-96, and EW-100. • Pump was not running for EW-76 and the liquid depths were not measured at the time of monitoring due to a potential blockage. • Pump was not running for EW-70 and the liquid depth was not measured at the time of monitoring as there was standing water around the well and not safely accessible. • Pump was turned off and forcemain valve was closed for EW-89. • Pump was not running, and the liquid depth was not measured at the time of monitoring for EW-94.	• There was no pump at the time of the monitoring for the following wells: EW-58, EW-66, EW-72, EW-73, EW-74, EW-86, EW-91, EW-92, EW-93, EW-95, EW-97, and EW-99. • There was no pump at the time of the monitoring for the following wells and the liquid level could not be gauged as well was under vacuum thus unsafe to open for water level: EW-63, EW-75, EW-77, EW-79, EW-80, and EW-84. • There is no pump and the well appeared dry at the time of monitoring for EW-56. • There was no pump at the time of the monitoring for the following wells and liquid level could not be measured due to potential blockage: EW-71.

The samples were delivered to Enthalpy Analytical (Enthalpy) in Richmond, Virginia and Pace Analytical Services, LLC (Pace) in Baton Rouge, Louisiana for analysis. Enthalpy's and Pace's Virginia Division of Consolidated Laboratory Services (VELAP) certification is provided on the certificates of analysis (COAs) included in Appendix F. The samples were analyzed for the parameters utilizing the analytical methods described in the Dual Phase Landfill Gas Extraction Well Leachate Monitoring Plan.

4.2.1 Quality Assurance and Quality Control

Field quality control (QC) involved the collection and analysis of trip blanks to verify that the sample collection and handling processes did not impair the quality of the samples. Trip blanks were prepared for VOC analysis via Solid Waste (SW)-846 Method 8260D. In conjunction with the preparation of the groundwater sample collection bottle set, laboratory personnel filled each trip blank sample bottle with distilled/deionized water and transported them with the empty bottle kits to SCS. Field personnel handled the trip blanks like a sample; they remained un-opened, were transported in the sample cooler, and were returned to the laboratory for analyses. A trip blank is used to indicate potential contamination due to the potential migration of VOCs from the air at the site or in the sample shipping containers, through the septum or around the lid of the sampling vials and into the sample.

Laboratory quality assurance/quality control (QA/QC) involves the routine collection and analysis of method reagent blanks, matrix spike (MS) and matrix spike duplicate (MSD) samples, and laboratory control samples (LCS). A summary of each of these is presented below:

- Method Blank – The method blank is deionized water subjected to the same reagents and manipulations to which site samples are subjected. Positive results in the method blanks may indicate either contamination of the chemical reagents or the glassware and implements used to store or prepare the sample and resulting solutions.

- MS/MSD – A MS is an aliquot of a field sample with a known concentration of target parameter added to it. An MSD is an intra-laboratory split sample spiked with a known concentration of target parameter. Spiking for each occurs prior to sample analysis. MS/MSD samples are collected for every batch of twenty or fewer samples. Matrix spike recoveries are used to indicate what effect the sample matrix may have on the reported concentration and/or the performance of the sample preparation and analysis.

- LCS – These samples consist of distilled/deionized water injected with the parameters of interest for single parameter methods and selected parameters for multi-parameter methods according to the appropriate analytical method. LCS samples are prepared and analyzed for each batch containing twenty or fewer samples. LCS recoveries are used to monitor analytical accuracy.

Surrogate recoveries are also measured as a part of laboratory QA/QC. Surrogates are organic compounds that are like the parameters of interest in chemical composition, extraction, and chromatography, but are not normally found in environmental samples. These compounds are inserted into blank, standards, samples, and spiked samples prior to analysis for organic parameters only. Percent recoveries are calculated for each surrogate. Spike recoveries at or below acceptance criteria indicate whether analytical results can be considered biased high or biased low.

No trip or method blank detects were identified for the September 2024 monitoring event. The laboratory analysis report for the September 2024 monitoring event trip blank is included in Appendix F. The September 2024 monitoring event laboratory QA/QC reports, including the method blank results, are included in the COA in Appendix F.

4.2.2 Data Validation

To identify analytical data that may not represent valid results, data from the monitoring events were validated by the Laboratory and SCS in accordance with United States Environmental Protection

Agency (EPA) guidance[1]. Data flagged with a "J" qualifier indicates the quantitation of the parameter is less than the laboratory's limit of quantitation but greater than the laboratory's limit of detection (LOD); thus, the concentration is considered estimated. Samples with parameter detections less than five times that of the trip blank, field blank, and/or method blank detection but greater than the laboratory's LOD are flagged with a "B" qualifier. Samples with common laboratory contaminant parameter detections less than 10 times that of the trip blank, field blank, and/or method/laboratory blank detection but greater than the laboratory's LOD are flagged with a "B" qualifier. Data with a "B" qualifier are considered not validated as the detection may be anomalous due to cross-contamination during sampling, transportation of samples, or laboratory analysis.

No leachate results were flagged with a "B" qualifier for the September 2024 monitoring event as no detections were identified in the trip or method blanks. The September 2024 detections flagged with a "J" qualifier are shown on **Table 6**.

4.2.3 Laboratory Analytical Results

The analytical results for the September 2024 leachate samples collected from extraction wells EW-52, EW-54, and EW-68 are summarized in **Table 7**. The associated COA is included in **Appendix F**. Parameter results from September 2024 and previous monitoring events (November 2022 – August 2024) are presented on a table in **Appendix F**. Time-series plots of each VOC for the wells that have historically been sampled are also included in **Appendix F**.

Table 7. Monthly LFG-EW Leachate Monitoring Event Summary

Well ID	EW-52	EW-54	EW-68	LOD	LOQ
Parameter	**September 2024 Concentration**				
Ammonia as N (mg/L)	---	**1440**	---	73.1	100
	2210	---	**2290**	146	200
Biological Oxygen Demand (mg/L)	ND	**36100**	**27400**	0.2	2
Chemical Oxygen Demand (mg/L)	---	---	**26800**	4000	4000
	---	**55900**	---	5000	5000
	78300	---	---	10000	10000
Nitrate as N (mg/L)	ND	**2.42**	---	0.25	1.25
	---	---	ND	5	25
Nitrite as N (mg/L)	ND	ND	---	0.25	1.25
	---	---	ND	5	25
Total Kjeldahl Nitrogen (mg/L)	---	**2090**	---	50	125
	---	---	**2650**	80	200
	3320	---	---	100	250
Total Recoverable Phenolics (mg/L)	**39.6**	**31.6**	**31.6**	3	5

[1] United States Environmental Protection Agency. Guidance for Data Usability in Risk Assessment (Part A-14). April 1992.
United States Environmental Protection Agency. Office of Superfund Remediation and Technology Innovation. National Functional Guidelines for Inorganic Superfund Methods Data Review. November 2020.
United States Environmental Protection Agency. Office of Superfund Remediation and Technology Innovation. National Functional Guidelines for Organic Superfund Methods Data Review. November 2020.

Table 7. Monthly LFG-EW Leachate Monitoring Event Summary

Well ID	EW-52	EW-54	EW-68	LOD	LOQ
Parameter	**September 2024 Concentration**				
SEMI-VOLATILE ORGANIC COMPOUND (ug/L)					
Anthracene	---	---	ND	100	200
	ND	ND	---	200	400
TOTAL METALS (mg/L)					
Arsenic	**0.27**	**0.15**	**0.19**	0.005	0.01
Barium	**1.34**	**1.33**	**3.65**	0.01	0.05
Cadmium	ND	ND	ND	0.001	0.01
Chromium	**0.948**	**0.541**	**0.228**	0.004	0.01
Copper	ND	ND	ND	0.003	0.01
Lead	**0.098**	**0.057**	ND	0.01	0.01
Mercury	**0.00244**	ND	ND	0.002	0.002
Nickel	**0.396**	**0.1138**	**0.08772**	0.01	0.01
Selenium	ND	ND	ND	0.0085	0.01
Silver	ND	ND	ND	0.0006	0.01
Zinc	**0.212**	---	---	0.0025	0.005
	---	**3.68**	**0.111**	0.025	0.05
VOLATILE FATTY ACIDS (mg/L)					
Acetic Acid	---	---	**2950**	250	---
	---	**5970**	---	500	---
	10400	---	---	1250	---
Butyric Acid	**3550**	**2060**	**670**	250	---
Lactic Acid	---	**2550**	ND	250	---
	5510	---	---	1250	---
Propionic Acid	**2640**	**1690**	**1300**	250	---
Pyruvic Acid	ND	ND	ND	250	---
VOLATILE ORGANIC COMPOUNDS (ug/L)					
2-Butanone (MEK)	**19000**	**16600**	---	150	500
	---	---	**32200**	1500	5000
Acetone	**59800**	**44500**	**69300**	3500	5000
Benzene	**960**	**727**	**2710**	20	50
Ethylbenzene	**46.5 J**	**44 J**	**192**	20	50
Tetrahydrofuran	**2950**	**2730**	**6640**	500	500
Toluene	**80**	**63.5**	**226**	25	50
Xylenes, Total	**90.5 J**	**120 J**	**368**	50	150

--- = not applicable
J = Constituent was detected at a concentration above the laboratory's LOD but below the laboratory's LOQ. Concentration is estimated and not validated.
LOD = laboratory's Limit of Detection
LOQ = laboratory's Limit of Quantitation
mg/L = milligrams per liter
ND = Not Detected
ug/L = micrograms per liter

5.0 SETTLEMENT MONITORING AND MANAGEMENT

The City is taking steps to track and manage settlement occurring in the landfill. A summary of actions taken to quantify and manage settlement is included in the sections below.

5.1 SETTLEMENT MONITORING AND MANAGEMENT PLAN

On behalf of the City, SCS submitted a settlement monitoring and management plan to VDEQ on November 15, 2022. Refer to the 2022 November Monthly Compliance Report for the SWP No. 588 Landfill for additional information.

5.2 MONTHLY SURVEYS

5.2.1 Topographic Data Collection

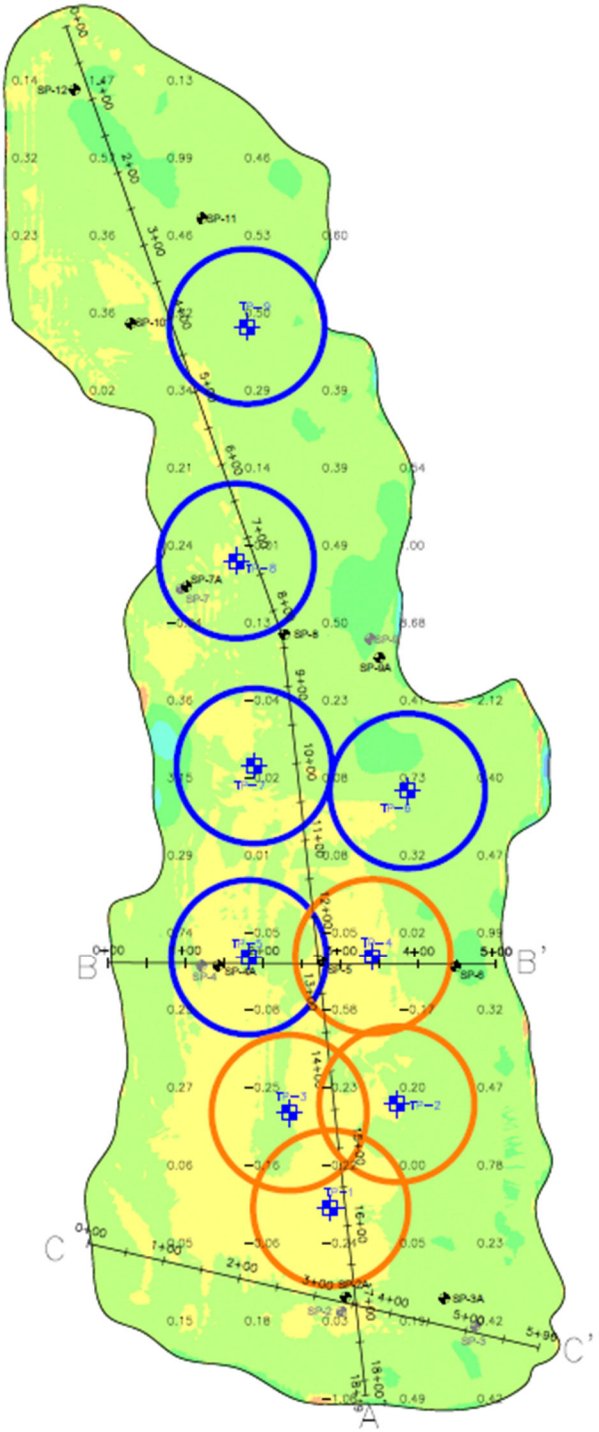
The City, through SCS, collected topographic data of the Solid Waste Permit No. 588 Landfill using photogrammetric methods via an unmanned aerial vehicle (UAV or drone). On September 23, 2024 the flight was completed and the topographic data collected. The topographic data collected is shown on Sheet 4 in Appendix E.

The topography within the landfill footprint was compared to topographic data collected by SCS using photogrammetric methods on August 14, 2024. A drawing depicting the August 14, 2024 topography is included as Sheet 3 in Appendix E.

Based on a comparison of the topographic data collected on those two dates, the data shows a fill of 10,200 cubic yards throughout the entire site. Fill may have been placed on the site to address differential settlement, in response to surface emissions monitoring results, and to provide access to landfill gas collection vertical wells. During that same time period, calculations indicate a “cut” value of approximately 1,100 cubic yards. Cut volumes are typically attributed to settlement. This resulted in a net volume increase of approximately 9,100 cubic yards.

A visual depiction of settlement and filling at the landfill during this time is depicted in Figure 16. Areas in yellow, orange, and red indicate where elevations decreased and areas in green indicate areas where elevations have increased. Darker colors indicate greater changes in elevation. This drawing is also included as Sheet 5 in Appendix E.

Figure 16. 1-Month Elevation Change Map



The locations of in-waste temperature monitoring probes are also shown on Figure 16, Figure 17, and Figure 18. The circles around the probes in each of these figures are indicative of the average borehole temperature. The circles shown are offset from the probes for clarity only and do not necessarily indicate temperatures measured at locations away from the probe. Probes with a blue

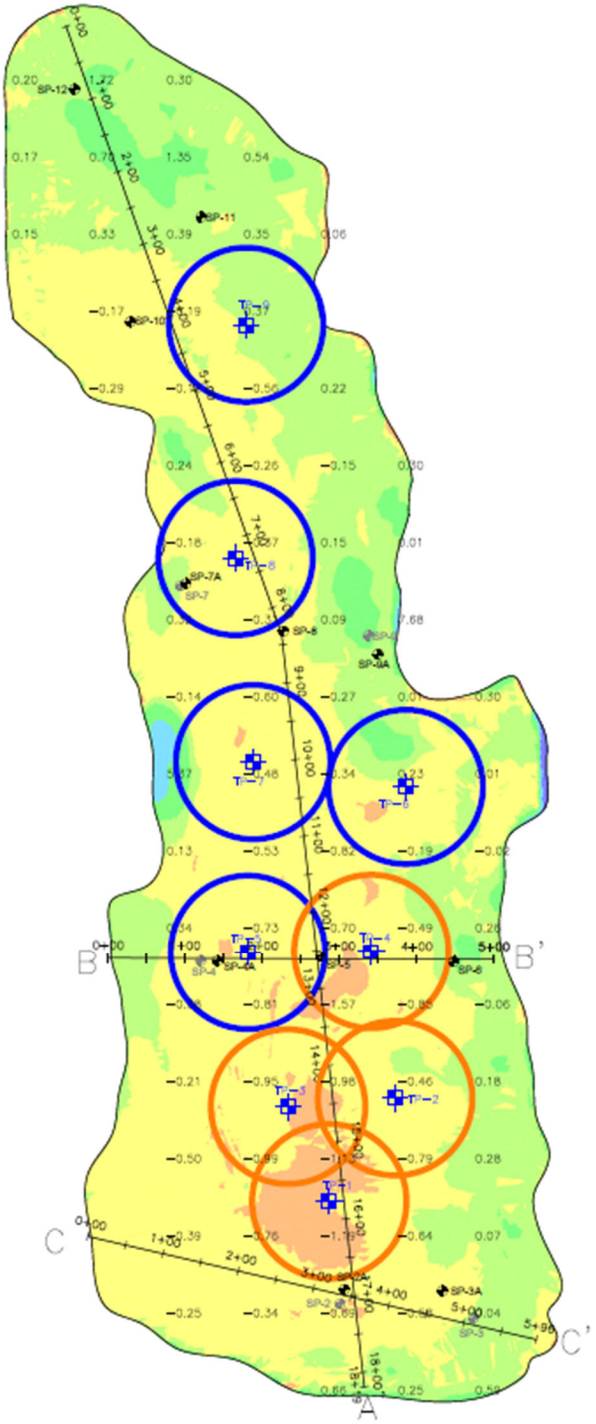
circle around them typically have an average temperature less than 200°F across the full depth of the probe. Probes with an orange circle around them typically have an average temperature greater than 200°F and less than 250°F across the full depth of the probe. There were no probes measuring average temperatures greater than 250°F and less than 300°F during the month of September 2024.

SCS calculated the waste footprint for purposes of analysis to be 752,610 square feet. Based on that area and the net volume change, the average elevation increase between the flyover dates was 0.32 feet.

SCS also compared the topographic data collected in September to the topographic data collected on June 25, 2024. Based on a comparison of the topographic data collected on those two dates, settlement occurred that reduced the volume of waste in the landfill by approximately 8,300 cubic yards. During that same time period calculations indicate approximately 6,100 cubic yards of fill were placed on the landfill, for a net decrease in waste volume of 2,200 cubic yards.

A visual depiction of settlement and filling at the landfill during this time is depicted in Figure 17. Areas in orange/yellow indicate where elevations decreased and areas in green indicate areas where elevations have increased. Darker colors indicate greater changes in elevation. This drawing is also included as Sheet 6 in Appendix E.

Figure 17. 3-Month Elevation Change Map



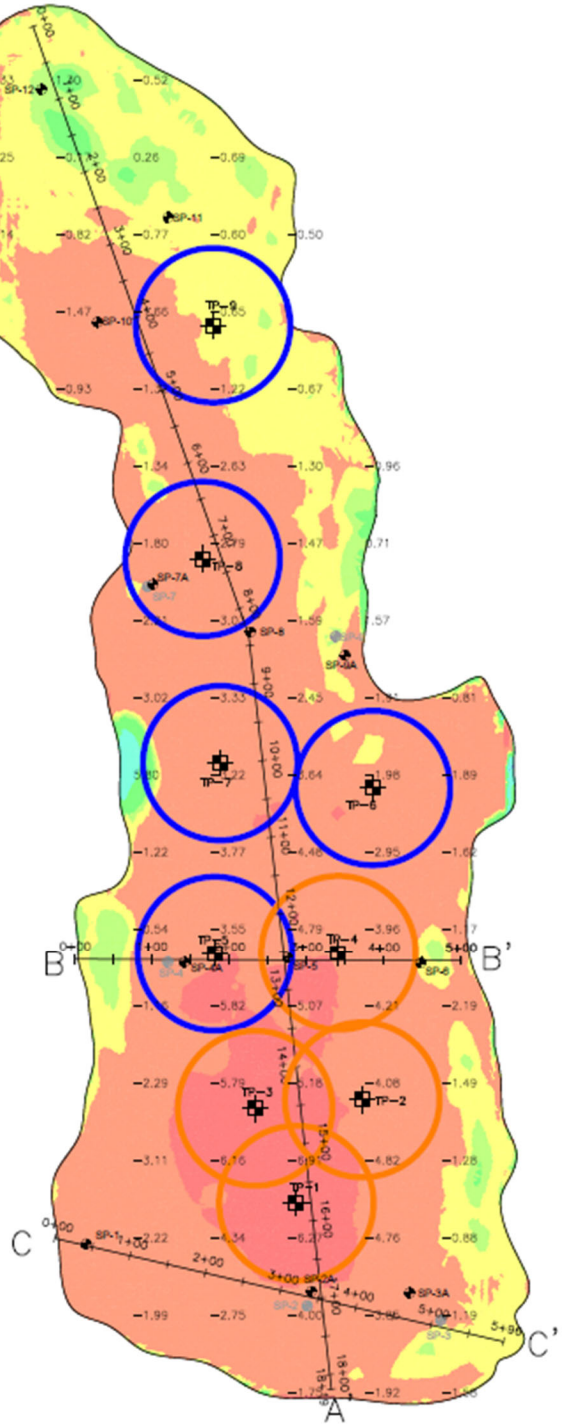
Based on the area of the landfill and the net volume change, the average elevation decrease was approximately 0.1 feet.

SCS also compared the topographic data collected in September 2024 to the drone topographic data collected on September 15, 2023 by SCS. Based on a comparison of the topographic data

collected on those two dates, settlement occurred that reduced the volume of waste in the landfill by approximately 66,400 cubic yards. During that same time period approximately 1,700 cubic yards of construction-related fill were placed on the landfill. This fill was primarily soil placed as part of the sidewall odor mitigation system construction and ongoing maintenance (i.e. filling to compensate for settlement). This resulted in a net volume decrease of approximately 64,700 cubic yards.

A visual depiction of settlement and filling at the landfill during this time is depicted in Figure 18. Areas in red indicate where elevations decreased and areas in green indicate areas where elevations have increased. Darker colors indicate greater changes in elevation. This drawing is also included as Sheet 7 in Appendix E.

Figure 18. 1-Year Elevation Change Map



The largest settlement occurred primarily in the southern end of the landfill where the waste settled by approximately 8 feet or more in some areas. These significant settlement values are typical of elevated temperature landfill conditions. The landfill perimeter exhibited an increase in elevation, likely due to soil placement associated with construction and/or ongoing maintenance of the

Sidewall Odor Mitigation System. There were variations in elevation associated with soil stockpiling operations.

Based on the landfill area and the net volume change, the average elevation decrease was approximately 2.3 feet.

SCS will collect topographic data covering the landfill surface again in October using photogrammetric methods via UAV. This data will be compared to the data collected in October 2023, July 2024, and September 2024.

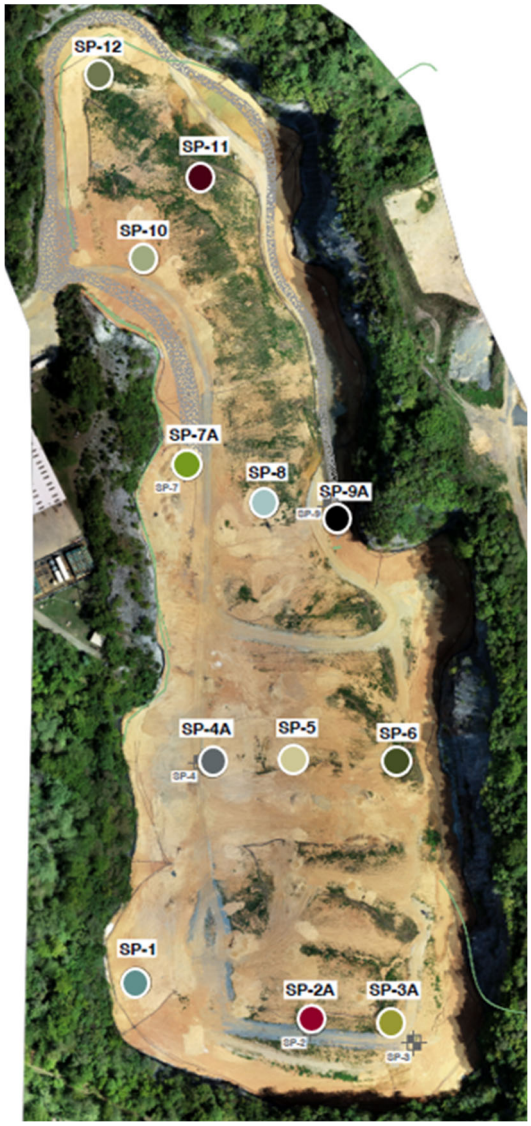
5.2.2 Settlement Plate Surveys

On November 7, 2022 SCS field services installed 12 settlement plates on the Solid Waste Permit No. 588 landfill. The construction and installation of the settlement plates generally conforms to the design outline in the Settlement Monitoring and Management Plan. The tops of the PVC pipes were painted orange to improve visibility.

Five new settlement plates (SP-2A, SP-3A, SP-4A, SP-7A, and SP-9A) installed during June 2024 are intended to replace non-operational settlement plates. SP-9A was installed due to the existing SP-9's location in a low area which is prone to flooding after rain. The first elevation survey of the new settlement plates was completed on 7/10/24. They have replaced the decommissioned plates in the readings.

The settlement plate locations are depicted in Figure 19 and on Sheet 1 in Appendix E.

Figure 19. Settlement Plate Locations



The locations of the settlement plates were surveyed on November 14, 2022. The settlement plates were surveyed again on December 13, 2022; January 3, 2023; February 6, 2023; March 8, 2023; April 3, 2023; May 11, 2023; June 5, 2023; July 10, 2023; August 17, 2023; September 11, 2023; October 11, 2023; November 6, 2023; December 12, 2023; January 11, 2024; February 6, 2024; March 13, 2024; April 9, 2024; May 8, 2024; June 4, 2024; July 10, 2024; July 31, 2024; and September 10, 2024. The surveyed coordinates[2] and elevation changes of the settlement plates are shown in Table 7.

[2] Settlement plate locations and coordinates are based on a local coordinate system.

Table 8. Elevation and Strain Data at Settlement Plate Locations

Settlement Plate	Northing	Easting	Elevation on Sept. 10, 2024	Elevation Change Since July 31, 2024	Strain[3] Since July 31, 2024	Elevation Change Since Installation	Strain/Year
SP-1	3,397,887.4	10412080.4	1,829.6	-0.2	-0.3%	-4.9	-3.0%
SP-2A	3,397,822.5	10,412,370.5	1,795.0	-0.4	-0.3%	-0.8	-2.6%
SP-3A	3,397,819.9	10,412,498.3	1,779.9	-0.1	-0.1%	-0.3	-0.9%
SP-4A	3,398,247.1	10,412,206.3	1,804.6	-0.3	-0.2%	-0.5	-1.8%
SP-5	3,398,255.8	10,412,339.4	1,790.5	-0.4	-0.1%	-10.3	-1.3%
SP-6	3,398,248.8	10,412,510.1	1,773.8	-0.1	-0.1%	-3.9	-0.9%
SP-7A	3,398,732.0	10,412,157.7	1,823.1	-0.1	-0.1%	-0.3	-0.7%
SP-8	3,398,678.3	10,412,290.9	1,800.9	-0.2	-0.1%	-6.5	-0.6%
SP-9A	3,398,644.2	10,412,416.2	1,788.7	0.0	0.0%	-0.1	-0.2%
SP-10	3,399,080.2	10,412,093.2	1,837.5	-0.1	0.0%	-2.7	-0.2%
SP-11	3,399,216.3	10,412,183.9	1,814.9	-0.1	0.0%	-1.4	-0.2%
SP-12	3,399,381.7	10,412,019.7	1,809.9	0.0	0.0%	-0.7	-0.2%

Prior to April 2024, the City's in-house surveyor read the settlement plate elevations. Starting April 2024, the settlement plate elevations were measured by FEI Civil Engineers and Land Surveyors.

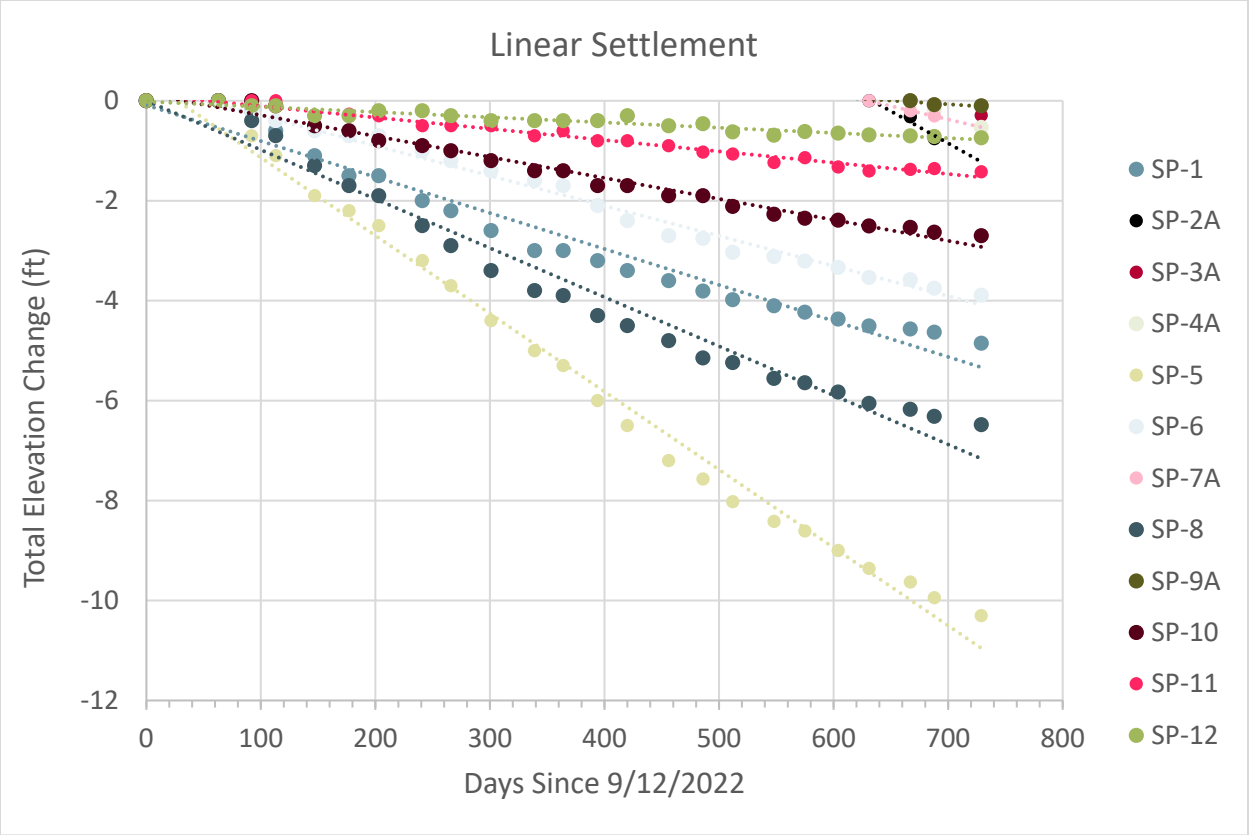
Settlement Plates 1, 2A, and 4A demonstrated larger settlements than at other locations. Settlement Plates 1, 2A and 4A are located in the southern end of the landfill. This area is the location of the gas wells and temperature probes exhibiting higher temperatures. These higher settlement values are typical of elevated temperature landfill conditions.

The change in elevation at the rest of the settlement plates was lower and more representative of typical settlement at municipal landfills with waste of similar depth.

Figure 20 shows the changes in elevation of select settlement plates over time. Best-fit lines for these changes in elevation are also shown on the graph. For the purposes of recording data in this figure, times are measured in days since the landfill was required to stop accepting waste.

[3] Strain is defined as the change in elevation divided by the estimated waste depth.

Figure 20. Elevation Change of Select Settlement Plates Over Time



The settlement plates will be surveyed again during the month of October 2024. The elevations surveyed will be compared to the elevations surveyed the previous months.

6.0 INTERMEDIATE COVER AND EVOH COVER SYSTEM

The City is taking steps to provide intermediate and temporary cover of the wastes in the landfill. The sections below outline the steps taken by the City.

6.1 INTERMEDIATE COVER INSTALLATION

The City completed hauling and placement of a 12-inch-thick intermediate cover across the entire landfill prior to October 10, 2022. The cover was placed in accordance with 9VAC20-81-140(B)(1)(d). SCS coordinated with the City to dig a series of test holes to verify cover thickness in select locations. Details of these verifications were discussed in the October 2022 Monthly Compliance Report for the SWP No. 588 Landfill.

6.2 EVOH COVER SYSTEM DESIGN

On December 4, 2023, SCS submitted a revised stormwater management plan to submit to VDEQ, including revised drawings and calculations. The revised SWMP includes the three quarry basins,

additional stormwater pumps, new stormwater force mains, and the preliminary layout of the new electrical infrastructure along the quarry rim.

On December 18, 2023 SCS and VDEQ met to discuss concerns about the impact of settlement on the proposed EVOH Cover System. The City discussed the appropriate schedule for EVOH deployment with VDEQ given the significant settlement the site is experiencing. An amendment to the Consent Decree was subsequently issued which requires the EVOH deployment no later than December 1, 2026. The amended Consent Decree also requires regular settlement assessments, and the EVOH deployment may occur earlier if settlement rates appear acceptable. The first of these assessments was submitted to VDEQ on April 11, 2024. The most recent assessment was completed on July 15, 2024. The next assessment will be submitted on or before October 11, 2024.

6.3 EVOH COVER SYSTEM PROCUREMENT

Drawings used for the purposes of bidding, procurement and construction of the EVOH cover system will generally conform to the layout and details in the drawings described in section 6.2. SCS also prepared and submitted to VDEQ a specification for the EVOH geomembrane on January 30, 2023 based upon industry standards and discussions with material manufacturers. This specification and drawing set represent the first steps in the procurement process. SCS and the City have coordinated with potential suppliers to specify a product that is not currently anticipated to have long lead times. SCS has received a pro-forma data sheet from one manufacturer which is preparing a customized EVOH product for the No. 588 landfill.

6.4 EVOH COVER SYSTEM INSTALLATION

SCS will prepare regular settlement assessments for VDEQ per the amended Consent Decree. EVOH deployment will commence, with VDEQ's concurrence, if the latest assessment shows acceptable settlement rates. The amended consent decree requires installation of the EVOH cover system by December 1, 2026.

7.0 STORMWATER MANAGEMENT

The City is taking steps to implement a stormwater management plan at the landfill. The sections below outline the steps taken by the City.

7.1 STORMWATER MANAGEMENT PLAN DEVELOPMENT

The initial stormwater management plan (SWMP) was submitted to VDEQ on April 28, 2023.

The revised SWMP was submitted to VDEQ on December 4, 2023. The plan proposes a stormwater pumping system to convey stormwater collected atop the EVOH cover system to an existing discharge point permitted under VPDES permit VAR050053. The proposed system includes the construction of three stormwater collection basins in the quarry and the installation of pairs of skid-mounted stormwater pumps. The stormwater will be conveyed by force main pipes to the existing stormwater basins located west of the quarry.

The plan proposes modifications to the existing stormwater basins west of the quarry to achieve discharge quantity targets. Modifications include increasing the basin depths and installing new outlet riser structures.

7.2 STORMWATER MANAGEMENT BASIN DESIGN AND CONSTRUCTION

The landfill surface will be regraded to form the SWM basins proposed in the stormwater management plan. The earthwork will be completed as the first stage of the interim EVOH cover system installation project. A revised landfill gas management plan is being prepared to facilitate the regrading of the landfill, which will affect existing landfill gas infrastructure. The landfill gas system will be modified to accommodate the earthwork.

Attention is being given to settlement concerns in the vicinity of the stormwater basin or basins. Calculations provided to VDEQ on June 23, 2023 demonstrate the weight of the ponded water should not cause excessive settlement relative to ongoing settlement observed within the quarry. Including additional stormwater basins within the quarry will distribute the weight of ponded water over a wider area relative to the single stormwater basin design.

7.3 STORMWATER MANAGEMENT PLAN IMPLEMENTATION

The stormwater management plan design drawings are being incorporated into the overall construction drawings for the interim EVOH cover system. The interim EVOH cover system installation and stormwater management features will be bid and constructed as one project to facilitate simultaneous progress and completion.

As an interim measure, the City is currently operating a temporary stormwater pump to remove stormwater from the landfill surface.

7.4 LONG-TERM STORMWATER CONTROL AND REMOVAL

The stormwater management plan is designed with resiliency and redundancy to promote long-term operation. Refer to previously submitted compliance reports for details of long-term stormwater control and removal.

7.5 STORMWATER MONITORING

Stormwater monitoring will commence upon initial discharge of stormwater from the quarry stormwater pumping system. As stated in the stormwater management plan drawings, the stormwater shall be monitored in accordance with the facility's VPDES general permit for discharge of stormwater associated with industrial activity. Additional requirements include collecting additional stormwater samples at the discharge pipes for the quarry stormwater pumping system. The stormwater from the quarry basins will be sampled on a monthly basis prior to discharge to the upper stormwater ponds. The Operations Manual will be revised to include these additional requirements.

If the stormwater becomes contaminated or sampling indicates contamination above discharge limits, the stormwater will be diverted to the sanitary sewer system. The diversion to the sanitary sewer system will continue until the source of contamination is identified and resolved. The stormwater discharge pipe alignment will pass adjacent to the existing sanitary sewer manhole. A tee with isolation valves will be used to direct the stormwater to the upper basins or the sanitary sewer manhole.

Stormwater currently pumped from the surface of the landfill is discharged to the sanitary sewer and is sampled with other wastewater discharges in accordance with the facility's industrial wastewater discharge permit.

8.0 MISCELLANEOUS

8.1 CEASE WASTE ACCEPTANCE

The City ceased acceptance of offsite waste at the Solid Waste Permit No. 588 landfill prior to September 12, 2022.

8.2 LONG-TERM PLAN

SCS submitted the Monitoring, Maintenance, and Repair Plan to VDEQ for the SWP No. 588 landfill on December 30, 2022. Refer to the December 2022 Monthly Compliance Report for the SWP No. 588 Landfill for additional information. The City has taken steps to implement the plan that were detailed in the March 2023 Monthly Compliance Report for the SWP No. 588 Landfill.

8.3 MONTHLY COMPLIANCE REPORTS

As described in the introduction this report is intended to provide comprehensive updates regarding progress towards completion of each item described in Appendix A of the Consent Decree between the City and VDEQ.

8.4 COMMUNITY OUTREACH PROGRAM

- Ongoing basis: Four (4) posts on each the BristalVALandfill.org site and the existing City of Bristol Landfill Notifications and Information page covering important updates including:
    - Progress updates related to remediation efforts and normal maintenance activities at the Quarry Landfill
    - Updates included activities at the quarry landfill such as routine cleaning and rebuilding pumps, publication of a new odor reporting form, minor system adjustments for efficiency, and work to determine the cause of now identified two small sub-surface reactions that previously occurred.

- Weekly updates on landing page on Bristolvalandfill.org titled "Air Sampling and Air Monitoring" that includes a summary of the air sampling and monitoring being conducted by Bristol, VA around the quarry landfill.
    - Website now includes weekly air monitoring reports starting with May 15th, 2023 and running through May 19th of 2024. More reports will be posted as the transition to a new air monitoring system is being implemented.

- E-mail communication sent to the list of members of the public signed up through the Bristol, VA website, the BristolVALandfill.org website, or at subsequent Open Houses to receive information via e-mail
    - E-mails sent included weekly remediation progress update and links to website updates and latest news articles.

Appendix A

Surface Emissions Monitoring Summary Letters

September 11, 2024
File No. 02218208.04

Mr. Jonathan Chapman
Enforcement Specialist
Virginia Department of Environmental Quality
SW Regional Office
355-A Deadmore Street
Abingdon, VA 24210

Subject: Weekly Surface Emissions Monitoring Event – September 5, 2024
Bristol Integrated Solid Waste Facility – Bristol, Virginia

Dear Mr. Chapman:

On behalf of the City of Bristol (City), SCS Engineers (SCS), is pleased to submit the results of the Weekly Surface Emissions Monitoring event performed at the Bristol Integrated Solid Waste Facility located in Bristol, Virginia on September 5, 2024. This Weekly Surface Emissions Monitoring (SEM) Event was performed in accordance with Appendix A.1.i of the Consent Decree between the Commonwealth of Virginia and the City of Bristol.

The monitoring generally conforms to the requirements of 40 CFR 63.1960(c) and (d), and 40 CFR 60.36f(c) and (d), and 40 CFR 60, Appendix A, Method 21. The landfill gas (LFG) collection system is required to operate such that the methane concentration is less than 500 ppm above background at the landfill surface.

The monitoring route includes the entire waste footprint of the Permit No. 588 Landfill. Sampling was conducted with a Thermo Scientific TVA-2020 Flame Ionization Detector (FID) at 30-meter intervals and where visual observations indicated the potential for elevated concentrations of LFG, such as distressed vegetation and surface cover cracks. In addition, in accordance with 40 CFR 63.1958(d)(ii)(2) and 40 CFR 60.34f(d), monitoring was conducted at all surface cover penetrations within the waste footprint, including at the temperature probes and the newly installed and connected gas extraction wells. The approximate monitoring route and sampling locations are presented in the attached Drawing.

At the time of monitoring, all areas of the Permit No. 588 Landfill footprint are subject to regulatory monitoring based on the regulatory time schedule stipulated in 40 CFR 63.1960(b) and 40 CFR 60.36f(b). The Permit No. 588 Landfill has a surface area of approximately 17.3 acres. Therefore, the minimum number of sampling points to cover the appropriate portion of the landfill footprint, utilizing a 30-meter grid interval, is approximately 82 (4.75 points per acre). A summary of the results of the surface emissions monitoring is provided in Table 1.

Table 1. Summary of Surface Emissions Monitoring

Description	Quantity
Number of Points Sampled	167
Number of Points in Serpentine Route	100
Number of Points at Surface Cover Penetrations	67
Number of Exceedances	4
Number of Serpentine Exceedances	0
Number of Pipe Penetration Exceedances	4

REMONITORING OF ONGOING EXCEEDANCES

In accordance with 40 CFR 63.1960(c)(4)(ii) and 40 CFR 60.36f(c)(4)(ii), corrective actions and a remonitoring event are to be performed within 10 days of the initial exceedance. In accordance with 40 CFR 63.1960(c)(4)(iii) and 40 CFR 60.36f(c)(4)(iii) additional corrective actions and a second 10-day retest are to be performed if the initial 10-day retest indicates methane values greater than the regulatory threshold. The Facility performs corrective actions, as necessary, including wellhead vacuum adjustments, the installation of well-bore seals, and addition of soil cover prior to weekly monitoring events at locations that previously exhibited elevated methane concentrations.

In accordance with 40 CFR 63.1960(c)(4)(v) and 40 CFR 60.36f(c)(4)(v) a new well or collection device must be installed or an alternate remedy must be submitted within 120 days at locations that continue to exhibit methane concentrations above the regulatory threshold for two consecutive re-tests.

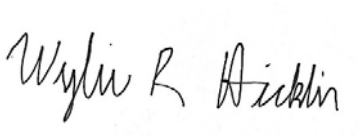
A summary of ongoing exceedance points is provided in Table 2.

Table 2. Ongoing Weekly SEM Exceedances

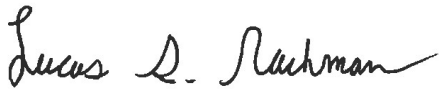
Point ID	Initial Exceedance Date	9/5/24 Event	9/5/24 Event Result	Comments
EW-79	7/22/24	N/A	Failed	Subject to 40 CFR 63.1960(c)(4)(v)
EW-63	8/1/24	N/A	Passed	Subject to 40 CFR 63.1960(c)(4)(v)
EW-64	8/1/24	N/A	Passed	Subject to 40 CFR 63.1960(c)(4)(v)
EW-77	8/1/24	N/A	Failed	Subject to 40 CFR 63.1960(c)(4)(v)
EW-33B	8/7/24	N/A	Passed	Subject to 40 CFR 63.1960(c)(4)(v)
TP-9	8/7/24	1-Month Retest	Failed	Requires 1-Month Follow Up
EW-91	8/15/24	N/A	Passed	Requires 1-Month Retest
Tag 61	8/21/24	2nd 10-Day Retest	Passed	Requires 1-Month Retest
EW-65	8/21/24	2nd 10-Day Retest	Passed	Requires 1-Month Retest

If you have questions or require additional information, please contact either of the undersigned.

Sincerely,



Wylie R Hicklin
Associate Professional
SCS Engineers



Lucas S. Nachman
Senior Project Professional
SCS Engineers

LSN/WRH

cc: Randall Eads, City of Bristol
Jonathan Hayes, City of Bristol
Laura Socia, City of Bristol
Susan “Tracey” Blalock, VDEQ

Encl. Surface Emissions Monitoring Results
Bristol SEM Route Drawing

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS
WEEKLY MONITORING EVENT - SEPTEMBER 5, 2024
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA

ID #	Methane Concentration	Compliance	GPS Coordinates Lat.	Long.	Comments
1	0.3 PPM	OK			Start Serpentine Route
2	0.0 PPM	OK			
3	0.0 PPM	OK			
4	0.1 PPM	OK			
5	0.0 PPM	OK			
6	0.0 PPM	OK			
7	0.0 PPM	OK			
8	3.1 PPM	OK			
9	0.6 PPM	OK			
10	1.9 PPM	OK			
11	3.1 PPM	OK			
12	3.6 PPM	OK			
13	3.1 PPM	OK			
14	4.2 PPM	OK			
15	3.3 PPM	OK			
16	8.8 PPM	OK			
17	16.1 PPM	OK			
18	1.0 PPM	OK			
19	0.9 PPM	OK			
20	1.0 PPM	OK			
21	0.7 PPM	OK			
22	2.0 PPM	OK			
23	0.1 PPM	OK			
24	0.1 PPM	OK			
25	0.0 PPM	OK			
26	0.2 PPM	OK			
27	0.0 PPM	OK			
28	0.2 PPM	OK			
29	0.0 PPM	OK			
30	21.7 PPM	OK			
31	95.1 PPM	OK			
32	0.3 PPM	OK			
33	0.0 PPM	OK			
34	79.6 PPM	OK			
35	6.2 PPM	OK			
36	5.3 PPM	OK			
37	13.5 PPM	OK			
38	28.5 PPM	OK			
39	75.7 PPM	OK			
40	144.0 PPM	OK			
41	98.6 PPM	OK			
42	0.6 PPM	OK			
43	0.6 PPM	OK			
44	0.0 PPM	OK			
45	0.0 PPM	OK			
46	1.2 PPM	OK			
47	2.1 PPM	OK			

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS
WEEKLY MONITORING EVENT - SEPTEMBER 5, 2024
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA

ID #	Methane Concentration	Compliance	GPS Coordinates Lat.	Long.	Comments
48	1.3 PPM	OK			
49	2.5 PPM	OK			
50	116.0 PPM	OK			
51	2.1 PPM	OK			
52	6.4 PPM	OK			
53	459.0 PPM	OK			
54	16.3 PPM	OK			
55	2.1 PPM	OK			
56	1.4 PPM	OK			
57	2.4 PPM	OK			
58	3.7 PPM	OK			
59	0.3 PPM	OK			
60	0.0 PPM	OK			
61	0.0 PPM	OK			
62	0.5 PPM	OK			
63	223.0 PPM	OK			
64	0.8 PPM	OK			
65	22.6 PPM	OK			
66	0.0 PPM	OK			
67	0.0 PPM	OK			
68	4.3 PPM	OK			
69	0.0 PPM	OK			
70	1.0 PPM	OK			
71	1.9 PPM	OK			
72	5.4 PPM	OK			
73	2.8 PPM	OK			
74	0.3 PPM	OK			
75	5.0 PPM	OK			
76	174.0 PPM	OK			
77	26.3 PPM	OK			
78	16.6 PPM	OK			
79	19.1 PPM	OK			
80	2.8 PPM	OK			
81	0.0 PPM	OK			
82	0.0 PPM	OK			
83	0.5 PPM	OK			
84	2.1 PPM	OK			
85	3.7 PPM	OK			
86	342.0 PPM	OK			
87	89.0 PPM	OK			
88	58.4 PPM	OK			
89	39.7 PPM	OK			
90	26.1 PPM	OK			
91	7.3 PPM	OK			
92	0.7 PPM	OK			
93	1.2 PPM	OK			
94	60.5 PPM	OK			

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS
WEEKLY MONITORING EVENT - SEPTEMBER 5, 2024
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA

ID #	Methane Concentration	Compliance	GPS Coordinates Lat.	Long.	Comments
95	18.8 PPM	OK			
96	8.0 PPM	OK			
97	6.9 PPM	OK			
98	0.6 PPM	OK			
99	0.6 PPM	OK			
100	0.9 PPM	OK			End Serpentine Route
101	0.0 PPM	OK			EW-69
102	0.3 PPM	OK			EW-71
103	0.0 PPM	OK			EW-32R
104	0.0 PPM	OK			EW-72
105	0.0 PPM	OK			EW-62
106	0.2 PPM	OK			EW-74
107	40.8 PPM	OK			EW-75
108	77.4 PPM	OK			EW-33B
109	47.8 PPM	OK			EW-63
110	8362.0 PPM	HIGH_ALRM	36.60072	-82.14819	EW-77
111	227.0 PPM	OK			EW-64
112	1892.0 PPM	HIGH_ALRM	36.60051	-82.14819	EW-79
113	18.5 PPM	OK			TP-8
114	18.0 PPM	OK			EW-81
115	29.5 PPM	OK			EW-80
116	55.8 PPM	OK			EW-83
117	255.0 PPM	OK			EW-84
118	2.9 PPM	OK			EW-49
119	279.0 PPM	OK			TP-7
120	0.6 PPM	OK			EW-50
121	0.8 PPM	OK			TP-6
122	1.0 PPM	OK			EW-61
123	169.0 PPM	OK			EW-60
124	39.9 PPM	OK			EW-48
125	2.5 PPM	OK			EW-87
126	0.5 PPM	OK			EW-38
127	10.8 PPM	OK			EW-86
128	175.0 PPM	OK			EW-90
129	3.4 PPM	OK			TP-5
130	2.5 PPM	OK			EW-68
131	105.0 PPM	OK			TP-4
132	182.0 PPM	OK			EW-52
133	0.0 PPM	OK			EW-92
134	1.9 PPM	OK			EW-55
135	93.9 PPM	OK			EW-54
136	12.3 PPM	OK			EW-47
137	2.5 PPM	OK			EW-67
138	21.5 PPM	OK			EW-91
139	171.0 PPM	OK			EW-51
140	4.6 PPM	OK			EW-53

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS
WEEKLY MONITORING EVENT - SEPTEMBER 5, 2024
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA

ID #	Methane Concentration	Compliance	GPS Coordinates Lat.	Long.	Comments
141	1.7 PPM	OK			TP-3
142	653.0 PPM	HIGH_ALRM	36.59845	-82.14763	EW-96
143	2.6 PPM	OK			TP-2
144	30.2 PPM	OK			EW-66
145	1.3 PPM	OK			EW-58
146	0.0 PPM	OK			EW-98
147	0.0 PPM	OK			EW-94
148	0.0 PPM	OK			EW-93
149	0.0 PPM	OK			EW-59
150	6.8 PPM	OK			EW-57
151	0.2 PPM	OK			TP-1
152	243.0 PPM	OK			EW-100
153	89.9 PPM	OK			EW-56
154	3.7 PPM	OK			EW-99
155	0.3 PPM	OK			EW-97
156	26.0 PPM	OK			EW-95
157	0.2 PPM	OK			EW-89
158	1.0 PPM	OK			EW-88
159	0.6 PPM	OK			EW-85
160	0.5 PPM	OK			EW-36A
161	20.6 PPM	OK			EW-82
162	337.0 PPM	OK			EW-65
163	2.7 PPM	OK			EW-78
164	12.3 PPM	OK			EW-42
165	199.0 PPM	OK			EW-76
166	5318.0 PPM	HIGH_ALRM	36.60127	-82.14811	TP-9
167	17.5 PPM	OK			EW-73

Number of locations sampled:	167
Number of exceedance locations:	4

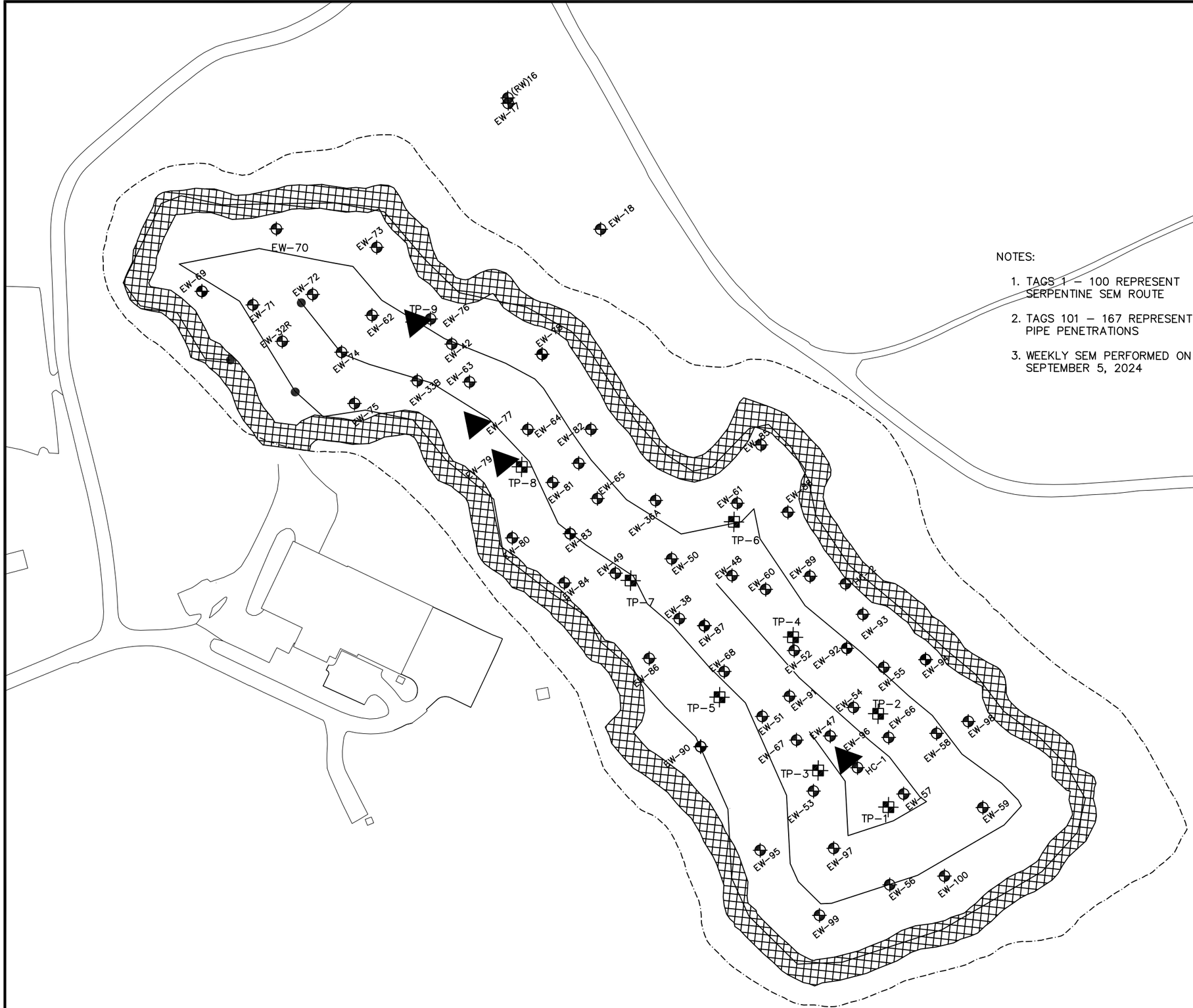
NOTES:
Points 1 through 100 represent serpentine SEM route.
Points 101 through 167 represent SEM at Pipe Penetrations
Weather Conditions: Sunny, 70°F Wind: 3 MPH NW

Sampling Calibration: Methane - 500 ppm, Zero Air - 0.0 ppm

9/5/2024	9:38	ZERO	0.1	PPM
9/5/2024	9:41	SPAN	503.0	PPM

Background Reading:

9/5/2024	9:44	Upwind	1.1	PPM
9/5/2024	9:49	Downwind	2.3	PPM



NOTES:

1. TAGS 1 – 100 REPRESENT SERPENTINE SEM ROUTE
2. TAGS 101 – 167 REPRESENT SEM AT PIPE PENETRATIONS
3. WEEKLY SEM PERFORMED ON SEPTEMBER 5, 2024

0 80 160 240
SCALE IN FEET

N

LEGEND

- SEM ROUTE
- GAS WELL
- TEMPERATURE PROBE
- 79 EXCEEDANCE LOCATION
- 75 MONITORING ROUTE ENDPOINT

NO.	REVISION	DATE

SHEET TITLE
SEM ROUTE WITH BUFFER AREA

PROJECT TITLE
SURFACE EMISSIONS MONITORING
SOLID WASTE PERMIT #588

CLIENT
CITY OF BRISTOL INTEGRATED SOLID WASTE MANAGEMENT FACILITY
2655 VALLEY DRIVE
BRISTOL, VA 24201

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS, INC.
15521 MIDLOTHIAN TNPK - MIDLOTHIAN, VA 23113
PH. (804) 378-7440 FAX: (804) 378-7433

PROJ. NO. 02218208.04
DSN. BY:
CHK. BY:
QA/QC BY:
APP. BY:

FILE: 02218208.04
DATE: 9/5/24
SCALE: AS SHOWN
DRAWING NO. 1 of 1

October 2, 2024
File No. 02218208.04

Mr. Jonathan Chapman
Enforcement Specialist
Virginia Department of Environmental Quality
SW Regional Office
355-A Deadmore Street
Abingdon, VA 24210

Subject: Weekly Surface Emissions Monitoring Event – September 23, 2024
Bristol Integrated Solid Waste Facility – Bristol, Virginia

Dear Mr. Chapman:

On behalf of the City of Bristol (City), SCS Engineers (SCS), is pleased to submit the results of the Weekly Surface Emissions Monitoring event performed at the Bristol Integrated Solid Waste Facility located in Bristol, Virginia on September 23, 2024. This Weekly Surface Emissions Monitoring (SEM) Event was performed in accordance with Appendix A.1.i of the Consent Decree between the Commonwealth of Virginia and the City of Bristol.

The monitoring generally conforms to the requirements of 40 CFR 63.1960(c) and (d), and 40 CFR 60.36f(c) and (d), and 40 CFR 60, Appendix A, Method 21. The landfill gas (LFG) collection system is required to operate such that the methane concentration is less than 500 ppm above background at the landfill surface.

The monitoring route includes the entire waste footprint of the Permit No. 588 Landfill. Sampling was conducted with a Thermo Scientific TVA-2020 Flame Ionization Detector (FID) at 30-meter intervals and where visual observations indicated the potential for elevated concentrations of LFG, such as distressed vegetation and surface cover cracks. In addition, in accordance with 40 CFR 63.1958(d)(ii)(2) and 40 CFR 60.34f(d), monitoring was conducted at all surface cover penetrations within the waste footprint, including at the temperature probes and the newly installed and connected gas extraction wells. The approximate monitoring route and sampling locations are presented in the attached Drawing.

At the time of monitoring, all areas of the Permit No. 588 Landfill footprint are subject to regulatory monitoring based on the regulatory time schedule stipulated in 40 CFR 63.1960(b) and 40 CFR 60.36f(b). The Permit No. 588 Landfill has a surface area of approximately 17.3 acres. Therefore, the minimum number of sampling points to cover the appropriate portion of the landfill footprint, utilizing a 30-meter grid interval, is approximately 82 (4.75 points per acre). A summary of the results of the surface emissions monitoring is provided in Table 1.

Table 1. Summary of Surface Emissions Monitoring

Description	Quantity
Number of Points Sampled	166
Number of Points in Serpentine Route	100
Number of Points at Surface Cover Penetrations	66
Number of Exceedances	8
Number of Serpentine Exceedances	1
Number of Pipe Penetration Exceedances	7

REMONITORING OF ONGOING EXCEEDANCES

In accordance with 40 CFR 63.1960(c)(4)(ii) and 40 CFR 60.36f(c)(4)(ii), corrective actions and a remonitoring event are to be performed within 10 days of the initial exceedance. In accordance with 40 CFR 63.1960(c)(4)(iii) and 40 CFR 60.36f(c)(4)(iii) additional corrective actions and a second 10-day retest are to be performed if the initial 10-day retest indicates methane values greater than the regulatory threshold. The Facility performs corrective actions, as necessary, including wellhead vacuum adjustments, the installation of well-bore seals, and addition of soil cover prior to weekly monitoring events at locations that previously exhibited elevated methane concentrations.

In accordance with 40 CFR 63.1960(c)(4)(v) and 40 CFR 60.36f(c)(4)(v) a new well or collection device must be installed or an alternate remedy must be submitted within 120 days at locations that continue to exhibit methane concentrations above the regulatory threshold for two consecutive re-tests.

The Facility continued to observe an increase of exceedance points during this weekly event, likely due to reduced vacuum at several of the vertical extraction wells. This will be addressed by increasing vacuum at these locations.

A summary of ongoing exceedance points is provided in Table 2.

Table 2. Ongoing Weekly SEM Exceedances

Point ID	Initial Exceedance Date	9/23/24 Event	9/23/24 Event Result	Comments
EW-79	7/22/24	N/A	Failed	Subject to 40 CFR 63.1960(c)(4)(v)
EW-63	8/1/24	N/A	Passed	Subject to 40 CFR 63.1960(c)(4)(v)
EW-64	8/1/24	N/A	Failed	Subject to 40 CFR 63.1960(c)(4)(v)
EW-77	8/1/24	N/A	Failed	Subject to 40 CFR 63.1960(c)(4)(v)
EW-33B	8/7/24	N/A	Failed	Subject to 40 CFR 63.1960(c)(4)(v)
EW-65	8/21/24	N/A	Failed	Subject to 40 CFR 63.1960(c)(4)(v)
Tag 61	8/21/24	N/A	Failed	Subject to 40 CFR 63.1960(c)(4)(v)
EW-67	9/9/24	2nd 10-Day Retest	Failed	Subject to 40 CFR 63.1960(c)(4)(v)
EW-96	9/5/24	N/A	Passed	Requires 1-Month Retest
EW-75	9/9/24	N/A	Failed	Requires 2nd 10-Day Retest
EW-80	9/16/24	10-Day Retest	Passed	Requires 1-Month Retest

If you have questions or require additional information, please contact either of the undersigned.

Sincerely,

William J. Fabrie

Lucas S. Nachman

William J. Fabrie
Staff Professional
SCS Engineers

Lucas S. Nachman
Senior Project Professional
SCS Engineers

LSN/WJF

cc: Randall Eads, City of Bristol
Jonathan Hayes, City of Bristol
Laura Socia, City of Bristol
Susan “Tracey” Blalock, VDEQ

Encl. Surface Emissions Monitoring Results
Bristol SEM Route Drawing

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS
WEEKLY MONITORING EVENT - SEPTEMBER 23, 2024
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA

ID #	Methane Concentration	Compliance	GPS Coordinates Lat.	Long.	Comments
1	71.7 PPM	OK			Start Serpentine Route
2	7.6 PPM	OK			
3	6.4 PPM	OK			
4	4.0 PPM	OK			
5	2.7 PPM	OK			
6	1.6 PPM	OK			
7	3.9 PPM	OK			
8	2.0 PPM	OK			
9	3.3 PPM	OK			
10	2.5 PPM	OK			
11	2.3 PPM	OK			
12	5.9 PPM	OK			
13	3.2 PPM	OK			
14	3.0 PPM	OK			
15	1.8 PPM	OK			
16	3.9 PPM	OK			
17	3.3 PPM	OK			
18	1.1 PPM	OK			
19	2.5 PPM	OK			
20	2.5 PPM	OK			
21	1.5 PPM	OK			
22	2.4 PPM	OK			
23	1.0 PPM	OK			
24	1.2 PPM	OK			
25	1.7 PPM	OK			
26	1.2 PPM	OK			
27	0.9 PPM	OK			
28	1.1 PPM	OK			
29	1.1 PPM	OK			
30	3.3 PPM	OK			
31	9.7 PPM	OK			
32	107.0 PPM	OK			
33	39.1 PPM	OK			
34	7.7 PPM	OK			
35	224.0 PPM	OK			
36	116.0 PPM	OK			
37	38.3 PPM	OK			
38	2.4 PPM	OK			
39	2.7 PPM	OK			
40	1.5 PPM	OK			
41	2.0 PPM	OK			
42	10.8 PPM	OK			
43	15.1 PPM	OK			
44	9.6 PPM	OK			
45	8.2 PPM	OK			
46	130.0 PPM	OK			
47	8.7 PPM	OK			

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS
WEEKLY MONITORING EVENT - SEPTEMBER 23, 2024
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA

ID #	Methane Concentration	Compliance	GPS Coordinates Lat.	Long.	Comments
48	12.6 PPM	OK			
49	3.8 PPM	OK			
50	0.3 PPM	OK			
51	1.3 PPM	OK			
52	1.8 PPM	OK			
53	5.8 PPM	OK			
54	0.4 PPM	OK			
55	8.9 PPM	OK			
56	4.8 PPM	OK			
57	4.1 PPM	OK			
58	14.5 PPM	OK			
59	17.4 PPM	OK			
60	62.3 PPM	OK			
61	655.0 PPM	HIGH_ALRM	36.60029	-82.14785	
62	14.2 PPM	OK			
63	4.2 PPM	OK			
64	0.4 PPM	OK			
65	2.5 PPM	OK			
66	0.6 PPM	OK			
67	0.2 PPM	OK			
68	0.1 PPM	OK			
69	0.3 PPM	OK			
70	0.0 PPM	OK			
71	0.4 PPM	OK			
72	40.8 PPM	OK			
73	1.3 PPM	OK			
74	1.5 PPM	OK			
75	1.2 PPM	OK			
76	39.3 PPM	OK			
77	8.6 PPM	OK			
78	35.6 PPM	OK			
79	6.5 PPM	OK			
80	3.4 PPM	OK			
81	0.6 PPM	OK			
82	0.4 PPM	OK			
83	0.4 PPM	OK			
84	0.8 PPM	OK			
85	0.4 PPM	OK			
86	1.8 PPM	OK			
87	1.0 PPM	OK			
88	6.3 PPM	OK			
89	6.1 PPM	OK			
90	134.0 PPM	OK			
91	0.9 PPM	OK			
92	88.8 PPM	OK			
93	15.5 PPM	OK			
94	2.8 PPM	OK			

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS
WEEKLY MONITORING EVENT - SEPTEMBER 23, 2024
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA

ID #	Methane Concentration	Compliance	GPS Coordinates Lat.	Long.	Comments
95	1.4 PPM	OK			
96	0.2 PPM	OK			
97	0.3 PPM	OK			
98	3.6 PPM	OK			
99	1.9 PPM	OK			
100	29.8 PPM	OK			End Serpentine Route
101	72.5 PPM	OK			EW-52
102	15.0 PPM	OK			TP-4
103	4.8 PPM	OK			EW-60
104	31.1 PPM	OK			EW-48
105	2.6 PPM	OK			TP-6
106	0.6 PPM	OK			EW-61
107	0.0 PPM	OK			EW-50
108	6266.0 PPM	HIGH_ALRM	36.59873	-82.14775	EW-67
109	4.8 PPM	OK			EW-47
110	4.2 PPM	OK			EW-54
111	0.1 PPM	OK			EW-92
112	13.1 PPM	OK			EW-91
113	0.0 PPM	OK			EW-96
114	0.0 PPM	OK			TP-2
115	328.0 PPM	OK			EW-66
116	0.0 PPM	OK			EW-58
117	9.8 PPM	OK			EW-57
118	51.0 PPM	OK			TP-1
119	0.5 PPM	OK			EW-59
120	11.3 PPM	OK			EW-100
121	160.0 PPM	OK			EW-56
122	1.6 PPM	OK			EW-97
123	256.0 PPM	OK			EW-53
124	3.5 PPM	OK			TP-3
125	284.0 PPM	OK			EW-51
126	1.1 PPM	OK			TP-5
127	6.5 PPM	OK			EW-68
128	11.3 PPM	OK			EW-87
129	45.3 PPM	OK			EW-38
130	181.0 PPM	OK			TP-7
131	0.6 PPM	OK			EW-49
132	0.8 PPM	OK			EW-83
133	1847.0 PPM	HIGH_ALRM	36.60017	-82.14787	EW-65
134	15.1 PPM	OK			EW-81
135	5.6 PPM	OK			TP-8
136	1628.0 PPM	HIGH_ALRM	36.60056	-82.14796	EW-64
137	208.0 PPM	OK			EW-63
138	9.9 PPM	OK			EW-42
139	12.3 PPM	OK			EW-76

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS
WEEKLY MONITORING EVENT - SEPTEMBER 23, 2024
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA

ID #	Methane Concentration	Compliance	GPS Coordinates Lat.	Long.	Comments
140	17.6 PPM	OK			TP-9
141	1.1 PPM	OK			EW-62
142	5.2 PPM	OK			EW-74
143	2.3 PPM	OK			EW-32R
144	0.3 PPM	OK			EW-69
145	1.9 PPM	OK			EW-71
146	4.6 PPM	OK			EW-72
147	3.3 PPM	OK			EW-73
148	10.6 PPM	OK			EW-78
149	229.0 PPM	OK			EW-82
150	1.0 PPM	OK			EW-36A
151	0.0 PPM	OK			EW-85
152	1.5 PPM	OK			EW-88
153	1.2 PPM	OK			EW-89
154	0.2 PPM	OK			EW-93
155	1.8 PPM	OK			EW-94
156	0.0 PPM	OK			EW-98
157	18.9 PPM	OK			EW-99
158	53.3 PPM	OK			EW-95
159	2.3 PPM	OK			EW-90
160	25.7 PPM	OK			EW-86
161	142.0 PPM	OK			EW-84
162	40.8 PPM	OK			EW-80
163	1222.0 PPM	HIGH_ALRM	36.60051	-82.14819	EW-79
164	21900.0 PPM	HIGH_ALRM	36.60072	-82.14819	EW-77
165	1084.0 PPM	HIGH_ALRM	36.60105	-82.14831	EW-33B
166	1111.0 PPM	HIGH_ALRM	36.60106	-82.14828	EW-75

Number of locations sampled:	166
Number of exceedance locations:	8

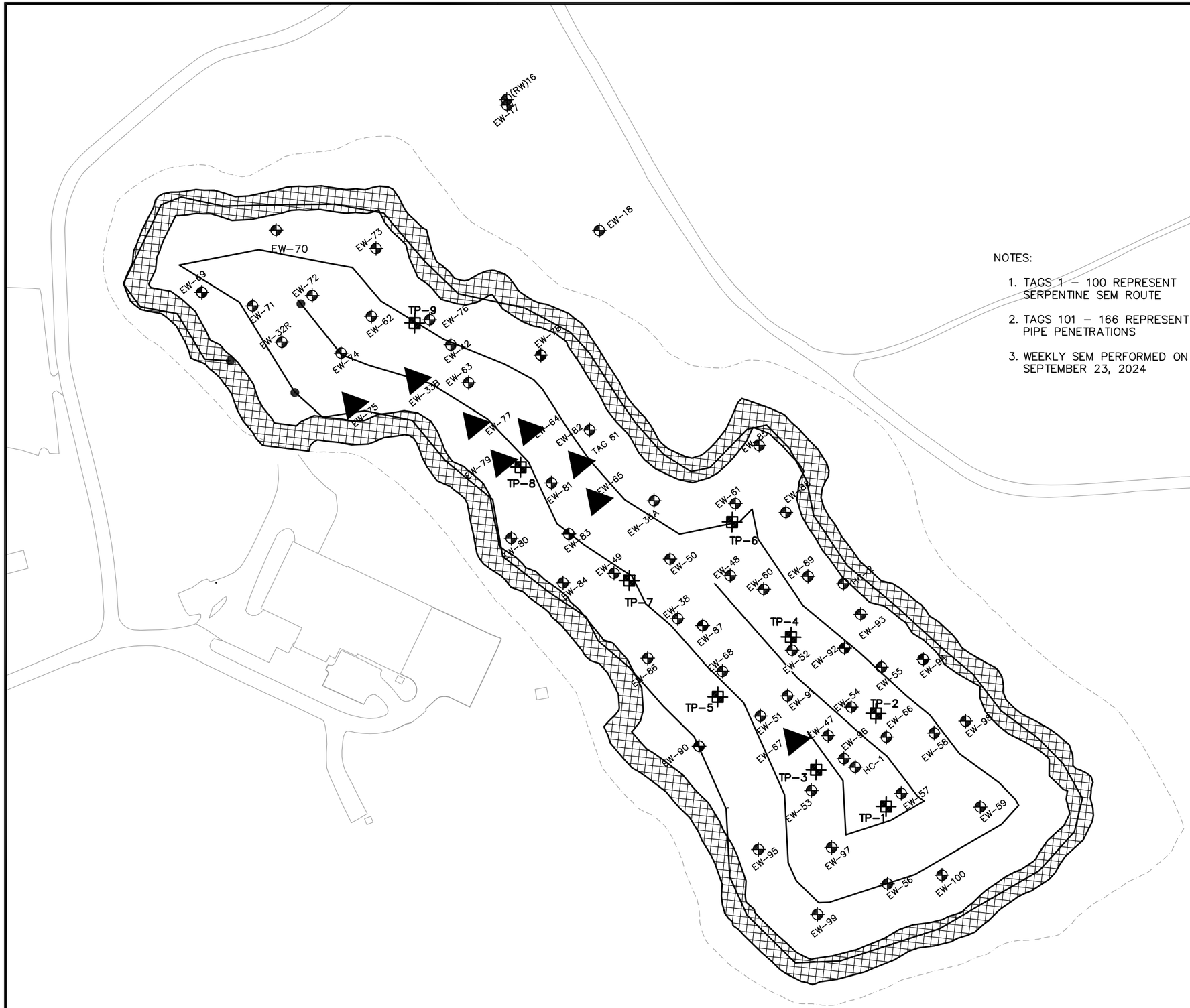
NOTES:
Points 1 through 100 represent serpentine SEM route.
Points 101 through 166 represent SEM at Pipe Penetrations
Weather Conditions: Sunny, 82°F Wind: 6 MPH W

Sampling Calibration: Methane - 500 ppm, Zero Air - 0.0 ppm

9/23/2024	10:59	ZERO	0.3	PPM
9/23/2024	11:00	SPAN	501.0	PPM

Background Reading:

9/23/2024	11:03	Upwind	1.5	PPM
9/23/2024	11:07	Downwind	2.1	PPM



NOTES:

1. TAGS 1 – 100 REPRESENT SERPENTINE SEM ROUTE
2. TAGS 101 – 166 REPRESENT SEM AT PIPE PENETRATIONS
3. WEEKLY SEM PERFORMED ON SEPTEMBER 23, 2024

0 80 160 240
SCALE IN FEET

N

LEGEND

- SEM ROUTE
- GAS WELL
- TEMPERATURE PROBE
- 79 EXCEEDANCE LOCATION
- 75 MONITORING ROUTE ENDPOINT

NO.	REVISION	DATE

SHEET TITLE
SEM ROUTE WITH BUFFER AREA

PROJECT TITLE
SURFACE EMISSIONS MONITORING
SOLID WASTE PERMIT #588

CLIENT
CITY OF BRISTOL INTEGRATED SOLID WASTE MANAGEMENT FACILITY
2655 VALLEY DRIVE
BRISTOL, VA 24201

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS, INC.
15821 MIDLOTHIAN TNPK - MIDLOTHIAN, VA 23113
PH. (804) 378-7440 FAX. (804) 378-7433

PROJ. NO. 02218208.04
DSN. BY:
DWN. BY:
CHK. BY:
QA/QC BY:
APP. BY:

FILE: 02218208.04
DATE: 9/23/24
SCALE: AS SHOWN
DRAWING NO. 1 of 1

September 25, 2024
File No. 02218208.04

Mr. Jonathan Chapman
Enforcement Specialist
Virginia Department of Environmental Quality
SW Regional Office
355-A Deadmore Street
Abingdon, VA 24210

Subject: Weekly Surface Emissions Monitoring Event – September 16, 2024
Bristol Integrated Solid Waste Facility – Bristol, Virginia

Dear Mr. Chapman:

On behalf of the City of Bristol (City), SCS Engineers (SCS), is pleased to submit the results of the Weekly Surface Emissions Monitoring event performed at the Bristol Integrated Solid Waste Facility located in Bristol, Virginia on September 16, 2024. This Weekly Surface Emissions Monitoring (SEM) Event was performed in accordance with Appendix A.1.i of the Consent Decree between the Commonwealth of Virginia and the City of Bristol.

The monitoring generally conforms to the requirements of 40 CFR 63.1960(c) and (d), and 40 CFR 60.36f(c) and (d), and 40 CFR 60, Appendix A, Method 21. The landfill gas (LFG) collection system is required to operate such that the methane concentration is less than 500 ppm above background at the landfill surface.

The monitoring route includes the entire waste footprint of the Permit No. 588 Landfill. Sampling was conducted with a Thermo Scientific TVA-2020 Flame Ionization Detector (FID) at 30-meter intervals and where visual observations indicated the potential for elevated concentrations of LFG, such as distressed vegetation and surface cover cracks. In addition, in accordance with 40 CFR 63.1958(d)(ii)(2) and 40 CFR 60.34f(d), monitoring was conducted at all surface cover penetrations within the waste footprint, including at the temperature probes and the newly installed and connected gas extraction wells. The approximate monitoring route and sampling locations are presented in the attached Drawing.

At the time of monitoring, all areas of the Permit No. 588 Landfill footprint are subject to regulatory monitoring based on the regulatory time schedule stipulated in 40 CFR 63.1960(b) and 40 CFR 60.36f(b). The Permit No. 588 Landfill has a surface area of approximately 17.3 acres. Therefore, the minimum number of sampling points to cover the appropriate portion of the landfill footprint, utilizing a 30-meter grid interval, is approximately 82 (4.75 points per acre). A summary of the results of the surface emissions monitoring is provided in Table 1.

Table 1. Summary of Surface Emissions Monitoring

Description	Quantity
Number of Points Sampled	167
Number of Points in Serpentine Route	100
Number of Points at Surface Cover Penetrations	67
Number of Exceedances	8
Number of Serpentine Exceedances	1
Number of Pipe Penetration Exceedances	7

REMONITORING OF ONGOING EXCEEDANCES

In accordance with 40 CFR 63.1960(c)(4)(ii) and 40 CFR 60.36f(c)(4)(ii), corrective actions and a remonitoring event are to be performed within 10 days of the initial exceedance. In accordance with 40 CFR 63.1960(c)(4)(iii) and 40 CFR 60.36f(c)(4)(iii) additional corrective actions and a second 10-day retest are to be performed if the initial 10-day retest indicates methane values greater than the regulatory threshold. The Facility performs corrective actions, as necessary, including wellhead vacuum adjustments, the installation of well-bore seals, and addition of soil cover prior to weekly monitoring events at locations that previously exhibited elevated methane concentrations.

In accordance with 40 CFR 63.1960(c)(4)(v) and 40 CFR 60.36f(c)(4)(v) a new well or collection device must be installed or an alternate remedy must be submitted within 120 days at locations that continue to exhibit methane concentrations above the regulatory threshold for two consecutive re-tests.

A summary of ongoing exceedance points is provided in Table 2.

Table 2. Ongoing Weekly SEM Exceedances

Point ID	Initial Exceedance Date	9/16/24 Event	9/16/24 Event Result	Comments
EW-79	7/22/24	N/A	Failed	Subject to 40 CFR 63.1960(c)(4)(v)
EW-63	8/1/24	N/A	Passed	Subject to 40 CFR 63.1960(c)(4)(v)
EW-64	8/1/24	N/A	Failed	Subject to 40 CFR 63.1960(c)(4)(v)
EW-77	8/1/24	N/A	Failed	Subject to 40 CFR 63.1960(c)(4)(v)
EW-33B	8/7/24	N/A	Failed	Subject to 40 CFR 63.1960(c)(4)(v)
EW-65	8/21/24	N/A	Failed	Subject to 40 CFR 63.1960(c)(4)(v)
Tag 61	8/21/24	1-Month Retest	Failed	Subject to 40 CFR 63.1960(c)(4)(v)
EW-96	9/5/24	N/A	Passed	Requires 1-Month Retest
EW-75	9/9/24	10-Day Retest	Passed	Requires 1-Month Retest
EW-67	9/9/24	10-Day Retest	Failed	Requires 2nd 10-Day Retest

If you have questions or require additional information, please contact either of the undersigned.

Sincerely,

Wylie R Hicklin
Associate Professional
SCS Engineers

Lucas S. Nachman
Senior Project Professional
SCS Engineers

LSN/WRH

cc: Randall Eads, City of Bristol
Jonathan Hayes, City of Bristol
Laura Socia, City of Bristol
Susan “Tracey” Blalock, VDEQ

Encl. Surface Emissions Monitoring Results
Bristol SEM Route Drawing

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS
WEEKLY MONITORING EVENT - SEPTEMBER 16, 2024
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA

ID #	Methane Concentration	Compliance	GPS Coordinates Lat.	Long.	Comments
1	16.2 PPM	OK			Start Serpentine Route
2	3.6 PPM	OK			
3	5.0 PPM	OK			
4	1.0 PPM	OK			
5	1.5 PPM	OK			
6	1.1 PPM	OK			
7	4.4 PPM	OK			
8	4.2 PPM	OK			
9	5.8 PPM	OK			
10	4.2 PPM	OK			
11	8.0 PPM	OK			
12	2.9 PPM	OK			
13	9.0 PPM	OK			
14	0.9 PPM	OK			
15	2.6 PPM	OK			
16	2.7 PPM	OK			
17	1.3 PPM	OK			
18	2.4 PPM	OK			
19	3.1 PPM	OK			
20	11.9 PPM	OK			
21	3.8 PPM	OK			
22	2.7 PPM	OK			
23	3.2 PPM	OK			
24	1.4 PPM	OK			
25	2.5 PPM	OK			
26	0.4 PPM	OK			
27	2.6 PPM	OK			
28	0.5 PPM	OK			
29	0.4 PPM	OK			
30	0.6 PPM	OK			
31	13.4 PPM	OK			
32	6.6 PPM	OK			
33	9.5 PPM	OK			
34	441.0 PPM	OK			
35	2.0 PPM	OK			
36	0.8 PPM	OK			
37	23.0 PPM	OK			
38	1.4 PPM	OK			
39	18.7 PPM	OK			
40	8.2 PPM	OK			
41	8.2 PPM	OK			
42	34.4 PPM	OK			
43	13.2 PPM	OK			
44	119.0 PPM	OK			
45	33.8 PPM	OK			
46	15.1 PPM	OK			
47	0.4 PPM	OK			

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS
WEEKLY MONITORING EVENT - SEPTEMBER 16, 2024
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA

ID #	Methane Concentration	Compliance	GPS Coordinates Lat.	Long.	Comments
48	1.7 PPM	OK			
49	0.0 PPM	OK			
50	0.0 PPM	OK			
51	0.0 PPM	OK			
52	0.0 PPM	OK			
53	0.8 PPM	OK			
54	0.1 PPM	OK			
55	0.1 PPM	OK			
56	11.7 PPM	OK			
57	0.5 PPM	OK			
58	7.8 PPM	OK			
59	64.9 PPM	OK			
60	19.2 PPM	OK			
61	781.0 PPM	HIGH_ALRM	36.60029	-82.14785	
62	30.6 PPM	OK			
63	25.7 PPM	OK			
64	24.6 PPM	OK			
65	2.1 PPM	OK			
66	4.8 PPM	OK			
67	5.7 PPM	OK			
68	6.3 PPM	OK			
69	2.3 PPM	OK			
70	2.6 PPM	OK			
71	5.6 PPM	OK			
72	109.0 PPM	OK			
73	13.4 PPM	OK			
74	316.0 PPM	OK			
75	2.6 PPM	OK			
76	4.5 PPM	OK			
77	6.2 PPM	OK			
78	183.0 PPM	OK			
79	3.1 PPM	OK			
80	1.9 PPM	OK			
81	3.9 PPM	OK			
82	2.7 PPM	OK			
83	6.0 PPM	OK			
84	2.8 PPM	OK			
85	4.4 PPM	OK			
86	5.5 PPM	OK			
87	4.7 PPM	OK			
88	22.5 PPM	OK			
89	53.9 PPM	OK			
90	114.0 PPM	OK			
91	5.4 PPM	OK			
92	2.7 PPM	OK			
93	3.5 PPM	OK			
94	13.1 PPM	OK			

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS
WEEKLY MONITORING EVENT - SEPTEMBER 16, 2024
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA

ID #	Methane Concentration	Compliance	GPS Coordinates Lat.	Long.	Comments
95	118.0 PPM	OK			
96	46.7 PPM	OK			
97	3.4 PPM	OK			
98	1.6 PPM	OK			
99	1.3 PPM	OK			
100	0.6 PPM	OK			End Serpentine Route
101	105.0 PPM	OK			EW-52
102	197.0 PPM	OK			TP-4
103	39.0 PPM	OK			EW-60
104	40.6 PPM	OK			EW-48
105	4.5 PPM	OK			TP-6
106	6.4 PPM	OK			EW-61
107	2.3 PPM	OK			EW-50
108	1702.0 PPM	HIGH_ALRM	36.59873	-82.14775	EW-67
109	5.9 PPM	OK			EW-47
110	1.5 PPM	OK			EW-54
111	273.0 PPM	OK			EW-55
112	4.4 PPM	OK			EW-92
113	2.2 PPM	OK			EW-91
114	4.2 PPM	OK			EW-96
115	0.9 PPM	OK			TP-2
116	19.9 PPM	OK			EW-66
117	11.2 PPM	OK			EW-58
118	21.6 PPM	OK			EW-57
119	22.4 PPM	OK			TP-1
120	15.5 PPM	OK			EW-59
121	1.8 PPM	OK			EW-100
122	131.0 PPM	OK			EW-56
123	0.4 PPM	OK			EW-97
124	12.9 PPM	OK			EW-53
125	6.2 PPM	OK			TP-3
126	1.9 PPM	OK			EW-51
127	5.3 PPM	OK			TP-5
128	1.8 PPM	OK			EW-68
129	1.8 PPM	OK			EW-87
130	2.1 PPM	OK			EW-38
131	128.0 PPM	OK			TP-7
132	1.7 PPM	OK			EW-49
133	23.7 PPM	OK			EW-83
134	1337.0 PPM	HIGH_ALRM	36.60017	-82.14787	EW-65
135	29.5 PPM	OK			EW-81
136	9.8 PPM	OK			TP-8
137	5542.0 PPM	HIGH_ALRM	36.60056	-82.14796	EW-64
138	349.0 PPM	OK			EW-63
139	13.8 PPM	OK			EW-42
140	23.1 PPM	OK			EW-76

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS
WEEKLY MONITORING EVENT - SEPTEMBER 16, 2024
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA

ID #	Methane Concentration	Compliance	GPS Coordinates Lat.	Long.	Comments
141	10.4 PPM	OK			TP-9
142	4.6 PPM	OK			EW-62
143	3.4 PPM	OK			EW-74
144	77.8 PPM	OK			EW-32R
145	5.8 PPM	OK			EW-69
146	1.7 PPM	OK			EW-71
147	6.0 PPM	OK			EW-72
148	10.7 PPM	OK			EW-73
149	14.4 PPM	OK			EW-78
150	10.0 PPM	OK			EW-82
151	1.5 PPM	OK			EW-36A
152	3.9 PPM	OK			EW-85
153	5.4 PPM	OK			EW-88
154	21.1 PPM	OK			EW-89
155	2.6 PPM	OK			EW-93
156	2.4 PPM	OK			EW-94
157	0.6 PPM	OK			EW-98
158	11.5 PPM	OK			EW-99
159	85.3 PPM	OK			EW-95
160	46.7 PPM	OK			EW-90
161	381.0 PPM	OK			EW-86
162	130.0 PPM	OK			EW-84
163	1040.0 PPM	HIGH_ALRM	36.60021	-82.14845	EW-80
164	1160.0 PPM	HIGH_ALRM	36.60051	-82.14819	EW-79
165	18200.0 PPM	HIGH_ALRM	36.60072	-82.14819	EW-77
166	3052.0 PPM	HIGH_ALRM	36.60105	-82.14831	EW-33B
167	264.0 PPM	OK			EW-75

Number of locations sampled:	167
Number of exceedance locations:	8

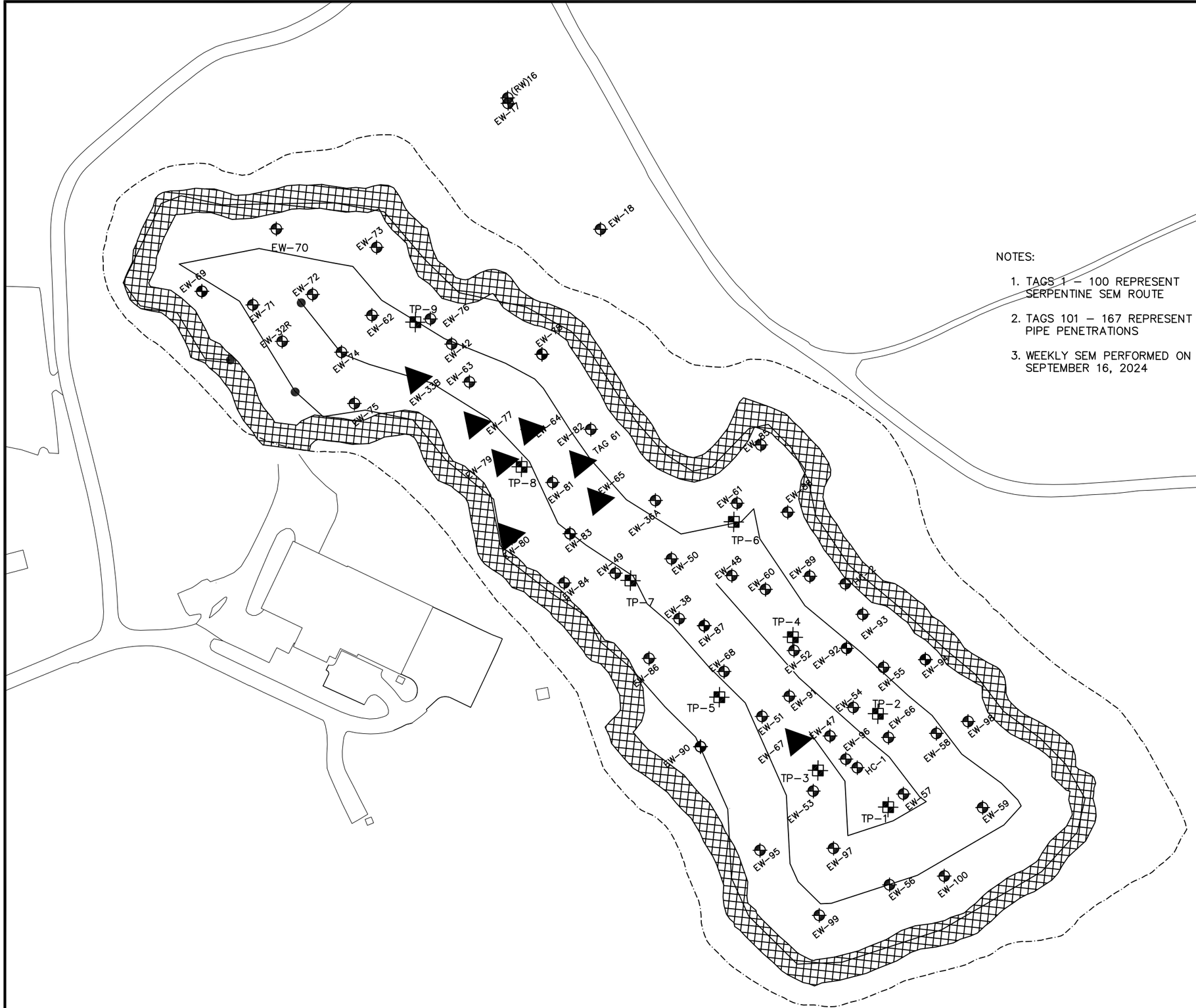
NOTES:
Points 1 through 100 represent serpentine SEM route.
Points 101 through 167 represent SEM at Pipe Penetrations
Weather Conditions: Light Rain, 77°F Wind: 9 MPH SE

Sampling Calibration: Methane - 500 ppm, Zero Air - 0.0 ppm

9/16/2024	11:22	ZERO	0.1	PPM
9/16/2024	11:25	SPAN	501.0	PPM

Background Reading:

9/16/2024	11:27	Upwind	1.0	PPM
9/16/2024	11:33	Downwind	1.4	PPM



NOTES:

1. TAGS 1 – 100 REPRESENT SERPENTINE SEM ROUTE
2. TAGS 101 – 167 REPRESENT SEM AT PIPE PENETRATIONS
3. WEEKLY SEM PERFORMED ON SEPTEMBER 16, 2024

0 80 160 240
SCALE IN FEET

N

LEGEND

- SEM ROUTE
- GAS WELL
- TEMPERATURE PROBE
- 79 EXCEEDANCE LOCATION
- 75 MONITORING ROUTE ENDPOINT

NO.	REVISION	DATE

SHEET TITLE
SEM ROUTE WITH BUFFER AREA

PROJECT TITLE
SURFACE EMISSIONS MONITORING
SOLID WASTE PERMIT #588

CLIENT
CITY OF BRISTOL INTEGRATED SOLID WASTE MANAGEMENT FACILITY
2655 VALLEY DRIVE
BRISTOL, VA 24201

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS, INC.
15521 MIDLOTHIAN TNPK - MIDLOTHIAN, VA 23113
PH. (804) 378-7440 FAX: (804) 378-7433

PROJ. NO. 02218208.04
DSN. BY:
DRN. BY:
CHK. BY:
QA/QC BY:
APP. BY:

FILE: 02218208.04
DATE: 9/16/24
SCALE: AS SHOWN
DRAWING NO. 1 of 1

September 18, 2024
File No. 02218208.04

Mr. Jonathan Chapman
Enforcement Specialist
Virginia Department of Environmental Quality
SW Regional Office
355-A Deadmore Street
Abingdon, VA 24210

Subject: Weekly Surface Emissions Monitoring Event – September 9, 2024
Bristol Integrated Solid Waste Facility – Bristol, Virginia

Dear Mr. Chapman:

On behalf of the City of Bristol (City), SCS Engineers (SCS), is pleased to submit the results of the Weekly Surface Emissions Monitoring event performed at the Bristol Integrated Solid Waste Facility located in Bristol, Virginia on September 9, 2024. This Weekly Surface Emissions Monitoring (SEM) Event was performed in accordance with Appendix A.1.i of the Consent Decree between the Commonwealth of Virginia and the City of Bristol.

The monitoring generally conforms to the requirements of 40 CFR 63.1960(c) and (d), and 40 CFR 60.36f(c) and (d), and 40 CFR 60, Appendix A, Method 21. The landfill gas (LFG) collection system is required to operate such that the methane concentration is less than 500 ppm above background at the landfill surface.

The monitoring route includes the entire waste footprint of the Permit No. 588 Landfill. Sampling was conducted with a Thermo Scientific TVA-2020 Flame Ionization Detector (FID) at 30-meter intervals and where visual observations indicated the potential for elevated concentrations of LFG, such as distressed vegetation and surface cover cracks. In addition, in accordance with 40 CFR 63.1958(d)(ii)(2) and 40 CFR 60.34f(d), monitoring was conducted at all surface cover penetrations within the waste footprint, including at the temperature probes and the newly installed and connected gas extraction wells. The approximate monitoring route and sampling locations are presented in the attached Drawing.

At the time of monitoring, all areas of the Permit No. 588 Landfill footprint are subject to regulatory monitoring based on the regulatory time schedule stipulated in 40 CFR 63.1960(b) and 40 CFR 60.36f(b). The Permit No. 588 Landfill has a surface area of approximately 17.3 acres. Therefore, the minimum number of sampling points to cover the appropriate portion of the landfill footprint, utilizing a 30-meter grid interval, is approximately 82 (4.75 points per acre). A summary of the results of the surface emissions monitoring is provided in Table 1.

Table 1. Summary of Surface Emissions Monitoring

Description	Quantity
Number of Points Sampled	167
Number of Points in Serpentine Route	100
Number of Points at Surface Cover Penetrations	67
Number of Exceedances	7
Number of Serpentine Exceedances	0
Number of Pipe Penetration Exceedances	7

REMONITORING OF ONGOING EXCEEDANCES

In accordance with 40 CFR 63.1960(c)(4)(ii) and 40 CFR 60.36f(c)(4)(ii), corrective actions and a remonitoring event are to be performed within 10 days of the initial exceedance. In accordance with 40 CFR 63.1960(c)(4)(iii) and 40 CFR 60.36f(c)(4)(iii) additional corrective actions and a second 10-day retest are to be performed if the initial 10-day retest indicates methane values greater than the regulatory threshold. The Facility performs corrective actions, as necessary, including wellhead vacuum adjustments, the installation of well-bore seals, and addition of soil cover prior to weekly monitoring events at locations that previously exhibited elevated methane concentrations.

In accordance with 40 CFR 63.1960(c)(4)(v) and 40 CFR 60.36f(c)(4)(v) a new well or collection device must be installed or an alternate remedy must be submitted within 120 days at locations that continue to exhibit methane concentrations above the regulatory threshold for two consecutive re-tests.

A summary of ongoing exceedance points is provided in Table 2.

Table 2. Ongoing Weekly SEM Exceedances

Point ID	Initial Exceedance Date	9/9/24 Event	9/9/24 Event Result	Comments
EW-79	7/22/24	N/A	Failed	Subject to 40 CFR 63.1960(c)(4)(v)
EW-63	8/1/24	N/A	Failed	Subject to 40 CFR 63.1960(c)(4)(v)
EW-64	8/1/24	N/A	Failed	Subject to 40 CFR 63.1960(c)(4)(v)
EW-77	8/1/24	N/A	Failed	Subject to 40 CFR 63.1960(c)(4)(v)
EW-33B	8/7/24	N/A	Passed	Subject to 40 CFR 63.1960(c)(4)(v)
EW-65	8/21/24	N/A	Failed	Subject to 40 CFR 63.1960(c)(4)(v)
TP-9	8/7/24	1-Month Follow Up	Passed	Exceedance Resolved
EW-91	8/15/24	1-Month Retest	Passed	Exceedance Resolved
Tag 61	8/21/24	N/A	Passed	Requires 1-Month Retest
EW-96	9/5/24	10-Day Retest	Passed	Requires 1-Month Retest

If you have questions or require additional information, please contact either of the undersigned.

Sincerely,

Wylie R Hicklin
Associate Professional
SCS Engineers

Lucas S. Nachman
Senior Project Professional
SCS Engineers

LSN/WRH

cc: Randall Eads, City of Bristol
Jonathan Hayes, City of Bristol
Laura Socia, City of Bristol
Susan “Tracey” Blalock, VDEQ

Encl. Surface Emissions Monitoring Results
Bristol SEM Route Drawing

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS
WEEKLY MONITORING EVENT - SEPTEMBER 9, 2024
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA

ID #	Methane Concentration	Compliance	GPS Coordinates Lat.	Long.	Comments
1	251.0 PPM	OK			Start Serpentine Route
2	1.5 PPM	OK			
3	2.1 PPM	OK			
4	4.0 PPM	OK			
5	0.6 PPM	OK			
6	0.6 PPM	OK			
7	0.5 PPM	OK			
8	0.6 PPM	OK			
9	0.5 PPM	OK			
10	1.6 PPM	OK			
11	2.4 PPM	OK			
12	1.4 PPM	OK			
13	2.4 PPM	OK			
14	1.8 PPM	OK			
15	1.2 PPM	OK			
16	191.0 PPM	OK			
17	2.3 PPM	OK			
18	1.7 PPM	OK			
19	2.0 PPM	OK			
20	2.3 PPM	OK			
21	0.7 PPM	OK			
22	1.0 PPM	OK			
23	0.5 PPM	OK			
24	3.7 PPM	OK			
25	0.4 PPM	OK			
26	0.1 PPM	OK			
27	0.3 PPM	OK			
28	0.4 PPM	OK			
29	0.2 PPM	OK			
30	0.2 PPM	OK			
31	0.2 PPM	OK			
32	5.3 PPM	OK			
33	52.1 PPM	OK			
34	33.9 PPM	OK			
35	22.0 PPM	OK			
36	171.0 PPM	OK			
37	11.3 PPM	OK			
38	25.5 PPM	OK			
39	28.6 PPM	OK			
40	4.3 PPM	OK			
41	2.6 PPM	OK			
42	2.7 PPM	OK			
43	0.4 PPM	OK			
44	3.9 PPM	OK			
45	5.1 PPM	OK			
46	21.8 PPM	OK			
47	38.0 PPM	OK			

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS
WEEKLY MONITORING EVENT - SEPTEMBER 9, 2024
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA

ID #	Methane Concentration	Compliance	GPS Coordinates Lat.	Long.	Comments
48	8.2 PPM	OK			
49	1.7 PPM	OK			
50	0.8 PPM	OK			
51	0.2 PPM	OK			
52	0.5 PPM	OK			
53	0.6 PPM	OK			
54	119.0 PPM	OK			
55	2.1 PPM	OK			
56	0.6 PPM	OK			
57	7.9 PPM	OK			
58	10.6 PPM	OK			
59	34.0 PPM	OK			
60	14.6 PPM	OK			
61	330.0 PPM	OK			
62	14.3 PPM	OK			
63	0.4 PPM	OK			
64	1.0 PPM	OK			
65	0.0 PPM	OK			
66	0.1 PPM	OK			
67	0.0 PPM	OK			
68	0.2 PPM	OK			
69	0.0 PPM	OK			
70	0.1 PPM	OK			
71	0.0 PPM	OK			
72	0.0 PPM	OK			
73	0.0 PPM	OK			
74	0.0 PPM	OK			
75	23.1 PPM	OK			
76	0.1 PPM	OK			
77	266.0 PPM	OK			
78	0.2 PPM	OK			
79	0.4 PPM	OK			
80	0.2 PPM	OK			
81	1.1 PPM	OK			
82	22.3 PPM	OK			
83	2.8 PPM	OK			
84	13.1 PPM	OK			
85	1.7 PPM	OK			
86	0.2 PPM	OK			
87	0.2 PPM	OK			
88	0.5 PPM	OK			
89	0.1 PPM	OK			
90	13.4 PPM	OK			
91	0.2 PPM	OK			
92	4.8 PPM	OK			
93	3.4 PPM	OK			
94	2.5 PPM	OK			

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS
WEEKLY MONITORING EVENT - SEPTEMBER 9, 2024
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA

ID #	Methane Concentration	Compliance	GPS Coordinates Lat.	Long.	Comments
95	0.9 PPM	OK			
96	0.1 PPM	OK			
97	0.1 PPM	OK			
98	11.1 PPM	OK			
99	12.9 PPM	OK			
100	0.3 PPM	OK			End Serpentine Route
101	444.0 PPM	OK			EW-52
102	5.3 PPM	OK			TP-4
103	14.4 PPM	OK			EW-60
104	19.9 PPM	OK			EW-48
105	4.1 PPM	OK			TP-6
106	0.5 PPM	OK			EW-61
107	1.1 PPM	OK			EW-50
108	9956.0 PPM	HIGH_ALRM	36.59873	-82.14775	EW-67
109	0.9 PPM	OK			EW-47
110	12.2 PPM	OK			EW-54
111	16.8 PPM	OK			EW-55
112	0.6 PPM	OK			EW-92
113	252.0 PPM	OK			EW-91
114	0.5 PPM	OK			EW-96
115	1.3 PPM	OK			TP-2
116	72.9 PPM	OK			EW-66
117	2.0 PPM	OK			EW-58
118	5.9 PPM	OK			EW-57
119	0.1 PPM	OK			TP-1
120	0.4 PPM	OK			EW-59
121	13.5 PPM	OK			EW-100
122	24.7 PPM	OK			EW-56
123	0.3 PPM	OK			EW-97
124	5.5 PPM	OK			EW-53
125	0.4 PPM	OK			TP-3
126	42.2 PPM	OK			EW-51
127	23.9 PPM	OK			TP-5
128	0.8 PPM	OK			EW-68
129	0.4 PPM	OK			EW-87
130	112.0 PPM	OK			EW-38
131	15.6 PPM	OK			TP-7
132	64.4 PPM	OK			EW-49
133	0.2 PPM	OK			EW-83
134	6138.0 PPM	HIGH_ALRM	36.60017	-82.14787	EW-65
135	60.4 PPM	OK			EW-81
136	3.3 PPM	OK			TP-8
137	4042.0 PPM	HIGH_ALRM	36.60056	-82.14796	EW-64
138	2088.0 PPM	HIGH_ALRM	36.60090	-82.14807	EW-63
139	26.4 PPM	OK			EW-42
140	24.6 PPM	OK			EW-76

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS
WEEKLY MONITORING EVENT - SEPTEMBER 9, 2024
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA

ID #	Methane Concentration	Compliance	GPS Coordinates Lat.	Long.	Comments
141	469.0 PPM	OK			TP-9
142	0.5 PPM	OK			EW-62
143	0.2 PPM	OK			EW-74
144	0.6 PPM	OK			EW-32R
145	0.1 PPM	OK			EW-69
146	0.0 PPM	OK			EW-71
147	1.1 PPM	OK			EW-72
148	5.5 PPM	OK			EW-73
149	0.7 PPM	OK			EW-78
150	5.7 PPM	OK			EW-82
151	0.1 PPM	OK			EW-36A
152	0.6 PPM	OK			EW-85
153	0.2 PPM	OK			EW-88
154	0.1 PPM	OK			EW-89
155	0.4 PPM	OK			EW-93
156	0.2 PPM	OK			EW-94
157	0.5 PPM	OK			EW-98
158	1.0 PPM	OK			EW-99
159	138.0 PPM	OK			EW-95
160	7.2 PPM	OK			EW-90
161	199.0 PPM	OK			EW-86
162	126.0 PPM	OK			EW-84
163	35.2 PPM	OK			EW-80
164	820.0 PPM	HIGH_ALRM	36.60051	-82.14819	EW-79
165	17500.0 PPM	HIGH_ALRM	36.60072	-82.14819	EW-77
166	161.0 PPM	OK			EW-33B
167	1727.0 PPM	HIGH_ALRM	36.60118	-82.14856	EW-75

Number of locations sampled:	167
Number of exceedance locations:	7

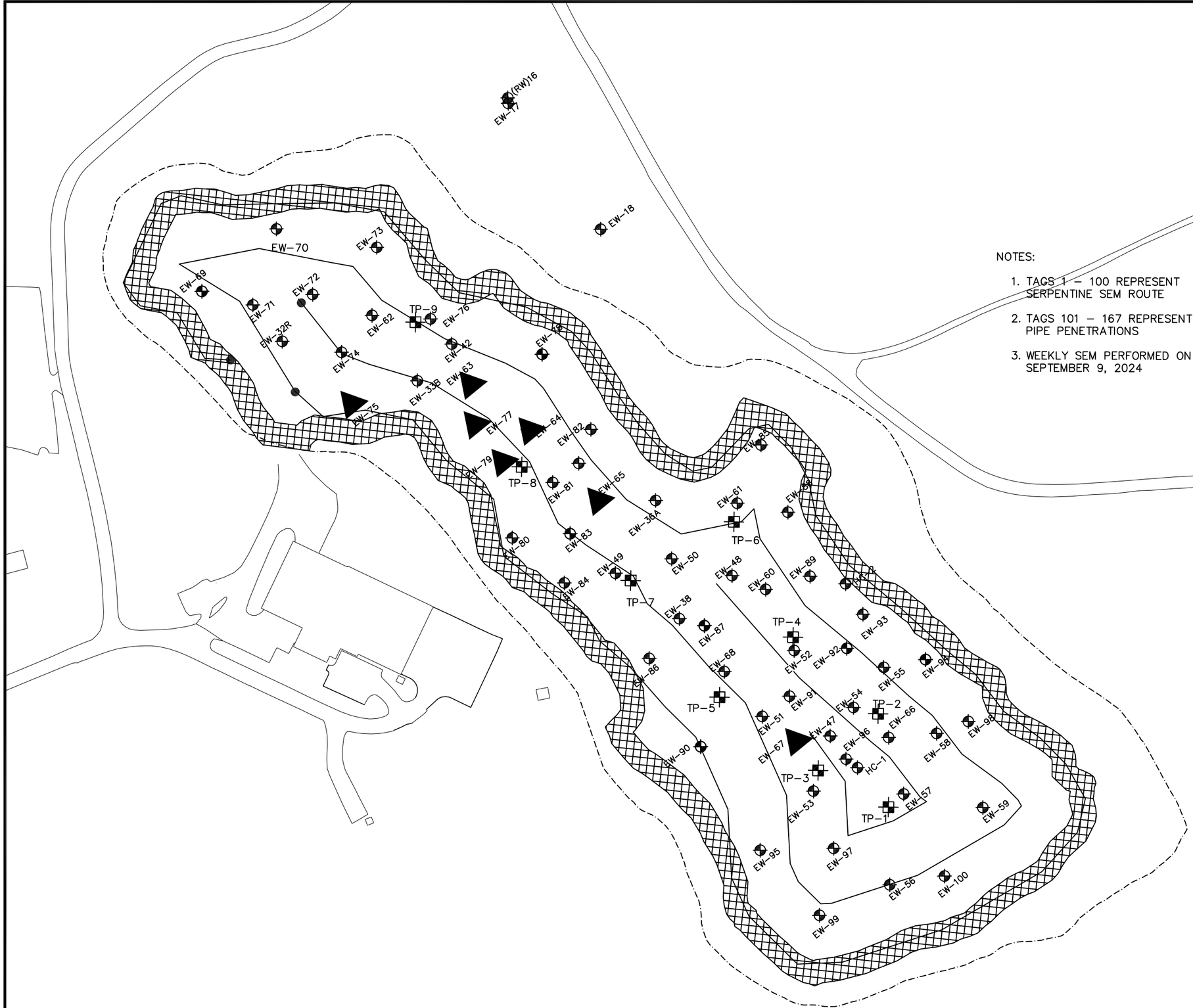
NOTES:
Points 1 through 100 represent serpentine SEM route.
Points 101 through 167 represent SEM at Pipe Penetrations
Weather Conditions: Sunny, 79°F Wind: 4 MPH NE

Sampling Calibration: Methane - 500 ppm, Zero Air - 0.0 ppm

9/9/2024	11:13	ZERO	0.1	PPM
9/9/2024	11:16	SPAN	501.0	PPM

Background Reading:

9/9/2024	11:20	Upwind	1.4	PPM
9/9/2024	11:26	Downwind	1.0	PPM



NOTES:

1. TAGS 1 – 100 REPRESENT SERPENTINE SEM ROUTE
2. TAGS 101 – 167 REPRESENT SEM AT PIPE PENETRATIONS
3. WEEKLY SEM PERFORMED ON SEPTEMBER 9, 2024

0 80 160 240
SCALE IN FEET

N

LEGEND

- SEM ROUTE
- GAS WELL
- TEMPERATURE PROBE
- 79 EXCEEDANCE LOCATION
- 75 MONITORING ROUTE ENDPOINT

NO.	REVISION	DATE

SHEET TITLE
SEM ROUTE WITH BUFFER AREA

PROJECT TITLE
SURFACE EMISSIONS MONITORING
SOLID WASTE PERMIT #588

CLIENT
CITY OF BRISTOL INTEGRATED SOLID WASTE MANAGEMENT FACILITY
2655 VALLEY DRIVE
BRISTOL, VA 24201

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS, INC.
15521 MIDLOTHIAN TNPK - MIDLOTHIAN, VA 23113
PH. (804) 378-7440 FAX: (804) 378-7433

PROJ. NO. 02218208.04
DSN. BY:
DRN. BY:
CHK. BY:
QA/QC BY:
APP. BY:

FILE: 02218208.04
DATE: 9/9/24
SCALE: AS SHOWN
DRAWING NO. 1 of 1

Appendix B

In-Waste Temperatures on Select Days in September

Appendix B Figures

Figure B - 1 Average Temperatures Recorded by TP-1 on September 4, 2024

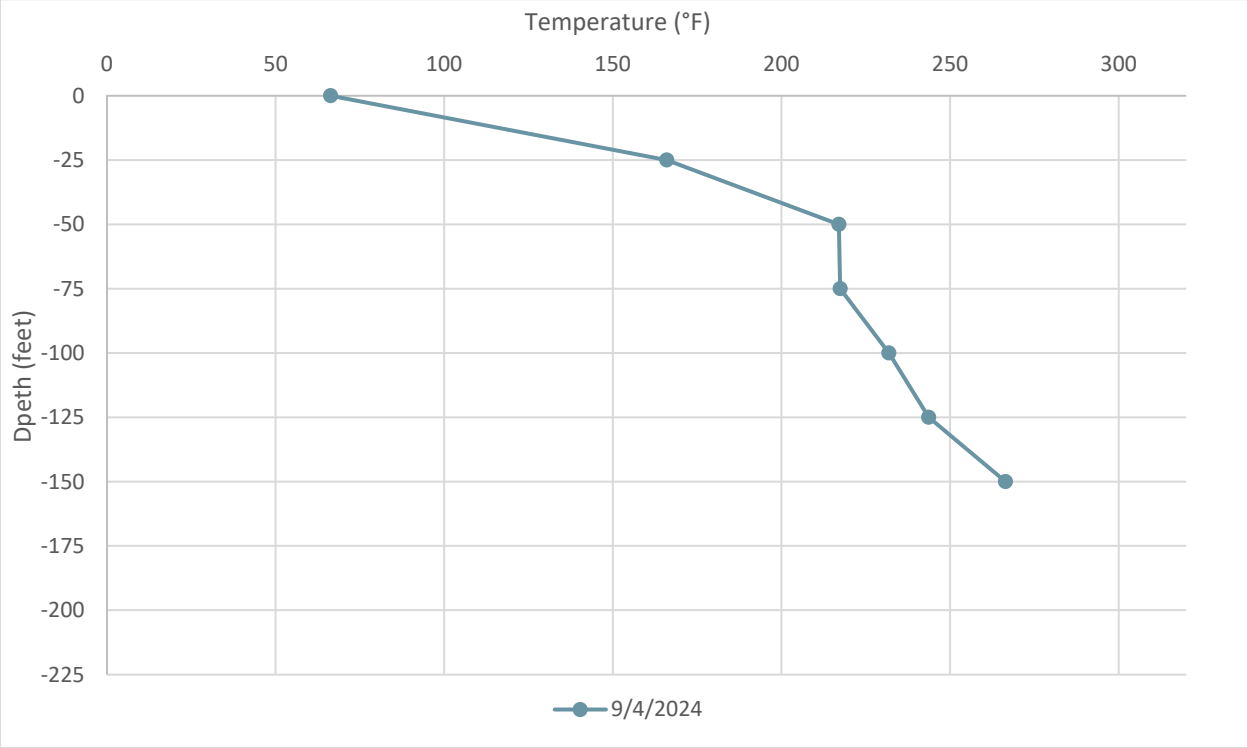


Figure B - 2 Average Temperatures Recorded by TP-1 on September 11, 2024

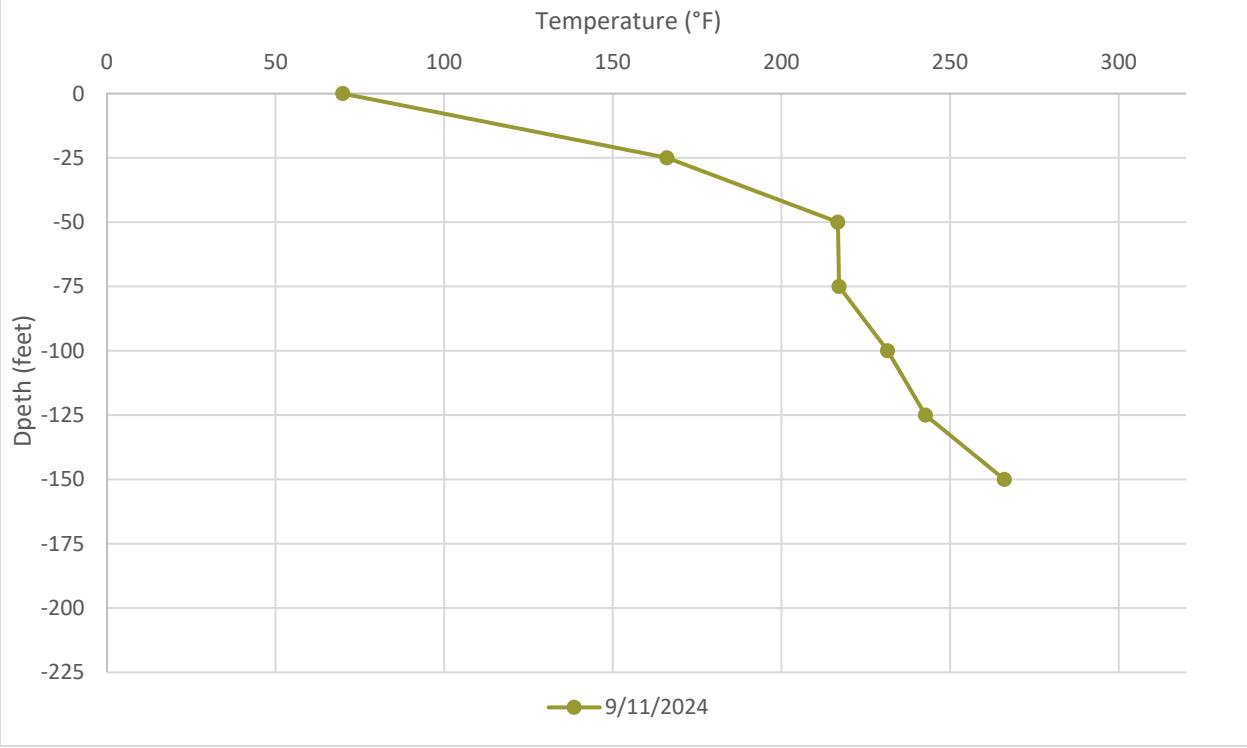


Figure B - 3 Average Temperatures Recorded by TP-1 on September 18, 2024

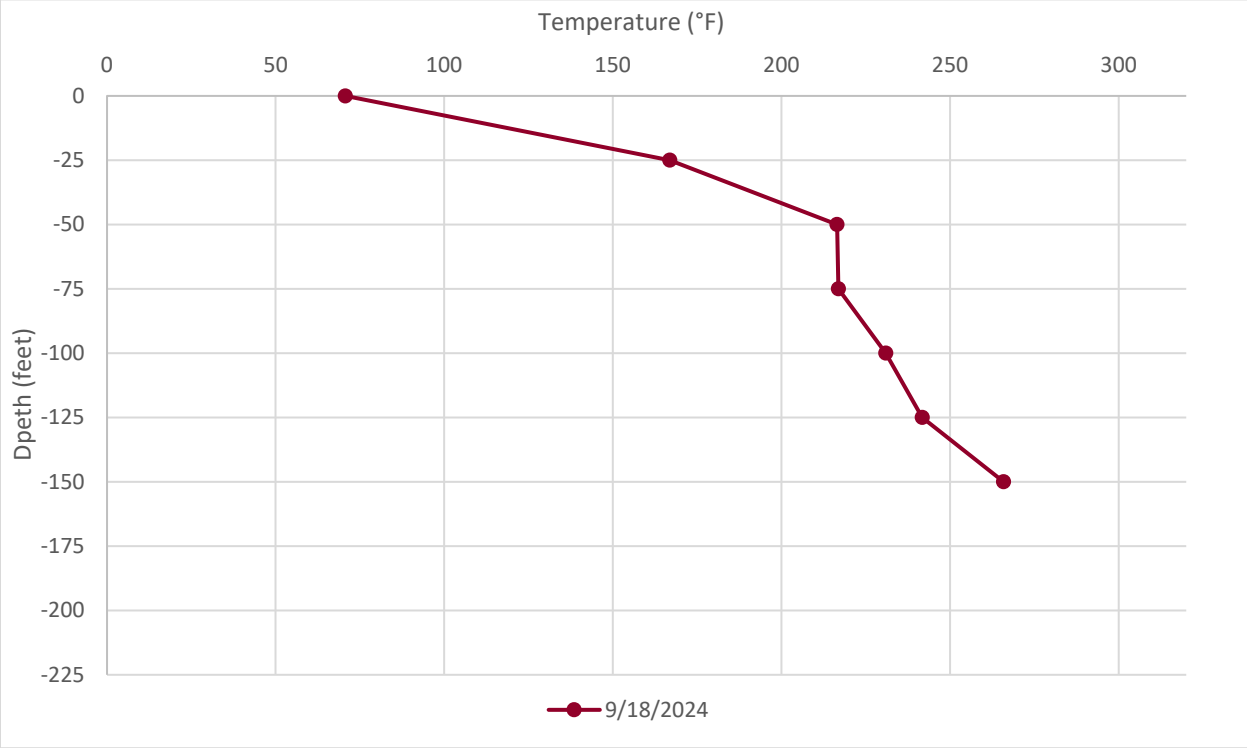


Figure B - 4 Average Temperatures Recorded by TP-1 on September 25, 2024

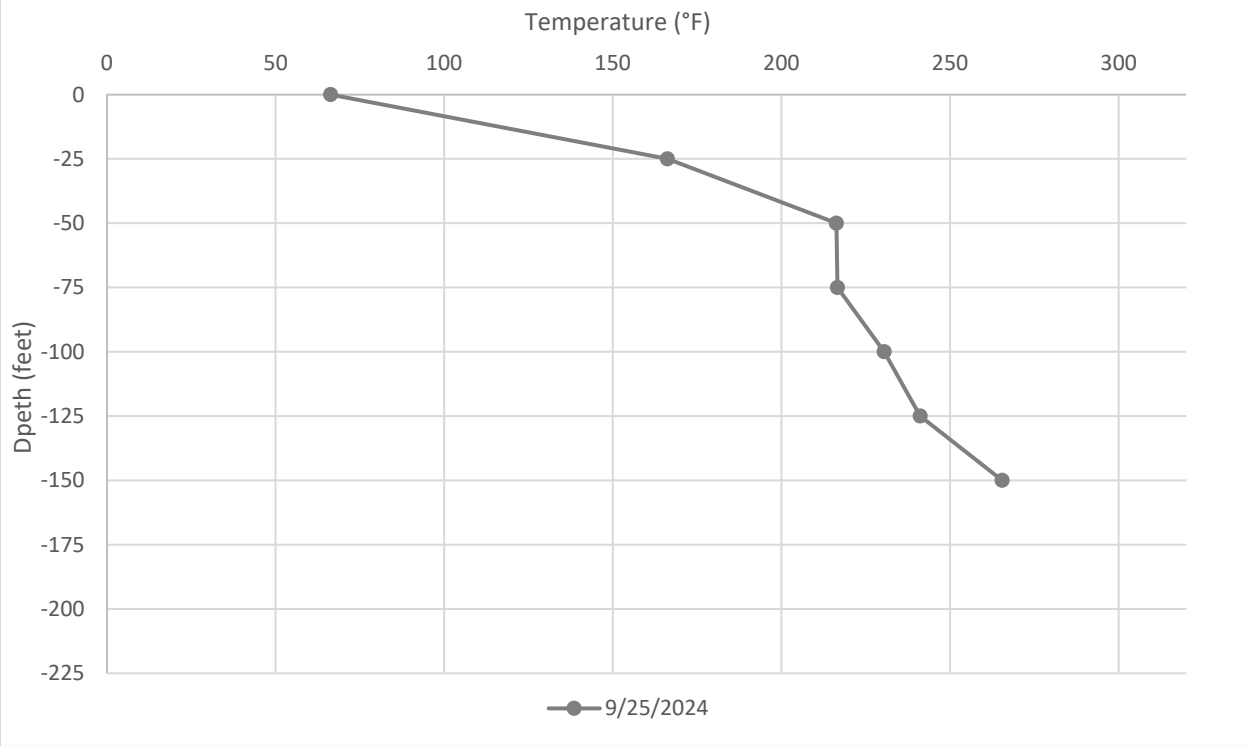


Figure B - 5 Average Temperatures Recorded by TP-2 on September 4, 2024

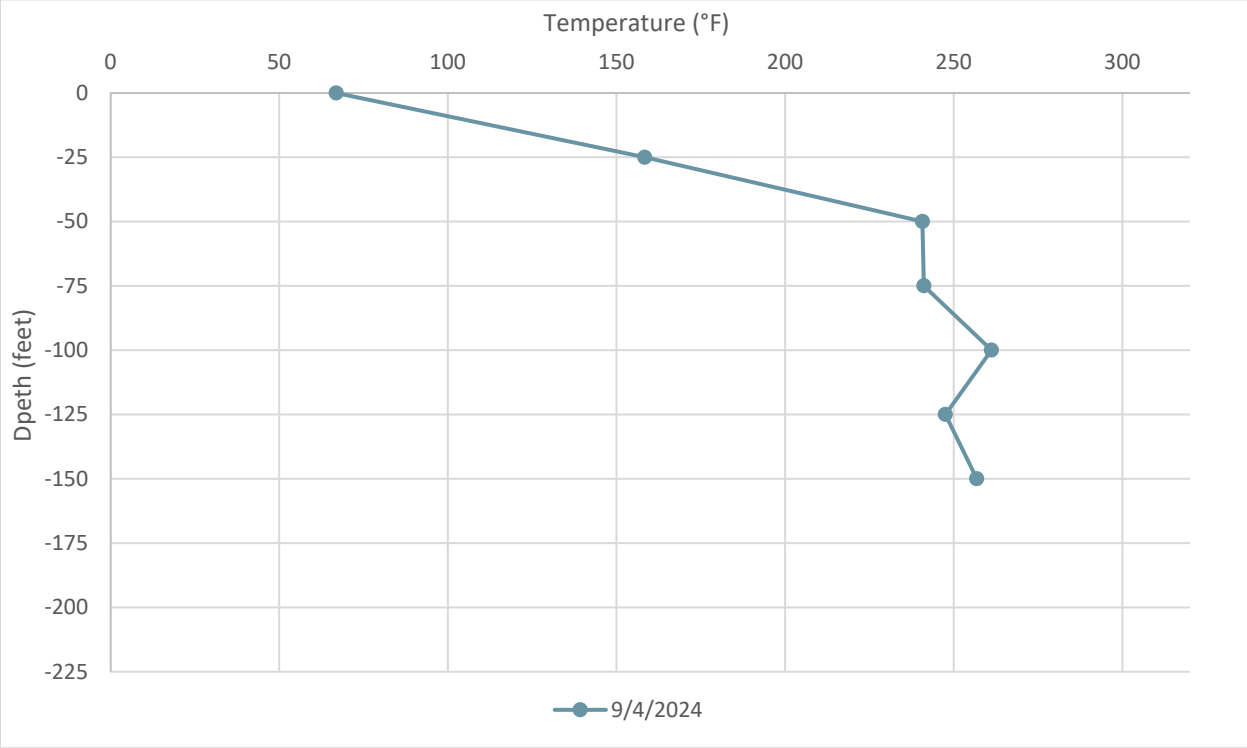


Figure B - 6 Average Temperatures Recorded by TP-2 on September 11, 2024

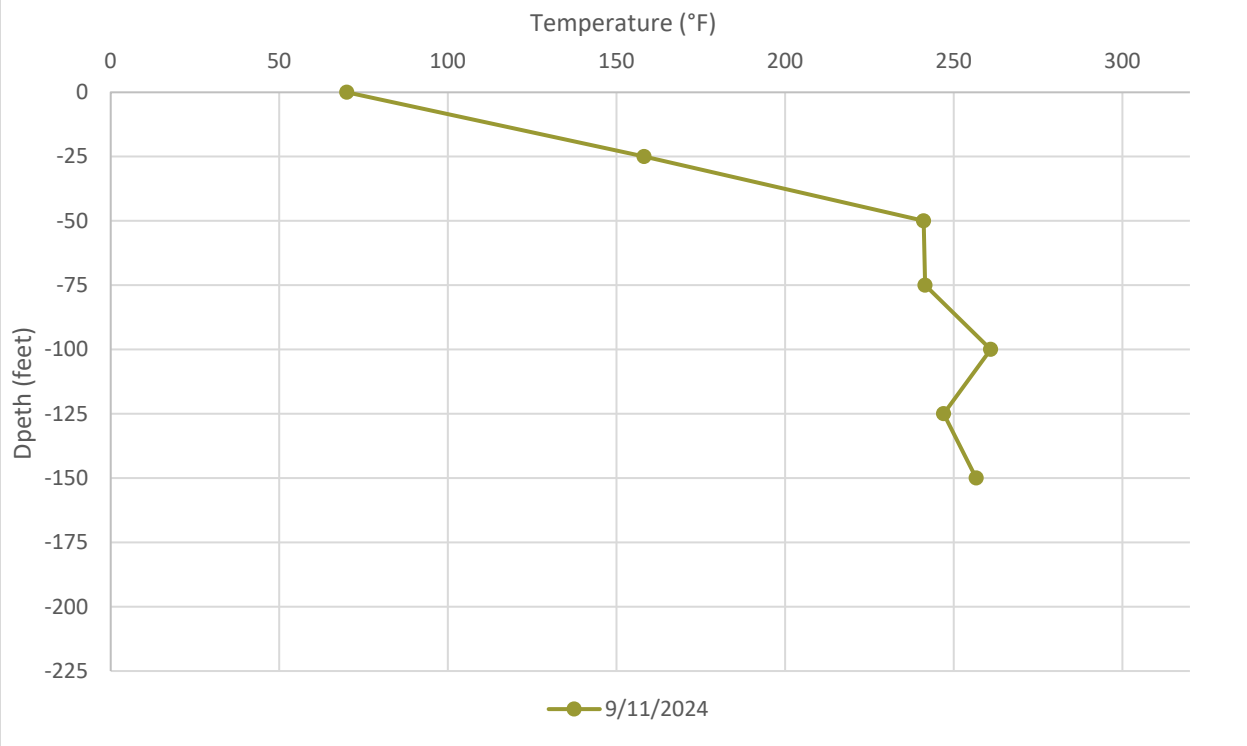


Figure B - 7 Average Temperatures Recorded by TP-2 on September 18, 2024

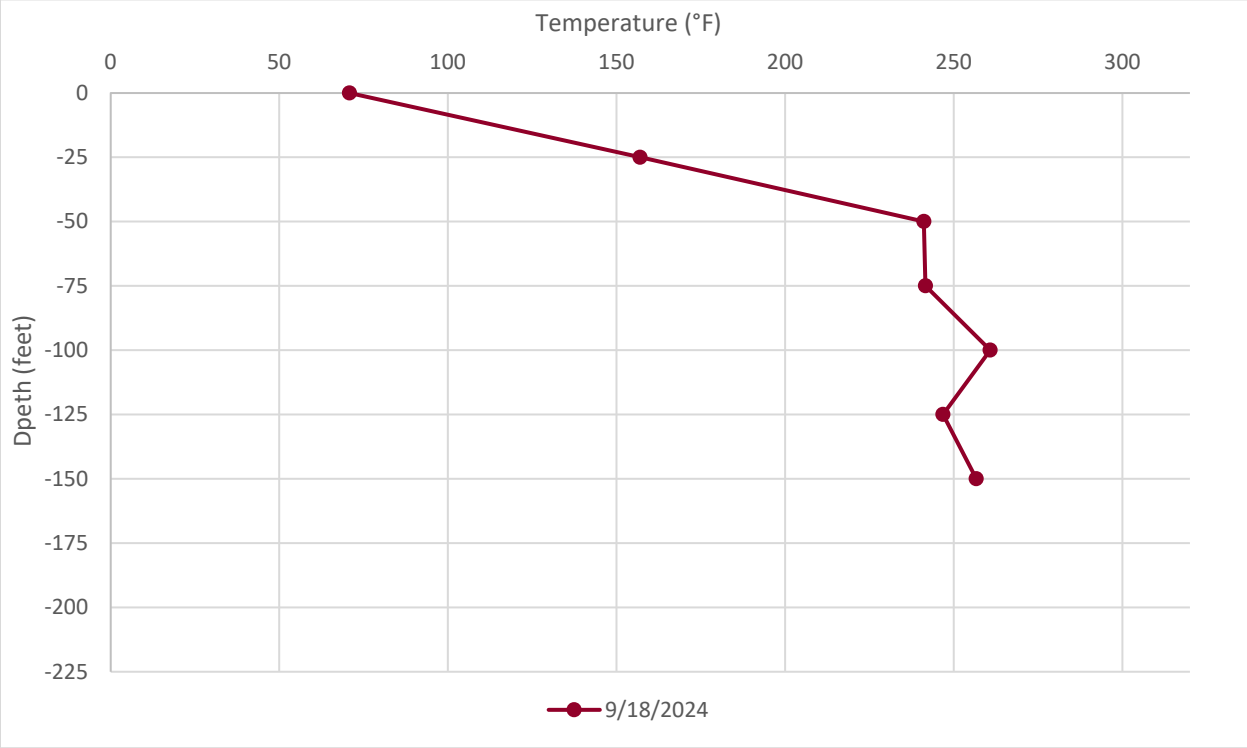


Figure B - 8 Average Temperatures Recorded by TP-2 on September 25, 2024

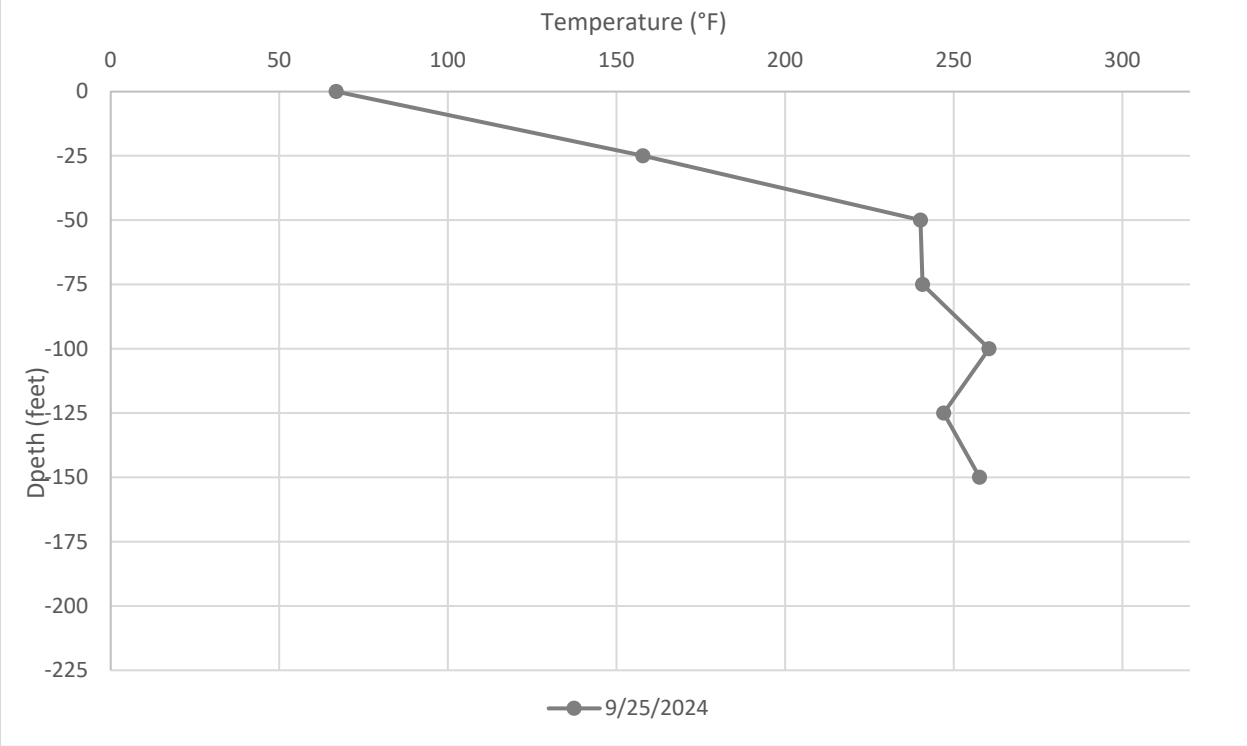


Figure B - 9 Average Temperatures Recorded by TP-3 on September 4, 2024

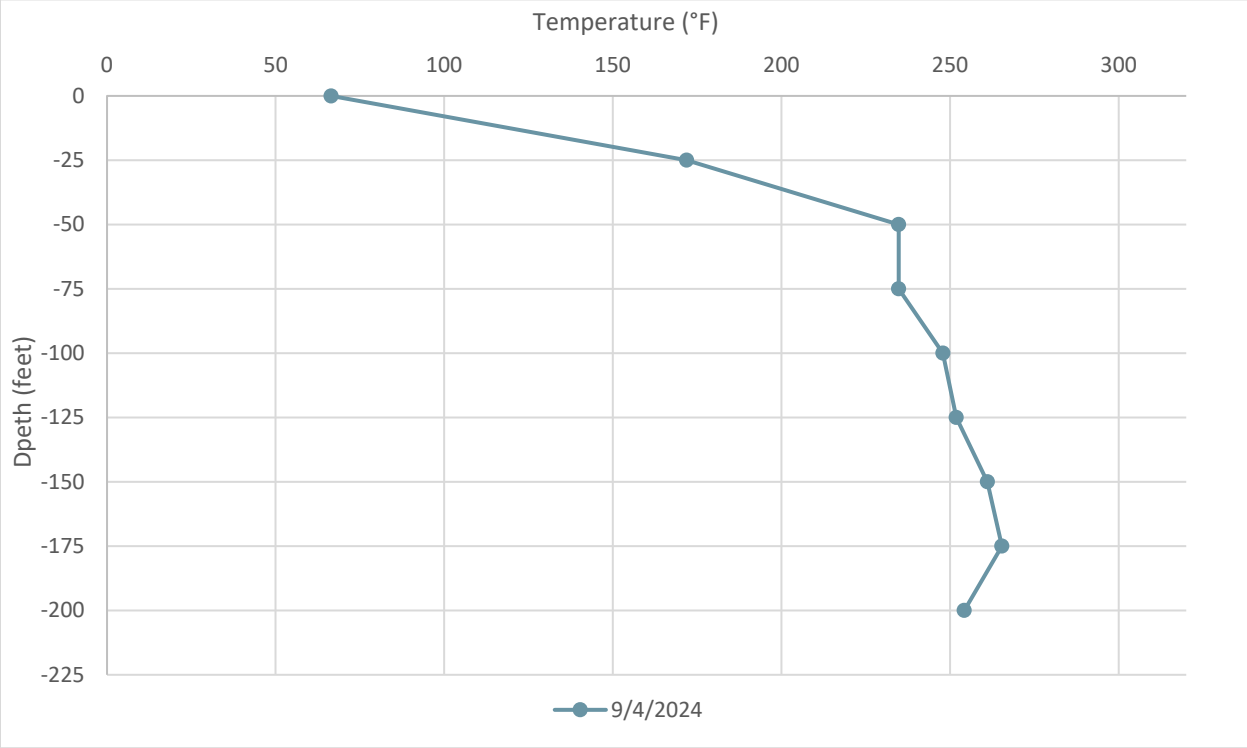


Figure B - 10 Average Temperatures Recorded by TP-3 on September 11, 2024

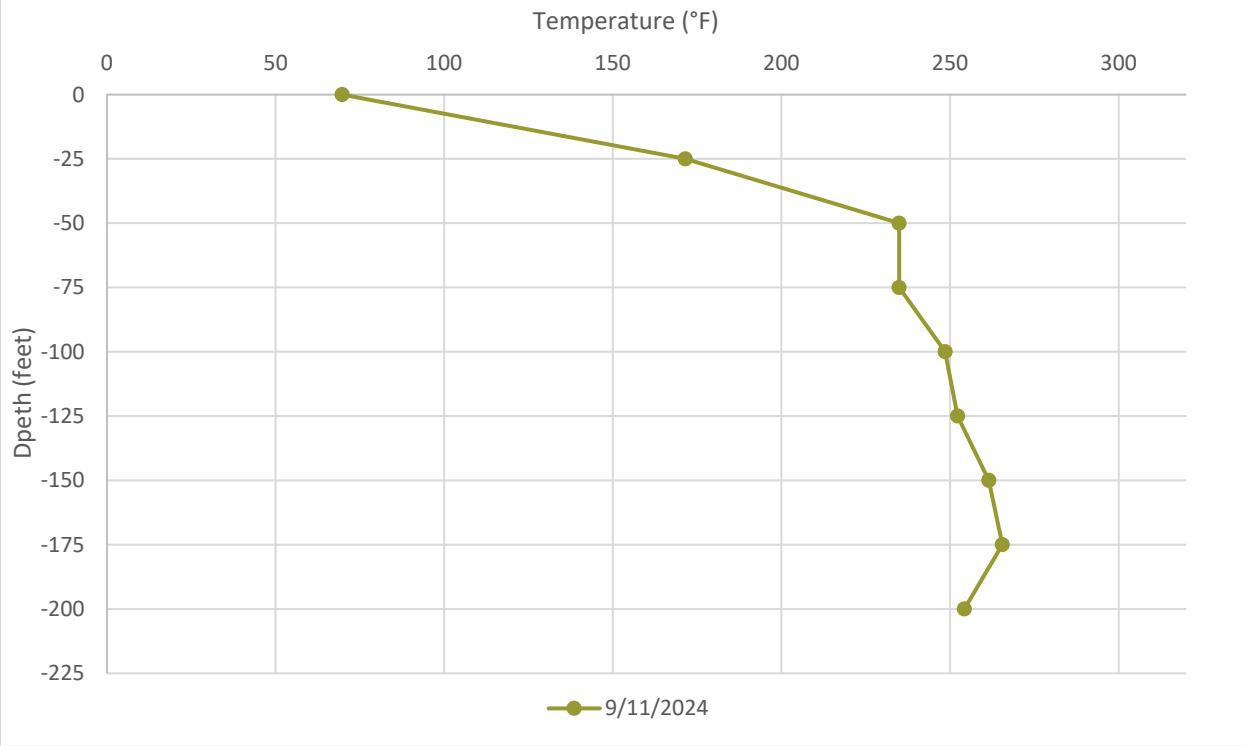


Figure B - 11 Average Temperatures Recorded by TP-3 on September 18, 2024

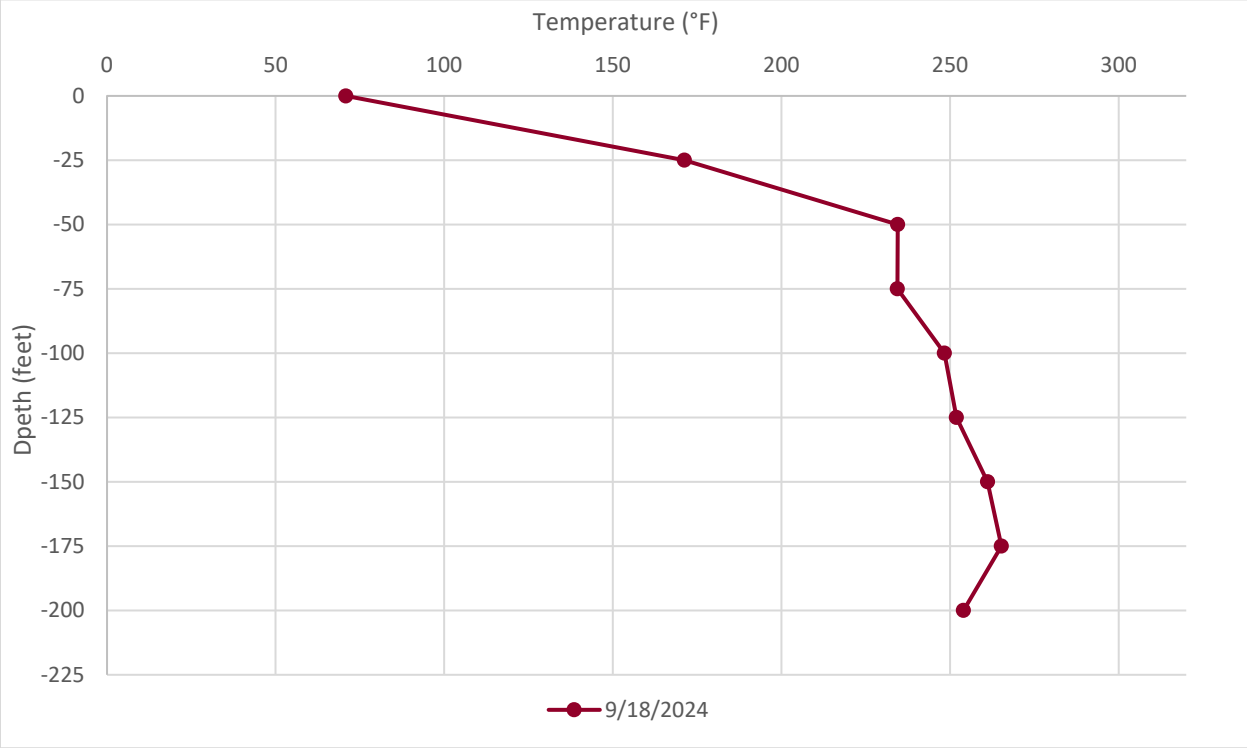


Figure B - 12 Average Temperatures Recorded by TP-3 on September 25, 2024

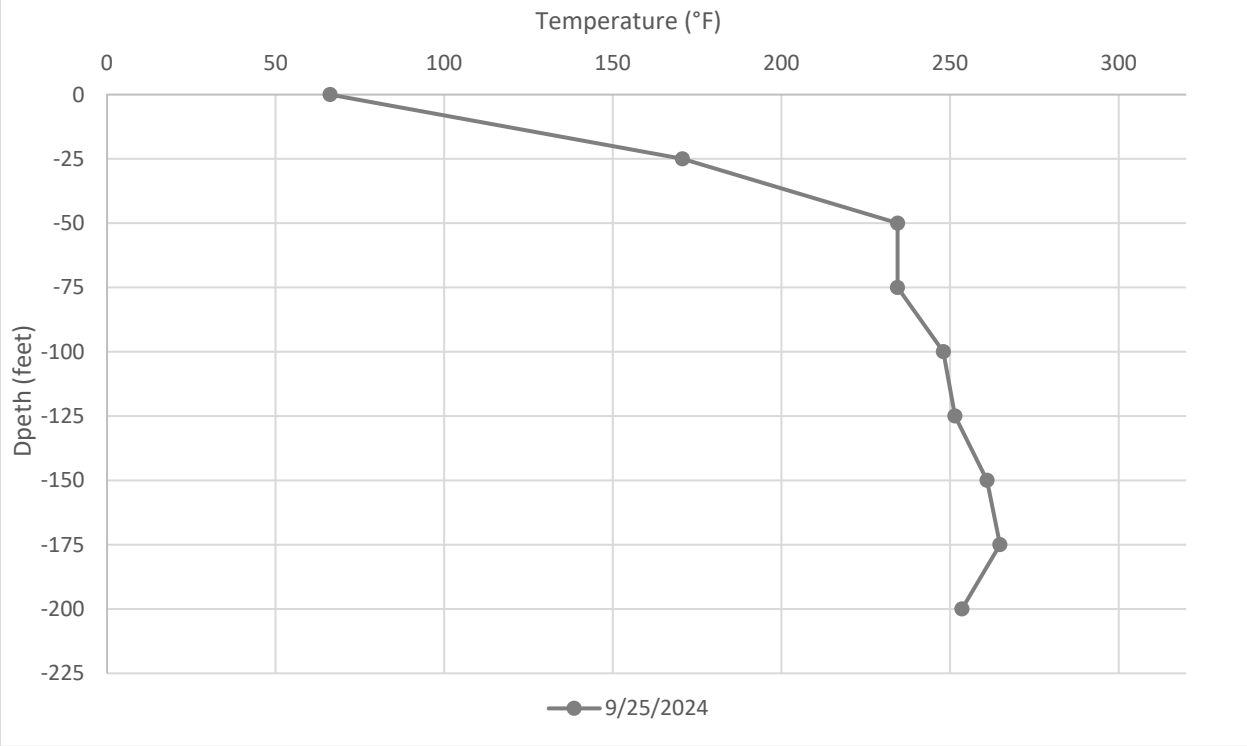


Figure B - 13 Average Temperatures Recorded by TP-4 on September 4, 2024

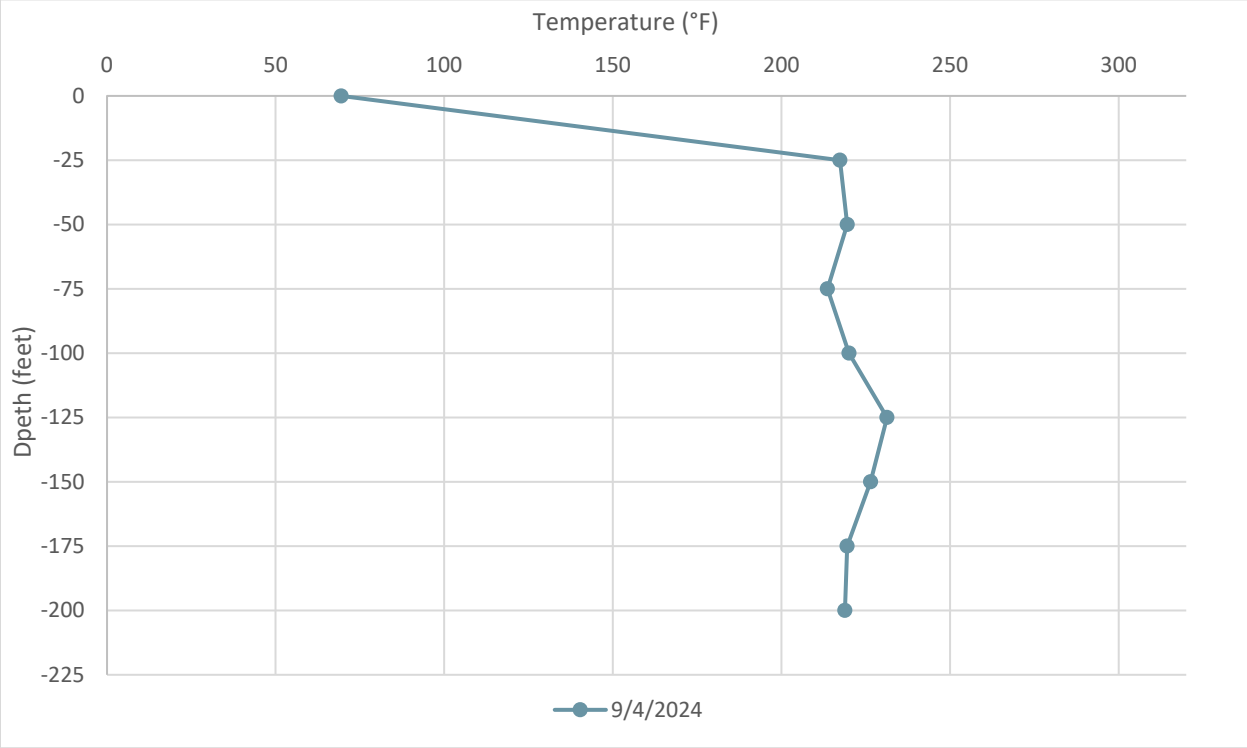


Figure B - 14 Average Temperatures Recorded by TP-4 on September 11, 2024

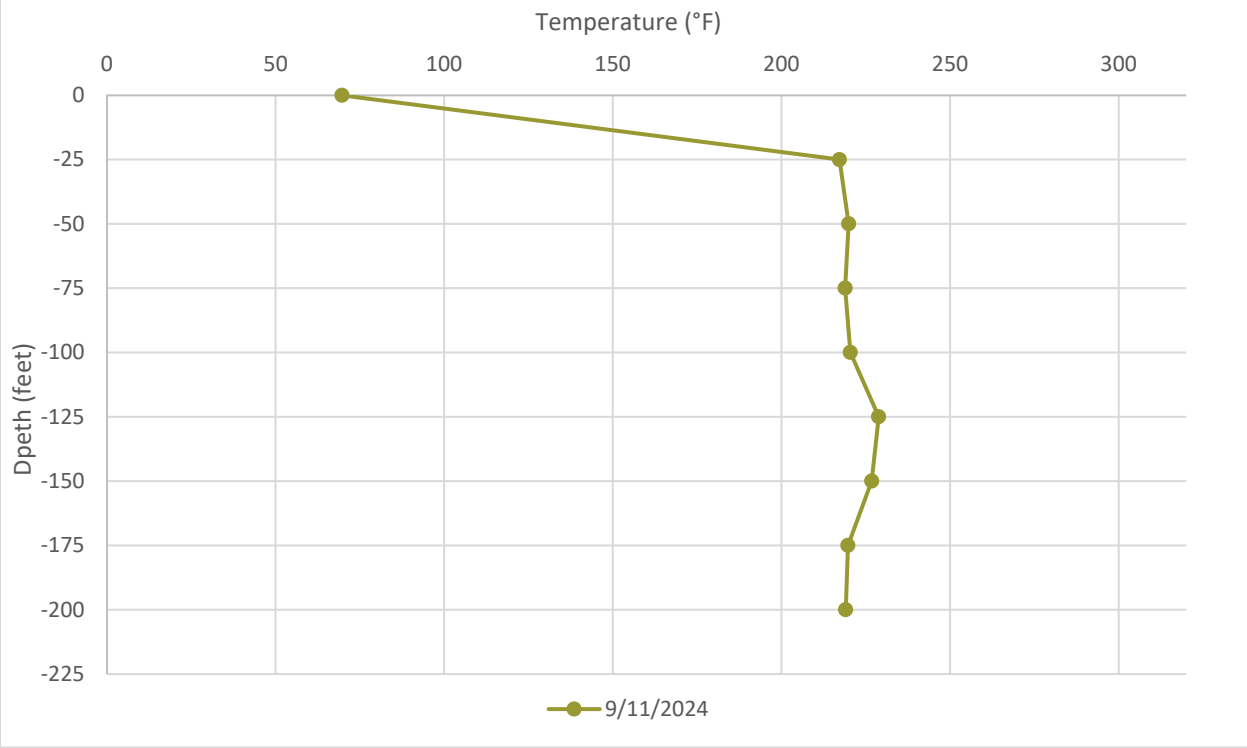


Figure B - 15 Average Temperatures Recorded by TP-4 on September 18, 2024

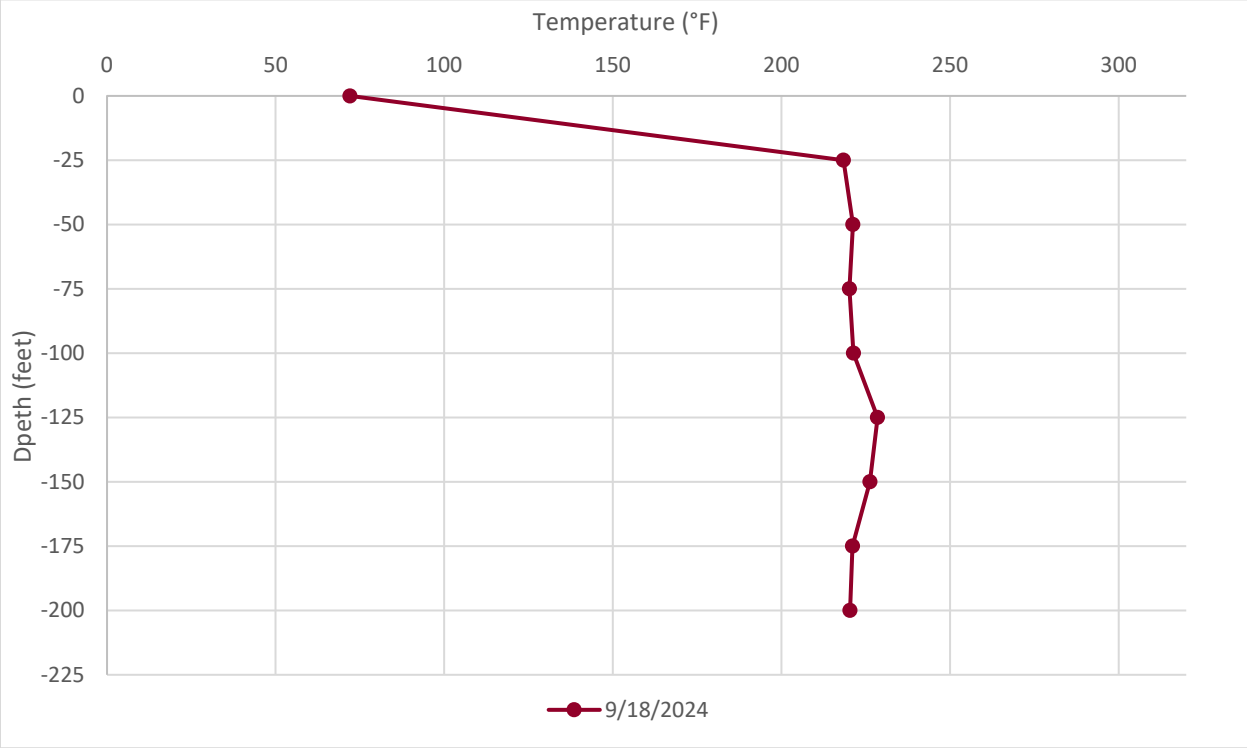


Figure B - 16 Average Temperatures Recorded by TP-4 on September 25, 2024

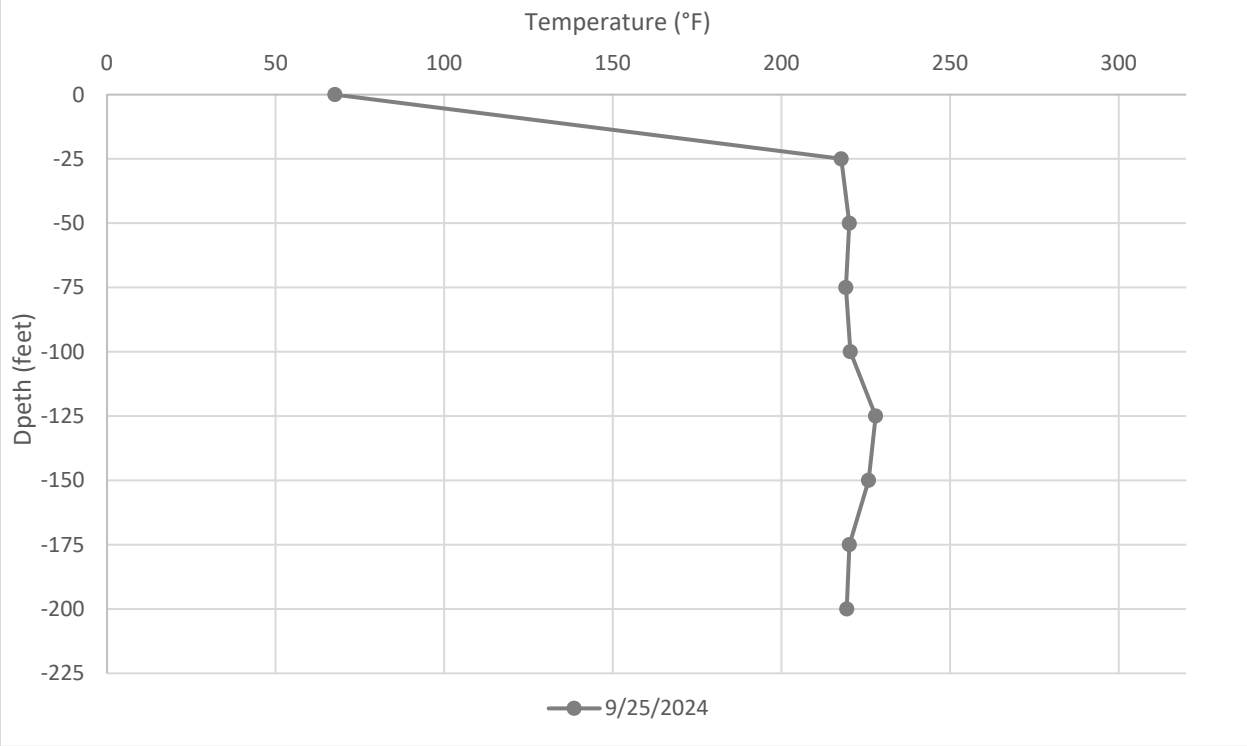


Figure B - 17 Average Temperatures Recorded by TP-5 on September 4, 2024

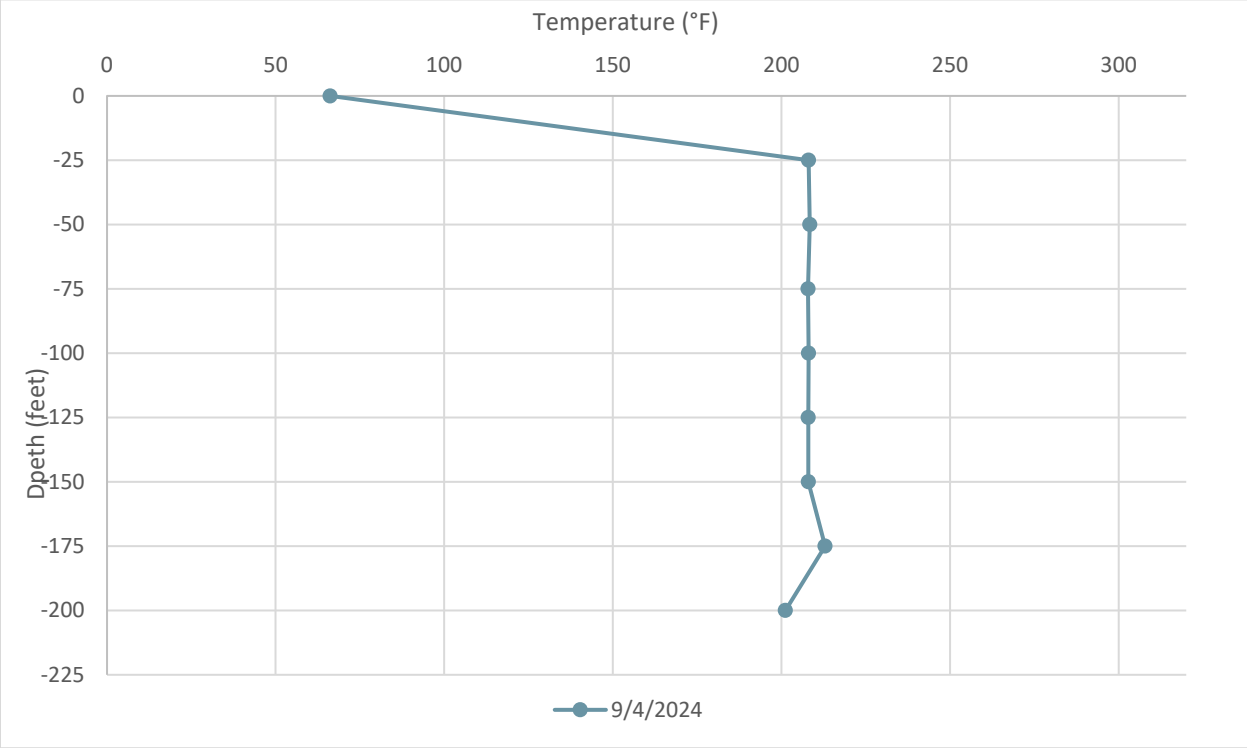


Figure B - 18 Average Temperatures Recorded by TP-5 on September 11, 2024

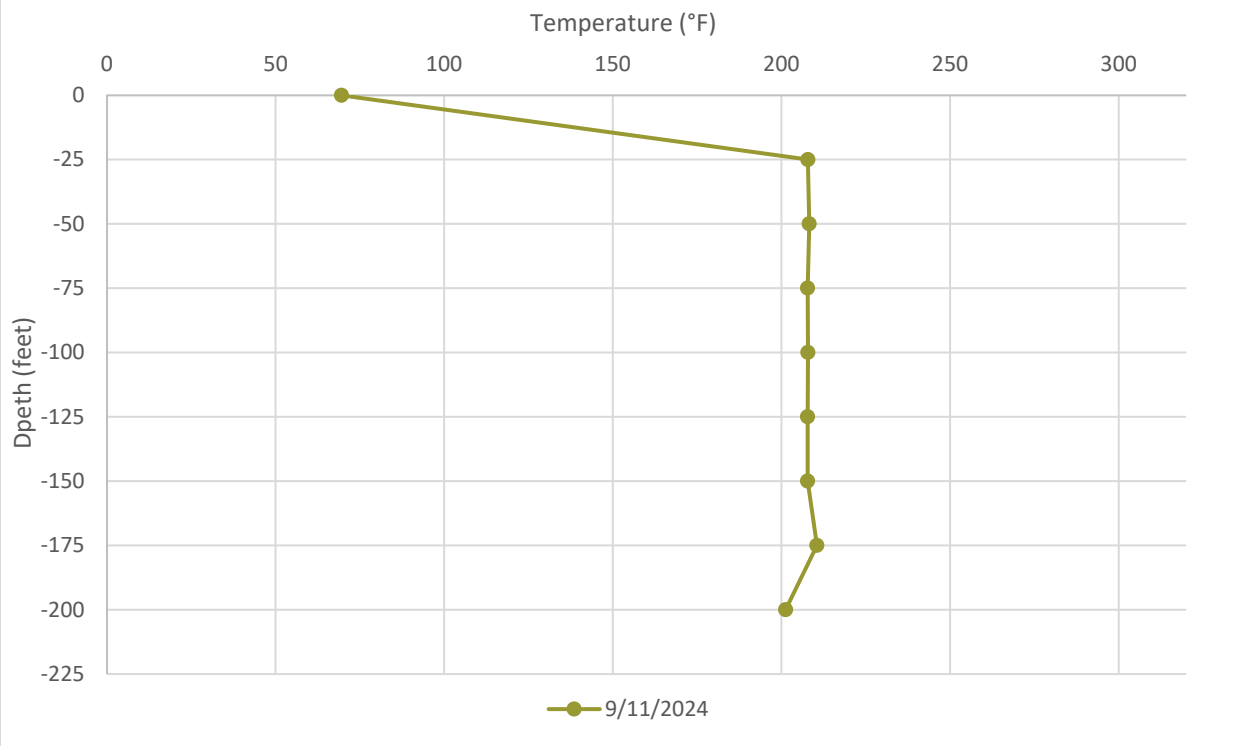


Figure B - 19 Average Temperatures Recorded by TP-5 on September 18, 2024

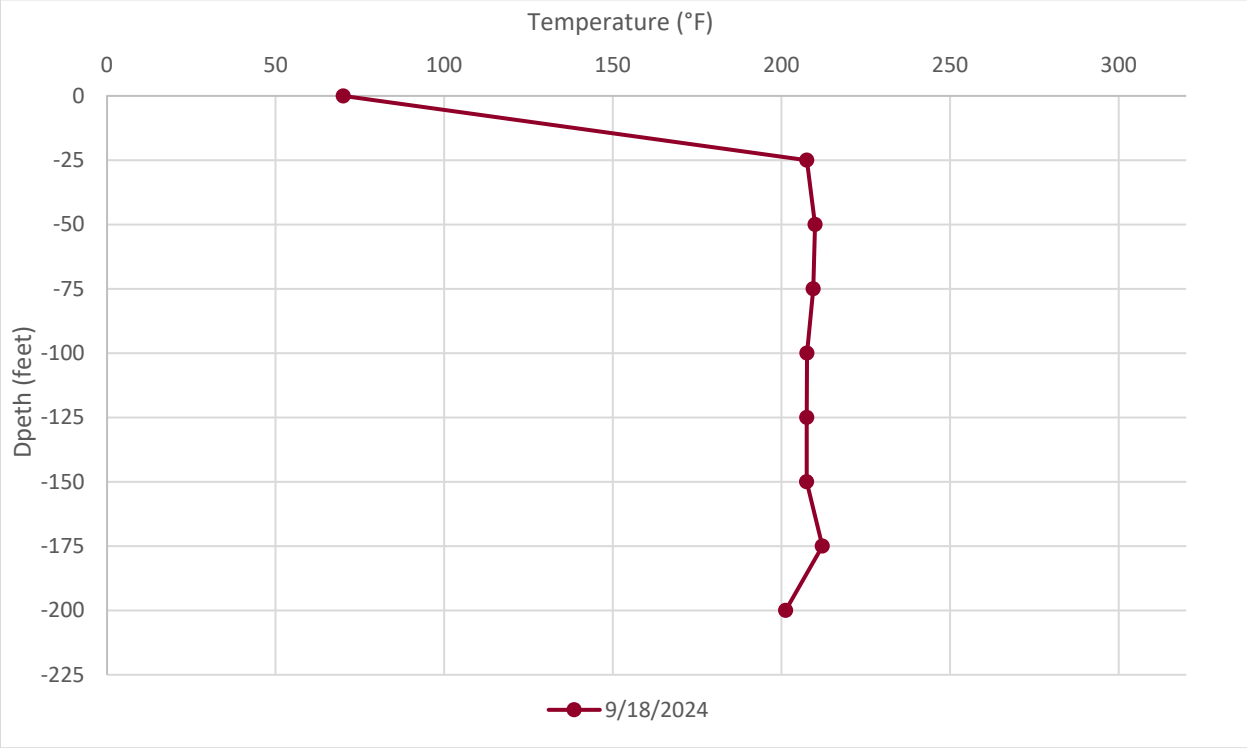


Figure B - 20 Average Temperatures Recorded by TP-5 on September 25, 2024

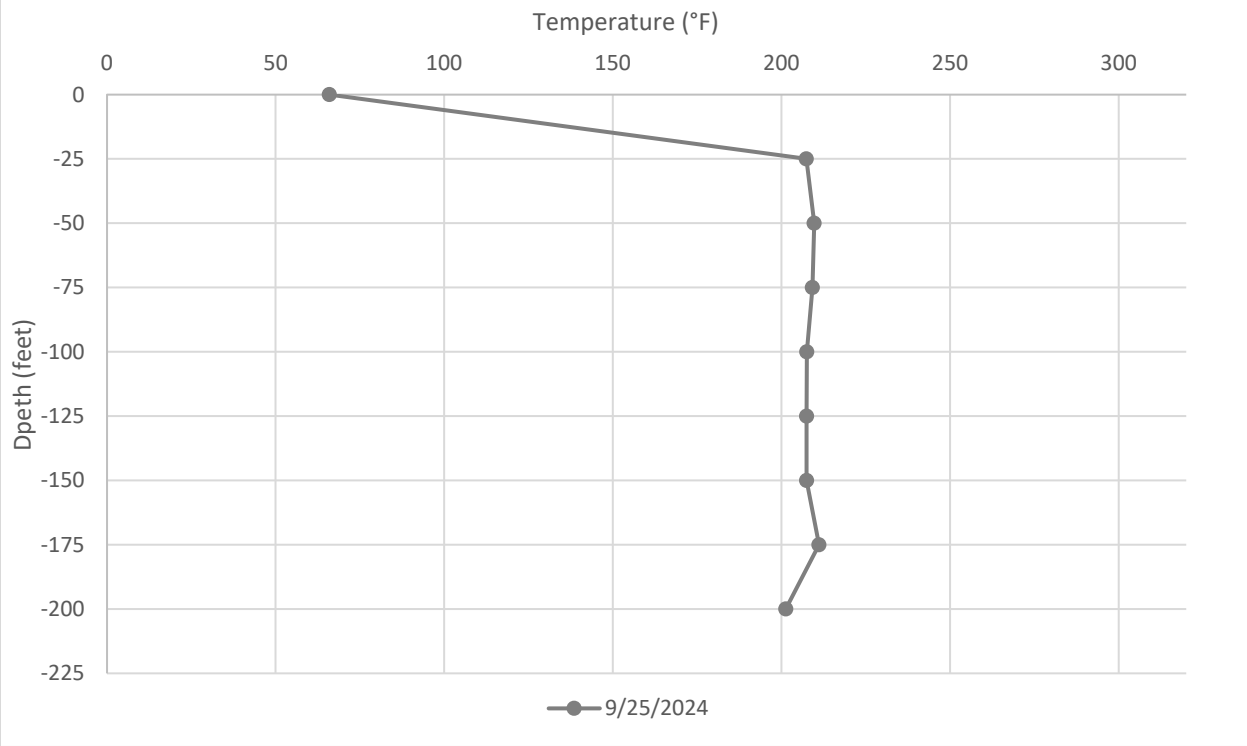


Figure B - 21 Average Temperatures Recorded by TP-6 on September 4, 2024

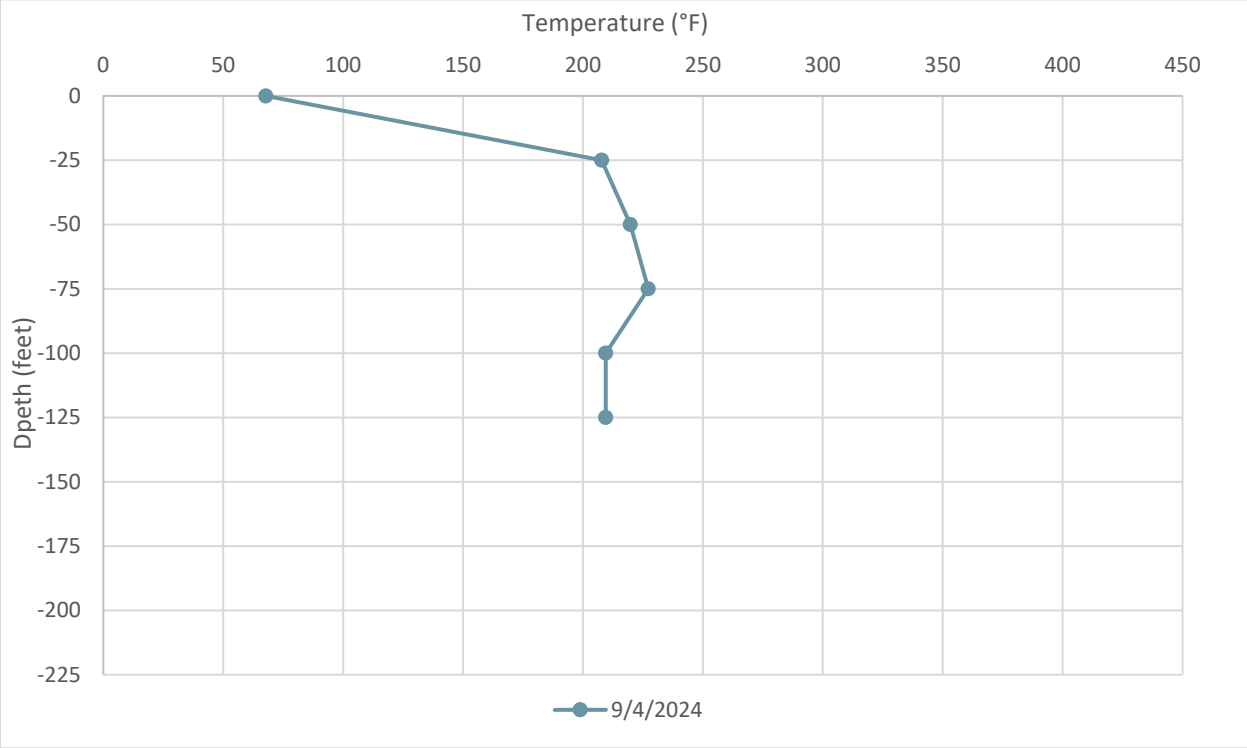


Figure B - 22 Average Temperatures Recorded by TP-6 on September 11, 2024

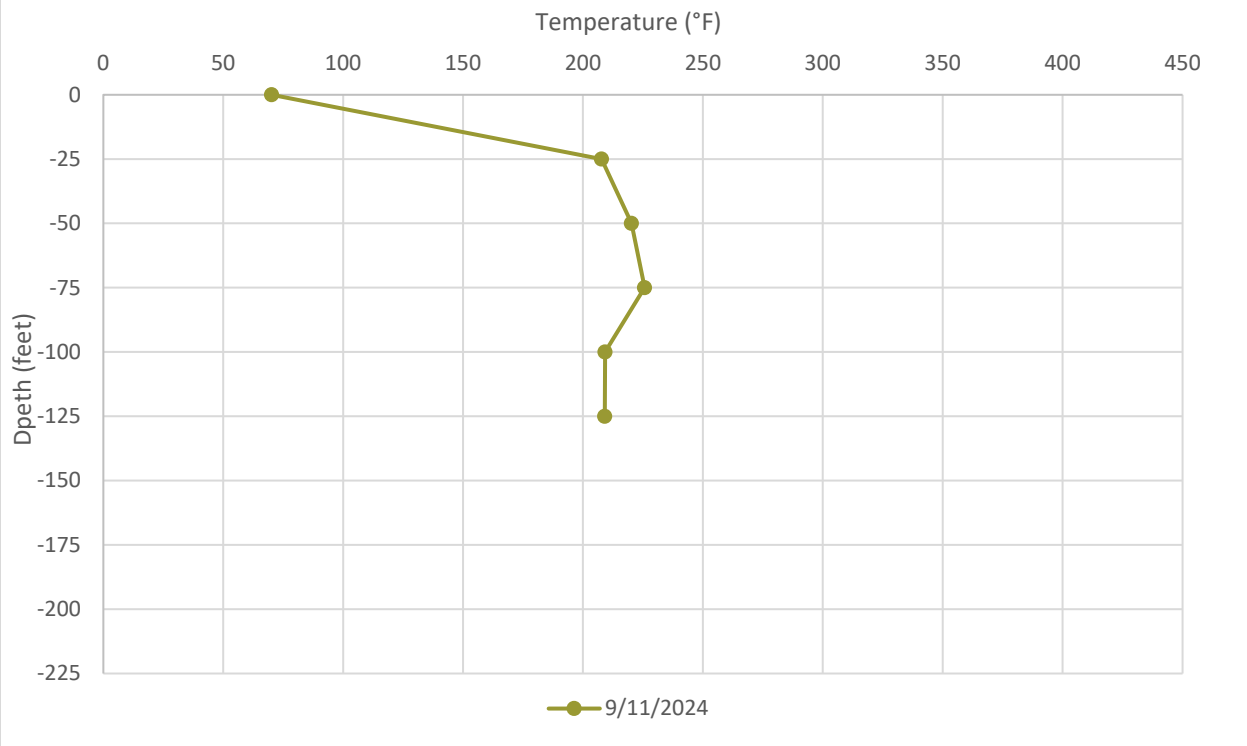


Figure B - 23 Average Temperatures Recorded by TP-6 on September 18, 2024

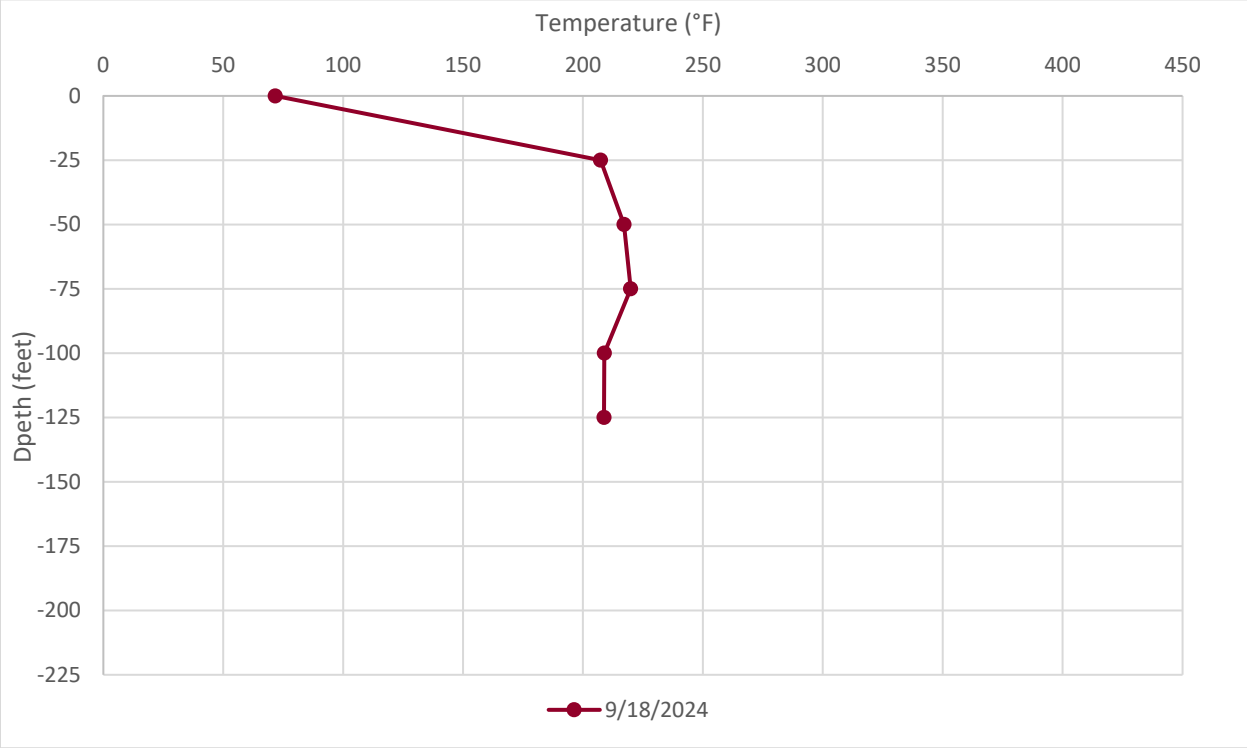


Figure B - 24 Average Temperatures Recorded by TP-6 on September 25, 2024

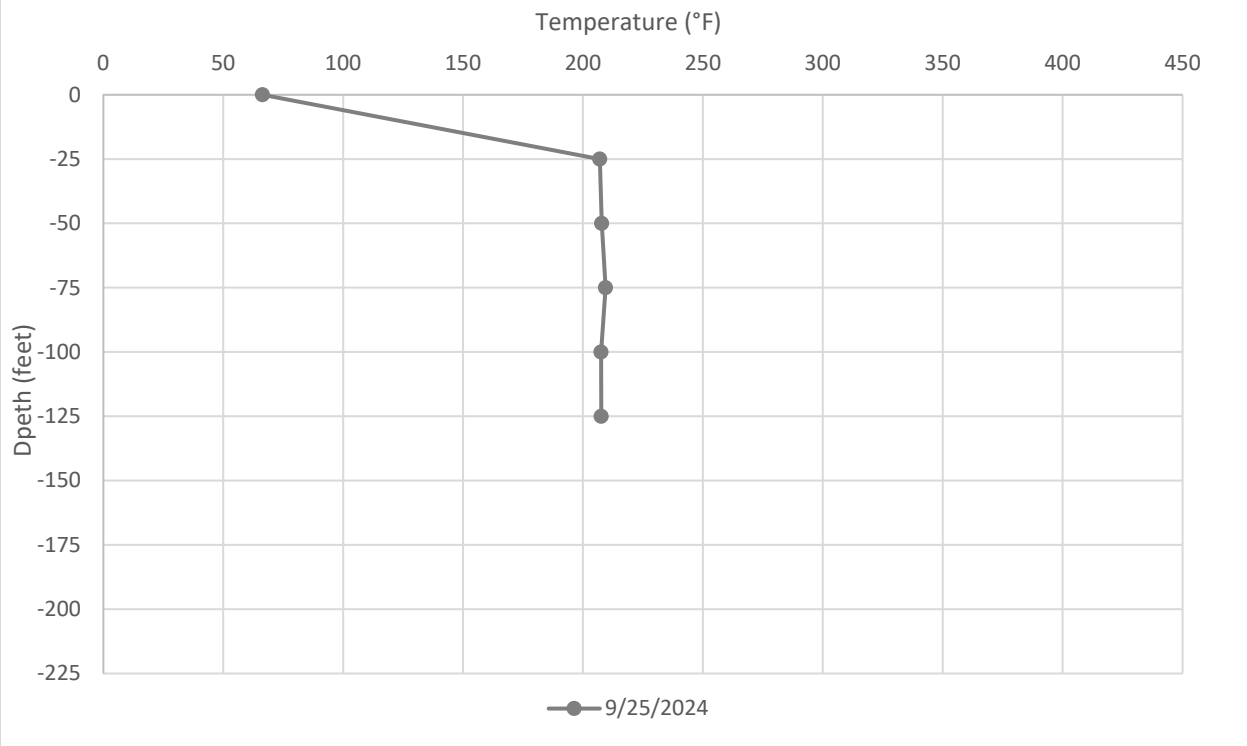


Figure B - 25 Average Temperatures Recorded by TP-7 on September 4, 2024

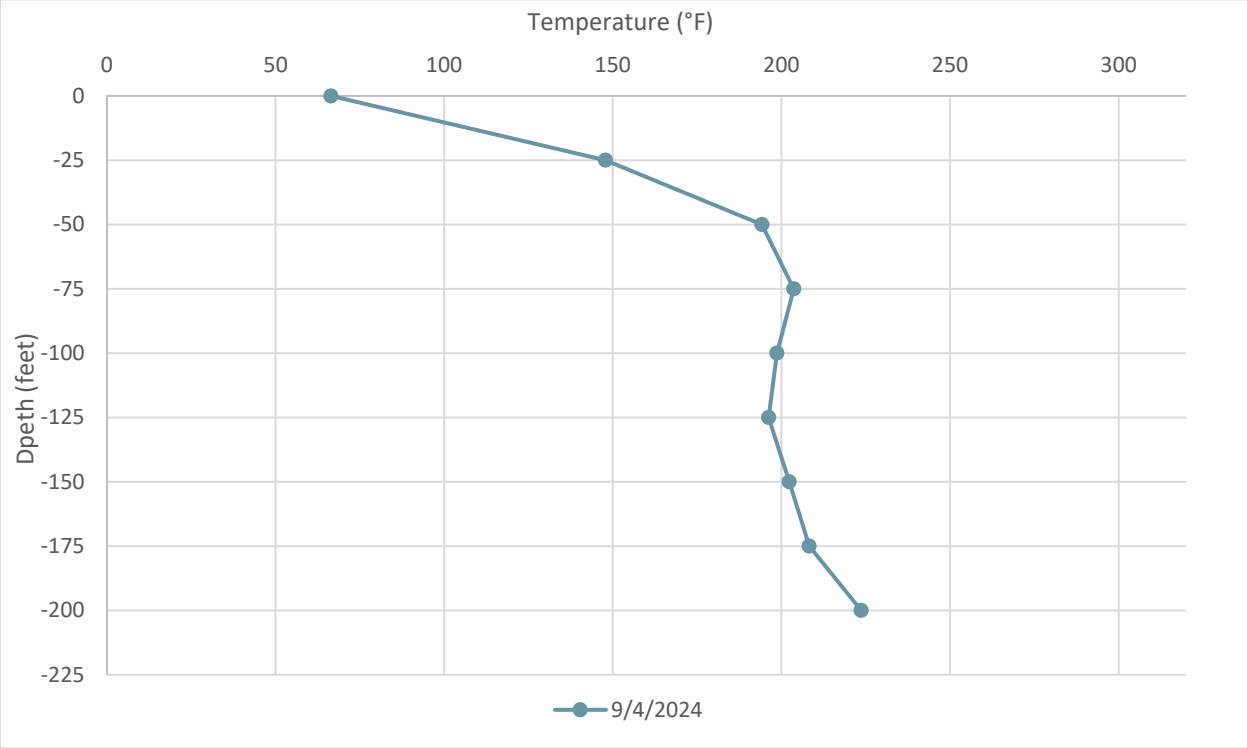


Figure B - 26 Average Temperatures Recorded by TP-7 on September 11, 2024

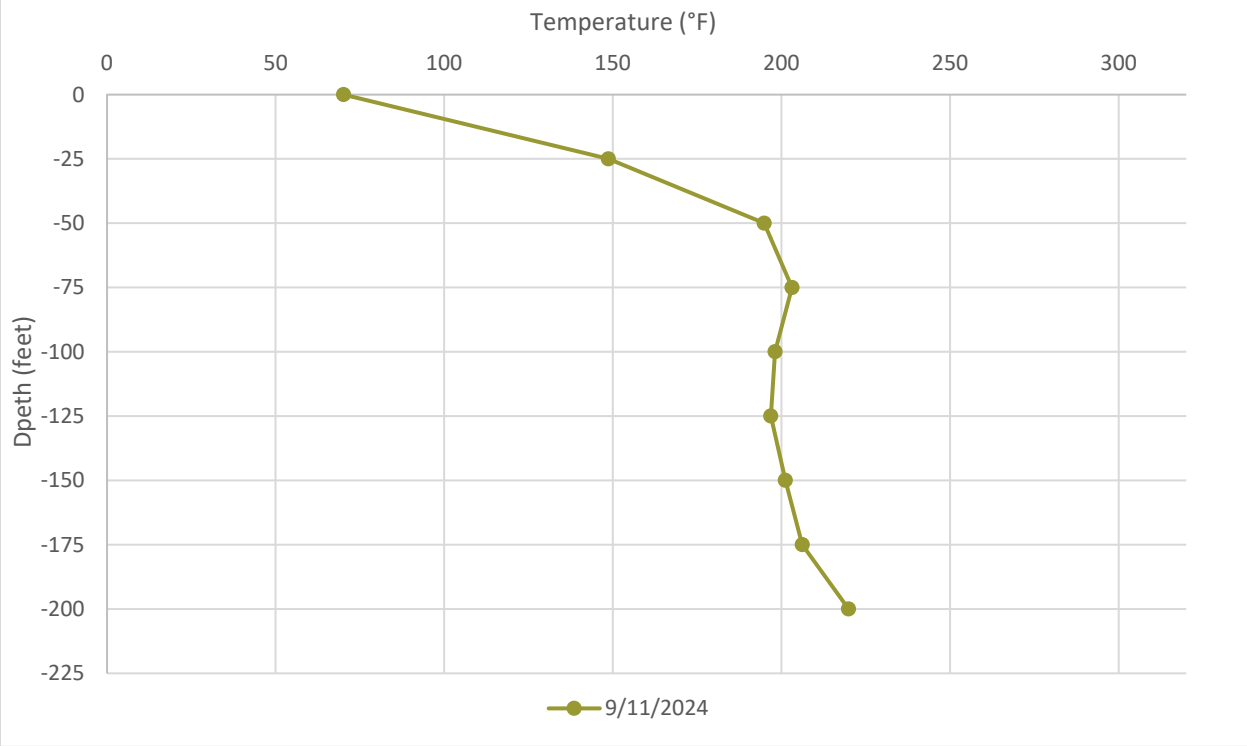


Figure B - 27 Average Temperatures Recorded by TP-7 on September 18, 2024

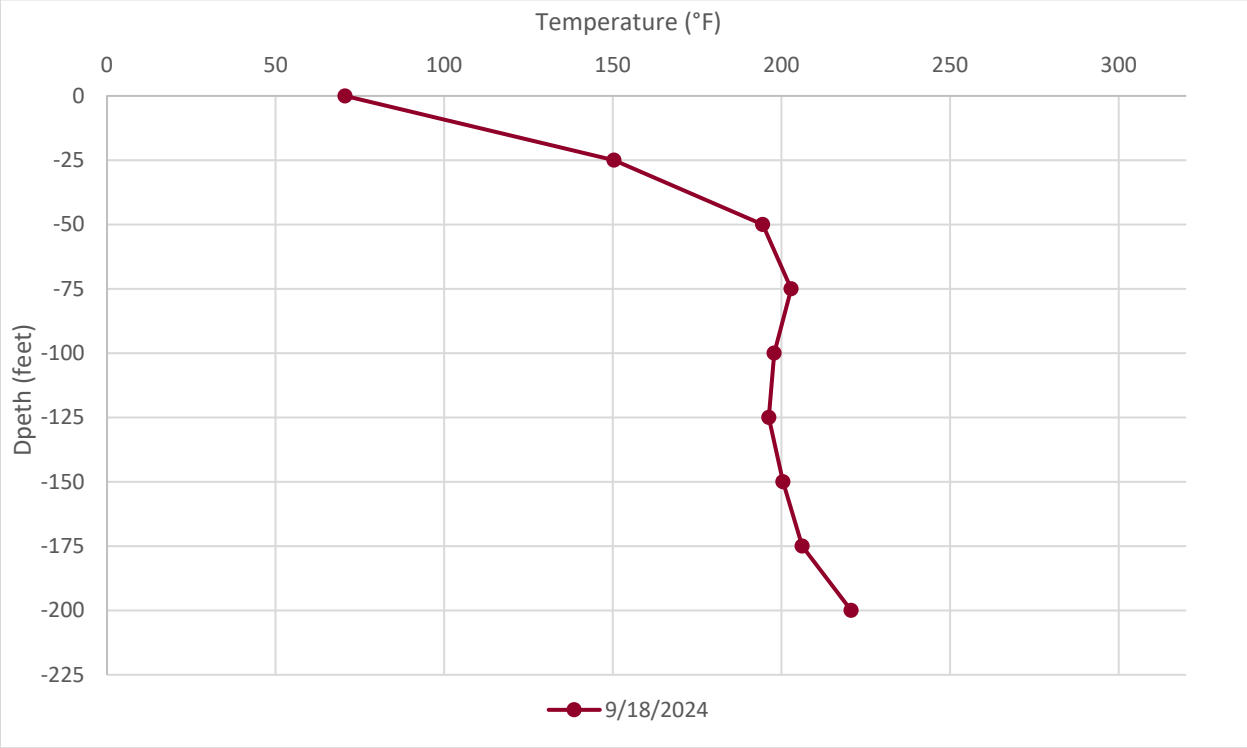


Figure B - 28 Average Temperatures Recorded by TP-7 on September 25, 2024

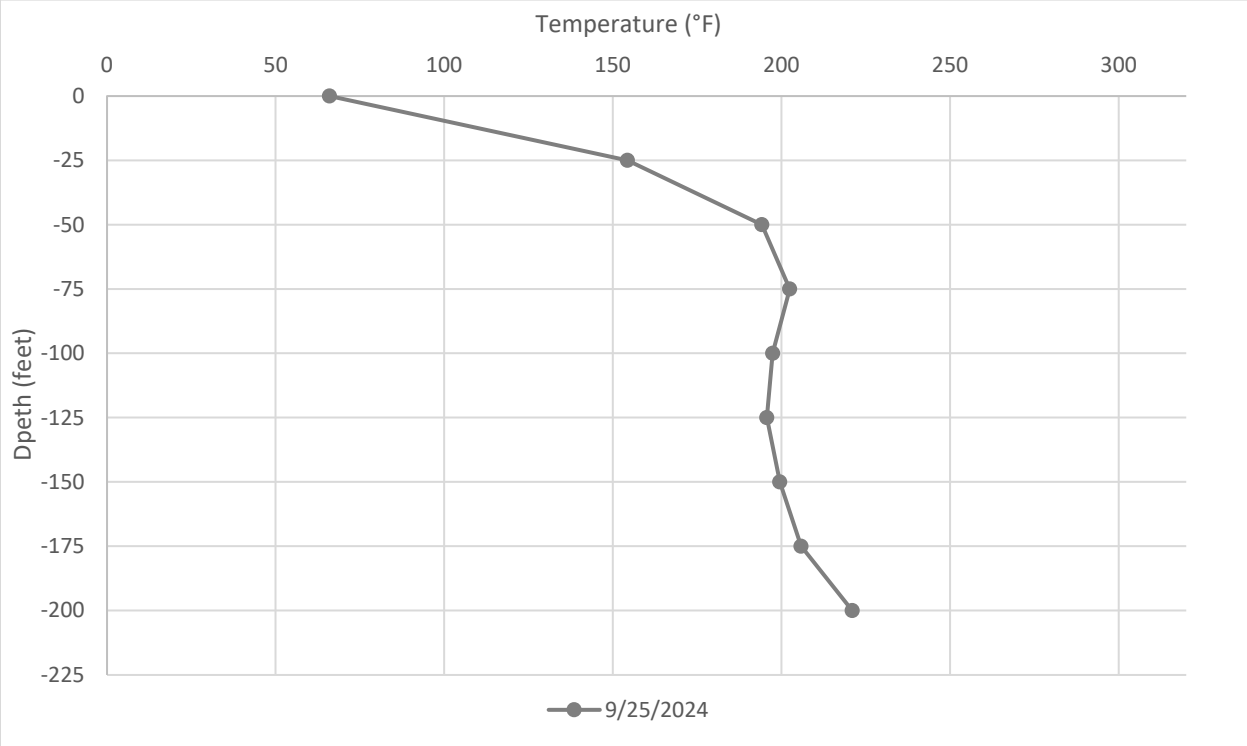


Figure B - 29 Average Temperatures Recorded by TP-8 on September 4, 2024

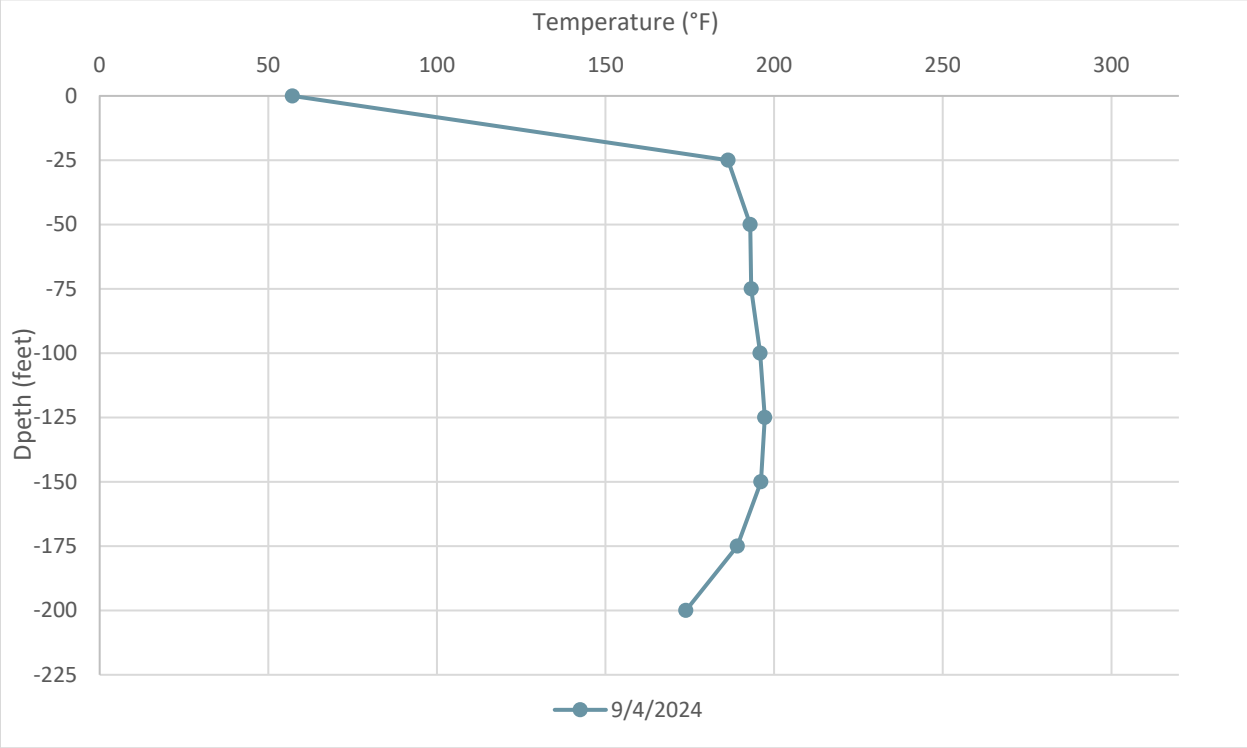


Figure B - 30 Average Temperatures Recorded by TP-8 on September 11, 2024

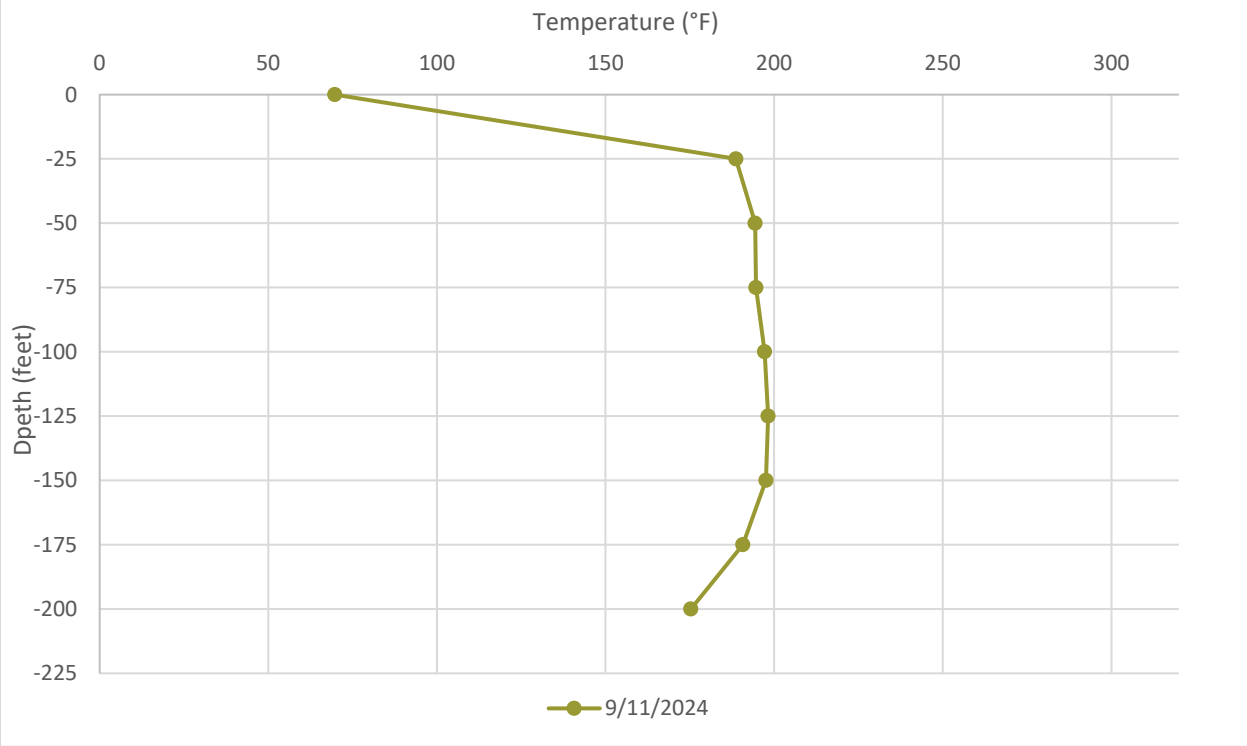


Figure B - 31 Average Temperatures Recorded by TP-8 on September 18, 2024

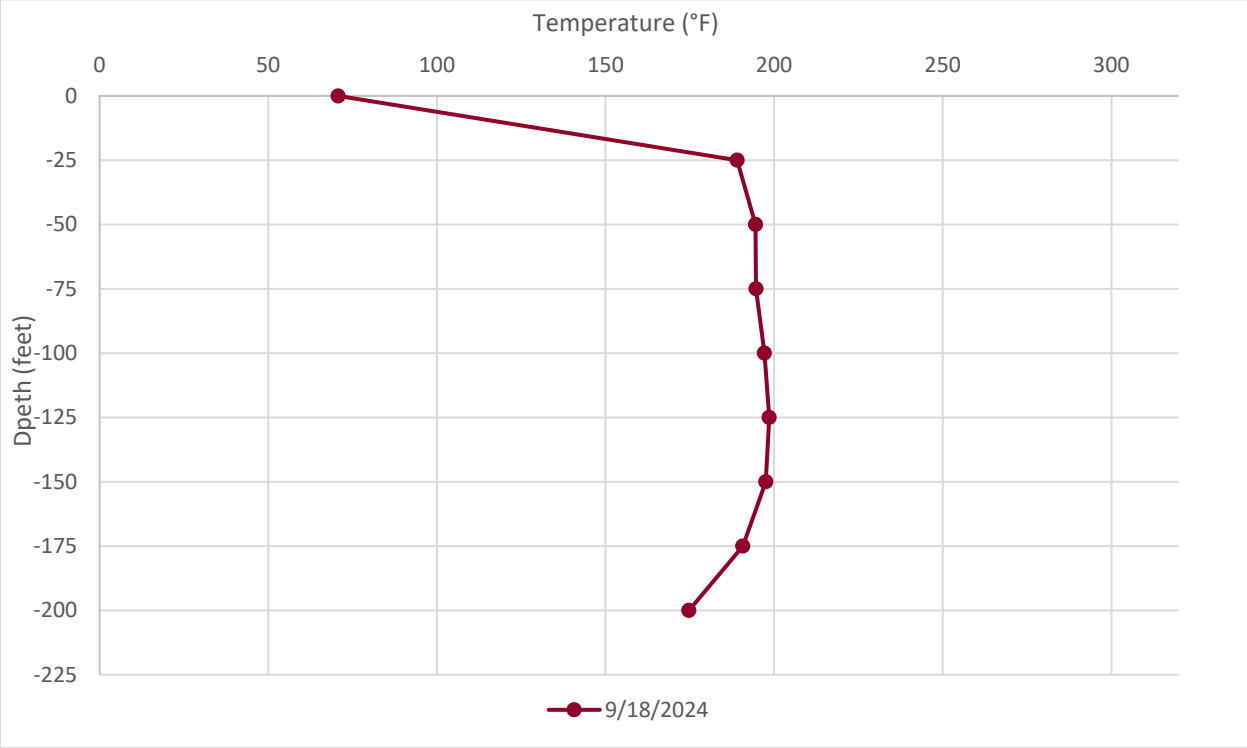


Figure B - 32 Average Temperatures Recorded by TP-8 on September 25, 2024

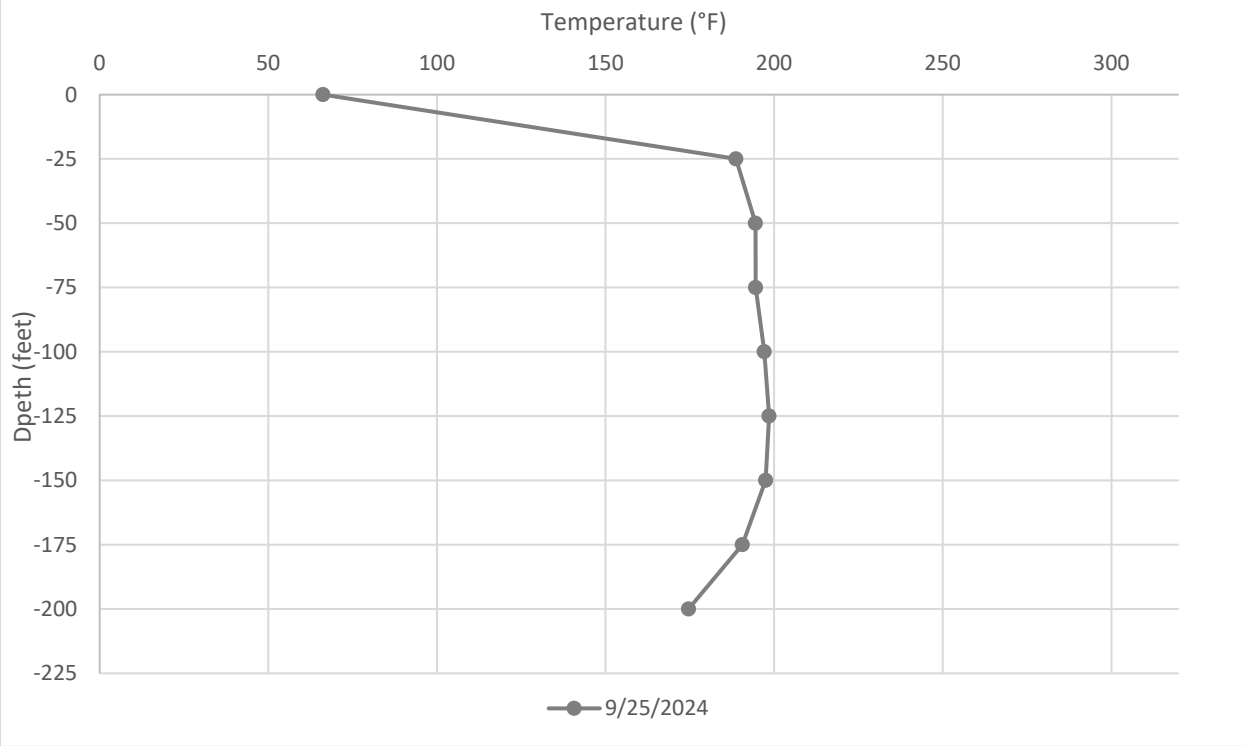


Figure B - 33 Average Temperatures Recorded by TP-9 on September 4, 2024

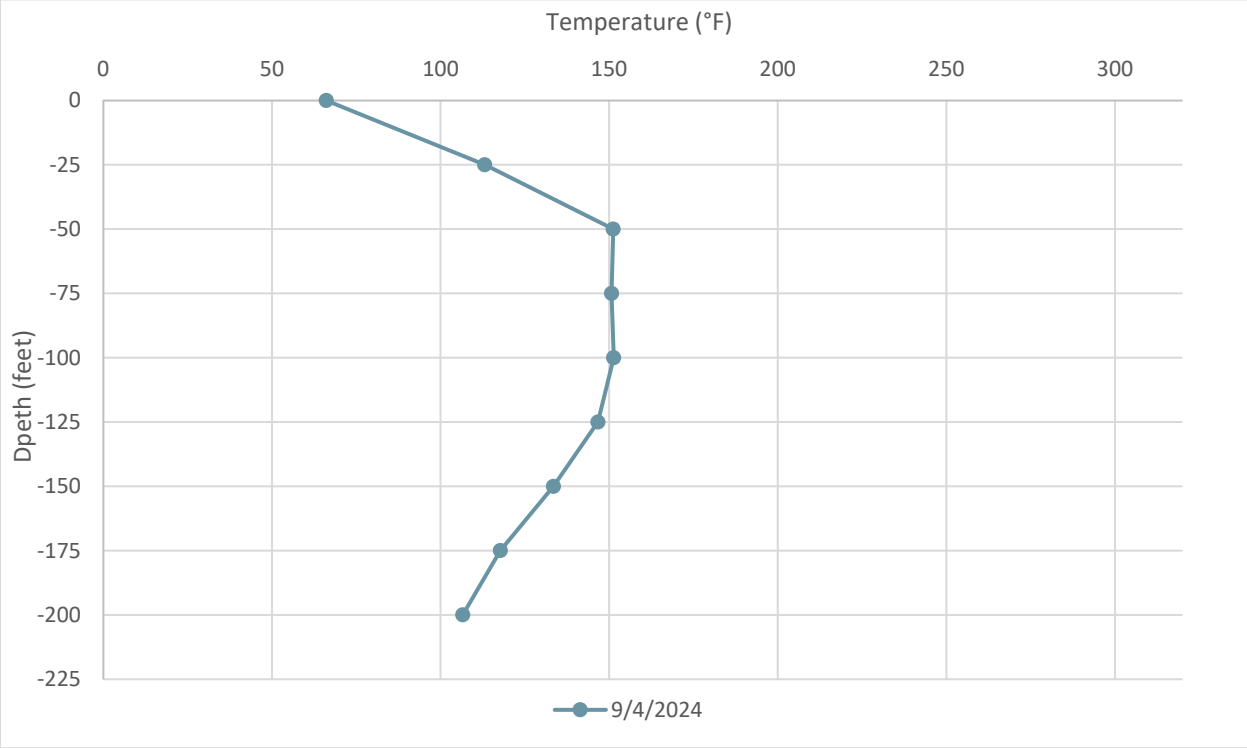


Figure B - 34 Average Temperatures Recorded by TP-9 on September 11, 2024

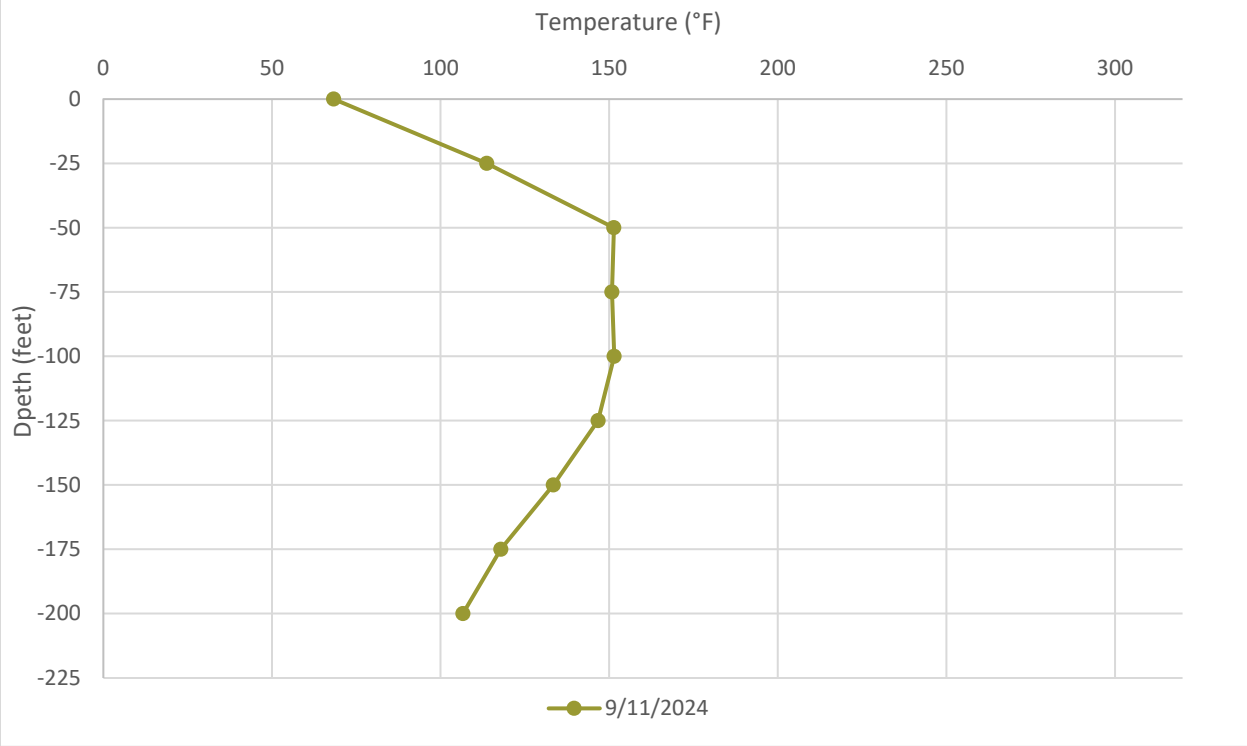


Figure B - 35 Average Temperatures Recorded by TP-9 on September 18, 2024

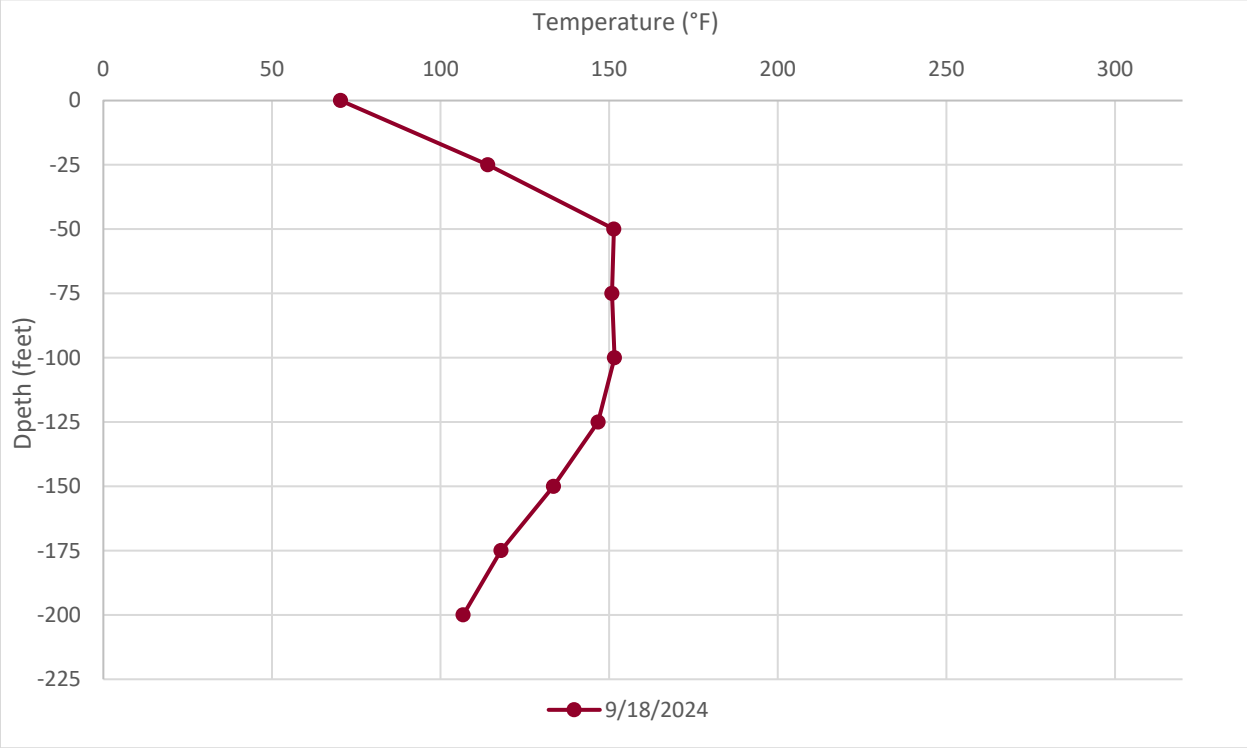
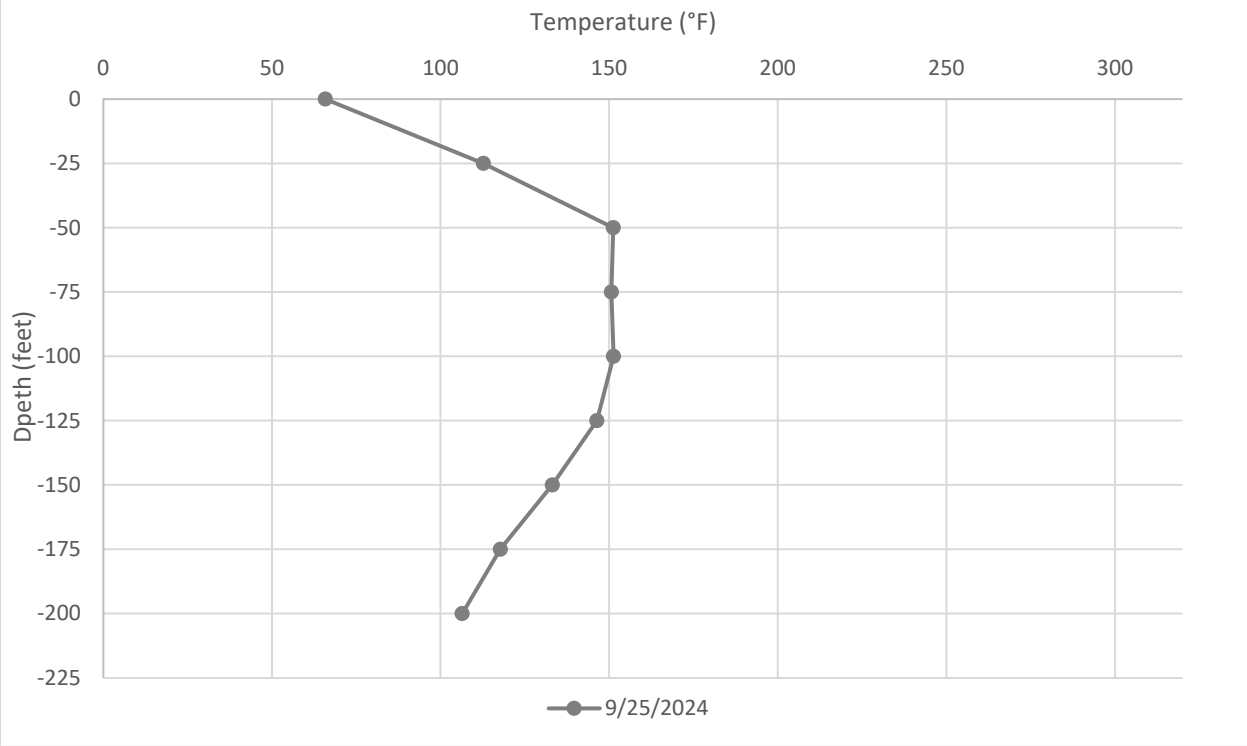


Figure B - 36 Average Temperatures Recorded by TP-9 on September 25, 2024



Appendix C

Daily Wellhead Temperature Averages

Solid Waste Permit 588 Daily Wellhead Temperature Averages

The data provided in this report represent initial readings provided by field instrumentation without Validation, analysis, quality assurance review, or context based on operating conditions. This report is subject to revision following quality assurance review and an analysis of operating conditions. SCS will continue to provide a supplemental report with additional information and further analysis on a monthly basis at a minimum.

SCS ENGINEERS

07222143.00 | October 1, 2024

274 Granite Run Drive
Lancaster, PA 17601
717-550-6330

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 32R

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Sep 1	109.8	107.5	114.0
Sep 2	109.0	104.0	113.2
Sep 3	107.3	102.0	114.3
Sep 4	106.7	100.8	113.0
Sep 5	109.4	103.8	116.3
Sep 6	111.3	106.1	117.6
Sep 7	107.9	103.8	112.1
Sep 8	106.4	101.0	114.1
Sep 9	107.6	102.1	114.3
Sep 10	108.5	86.5	117.5
Sep 11	110.0	105.2	117.5
Sep 12	108.6	104.9	112.6
Sep 13	109.6	104.2	115.4
Sep 14	109.6	106.2	114.5
Sep 15	108.8	104.9	115.2
Sep 16	107.5	103.8	111.4
Sep 17	107.7	105.6	110.3
Sep 18	109.9	106.1	114.6
Sep 19	110.8	106.9	116.8
Sep 20	110.9	106.6	117.2
Sep 21	110.7	106.3	116.2
Sep 22	111.7	107.1	117.8
Sep 23	110.7	107.9	116.7
Sep 24	109.2	103.9	114.7
Sep 25	106.2	101.0	113.1
Sep 26	103.5	101.8	105.6
Sep 27	97.2	67.3	113.9
Sep 28	106.4	103.9	110.8
Sep 29	107.0	104.2	110.8
Summary	**108.3**	**97.2**	**111.7**

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 36A

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Sep 1	81.8	77.0	93.2
Sep 2	83.1	75.5	94.0
Sep 3	81.7	73.2	97.1
Sep 4	79.5	69.3	93.4
Sep 5	83.4	71.1	101.1
Sep 6	83.2	69.7	99.9
Sep 7	76.6	69.6	89.4
Sep 8	75.2	59.8	95.2
Sep 9	76.9	62.2	96.0
Sep 10	79.5	62.4	102.6
Sep 11	80.9	66.5	103.5
Sep 12	77.2	69.4	88.3
Sep 13	80.7	71.7	93.6
Sep 14	82.3	74.6	93.9
Sep 15	80.9	72.1	93.8
Sep 16	76.8	70.5	89.6
Sep 17	76.6	68.9	87.5
Sep 18	82.4	74.1	96.7
Sep 19	84.0	74.9	100.8
Sep 20	85.5	74.0	103.6
Sep 21	84.5	74.6	98.0
Sep 22	87.3	74.8	106.0
Sep 23	85.0	79.4	98.0
Sep 24	82.9	75.2	97.1
Sep 25	78.0	73.2	91.6
Sep 26	72.4	70.2	74.5
Sep 27	76.2	71.3	88.5
Sep 28	76.6	69.3	88.7
Sep 29	75.6	70.1	86.9
Summary	**80.2**	**72.4**	**87.3**

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 49

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Sep 1	72.6	66.9	85.4
Sep 2	73.6	63.6	90.4
Sep 3	71.8	61.5	87.4
Sep 4	68.4	56.3	83.8
Sep 5	72.7	59.2	90.7
Sep 6	73.2	57.2	93.2
Sep 7	65.3	54.1	78.8
Sep 8	62.4	45.0	83.4
Sep 9	66.3	47.8	87.6
Sep 10	68.3	49.2	91.8
Sep 11	71.8	55.1	93.7
Sep 12	68.3	58.4	81.3
Sep 13	72.1	62.3	87.5
Sep 14	73.9	66.7	84.6
Sep 15	71.8	63.0	85.6
Sep 16	65.4	57.7	80.4
Sep 17	65.5	56.0	76.6
Sep 18	71.9	62.6	85.1
Sep 19	73.5	61.7	92.3
Sep 20	74.8	59.8	94.4
Sep 21	74.3	60.3	93.4
Sep 22	76.6	60.8	95.9
Sep 23	74.9	66.4	92.6
Sep 24	72.3	65.0	87.9
Sep 25	67.6	63.1	82.2
Sep 26	64.8	62.7	67.3
Sep 27	71.7	65.4	84.1
Sep 28	71.4	62.3	84.6
Sep 29	69.3	63.8	79.8
Summary	**70.6**	**62.4**	**76.6**

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 50

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Sep 1	108.0	107.4	109.0
Sep 2	107.8	106.8	109.2
Sep 3	107.9	106.4	110.1
Sep 4	107.6	106.1	111.5
Sep 5	108.3	106.4	110.3
Sep 6	108.4	106.5	110.1
Sep 7	107.4	106.4	108.6
Sep 8	107.0	105.5	109.2
Sep 9	108.0	105.5	111.8
Sep 10	107.3	96.2	112.1
Sep 11	108.4	106.5	112.7
Sep 12	108.0	107.1	111.4
Sep 13	108.4	107.3	111.9
Sep 14	108.0	107.4	108.8
Sep 15	107.8	106.8	109.1
Sep 16	107.7	106.6	110.6
Sep 17	107.8	106.0	110.2
Sep 18	108.9	107.5	111.6
Sep 19	109.1	107.4	112.3
Sep 20	109.0	107.1	110.9
Sep 21	108.5	107.2	110.0
Sep 22	108.6	107.1	110.2
Sep 23	108.8	107.6	110.6
Sep 24	108.1	106.5	109.6
Sep 25	107.7	106.4	112.0
Sep 26	106.5	105.9	107.0
Sep 27	98.5	77.8	108.0
Sep 28	107.4	106.4	108.5
Sep 29	107.4	107.0	108.4
Summary	**107.7**	**98.5**	**109.1**

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 51

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Sep 1	72.6	67.6	84.1
Sep 2	73.5	64.4	87.8
Sep 3	71.6	61.9	87.9
Sep 4	68.2	56.9	86.6
Sep 5	72.2	59.6	91.6
Sep 6	72.7	58.1	95.8
Sep 7	65.6	55.4	79.8
Sep 8	61.8	45.7	85.8
Sep 9	64.5	48.4	86.3
Sep 10	68.2	49.8	95.6
Sep 11	71.7	55.0	93.2
Sep 12	68.8	58.7	81.7
Sep 13	72.4	62.2	87.0
Sep 14	74.1	67.9	85.8
Sep 15	72.3	63.4	87.8
Sep 16	65.6	57.1	77.4
Sep 17	65.6	56.5	75.4
Sep 18	71.7	62.9	87.3
Sep 19	73.1	62.1	92.6
Sep 20	74.3	60.5	97.2
Sep 21	74.0	60.9	94.0
Sep 22	76.6	61.3	99.8
Sep 23	74.8	66.8	96.4
Sep 24	72.2	65.6	86.9
Sep 25	68.0	63.4	84.1
Sep 26	65.0	62.9	67.4
Sep 27	72.0	65.6	86.8
Sep 28	71.0	62.5	83.3
Sep 29	69.2	64.3	78.1
Summary	**70.5**	**61.8**	**76.6**

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 52

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Sep 1	156.0	153.4	159.7
Sep 2	166.5	152.4	179.4
Sep 3	164.8	156.9	180.3
Sep 4	163.1	155.4	179.9
Sep 5	161.8	156.3	177.1
Sep 6	161.6	154.8	178.0
Sep 7	154.1	152.0	156.5
Sep 8	151.5	150.5	152.8
Sep 9	158.2	149.4	174.2
Sep 10	159.6	143.5	176.1
Sep 11	159.9	154.0	176.2
Sep 12	159.5	153.6	177.0
Sep 13	160.4	153.0	177.4
Sep 14	155.6	153.1	157.9
Sep 15	151.5	150.3	152.8
Sep 16	155.2	149.4	172.8
Sep 17	164.4	152.0	178.1
Sep 18	166.4	157.5	180.0
Sep 19	164.4	158.7	181.2
Sep 20	162.8	156.4	178.4
Sep 21	161.1	156.8	175.1
Sep 22	0.0	175.1	175.1
Sep 23	0.0	175.1	175.1
Sep 24	0.0	175.1	175.1
Sep 25	0.0	175.1	175.1
Sep 26	0.0	175.1	175.1
Sep 27	0.0	175.1	175.1
Sep 28	0.0	175.1	175.1
Sep 29	0.0	175.1	175.1
Summary	**115.8**	**0.0**	**166.5**

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 53

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Sep 1	95.7	43.0	137.1
Sep 2	108.8	84.4	140.2
Sep 3	102.1	79.6	140.7
Sep 4	102.5	75.8	143.7
Sep 5	129.2	115.7	144.1
Sep 6	132.5	120.9	145.3
Sep 7	128.5	121.7	136.7
Sep 8	127.0	117.7	140.3
Sep 9	128.2	118.5	141.1
Sep 10	129.8	119.2	144.5
Sep 11	134.9	123.3	152.8
Sep 12	139.1	133.2	146.5
Sep 13	139.8	131.2	148.6
Sep 14	139.9	133.5	147.1
Sep 15	129.4	123.2	139.4
Sep 16	132.3	122.8	142.4
Sep 17	136.3	128.0	142.2
Sep 18	144.8	138.1	149.7
Sep 19	147.2	143.5	153.8
Sep 20	147.6	143.4	154.8
Sep 21	147.0	142.0	153.8
Sep 22	148.6	143.8	155.7
Sep 23	148.0	144.6	154.7
Sep 24	143.2	128.9	152.5
Sep 25	129.8	115.6	142.6
Sep 26	114.5	111.2	117.5
Sep 27	115.4	104.5	122.9
Sep 28	122.7	116.0	131.2
Sep 29	124.8	121.1	129.9
Summary	**130.0**	**95.7**	**148.6**

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 54

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Sep 1	161.9	156.3	164.5
Sep 2	155.8	151.0	160.5
Sep 3	172.3	146.5	187.4
Sep 4	184.5	171.0	189.1
Sep 5	173.9	165.2	188.2
Sep 6	173.0	163.7	188.4
Sep 7	161.5	157.9	165.4
Sep 8	155.8	152.3	158.9
Sep 9	170.9	148.2	188.4
Sep 10	177.7	165.2	190.5
Sep 11	169.7	161.1	189.8
Sep 12	168.9	160.2	189.0
Sep 13	168.8	157.7	189.3
Sep 14	162.1	158.4	165.6
Sep 15	157.1	153.8	160.3
Sep 16	154.4	150.2	162.1
Sep 17	156.0	145.9	179.8
Sep 18	156.5	152.8	165.7
Sep 19	158.4	151.9	176.9
Sep 20	158.2	151.0	177.6
Sep 21	154.0	150.9	159.8
Sep 22	153.3	150.3	158.5
Sep 23	164.2	149.8	187.3
Sep 24	157.0	150.3	160.9
Sep 25	154.2	148.6	163.6
Sep 26	146.3	141.0	150.3
Sep 27	114.9	82.4	145.3
Sep 28	85.8	75.8	101.2
Sep 29	81.0	75.5	88.0
Summary	**155.4**	**81.0**	**184.5**

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 55

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Sep 1	118.1	109.8	128.9
Sep 2	118.1	106.1	129.8
Sep 3	115.5	108.0	124.0
Sep 4	110.9	103.7	121.6
Sep 5	117.6	108.7	133.7
Sep 6	119.3	105.3	132.6
Sep 7	110.9	97.3	119.9
Sep 8	110.6	95.0	126.9
Sep 9	112.5	95.0	130.5
Sep 10	110.9	94.8	129.7
Sep 11	116.7	104.3	132.0
Sep 12	113.9	106.1	119.8
Sep 13	116.2	108.0	128.9
Sep 14	116.2	105.7	122.3
Sep 15	115.0	106.1	121.6
Sep 16	117.1	109.4	123.2
Sep 17	115.1	105.2	123.1
Sep 18	124.2	117.8	135.0
Sep 19	126.4	120.1	137.9
Sep 20	126.9	118.2	138.9
Sep 21	124.6	115.0	137.3
Sep 22	128.2	116.7	140.9
Sep 23	132.9	38.6	158.8
Sep 24	158.2	133.3	165.8
Sep 25	156.1	137.2	164.8
Sep 26	154.8	150.2	157.7
Sep 27	149.3	137.4	161.2
Sep 28	157.6	152.2	162.8
Sep 29	158.0	154.3	161.5
Summary	**125.9**	**110.6**	**158.2**

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 56

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Sep 1	147.3	144.5	148.1
Sep 2	146.6	144.1	148.8
Sep 3	144.8	142.6	148.7
Sep 4	144.6	142.1	148.0
Sep 5	146.8	139.7	150.6
Sep 6	147.4	144.5	150.0
Sep 7	146.2	144.3	148.3
Sep 8	145.7	143.3	150.0
Sep 9	146.2	144.0	149.5
Sep 10	145.5	117.6	151.1
Sep 11	147.2	144.3	151.0
Sep 12	146.6	145.7	148.8
Sep 13	146.3	143.6	148.5
Sep 14	146.7	144.8	149.1
Sep 15	146.6	143.8	148.9
Sep 16	147.0	145.0	148.8
Sep 17	145.8	143.0	147.5
Sep 18	148.5	146.3	150.8
Sep 19	149.0	147.2	151.9
Sep 20	149.2	147.6	152.4
Sep 21	149.1	146.6	151.2
Sep 22	149.8	147.8	152.5
Sep 23	149.4	148.2	152.0
Sep 24	148.8	145.1	150.6
Sep 25	147.3	142.1	150.9
Sep 26	144.5	142.9	146.2
Sep 27	131.7	106.1	148.0
Sep 28	144.5	142.8	147.1
Sep 29	145.0	143.2	146.3
Summary	**146.3**	**131.7**	**149.8**

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 57

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Sep 1	147.5	140.6	150.7
Sep 2	145.9	138.6	150.4
Sep 3	143.5	139.7	149.8
Sep 4	142.4	136.5	150.1
Sep 5	146.8	141.8	154.6
Sep 6	148.0	142.6	156.1
Sep 7	143.7	136.8	148.4
Sep 8	142.6	135.8	151.9
Sep 9	143.6	136.2	151.6
Sep 10	141.5	107.9	155.8
Sep 11	146.1	141.5	153.5
Sep 12	144.5	141.0	148.9
Sep 13	143.9	140.2	148.7
Sep 14	144.3	140.8	148.9
Sep 15	143.3	137.4	149.8
Sep 16	144.2	139.3	148.5
Sep 17	141.8	134.2	146.7
Sep 18	147.9	140.7	151.6
Sep 19	148.2	130.7	154.1
Sep 20	149.4	144.7	157.5
Sep 21	149.3	146.0	153.8
Sep 22	150.4	145.8	156.8
Sep 23	149.7	139.3	153.2
Sep 24	148.6	139.8	154.6
Sep 25	145.9	136.3	154.6
Sep 26	139.9	128.4	145.6
Sep 27	121.0	76.8	149.0
Sep 28	137.1	133.2	141.8
Sep 29	142.5	140.1	145.3
Summary	**144.3**	**121.0**	**150.4**

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 58

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Sep 1	98.7	95.7	103.1
Sep 2	98.6	95.4	104.0
Sep 3	97.7	93.9	103.8
Sep 4	96.1	92.0	102.3
Sep 5	98.0	93.7	104.2
Sep 6	98.1	92.2	106.3
Sep 7	94.4	90.6	98.1
Sep 8	92.9	86.0	101.1
Sep 9	94.5	87.3	102.5
Sep 10	95.0	87.9	106.7
Sep 11	97.9	90.7	106.0
Sep 12	97.8	94.4	103.0
Sep 13	99.4	95.2	104.4
Sep 14	100.1	97.1	104.3
Sep 15	98.7	95.1	103.7
Sep 16	97.0	93.2	101.8
Sep 17	96.4	91.7	100.7
Sep 18	99.3	95.8	103.4
Sep 19	100.2	95.7	106.0
Sep 20	100.2	94.2	108.5
Sep 21	99.9	95.0	106.3
Sep 22	100.9	95.0	108.3
Sep 23	100.5	97.6	106.1
Sep 24	99.4	94.6	105.0
Sep 25	97.5	94.4	105.1
Sep 26	95.9	93.6	97.6
Sep 27	89.7	64.8	98.6
Sep 28	99.3	96.3	103.6
Sep 29	99.4	97.5	101.9
Summary	**97.7**	**89.7**	**100.9**

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 59

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Sep 1	113.4	112.0	114.3
Sep 2	114.0	113.2	115.3
Sep 3	113.8	110.8	120.6
Sep 4	113.4	111.0	121.5
Sep 5	115.1	111.5	120.9
Sep 6	114.7	112.7	117.8
Sep 7	113.7	112.6	115.1
Sep 8	113.3	111.2	117.8
Sep 9	113.6	111.6	118.3
Sep 10	112.9	95.4	118.1
Sep 11	114.0	112.1	116.1
Sep 12	114.1	112.5	120.1
Sep 13	113.8	112.3	119.0
Sep 14	113.8	113.1	116.4
Sep 15	113.5	112.5	115.1
Sep 16	113.8	112.5	121.4
Sep 17	114.0	112.0	120.8
Sep 18	115.5	112.9	124.2
Sep 19	115.0	113.1	119.8
Sep 20	114.5	112.7	117.0
Sep 21	113.9	112.7	115.7
Sep 22	114.2	112.6	116.4
Sep 23	114.5	113.2	117.4
Sep 24	113.7	112.3	115.6
Sep 25	113.0	111.2	115.5
Sep 26	111.9	111.3	112.4
Sep 27	100.3	65.8	113.3
Sep 28	113.9	111.9	121.5
Sep 29	113.1	112.4	114.2
Summary	**113.4**	**100.3**	**115.5**

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 60

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Sep 1	118.3	115.7	120.8
Sep 2	118.0	116.0	120.9
Sep 3	120.8	115.2	148.6
Sep 4	119.0	114.4	139.4
Sep 5	120.4	115.4	135.9
Sep 6	121.3	115.4	133.6
Sep 7	117.1	114.2	119.4
Sep 8	116.7	113.2	121.3
Sep 9	121.4	113.7	149.2
Sep 10	121.2	107.3	149.8
Sep 11	123.0	116.6	144.5
Sep 12	120.6	117.7	135.1
Sep 13	120.9	117.5	137.0
Sep 14	118.9	117.8	120.9
Sep 15	118.1	116.5	120.3
Sep 16	119.9	117.0	132.2
Sep 17	122.6	115.7	138.4
Sep 18	126.9	119.1	153.9
Sep 19	127.4	120.5	146.8
Sep 20	124.5	120.7	137.9
Sep 21	122.3	120.3	125.2
Sep 22	122.5	119.9	125.7
Sep 23	124.3	120.9	142.7
Sep 24	121.8	118.2	124.9
Sep 25	134.7	119.1	160.9
Sep 26	128.1	126.0	130.2
Sep 27	122.0	93.6	160.6
Sep 28	126.0	123.5	131.4
Sep 29	122.4	120.9	123.6
Summary	**122.1**	**116.7**	**134.7**

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 61

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Sep 1	139.0	137.9	139.8
Sep 2	138.3	137.7	139.2
Sep 3	138.2	137.3	139.7
Sep 4	138.1	137.1	139.7
Sep 5	138.8	137.8	140.7
Sep 6	139.4	138.0	141.2
Sep 7	139.0	138.0	139.8
Sep 8	138.6	137.2	140.6
Sep 9	138.8	137.6	140.3
Sep 10	137.3	101.0	142.8
Sep 11	154.2	138.0	175.5
Sep 12	171.8	171.1	172.4
Sep 13	167.8	152.2	173.5
Sep 14	147.3	144.0	151.3
Sep 15	142.3	141.0	143.7
Sep 16	152.7	139.7	170.9
Sep 17	152.0	143.2	172.5
Sep 18	156.6	143.8	174.1
Sep 19	157.1	145.3	174.3
Sep 20	155.4	145.6	174.0
Sep 21	145.7	144.1	146.9
Sep 22	144.1	143.1	145.7
Sep 23	143.1	142.2	144.2
Sep 24	141.6	139.6	142.8
Sep 25	139.6	137.8	141.0
Sep 26	137.0	136.1	137.8
Sep 27	119.6	83.9	150.0
Sep 28	138.7	137.2	143.1
Sep 29	137.0	136.4	137.3
Summary	**144.4**	**119.6**	**171.8**

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 62

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Sep 1	120.2	116.3	122.6
Sep 2	119.9	117.2	122.9
Sep 3	119.2	116.3	123.0
Sep 4	118.1	114.3	121.6
Sep 5	119.7	115.1	125.0
Sep 6	120.7	117.8	125.0
Sep 7	118.2	115.2	121.5
Sep 8	117.5	113.2	123.7
Sep 9	118.2	113.9	123.0
Sep 10	116.4	88.5	124.4
Sep 11	118.8	115.0	124.8
Sep 12	116.8	114.6	120.0
Sep 13	117.9	112.7	123.7
Sep 14	117.7	113.8	122.3
Sep 15	116.4	112.6	121.4
Sep 16	113.2	110.2	116.4
Sep 17	111.5	104.9	115.8
Sep 18	115.1	111.1	119.9
Sep 19	115.2	111.9	121.2
Sep 20	115.7	110.2	122.7
Sep 21	114.8	110.0	121.1
Sep 22	115.8	110.5	123.3
Sep 23	114.0	111.2	120.9
Sep 24	111.6	104.2	118.3
Sep 25	107.8	100.9	115.8
Sep 26	101.7	99.3	104.7
Sep 27	91.8	65.7	103.9
Sep 28	100.2	96.5	105.9
Sep 29	100.7	97.4	105.8
Summary	**114.0**	**91.8**	**120.7**

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 63

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Sep 1	72.6	66.9	85.7
Sep 2	73.5	63.8	91.7
Sep 3	71.8	60.6	88.0
Sep 4	68.2	55.6	84.3
Sep 5	71.7	58.6	88.4
Sep 6	71.8	56.7	91.9
Sep 7	65.1	53.5	78.8
Sep 8	61.0	44.7	81.0
Sep 9	64.3	47.6	85.3
Sep 10	67.6	49.3	92.0
Sep 11	71.1	54.5	91.1
Sep 12	68.2	58.4	79.7
Sep 13	72.9	62.1	91.0
Sep 14	74.5	65.2	88.3
Sep 15	71.9	61.3	86.5
Sep 16	64.9	56.9	80.5
Sep 17	65.9	56.0	76.9
Sep 18	72.3	62.1	86.8
Sep 19	73.5	61.6	91.1
Sep 20	74.2	60.0	94.0
Sep 21	73.9	60.4	93.9
Sep 22	76.0	61.0	94.3
Sep 23	74.2	66.2	91.1
Sep 24	71.8	65.0	91.0
Sep 25	67.5	63.2	84.6
Sep 26	65.1	62.9	68.1
Sep 27	71.3	65.4	84.3
Sep 28	71.0	62.6	84.2
Sep 29	69.4	63.7	80.9
Summary	**70.3**	**61.0**	**76.0**

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 64

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Sep 1	102.7	95.6	109.7
Sep 2	102.8	97.7	113.8
Sep 3	102.0	95.3	110.1
Sep 4	99.6	92.7	108.5
Sep 5	103.0	94.8	112.8
Sep 6	102.8	92.6	114.5
Sep 7	96.8	89.1	105.4
Sep 8	94.4	80.2	108.2
Sep 9	97.6	83.5	110.1
Sep 10	97.4	84.1	113.1
Sep 11	101.4	90.0	112.6
Sep 12	98.2	94.8	104.9
Sep 13	101.3	93.0	110.2
Sep 14	101.9	96.1	111.7
Sep 15	100.6	94.4	107.4
Sep 16	97.3	90.0	108.3
Sep 17	96.3	85.3	104.8
Sep 18	101.7	96.1	108.5
Sep 19	102.6	94.9	112.3
Sep 20	103.9	93.1	115.7
Sep 21	103.0	93.7	113.8
Sep 22	104.7	94.9	116.1
Sep 23	103.4	98.2	112.1
Sep 24	100.1	89.0	115.5
Sep 25	95.3	86.2	108.9
Sep 26	92.2	88.6	96.2
Sep 27	86.8	67.4	97.7
Sep 28	95.2	90.1	104.0
Sep 29	94.4	89.1	100.5
Summary	**99.3**	**86.8**	**104.7**

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 65

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Sep 1	73.2	67.4	87.4
Sep 2	74.1	63.2	90.3
Sep 3	71.9	61.4	91.3
Sep 4	68.9	56.4	89.2
Sep 5	73.4	59.0	92.8
Sep 6	73.4	57.4	95.1
Sep 7	66.8	54.6	82.2
Sep 8	63.1	45.3	86.8
Sep 9	66.1	48.2	89.4
Sep 10	69.2	49.8	94.3
Sep 11	72.4	55.6	92.4
Sep 12	68.5	58.6	81.1
Sep 13	73.0	62.5	89.3
Sep 14	74.4	66.0	85.9
Sep 15	72.5	62.4	88.9
Sep 16	65.3	57.4	81.6
Sep 17	66.1	56.3	76.7
Sep 18	72.1	62.8	84.4
Sep 19	73.6	62.0	93.0
Sep 20	75.8	59.9	97.0
Sep 21	74.8	60.7	94.7
Sep 22	77.4	60.9	98.3
Sep 23	75.1	66.6	94.2
Sep 24	72.7	65.3	89.5
Sep 25	68.0	63.4	84.2
Sep 26	65.1	63.1	68.1
Sep 27	71.9	65.7	85.2
Sep 28	71.4	62.1	84.0
Sep 29	69.5	64.2	80.3
Summary	**71.0**	**63.1**	**77.4**

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 66

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Sep 1	149.2	145.7	150.8
Sep 2	149.5	146.7	151.2
Sep 3	148.9	147.4	150.0
Sep 4	148.5	146.7	150.8
Sep 5	150.1	147.7	152.5
Sep 6	150.6	148.3	153.3
Sep 7	148.7	145.9	150.5
Sep 8	148.8	146.7	151.9
Sep 9	149.3	146.4	152.5
Sep 10	147.2	117.3	154.1
Sep 11	150.2	148.2	152.8
Sep 12	149.4	146.3	150.7
Sep 13	149.6	147.0	151.6
Sep 14	149.3	146.4	151.2
Sep 15	149.2	146.6	150.7
Sep 16	149.8	147.4	151.7
Sep 17	149.5	145.5	151.4
Sep 18	151.3	150.2	152.8
Sep 19	151.8	150.6	153.9
Sep 20	151.7	149.7	154.5
Sep 21	151.1	149.8	153.2
Sep 22	151.8	149.8	154.0
Sep 23	151.6	150.3	153.2
Sep 24	149.2	136.7	153.1
Sep 25	148.1	144.0	151.6
Sep 26	147.3	144.6	148.9
Sep 27	129.4	94.8	152.1
Sep 28	150.2	145.8	152.1
Sep 29	151.1	148.3	152.2
Summary	**149.0**	**129.4**	**151.8**

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 67

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Sep 1	156.9	146.4	160.5
Sep 2	159.8	155.3	161.7
Sep 3	158.2	155.3	160.5
Sep 4	157.9	154.8	161.0
Sep 5	161.4	156.9	164.4
Sep 6	162.8	159.4	165.4
Sep 7	160.6	156.7	163.6
Sep 8	160.9	157.4	163.7
Sep 9	162.0	157.9	166.2
Sep 10	162.5	157.9	167.0
Sep 11	161.8	120.3	166.2
Sep 12	172.3	161.2	192.5
Sep 13	193.6	192.5	194.5
Sep 14	188.5	183.2	194.4
Sep 15	178.8	174.0	184.3
Sep 16	173.2	171.3	175.1
Sep 17	169.9	167.2	171.4
Sep 18	170.2	168.7	171.7
Sep 19	169.5	168.2	171.1
Sep 20	168.4	166.8	170.4
Sep 21	167.5	166.2	169.4
Sep 22	167.6	166.2	169.9
Sep 23	165.0	148.8	168.7
Sep 24	148.6	96.9	165.0
Sep 25	141.6	117.3	158.9
Sep 26	151.4	144.3	156.0
Sep 27	151.9	144.5	159.0
Sep 28	160.1	158.2	162.4
Sep 29	161.5	159.7	162.7
Summary	**164.3**	**141.6**	**193.6**

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 68

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Sep 1	136.2	134.8	137.2
Sep 2	134.5	133.6	135.3
Sep 3	138.5	132.4	149.5
Sep 4	139.3	134.2	152.7
Sep 5	141.6	136.4	152.1
Sep 6	142.0	136.9	154.7
Sep 7	136.9	135.5	139.1
Sep 8	135.0	134.2	136.0
Sep 9	139.2	133.3	153.0
Sep 10	140.4	126.1	153.8
Sep 11	142.4	137.5	154.7
Sep 12	142.0	137.4	153.1
Sep 13	141.4	137.2	153.3
Sep 14	137.7	136.0	140.5
Sep 15	135.3	134.7	136.2
Sep 16	138.5	133.7	152.9
Sep 17	143.9	136.8	155.6
Sep 18	147.7	140.4	157.9
Sep 19	145.3	141.6	155.7
Sep 20	144.1	139.0	156.1
Sep 21	139.2	137.9	140.8
Sep 22	137.2	136.1	137.8
Sep 23	141.1	135.8	156.0
Sep 24	137.2	135.1	138.8
Sep 25	140.7	135.1	156.1
Sep 26	133.6	90.5	141.1
Sep 27	124.6	91.6	156.7
Sep 28	141.8	137.9	152.1
Sep 29	136.1	134.7	137.7
Summary	**139.1**	**124.6**	**147.7**

Solid Waste Permit 588 Daily Wellhead Temperature Averages for Well 100

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Sep 1	127.5	122.5	129.9
Sep 2	134.5	133.6	135.3
Sep 3	123.2	120.2	127.6
Sep 4	139.3	134.2	152.7
Sep 5	125.4	121.0	128.3
Sep 6	142.0	136.9	154.7
Sep 7	122.6	119.0	125.3
Sep 8	135.0	134.2	136.0
Sep 9	123.0	116.6	127.1
Sep 10	140.4	126.1	153.8
Sep 11	125.0	120.3	128.9
Sep 12	142.0	137.4	153.1
Sep 13	124.5	122.2	127.3
Sep 14	137.7	136.0	140.5
Sep 15	124.1	120.9	127.0
Sep 16	138.5	133.7	152.9
Sep 17	122.5	117.8	126.4
Sep 18	147.7	140.4	157.9
Sep 19	127.2	125.0	131.2
Sep 20	144.1	139.0	156.1
Sep 21	127.6	124.5	130.3
Sep 22	137.2	136.1	137.8
Sep 23	127.7	122.2	130.8
Sep 24	137.2	135.1	138.8
Sep 25	127.8	123.9	134.3
Sep 26	133.6	90.5	141.1
Sep 27	119.9	104.1	129.6
Sep 28	141.8	137.9	152.1
Sep 29	126.0	124.4	127.6
Summary	**125.1**	**119.9**	**128.6**

Appendix D

Solid Waste Permit 588 Daily Borehole Temperature Averages

Appendix D Table of Contents

Section Page

Solid Waste Permit 588 Daily Borehole Temperature Averages for Borehole 1

	Depth from Surface					
Date	25 ft	50 ft	75 ft	100 ft	125 ft	150 ft
1-Sep	166.1	217.9	218.2	233.9	246.8	267.0
2-Sep	166.3	217.6	217.9	232.8	245.4	267.0
3-Sep	166.1	217.4	217.7	232.4	244.5	266.7
4-Sep	166.0	217.1	217.4	231.9	243.7	266.5
5-Sep	166.3	217.2	217.6	232.0	243.8	266.6
6-Sep	166.3	217.2	217.6	232.0	243.4	266.6
7-Sep	166.0	216.8	217.2	231.7	243.0	266.1
8-Sep	165.8	216.7	217.1	231.7	243.1	266.0
9-Sep	165.9	216.6	217.1	231.6	243.1	266.0
10-Sep	166.0	216.7	217.0	231.4	242.8	266.1
11-Sep	166.1	216.7	217.1	231.5	242.7	266.1
12-Sep	166.0	216.6	216.9	231.3	242.6	265.8
13-Sep	166.5	216.7	217.1	231.6	242.7	266.1
14-Sep	166.7	216.8	217.1	231.5	242.7	266.0
15-Sep	166.6	216.7	217.0	231.3	242.4	265.9
16-Sep	166.3	216.3	216.7	231.0	241.8	265.6
17-Sep	166.5	216.4	216.7	231.1	241.8	265.6
18-Sep	166.9	216.5	216.9	231.0	241.8	265.9
19-Sep	166.9	216.4	216.8	230.8	241.7	265.9
20-Sep	167.0	216.5	216.9	231.0	241.7	266.0
21-Sep	166.9	216.4	216.8	230.9	241.6	265.8
22-Sep	167.1	216.6	217.0	231.0	241.7	266.0
23-Sep	167.0	216.5	216.9	230.9	241.6	265.8
24-Sep	166.8	216.5	216.8	230.8	241.5	265.7
25-Sep	166.2	216.3	216.6	230.5	241.2	265.5
26-Sep	163.7	216.1	216.5	230.2	240.9	265.3
27-Sep	162.8	216.5	216.9	230.6	241.3	265.6
28-Sep	164.7	216.4	216.8	230.5	241.0	265.5
29-Sep	165.7	216.3	216.7	230.4	240.9	265.3
30-Sep	166.0	216.3	216.7	230.3	240.9	265.4
Average	**166.1**	**216.7**	**217.1**	**231.3**	**242.5**	**266.0**

Solid Waste Permit 588 Daily Borehole Temperature Averages for Borehole 2

	Depth from Surface					
Date	25 ft	50 ft	75 ft	100 ft	125 ft	150 ft
1-Sep	158.6	241.1	241.5	261.3	247.5	256.9
2-Sep	158.6	241.4	241.8	261.4	247.4	257.0
3-Sep	158.6	241.2	241.7	261.3	247.3	256.9
4-Sep	158.4	240.7	241.1	261.3	247.6	256.8
5-Sep	158.3	241.2	241.7	261.4	247.4	257.0
6-Sep	158.3	241.2	241.6	261.3	247.2	256.7
7-Sep	158.2	240.8	241.2	261.2	247.7	256.6
8-Sep	157.7	241.0	241.3	261.0	247.0	256.6
9-Sep	158.0	240.9	241.3	260.9	247.0	256.6
10-Sep	158.1	241.0	241.4	260.9	247.0	256.7
11-Sep	158.2	241.1	241.5	261.0	247.0	256.7
12-Sep	158.1	240.9	241.4	260.8	246.8	256.5
13-Sep	157.9	240.7	241.3	261.1	247.1	256.7
14-Sep	157.9	240.8	241.4	261.1	247.1	256.8
15-Sep	158.0	241.1	241.7	260.8	246.9	256.7
16-Sep	157.5	240.9	241.3	260.5	246.6	256.4
17-Sep	156.8	241.0	241.4	260.6	246.6	256.4
18-Sep	157.0	241.2	241.6	260.8	246.8	256.7
19-Sep	157.0	241.3	241.8	260.8	246.8	256.8
20-Sep	157.0	241.2	241.8	261.0	246.8	257.1
21-Sep	157.2	240.7	241.3	261.1	246.9	257.2
22-Sep	157.3	241.4	242.1	260.9	246.9	257.4
23-Sep	157.3	241.0	241.7	260.7	246.7	257.0
24-Sep	157.6	240.5	241.1	260.6	246.8	257.2
25-Sep	157.9	240.2	240.8	260.5	247.0	257.7
26-Sep	157.7	240.0	240.6	260.6	247.1	257.7
27-Sep	157.9	240.2	240.8	260.9	247.4	258.1
28-Sep	158.1	240.2	240.7	260.9	247.4	258.6
29-Sep	157.4	240.2	240.8	261.1	247.4	259.3
30-Sep	157.7	240.1	240.8	261.1	247.5	260.1
Average	**157.8**	**240.8**	**241.4**	**261.0**	**247.1**	**257.2**

Solid Waste Permit 588 Daily Borehole Temperature Averages for Borehole 3

	Depth from Surface							
Date	25 ft	50 ft	75 ft	100 ft	125 ft	150 ft	175 ft	200 ft
1-Sep	172.4	234.8	234.8	247.9	252.0	261.3	265.3	254.4
2-Sep	172.5	235.0	235.0	248.0	252.1	261.3	265.6	254.5
3-Sep	172.4	235.0	235.0	248.1	252.0	261.2	265.5	254.4
4-Sep	171.9	234.8	234.8	247.9	251.8	261.1	265.3	254.2
5-Sep	172.3	235.0	235.0	248.2	252.1	261.3	265.6	254.4
6-Sep	172.4	234.9	235.0	248.2	252.1	261.5	265.6	254.4
7-Sep	172.1	234.7	234.6	248.0	251.8	261.0	265.2	254.0
8-Sep	171.8	234.6	234.6	248.1	251.8	261.1	265.3	254.0
9-Sep	171.7	234.7	234.7	248.3	251.9	261.1	265.3	254.1
10-Sep	171.7	234.8	234.8	248.4	252.2	261.3	265.4	254.2
11-Sep	171.5	234.9	234.9	248.6	252.3	261.5	265.5	254.3
12-Sep	171.8	234.7	234.7	248.4	252.0	261.3	265.3	254.0
13-Sep	172.2	234.3	234.3	248.4	252.0	261.3	265.3	254.1
14-Sep	172.1	233.7	233.8	248.2	251.9	261.3	265.4	254.1
15-Sep	171.8	233.7	233.7	248.2	251.9	261.1	265.4	254.1
16-Sep	171.2	233.8	233.7	248.0	251.6	260.9	265.1	253.7
17-Sep	171.0	234.0	234.0	248.0	251.6	260.9	265.0	253.7
18-Sep	171.2	234.5	234.4	248.3	251.9	261.1	265.2	254.0
19-Sep	171.2	234.6	234.7	248.3	252.0	261.4	265.3	254.1
20-Sep	171.2	234.8	234.7	248.4	252.1	261.4	265.3	254.2
21-Sep	171.1	234.8	234.7	248.4	251.9	261.3	265.2	254.0
22-Sep	171.2	234.9	234.8	248.4	252.0	261.4	265.3	254.1
23-Sep	170.9	234.8	234.7	248.4	251.8	261.3	265.2	253.9
24-Sep	170.9	234.7	234.6	248.3	251.8	261.2	265.1	253.9
25-Sep	170.6	234.5	234.4	248.0	251.5	261.0	264.8	253.5
26-Sep	170.5	234.3	234.3	247.9	251.3	260.8	264.6	253.4
27-Sep	170.8	234.6	234.5	248.1	251.5	261.0	264.8	253.5
28-Sep	170.6	234.7	234.7	248.3	251.7	261.0	265.0	253.7
29-Sep	170.6	234.6	234.5	248.1	251.5	260.8	264.8	253.5
30-Sep	170.8	234.6	234.5	248.1	251.5	260.7	264.7	253.5
Average	**171.5**	**234.6**	**234.6**	**248.2**	**251.9**	**261.2**	**265.2**	**254.0**

Solid Waste Permit 588 Daily Borehole Temperature Averages for Borehole 4

	Depth from Surface							
Date	25 ft	50 ft	75 ft	100 ft	125 ft	150 ft	175 ft	200 ft
1-Sep	216.3	218.4	214.3	218.7	231.2	226.1	218.3	217.7
2-Sep	216.9	219.2	211.2	219.6	231.7	226.6	219.2	218.6
3-Sep	217.1	219.3	210.4	220.0	231.1	226.1	219.3	218.7
4-Sep	217.4	219.5	213.8	220.1	231.3	226.4	219.5	218.9
5-Sep	217.4	219.7	214.3	220.2	230.9	226.1	219.5	219.0
6-Sep	217.6	220.0	219.0	220.8	230.9	226.3	219.6	219.1
7-Sep	216.9	219.2	218.3	219.9	230.2	225.7	219.0	218.4
8-Sep	216.8	219.1	218.2	219.6	229.5	224.6	218.9	218.3
9-Sep	217.4	219.8	218.8	220.3	230.5	226.3	219.5	218.9
10-Sep	217.4	220.0	219.0	220.6	228.7	226.7	219.8	219.2
11-Sep	217.2	219.9	218.9	220.4	228.9	226.8	219.7	219.1
12-Sep	217.5	220.2	219.0	220.5	228.6	226.7	219.9	219.2
13-Sep	217.5	220.2	219.1	220.6	228.6	226.5	220.0	219.3
14-Sep	217.9	220.6	219.4	220.7	228.9	227.2	220.3	219.6
15-Sep	217.6	220.3	219.2	220.5	228.3	226.3	220.2	219.4
16-Sep	217.9	220.5	219.5	220.7	228.2	226.2	220.4	219.7
17-Sep	217.6	220.1	219.1	220.4	227.5	225.1	220.1	219.3
18-Sep	218.4	221.2	220.2	221.4	228.5	226.3	221.1	220.4
19-Sep	219.6	222.2	221.2	222.4	229.2	227.4	222.0	221.4
20-Sep	219.6	222.3	221.3	222.3	228.9	226.9	222.1	221.3
21-Sep	219.8	222.2	221.3	222.5	229.0	227.2	222.1	221.4
22-Sep	220.1	222.6	221.7	222.7	228.7	226.7	222.4	221.8
23-Sep	219.9	222.5	221.7	222.7	228.8	226.8	222.5	221.7
24-Sep	219.3	221.8	220.7	222.0	228.4	226.4	221.8	221.0
25-Sep	217.8	220.2	219.2	220.5	228.0	226.0	220.2	219.4
26-Sep	214.6	218.0	216.5	217.8	228.5	226.1	217.6	217.0
27-Sep	213.8	217.7	216.1	217.3	228.3	225.8	217.1	216.6
28-Sep	215.0	217.7	216.5	218.0	227.7	224.8	217.4	216.9
29-Sep	216.2	218.8	217.5	219.5	228.7	226.4	218.5	218.0
30-Sep	217.2	219.8	218.6	220.8	228.9	226.9	219.5	219.0
Average	**217.5**	**220.1**	**218.1**	**220.5**	**229.2**	**226.3**	**219.9**	**219.3**

Solid Waste Permit 588 Daily Borehole Temperature Averages for Borehole 5

	Depth from Surface							
Date	25 ft	50 ft	75 ft	100 ft	125 ft	150 ft	175 ft	200 ft
1-Sep	207.7	208.1	207.6	207.7	207.7	207.7	212.6	201.3
2-Sep	207.8	208.2	207.6	207.7	207.6	207.7	212.3	201.2
3-Sep	208.0	208.3	207.8	208.0	207.9	207.9	212.8	201.2
4-Sep	208.1	208.4	207.9	208.0	208.0	208.0	212.9	201.2
5-Sep	208.1	208.5	208.0	208.1	208.0	208.0	213.0	201.3
6-Sep	207.8	207.7	207.7	207.8	207.7	207.7	212.9	201.3
7-Sep	207.5	207.8	207.4	207.5	207.4	207.5	212.6	201.2
8-Sep	207.6	207.9	207.5	207.6	207.5	207.5	212.6	201.0
9-Sep	207.8	208.1	207.7	207.8	207.7	207.7	212.9	201.1
10-Sep	207.8	208.2	207.7	207.8	207.7	207.7	213.1	201.2
11-Sep	207.8	208.2	207.8	207.9	207.8	207.8	210.6	201.2
12-Sep	207.7	208.1	207.7	207.9	207.7	207.7	209.3	201.2
13-Sep	207.7	208.2	207.8	207.9	207.8	207.8	212.7	201.3
14-Sep	207.8	208.5	207.8	208.0	207.9	207.9	212.0	201.4
15-Sep	207.8	208.8	207.9	208.0	208.0	208.0	212.1	201.4
16-Sep	207.8	209.5	207.9	207.8	207.7	207.7	212.0	201.1
17-Sep	207.4	209.6	209.0	207.5	207.4	207.4	212.0	201.1
18-Sep	207.5	210.0	209.4	207.6	207.5	207.5	212.1	201.2
19-Sep	207.5	209.9	209.4	207.5	207.4	207.4	212.2	201.2
20-Sep	207.6	208.9	209.4	207.6	207.5	207.4	212.5	201.2
21-Sep	207.6	207.5	209.6	207.7	207.6	207.5	212.7	201.3
22-Sep	207.6	207.6	209.3	207.7	207.7	207.6	212.9	201.4
23-Sep	207.6	207.5	209.5	207.7	207.6	207.6	212.8	201.4
24-Sep	207.5	208.2	209.5	207.7	207.6	207.5	212.7	201.4
25-Sep	207.4	209.7	209.3	207.5	207.5	207.5	211.3	201.3
26-Sep	207.1	210.5	208.3	207.3	207.8	207.3	207.5	201.1
27-Sep	206.6	210.1	208.2	206.7	208.4	206.7	207.1	201.3
28-Sep	207.1	210.3	209.3	207.1	208.1	207.1	207.6	201.2
29-Sep	207.2	210.7	210.5	207.4	207.3	207.3	207.6	201.3
30-Sep	207.3	210.0	211.9	207.5	209.7	207.4	208.7	201.3
Average	**207.6**	**208.8**	**208.5**	**207.7**	**207.8**	**207.6**	**211.5**	**201.2**

Solid Waste Permit 588 Daily Borehole Temperature Averages for Borehole 6

	Depth from Surface				
Date	25 ft	50 ft	75 ft	100 ft	125 ft
1-Sep	207.3	214.7	227.9	212.5	212.6
2-Sep	207.4	218.9	226.7	209.7	209.5
3-Sep	207.6	219.0	226.8	209.8	209.7
4-Sep	207.8	219.8	227.2	209.5	209.5
5-Sep	207.9	222.1	227.0	208.2	208.1
6-Sep	207.5	221.9	226.3	207.6	207.5
7-Sep	207.2	221.4	225.4	208.0	207.9
8-Sep	207.4	221.7	226.2	208.6	208.5
9-Sep	207.6	221.8	227.3	209.6	209.5
10-Sep	207.7	219.3	225.6	208.9	208.8
11-Sep	207.8	220.1	225.7	209.3	209.1
12-Sep	207.5	216.1	215.3	209.4	209.2
13-Sep	207.7	216.7	216.6	209.2	209.0
14-Sep	207.8	215.5	212.2	209.4	209.2
15-Sep	207.8	215.5	210.3	209.4	209.3
16-Sep	207.6	215.4	210.5	209.1	209.0
17-Sep	207.2	216.4	212.3	208.7	208.6
18-Sep	207.4	217.2	220.0	208.9	208.8
19-Sep	207.3	216.0	215.2	209.6	209.6
20-Sep	207.5	218.8	223.4	209.8	209.8
21-Sep	207.5	218.6	219.4	209.2	209.1
22-Sep	207.6	219.9	218.1	208.7	208.7
23-Sep	207.6	220.0	222.7	208.5	208.5
24-Sep	207.3	217.1	209.5	208.8	208.8
25-Sep	207.0	208.0	209.6	207.6	207.7
26-Sep	206.7	203.2	206.5	206.4	206.4
27-Sep	206.4	202.1	207.6	206.7	206.6
28-Sep	206.7	203.8	207.8	206.8	206.7
29-Sep	206.9	205.1	207.6	206.3	206.1
30-Sep	207.0	205.3	208.0	206.5	206.2
Average	**207.4**	**215.7**	**218.2**	**208.7**	**208.6**

Solid Waste Permit 588 Daily Borehole Temperature Averages for Borehole 7

	Depth from Surface							
Date	25 ft	50 ft	75 ft	100 ft	125 ft	150 ft	175 ft	200 ft
1-Sep	147.4	194.9	203.9	199.3	196.9	203.8	208.6	223.7
2-Sep	147.7	194.6	203.7	199.1	196.7	203.3	208.7	223.8
3-Sep	147.7	194.3	203.6	198.8	196.4	202.7	208.4	223.6
4-Sep	147.8	194.2	203.7	198.7	196.2	202.3	208.2	223.7
5-Sep	148.1	194.5	203.8	198.9	196.4	202.4	208.5	223.5
6-Sep	148.3	194.5	203.4	198.5	196.3	201.8	207.4	221.9
7-Sep	148.3	194.2	203.2	198.1	196.1	201.4	207.2	222.1
8-Sep	148.3	194.2	203.2	198.1	196.2	201.3	207.2	222.1
9-Sep	148.2	194.4	203.1	198.0	196.3	201.1	206.7	221.1
10-Sep	148.4	194.5	203.3	197.9	196.3	200.9	206.5	220.8
11-Sep	148.7	194.9	203.2	198.1	196.9	201.2	206.2	219.9
12-Sep	148.6	194.5	203.0	197.9	196.5	200.7	206.2	220.4
13-Sep	149.0	194.8	203.2	198.2	196.6	200.9	206.3	220.3
14-Sep	149.0	194.8	203.1	198.1	196.7	200.9	206.3	220.6
15-Sep	149.3	194.9	203.0	198.0	196.9	200.8	206.0	219.7
16-Sep	149.4	195.3	202.7	197.9	197.2	200.9	205.1	217.8
17-Sep	149.6	194.9	202.8	197.8	197.0	200.8	205.3	218.5
18-Sep	150.4	194.5	202.9	197.9	196.3	200.5	206.2	220.7
19-Sep	151.4	194.2	202.5	197.8	195.9	200.2	206.3	221.4
20-Sep	152.3	194.3	202.8	197.8	196.0	200.1	206.5	221.6
21-Sep	152.5	194.4	202.6	197.8	196.1	200.0	206.3	221.3
22-Sep	153.3	194.6	202.6	197.8	196.3	200.1	206.3	221.2
23-Sep	154.6	194.6	202.6	197.7	196.1	199.9	205.9	220.7
24-Sep	154.3	194.5	202.6	197.7	195.9	199.8	206.1	221.2
25-Sep	154.4	194.2	202.5	197.4	195.7	199.5	205.8	221.0
26-Sep	154.7	193.8	202.3	197.2	195.4	199.3	205.8	221.6
27-Sep	168.7	193.2	201.8	196.8	194.6	198.8	205.9	222.4
28-Sep	159.6	193.2	201.9	196.8	194.7	198.8	205.9	222.6
29-Sep	148.9	192.8	202.7	196.6	194.3	199.0	205.8	224.5
30-Sep	144.8	193.2	202.0	197.0	194.7	199.4	206.2	223.0
Average	**150.8**	**194.3**	**202.9**	**197.9**	**196.1**	**200.7**	**206.6**	**221.6**

Solid Waste Permit 588 Daily Borehole Temperature Averages for Borehole 8

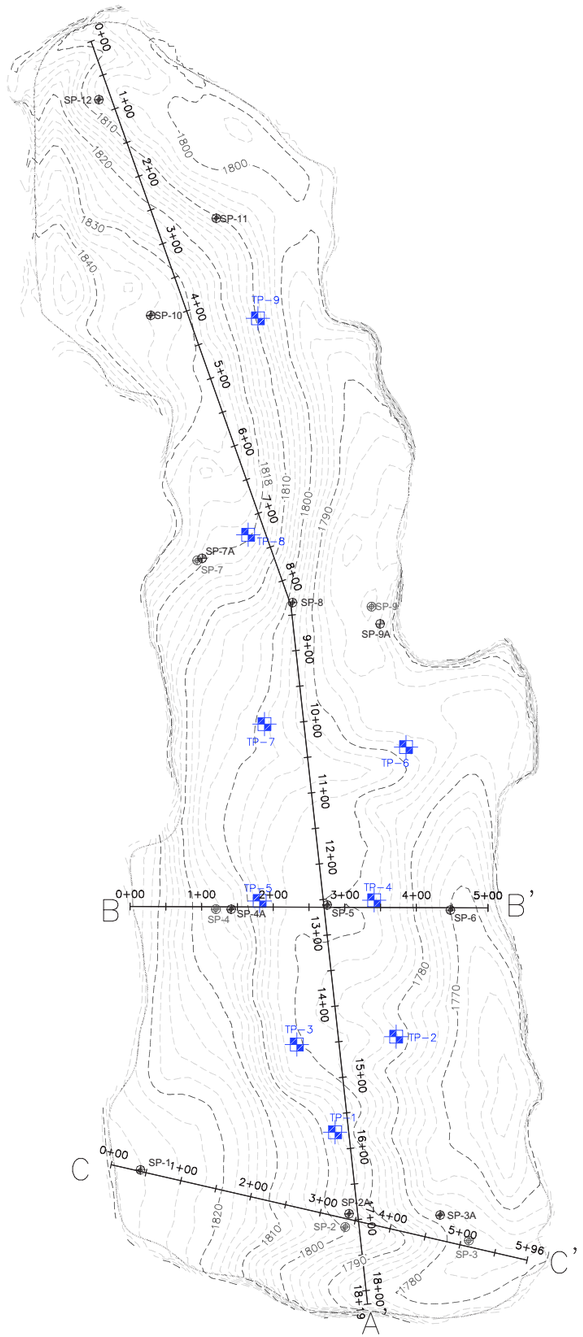
	Depth from Surface							
Date	25 ft	50 ft	75 ft	100 ft	125 ft	150 ft	175 ft	200 ft
1-Sep	185.5	188.5	190.9	193.5	195.3	194.1	186.4	170.7
2-Sep	179.4	181.4	184.5	186.6	188.1	187.5	179.1	162.9
3-Sep	187.9	193.1	193.4	196.0	197.8	196.6	189.5	174.3
4-Sep	186.3	192.9	193.2	195.8	197.2	196.1	189.1	173.8
5-Sep	189.3	194.6	194.9	197.5	199.0	198.0	191.1	175.9
6-Sep	188.7	194.1	194.4	196.9	198.3	197.3	190.4	175.3
7-Sep	188.2	194.0	194.3	196.8	198.2	197.2	190.4	175.3
8-Sep	188.1	194.0	194.3	196.8	198.2	197.3	190.5	175.1
9-Sep	187.0	194.2	194.4	197.0	198.3	197.3	190.6	175.4
10-Sep	188.0	194.3	194.5	197.1	198.1	197.5	190.6	175.4
11-Sep	188.7	194.4	194.6	197.2	198.2	197.6	190.7	175.3
12-Sep	189.5	194.3	194.5	197.0	198.0	197.5	190.6	175.0
13-Sep	189.3	194.4	194.6	197.1	198.2	197.6	190.7	175.1
14-Sep	189.0	194.5	194.8	197.3	198.6	197.7	190.9	175.2
15-Sep	189.1	194.5	194.7	197.3	198.7	197.6	190.7	175.0
16-Sep	188.8	194.4	194.6	197.1	198.5	197.4	190.5	174.7
17-Sep	188.7	194.5	194.5	197.0	198.4	197.3	190.5	174.6
18-Sep	189.1	194.5	194.6	197.1	198.6	197.5	190.7	174.8
19-Sep	189.0	194.5	194.7	197.2	198.6	197.7	190.8	174.8
20-Sep	189.0	194.5	194.8	197.2	198.7	197.8	190.9	174.9
21-Sep	189.0	194.6	194.8	197.2	198.7	197.8	190.9	174.9
22-Sep	189.2	194.7	194.8	197.4	198.8	197.9	191.0	175.1
23-Sep	188.5	194.7	194.8	197.3	198.7	197.8	190.9	174.9
24-Sep	189.0	194.6	194.7	197.2	198.7	197.7	190.8	174.8
25-Sep	188.7	194.5	194.5	197.1	198.5	197.5	190.6	174.6
26-Sep	188.6	194.3	194.4	196.9	198.3	197.4	190.4	174.4
27-Sep	189.5	194.2	194.4	196.8	198.1	197.7	190.6	174.5
28-Sep	190.1	194.2	194.5	196.9	198.3	197.6	190.7	174.6
29-Sep	189.9	194.4	194.5	197.0	198.4	197.6	190.8	174.6
30-Sep	190.0	194.4	194.5	197.0	198.6	197.7	190.8	174.5
Average	**188.4**	**193.7**	**194.0**	**196.5**	**197.9**	**197.0**	**190.1**	**174.3**

Solid Waste Permit 588 Daily Borehole Temperature Averages for Borehole 9

	Depth from Surface							
Date	25 ft	50 ft	75 ft	100 ft	125 ft	150 ft	175 ft	200 ft
1-Sep	112.7	151.2	150.4	151.7	147.0	133.7	118.0	106.9
2-Sep	113.0	151.3	150.7	151.7	147.0	133.7	118.0	106.9
3-Sep	113.2	151.2	150.7	151.5	146.8	133.7	117.9	106.8
4-Sep	113.1	151.2	150.7	151.4	146.7	133.5	117.7	106.6
5-Sep	113.3	151.5	151.0	151.6	146.9	133.7	118.0	106.9
6-Sep	113.0	151.3	150.7	151.5	146.8	133.7	117.9	106.7
7-Sep	112.8	151.0	150.4	151.3	146.7	133.5	117.7	106.6
8-Sep	112.8	150.9	150.3	151.1	146.5	133.3	117.6	106.3
9-Sep	113.2	151.1	150.5	151.2	146.5	133.3	117.7	106.4
10-Sep	113.6	151.3	150.8	151.4	146.6	133.4	117.8	106.5
11-Sep	113.8	151.4	150.8	151.5	146.7	133.5	117.9	106.7
12-Sep	113.5	151.2	150.5	151.3	146.5	133.3	117.7	106.4
13-Sep	113.8	151.5	150.9	151.7	146.9	133.6	118.0	106.8
14-Sep	114.0	151.6	151.0	151.7	146.9	133.6	118.0	106.8
15-Sep	114.2	151.5	151.0	151.6	146.7	133.5	117.9	106.7
16-Sep	113.6	151.2	150.6	151.2	146.3	133.1	117.5	106.3
17-Sep	113.6	151.2	150.6	151.4	146.5	133.1	117.7	106.4
18-Sep	114.0	151.4	150.8	151.6	146.7	133.5	118.0	106.7
19-Sep	114.2	151.5	151.0	151.5	146.7	133.5	118.0	106.7
20-Sep	114.2	151.6	151.1	151.6	146.7	133.6	118.0	106.8
21-Sep	114.3	151.7	151.2	151.5	146.7	133.5	118.0	106.8
22-Sep	114.5	151.8	151.3	151.7	146.9	133.7	118.2	106.9
23-Sep	114.4	151.7	151.2	151.6	146.7	133.5	118.0	106.8
24-Sep	114.2	151.7	151.2	151.6	146.6	133.4	118.0	106.7
25-Sep	112.9	151.3	150.7	151.3	146.4	133.2	117.7	106.4
26-Sep	101.8	147.6	145.9	150.8	146.6	133.2	117.2	106.1
27-Sep	95.4	142.0	139.5	148.5	147.4	134.0	111.8	106.9
28-Sep	100.6	145.6	145.1	150.2	146.8	134.0	109.8	106.3
29-Sep	106.8	146.5	145.4	150.4	146.8	134.2	110.9	105.9
30-Sep	108.8	148.1	147.2	150.7	146.9	134.2	111.1	105.9
Average	**111.8**	**150.5**	**149.8**	**151.3**	**146.7**	**133.6**	**116.9**	**106.6**

Appendix E

Monthly Topography Analysis



LEGEND

- MAJOR CONTOURS (EVERY 10')
- MINOR CONTOURS (EVERY 2')
- APPROXIMATE SIDEWALL LOCATION
- SP-8 SETTLEMENT PLATE
- SP-9 DECOMMISSIONED SETTLEMENT PLATE
- TP-3 TEMPERATURE MONITORING PROBE

NOTES:

1. GRADES SHOWN AS CONTOUR LINES ONLY WITHIN THE PERMIT 588 BOUNDARY REPRESENT THE TOPOGRAPHY CAPTURED ON SEPTEMBER 15, 2023 BY SCS ENGINEERS.
2. ANY DETERMINATION OF TOPOGRAPHY OR CONTOURS, OR ANY DEPICTION OF PHYSICAL IMPROVEMENTS, PROPERTY LINES, OR BOUNDARIES IS FOR GENERAL INFORMATION ONLY AND SHALL NOT BE USED FOR DESIGN, MODIFICATION, OR CONSTRUCTION OF IMPROVEMENTS TO REAL PROPERTY OR FLOOD PLAIN DETERMINATION.
3. THE HORIZONTAL DATUM IS STATE PLANE VIRGINIA SOUTH ZONE NAD–83 (2011).
4. THE VERTICAL DATUM IS BASED UPON NAVD–88.

100 50 0 100 200

SCALE: 1"=100'

NO.	REVISION	DATE

SHEET TITLE: SEPTEMBER 2023 LANDFILL TOPOGRAPHY

PROJECT TITLE: MONTHLY TOPOGRAPHY ANALYSIS SOLID WASTE PERMIT #588

CLIENT: CITY OF BRISTOL INTEGRATED SOLID WASTE MANAGEMENT FACILITY
2655 VALLEY DRIVE
BRISTOL, VIRGINIA 24201

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS, INC.
15821 MIDLOTHIAN TNPK - MIDLOTHIAN, VA 23113
PH. (804) 378-7440 FAX (804) 378-7433

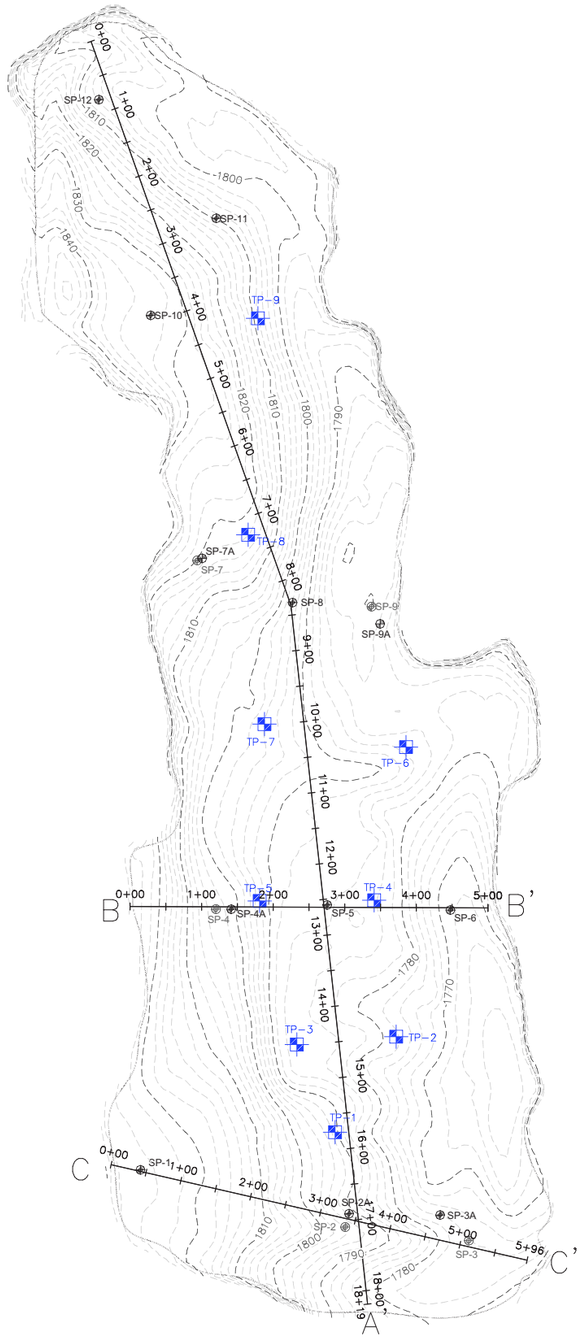
PROJ. NO. 02218208.05
DSN. BY:
DWN. BY: LLH
CHK. BY: CJW
Q/A RVW BY: CJW
APP. BY: CJW

CADD FILE: SURF COMP

DATE: 10/3/2024

SCALE:

DRAWING NO. 1 of 8



LEGEND

- MAJOR CONTOURS (EVERY 10')
- MINOR CONTOURS (EVERY 2')
- APPROXIMATE SIDEWALL LOCATION
- SP-8 SETTLEMENT PLATE
- SP-9 DECOMMISSIONED SETTLEMENT PLATE
- TP-3 TEMPERATURE MONITORING PROBE

NOTES:

1. GRADES SHOWN AS CONTOUR LINES ONLY WITHIN THE PERMIT 588 BOUNDARY REPRESENT THE TOPOGRAPHY CAPTURED ON JUNE 25, 2024 BY SCS ENGINEERS.
2. ANY DETERMINATION OF TOPOGRAPHY OR CONTOURS, OR ANY DEPICTION OF PHYSICAL IMPROVEMENTS, PROPERTY LINES, OR BOUNDARIES IS FOR GENERAL INFORMATION ONLY AND SHALL NOT BE USED FOR DESIGN, MODIFICATION, OR CONSTRUCTION OF IMPROVEMENTS TO REAL PROPERTY OR FLOOD PLAIN DETERMINATION.
3. THE HORIZONTAL DATUM IS STATE PLANE VIRGINIA SOUTH ZONE NAD-83 (2011).
4. THE VERTICAL DATUM IS BASED UPON NAVD-88.

100 50 0 100 200

SCALE: 1"=100'

NO.	REVISION	DATE

SHEET TITLE: JUNE 2024 LANDFILL TOPOGRAPHY

PROJECT TITLE: MONTHLY TOPOGRAPHY ANALYSIS SOLID WASTE PERMIT #588

CLIENT: CITY OF BRISTOL INTEGRATED SOLID WASTE MANAGEMENT FACILITY
2655 VALLEY DRIVE
BRISTOL, VIRGINIA 24201

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS, INC.
15821 MIDLOTHIAN TNPK - MIDLOTHIAN, VA 23113
PH. (804) 378-7440 FAX (804) 378-7453

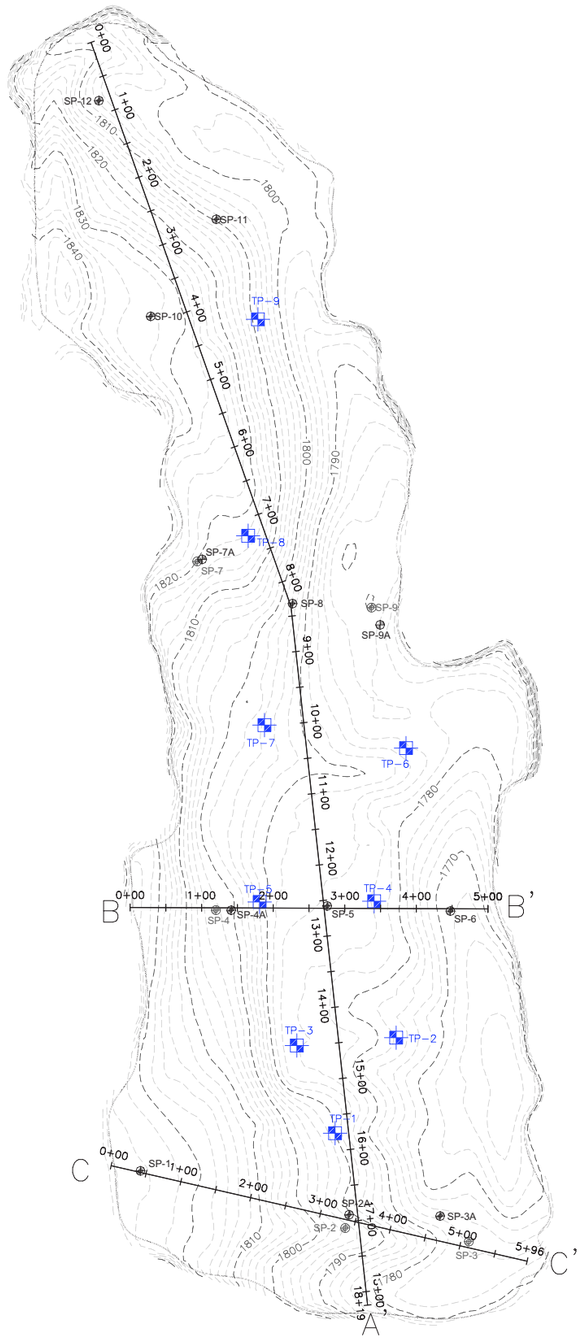
PROJ. NO. 02218208.05 | DWN. BY: LLH | Q/A RVW BY: CJW
DSN. BY: SRB | CHK. BY: CJW | APP. BY: CJW

CADD FILE: SURF COMP

DATE: 10/3/2024

SCALE:

DRAWING NO. 2 of 8



LEGEND

- MAJOR CONTOURS (EVERY 10')
- MINOR CONTOURS (EVERY 2')
- APPROXIMATE SIDEWALL LOCATION
- SP-8 SETTLEMENT PLATE
- SP-9 DECOMMISSIONED SETTLEMENT PLATE
- TP-3 TEMPERATURE MONITORING PROBE

NOTES:

1. GRADES SHOWN AS CONTOUR LINES ONLY WITHIN THE PERMIT 588 BOUNDARY REPRESENT THE TOPOGRAPHY CAPTURED ON AUGUST 14, 2024 BY SCS ENGINEERS.
2. ANY DETERMINATION OF TOPOGRAPHY OR CONTOURS, OR ANY DEPICTION OF PHYSICAL IMPROVEMENTS, PROPERTY LINES, OR BOUNDARIES IS FOR GENERAL INFORMATION ONLY AND SHALL NOT BE USED FOR DESIGN, MODIFICATION, OR CONSTRUCTION OF IMPROVEMENTS TO REAL PROPERTY OR FLOOD PLAIN DETERMINATION.
3. THE HORIZONTAL DATUM IS STATE PLANE VIRGINIA SOUTH ZONE NAD–83 (2011).
4. THE VERTICAL DATUM IS BASED UPON NAVD–88.

100 50 0 100 200
SCALE: 1"=100'

NO.	REVISION	DATE

SHEET TITLE: AUGUST 2024 LANDFILL TOPOGRAPHY

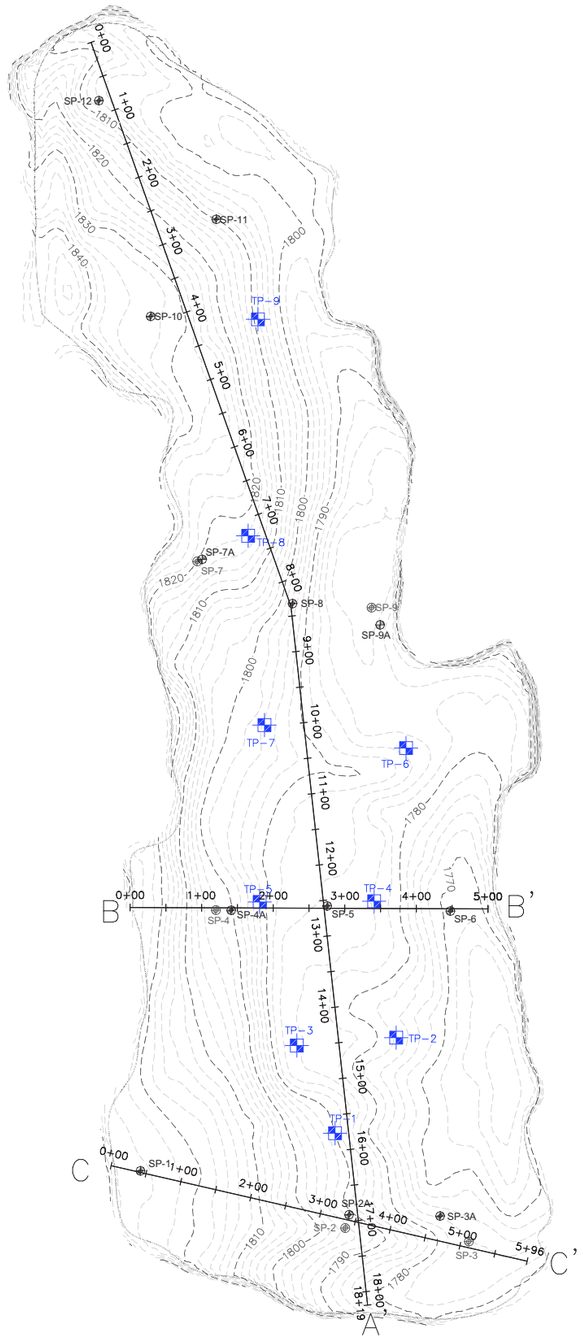
PROJECT TITLE: MONTHLY TOPOGRAPHY ANALYSIS SOLID WASTE PERMIT #588

CLIENT: CITY OF BRISTOL INTEGRATED SOLID WASTE MANAGEMENT FACILITY
2655 VALLEY DRIVE
BRISTOL, VIRGINIA 24201

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS, INC.
15521 MIDLOTHIAN TNPK - MIDLOTHIAN, VA 23113
PH. (804) 378-7440 FAX (804) 378-7433

PROJ. NO. 02218208.05
DSN. BY:
DWN. BY: LLH
CHK. BY: CJW
Q/A RVW BY: CJW
APP. BY: CJW

CADD FILE: SURF COMP
DATE: 10/3/2024
SCALE:
DRAWING NO. 3 of 8



LEGEND

- MAJOR CONTOURS (EVERY 10')
- MINOR CONTOURS (EVERY 2')
- APPROXIMATE SIDEWALL LOCATION
- SP-8 SETTLEMENT PLATE
- SP-9 DECOMMISSIONED SETTLEMENT PLATE
- TP-3 TEMPERATURE MONITORING PROBE

NOTES:

1. GRADES SHOWN AS CONTOUR LINES ONLY WITHIN THE PERMIT 588 BOUNDARY REPRESENT THE TOPOGRAPHY CAPTURED ON SEPTEMBER 23, 2024 BY SCS ENGINEERS.
2. ANY DETERMINATION OF TOPOGRAPHY OR CONTOURS, OR ANY DEPICTION OF PHYSICAL IMPROVEMENTS, PROPERTY LINES, OR BOUNDARIES IS FOR GENERAL INFORMATION ONLY AND SHALL NOT BE USED FOR DESIGN, MODIFICATION, OR CONSTRUCTION OF IMPROVEMENTS TO REAL PROPERTY OR FLOOD PLAIN DETERMINATION.
3. THE HORIZONTAL DATUM IS STATE PLANE VIRGINIA SOUTH ZONE NAD-83 (2011).
4. THE VERTICAL DATUM IS BASED UPON NAVD-88.

100 50 0 100 200

SCALE: 1"=100'

NO.	REVISION	DATE

SHEET TITLE: SEPTEMBER 2024 LANDFILL TOPOGRAPHY

PROJECT TITLE: MONTHLY TOPOGRAPHY ANALYSIS SOLID WASTE PERMIT #588

CLIENT: CITY OF BRISTOL INTEGRATED SOLID WASTE MANAGEMENT FACILITY
2655 VALLEY DRIVE
BRISTOL, VIRGINIA 24201

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS, INC.
15521 MIDLOTHIAN TNPK - MIDLOTHIAN, VA 23113
PH. (804) 378-7440 FAX. (804) 378-7453

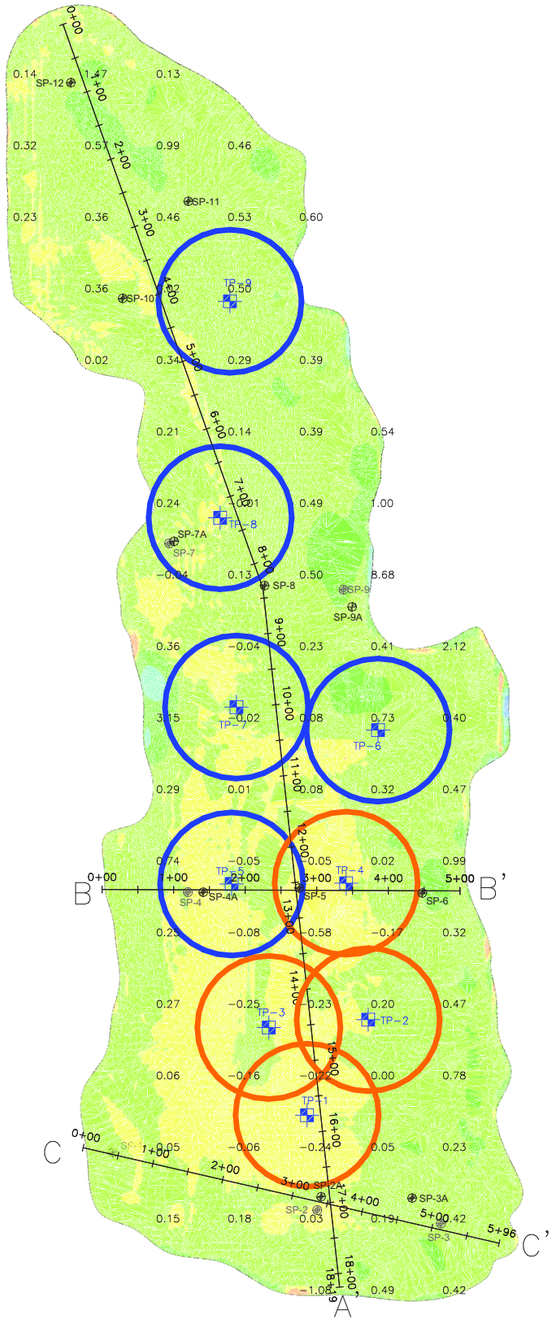
PROJ. NO. 02218208.05
DWN. BY: LLH
CHK. BY: CJW
D/A RVW. BY: CJW
APP. BY: CJW

CADD FILE: SURF COMP

DATE: 10/3/2024

SCALE:

DRAWING NO. 4 of 8



LEGEND

- MAJOR CONTOURS (EVERY 10')
- MINOR CONTOURS (EVERY 2')
- APPROXIMATE WASTE BOUNDARY
- SP-8 SETTLEMENT PLATE
- SP-9 DECOMMISSIONED SETTLEMENT PLATE
- −0.39 SPOT ELEVATION ON 100' GRID
- TP−8 TEMPERATURE MONITORING PROBE WITH AVERAGE TEMPERATURES AT DEPTH LESS THAN 200 °F
- TP−1 TEMPERATURE MONITORING PROBE WITH AVERAGE TEMPERATURES AT DEPTH BETWEEN 200 °F AND 250 °F
- TP−2 TEMPERATURE MONITORING PROBE WITH AVERAGE TEMPERATURES AT DEPTH BETWEEN 250 °F AND 300 °F

Volume

Base Surface TOPO – AUGUST 14 2024
Comparison Surface TOPO – SEPTEMBER 23, 2024

Cut Volume	1,042	Cu. Yd.
Fill Volume	10,161	Cu. Yd.
Net Fill	9,119	Cu. Yd.

Elevations Table

Number	Minimum Elevation	Maximum Elevation	Color
1	−8.000	−5.000	
2	−5.000	−1.000	
3	−1.000	0.000	
4	0.000	1.000	
5	1.000	5.000	
6	5.000	10.000	
7	10.000	20.000	

NOTES:

1. THE ELEVATION CHANGES ARE CALCULATED BETWEEN THE AERIAL TOPOGRAPHY DATA CAPTURED ON AUGUST 14, 2024 AND SEPTEMBER 23, 2024 BY SCS ENGINEERS. POSITIVE VALUES (+) INDICATE AREAS OF FILL AND NEGATIVE VALUES (−) INDICATE AREAS OF CUT (SETTLEMENT). VALUES ARE ROUNDED TO THE NEAREST FOOT
2. ANY DETERMINATION OF TOPOGRAPHY OR CONTOURS, OR ANY DEPICTION OF PHYSICAL IMPROVEMENTS, PROPERTY LINES, OR BOUNDARIES IS FOR GENERAL INFORMATION ONLY AND SHALL NOT BE USED FOR DESIGN, MODIFICATION, OR CONSTRUCTION OF IMPROVEMENTS TO REAL PROPERTY OR FOR FLOOD PLAIN DETERMINATION.
3. THE HORIZONTAL DATUM IS STATE PLANE VIRGINIA SOUTH ZONE NAD−83 (2011)
4. THE VERTICAL DATUM IS BASED UPON NAVD−88.

100 50 0 100 200
SCALE: 1"=100'

NO.	REVISION	DATE

SHEET TITLE: SEPTEMBER VOLUME CHANGE AUGUST 2024 TO SEPTEMBER 2024

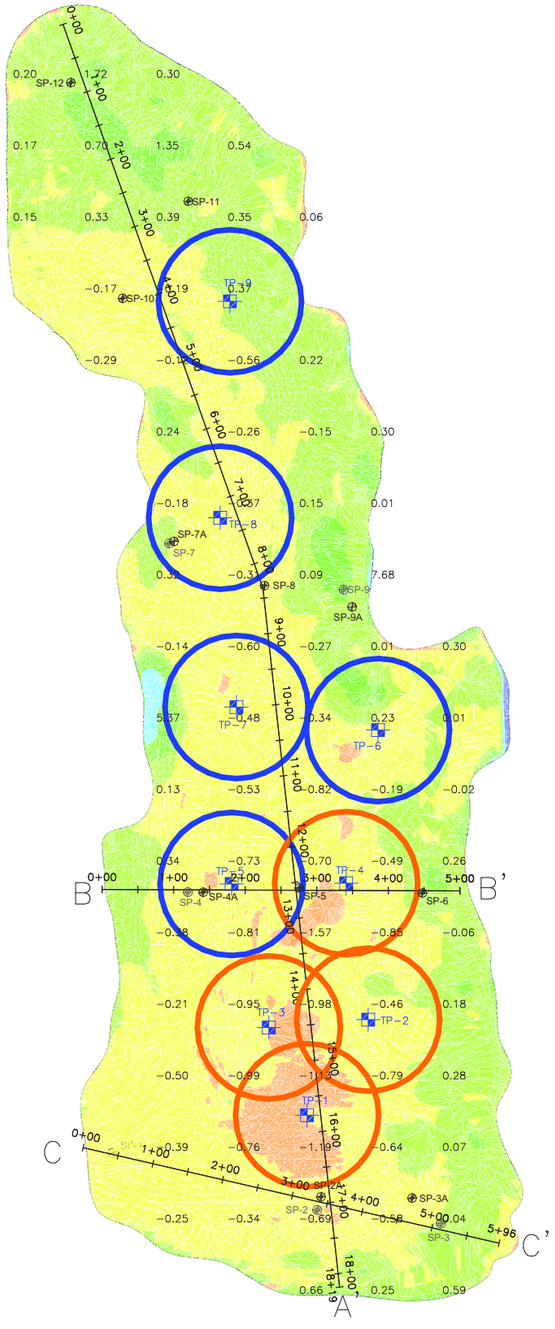
PROJECT TITLE: MONTHLY TOPOGRAPHY ANALYSIS SOLID WASTE PERMIT #588

CLIENT: CITY OF BRISTOL INTEGRATED SOLID WASTE MANAGEMENT FACILITY
2655 VALLEY DRIVE
BRISTOL, VIRGINIA 24201

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS, INC.
15521 MIDLOTHIAN TNPK - MIDLOTHIAN, VA 23113
PH. (804) 378-7440 FAX. (804) 378-7433

PROJ. NO. 02218208.05
DSN. BY:
DWN. BY: LLH
CHK. BY: CJW
QA/A RVW. BY: CJW
APP. BY: CJW

CADD FILE: SURF COMP
DATE: 10/3/2024
SCALE:
DRAWING NO. 5 of 8



LEGEND

- MAJOR CONTOURS (EVERY 10')
- MINOR CONTOURS (EVERY 2')
- APPROXIMATE WASTE BOUNDARY
- SP-8 SETTLEMENT PLATE
- SP-9 DECOMMISSIONED SETTLEMENT PLATE
- −0.39 SPOT ELEVATION ON 100' GRID
- TP−8 TEMPERATURE MONITORING PROBE WITH AVERAGE TEMPERATURES AT DEPTH LESS THAN 200 °F
- TP−1 TEMPERATURE MONITORING PROBE WITH AVERAGE TEMPERATURES AT DEPTH BETWEEN 200 °F AND 250 °F
- TP−2 TEMPERATURE MONITORING PROBE WITH AVERAGE TEMPERATURES AT DEPTH BETWEEN 250 °F AND 300 °F

Volume

Base Surface	TOPO – JUNE 25, 2024	
Comparison Surface	TOPO – SEPTEMBER 23, 2024	
Cut Volume	8,286	Cu. Yd.
Fill Volume	6,050	Cu. Yd.
Net Cut	2,236	Cu. Yd.

Elevations Table

Number	Minimum Elevation	Maximum Elevation	Color
1	−10.000	−5.000	
2	−5.000	−1.000	
3	−1.000	0.000	
4	0.000	1.000	
5	1.000	5.000	
6	5.000	10.000	

NOTES:

1. THE ELEVATION CHANGES ARE CALCULATED BETWEEN THE AERIAL TOPOGRAPHY DATA CAPTURED ON JUNE 25, 2024 AND SEPTEMBER 23, 2024 BY SCS ENGINEERS. POSITIVE VALUES (+) INDICATE AREAS OF FILL AND NEGATIVE VALUES (−) INDICATE AREAS OF CUT (SETTLEMENT). VALUES ARE ROUNDED TO THE NEAREST FOOT.
2. ANY DETERMINATION OF TOPOGRAPHY OR CONTOURS, OR ANY DEPICTION OF PHYSICAL IMPROVEMENTS, PROPERTY LINES, OR BOUNDARIES IS FOR GENERAL INFORMATION ONLY AND SHALL NOT BE USED FOR DESIGN, MODIFICATION, OR CONSTRUCTION OF IMPROVEMENTS TO REAL PROPERTY OR FOR FLOOD PLAIN DETERMINATION.
3. THE HORIZONTAL DATUM IS STATE PLANE VIRGINIA SOUTH ZONE NAD−83 (2011).
4. THE VERTICAL DATUM IS BASED UPON NAVD−88.

100 50 0 100 200

SCALE: 1"=100'

NO.	REVISION	DATE

SHEET TITLE: SEPTEMBER VOLUME CHANGE JUNE 2024 TO SEPTEMBER 2024

PROJECT TITLE: MONTHLY TOPOGRAPHY ANALYSIS SOLID WASTE PERMIT #588

CLIENT: CITY OF BRISTOL INTEGRATED SOLID WASTE MANAGEMENT FACILITY
2655 VALLEY DRIVE
BRISTOL, VIRGINIA 24201

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS, INC.
15521 MIDLOTHIAN TNPK - MIDLOTHIAN, VA 23113
PH. (804) 378-7440 FAX: (804) 378-7453

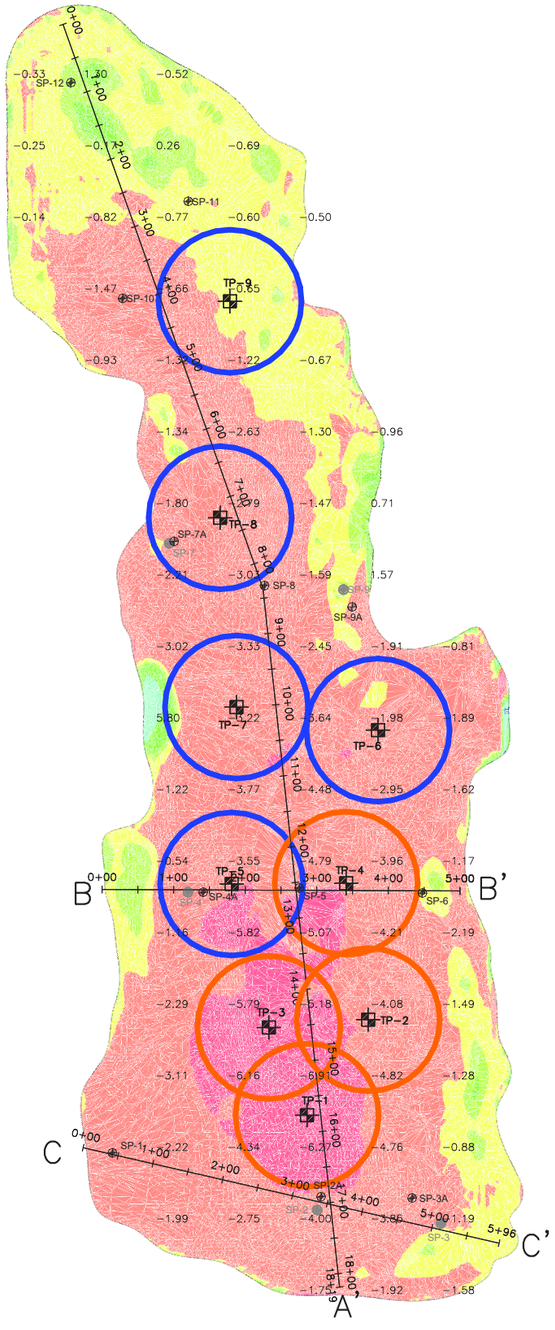
PROJ. NO. 02218208.05
DSN. BY:
DWN. BY: LLH
CHK. BY: CJW
D/A RVW. BY: CJW
APP. BY: CJW

CADD FILE: SURF COMP

DATE: 10/3/2024

SCALE:

DRAWING NO. 6 of 8



LEGEND

- MAJOR CONTOURS (EVERY 10')
- MINOR CONTOURS (EVERY 2')
- APPROXIMATE WASTE BOUNDARY
- SP-8 SETTLEMENT PLATE
- SP-9 DECOMMISSIONED SETTLEMENT PLATE
- −0.39 SPOT ELEVATION ON 100' GRID
- TP-8 TEMPERATURE MONITORING PROBE WITH AVERAGE TEMPERATURES AT DEPTH LESS THAN 200 °F
- TP-1 TEMPERATURE MONITORING PROBE WITH AVERAGE TEMPERATURES AT DEPTH BETWEEN 200 °F AND 250 °F
- TP-2 TEMPERATURE MONITORING PROBE WITH AVERAGE TEMPERATURES AT DEPTH BETWEEN 250 °F AND 300 °F

Volume

Base Surface	TOPO – SEPTEMBER 15, 2023	
Comparison Surface	TOPO – SEPTEMBER 23, 2024	
Cut Volume	66,405	Cu. Yd.
Fill Volume	1,697	Cu. Yd.
Net Cut	64,707	Cu. Yd.

Elevations Table

Number	Minimum Elevation	Maximum Elevation	Color
1	−16.000	−10.000	
2	−10.000	−5.000	
3	−5.000	−1.000	
4	−1.000	0.000	
5	0.000	1.000	
6	1.000	5.000	
7	5.000	10.000	

NOTES:

1. THE ELEVATION CHANGES ARE CALCULATED BETWEEN THE AERIAL TOPOGRAPHY DATA CAPTURED ON SEPTEMBER 15, 2023 AND SEPTEMBER 23, 2024 BY SCS ENGINEERS. POSITIVE VALUES (+) INDICATE AREAS OF FILL AND NEGATIVE VALUES (−) INDICATE AREAS OF CUT (SETTLEMENT). VALUES ARE ROUNDED TO THE NEAREST FOOT
2. ANY DETERMINATION OF TOPOGRAPHY OR CONTOURS, OR ANY DEPICTION OF PHYSICAL IMPROVEMENTS, PROPERTY LINES, OR BOUNDARIES IS FOR GENERAL INFORMATION ONLY AND SHALL NOT BE USED FOR DESIGN, MODIFICATION, OR CONSTRUCTION OF IMPROVEMENTS TO REAL PROPERTY OR FOR FLOOD PLAIN DETERMINATION.
3. THE HORIZONTAL DATUM IS STATE PLANE VIRGINIA SOUTH ZONE NAD−83 (2011)
4. THE VERTICAL DATUM(S) IS BASED UPON NAVD−88.

100 50 0 100 200

SCALE: 1"=100'

NO.	REVISION	DATE

SHEET TITLE: SEPTEMBER VOLUME CHANGE
SEPTEMBER 2023 TO SEPTEMBER 2024

PROJECT TITLE: MONTHLY TOPOGRAPHY ANALYSIS
SOLID WASTE PERMIT #588

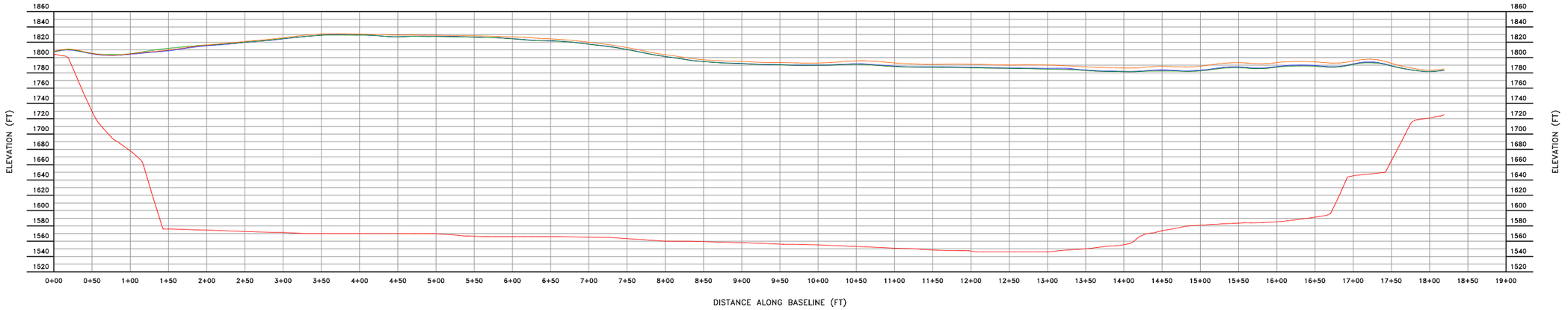
CLIENT: CITY OF BRISTOL INTEGRATED SOLID WASTE MANAGEMENT FACILITY
2655 VALLEY DRIVE
BRISTOL, VIRGINIA 24201

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS, INC.
15521 MIDLOTHIAN TNPK - MIDLOTHIAN, VA 23113
PH. (804) 378-7440 FAX: (804) 378-7433

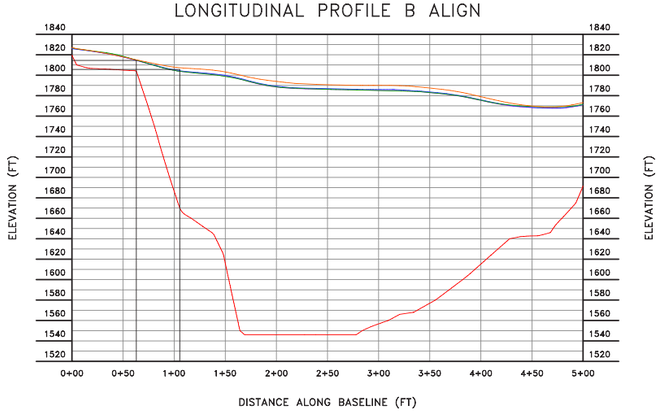
PROJ. NO. 02218208.05
DSN. BY:
DWN. BY: LLH
CHK. BY: CJW
D/A RVW BY: CJW
APP. BY: CJW

CADD FILE: SURF COMP
DATE: 10/3/2024
SCALE:
DRAWING NO. 7 of 8

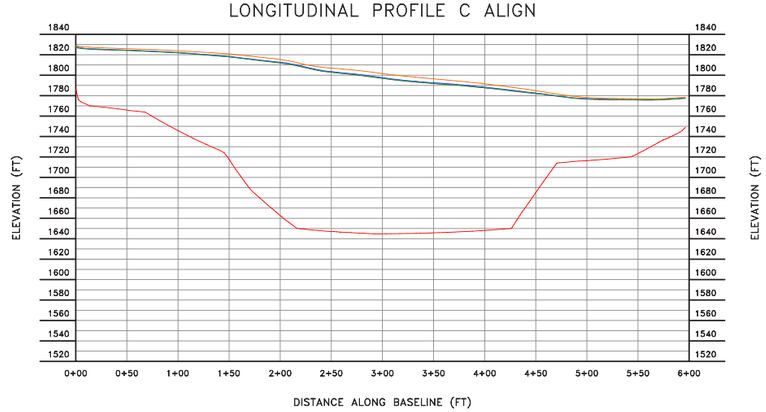
LONGITUDINAL PROFILE A ALIGN



LONGITUDINAL PROFILE B ALIGN



LONGITUDINAL PROFILE C ALIGN



LEGEND

- BOTTOM LINER ELEVATION
- SEPTEMBER 2023 TOPO
- JUNE 2024 TOPO
- AUGUST 2024 TOPO
- SEPTEMBER 2024 TOPO

NO.	REVISION	DATE

SHEET TITLE: **PROFILES**

PROJECT TITLE: **MONTHLY TOPOGRAPHY ANALYSIS SOLID WASTE PERMIT #588**

CLIENT
CITY OF BRISTOL INTEGRATED SOLID WASTE MANAGEMENT FACILITY
2655 VALLEY DRIVE
BRISTOL, VIRGINIA 24201

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS, INC.
15821 MIDLOTHIAN TNPK - MIDLOTHIAN, VA 23113
PH. (804) 378-7440 FAX. (804) 378-7453

PROJ. NO. 02218208.05
DWN. BY: LLH
CHK. BY: CJW
Q/A RVW BY: CJW
APP. BY: CJW

CADD FILE: SURF COMP
DATE: 10/3/2024
SCALE:
DRAWING NO. **8** of 8

Appendix F

Field Logs

Lab Report

Historical LFG-EW Leachate Monitoring Results Summary

City of Bristol SWP 588 Landfill
Dual Phase LFG-EW Liquid Level Measurement Log

Date	9/10/24-9/12/24													
Personnel	W. Fabrie, L. Tucker								L. Howard					
Location ID	Date	Casing Stickup (ft)	Depth to Liquid (ft)	Prior Depth to Liquid (ft)	Cycle Count	Prior Cycle Count (8/28)	Measured Well Casing Depth (ft)	Pump Depth (ft)	Liquid Column Thickness	Pump (Y/N)	Pump PSI	Sample Collected	Check/Photo	Comments
PUMP INSTALLED														
EW-33B*	---	---	---	---	---	---	185.00	140	---	---	---	---	---	
EW-36A	9/11/2024	5.67	51.90	50.29	473578	64574	180.00	135	128.10	Y	---	N	Y	Blackhawk - no pressure gauge
EW-49*	---	---	---	---	---	---	96.15	90	---	---	---	---	---	
EW-50	9/10/2024	4.67	43.84	55.58	1450666	1442037	77.70	83	33.86	Y	82	N	Y	
EW-51	9/11/2024	3.83	33.15	32.93	180655	180635	92.80	95	59.65	Y	0	N	Y	Air off
EW-52	9/11/2024	3.00	77.49	47.31	863383	830633	98.70	93	21.21	Y	110	Y	Y	
EW-53	9/11/2024	4.75	52.10	52.24	3278368	3275227	100.70	---	48.60	Y	0	N	Y	Air off
EW-54	9/11/2024	4.17	43.70	39.5	1063017	1015321	82.70	75	39.00	Y	90	Y	Y	Liquid shot out when opened
EW-55	---	---	---	---	---	---	90.40	90	---	---	---	---	---	Too tall, unable to measure
EW-57	9/11/2024	4.83	46.23	45.39	97665	97665	107.40	71	61.17	Y	0	N	Y	Air disconnected
EW-59	9/10/2024	4.67	43.22	59.81	3402356	3377582	73.40	64	30.18	Y	82	N	Y	
EW-60	9/11/2024	4.67	43.68	43.33	687373	678741	81.80	70	38.12	Y	38	N	Y	
EW-61	9/10/2024	3.00	61.72	61.11	266520	266507	87.80	66	26.08	Y	100	N	Y	
EW-62	9/11/2024	4.33	85.16	84.62	214599	214599	110.60	80	25.44	Y	0	N	Y	
EW-64*	---	---	---	---	---	---	109.00	113	---	---	---	---	---	
EW-65*	---	---	---	---	---	---	88.40	50	---	---	---	---	---	
EW-67	9/11/2024	2.42	40.28	40.29	71338	65053	107.75	62.5	67.47	Y	0	N	Y	Air disconnected
EW-68	9/11/2024	2.25	55.79	45.38	2522274	2510407	73.57	68	17.78	Y	102	Y	Y	
EW-69	9/11/2024	4.58	93.76	93.44	18	18	98.00	---	4.24	Y	0	N	Y	
EW-70	---	---	---	---	---	---	71.00	58	---	---	---	---	---	Standing water, unable to measure
EW-74	9/11/2024	6.25	162.50	162.36	---	---	184.15	140	21.65	N	---	N	Y	
EW-78	9/11/2024	3.92	45.63	43.38	130542	128230	57.00	47	11.37	Y	---	N	Y	Pressure gauge not working
EW-81*	---	---	---	---	---	---	151.56	125	---	---	---	---	---	
EW-82	9/11/2024	4.67	121.39	121.95	124501	124501	163.26	145	41.87	Y	---	N	Y	Blackhawk disconnected
EW-83*	---	---	---	---	---	---	167.04	145	---	---	---	---	---	

City of Bristol SWP 588 Landfill
Dual Phase LFG-EW Liquid Level Measurement Log

Date	9/10/24-9/12/24													
Personnel	W. Fabrie, L. Tucker								L. Howard					
Location ID	Date	Casing Stickup (ft)	Depth to Liquid (ft)	Prior Depth to Liquid (ft)	Cycle Count	Prior Cycle Count (8/28)	Measured Well Casing Depth (ft)	Pump Depth (ft)	Liquid Column Thickness	Pump (Y/N)	Pump PSI	Sample Collected	Check/Photo	Comments
EW-85	9/10/2024	4.58	77.53	80.05	225813	204216	91.00	78.5	13.47	Y	100	N	Y	
EW-87	9/10/2024	5.58	59.24	57.80	276121	276118	149.57	125	90.33	Y	---	N	Y	Air disconnected
EW-88	9/10/2024	4.67	50.57	49.26	171472	171472	100.00	58	49.43	Y	0	N	Y	Air disconnected
EW-89	9/10/2024	3.92	43.15	41.92	---	---	84.57	70	41.42	Y	---	N	Y	Pump off - forcemain valve closed
EW-90	9/10/2024	3.75	90.87	79.67	---	---	114.00	101	23.13	Y	---	N	Y	Air disconnected
EW-91	9/11/2024	5.08	47.26	45.35	---	---	137.70	115	90.44	N	---	---	Y	
EW-92	9/11/2024	6.58	51.06	49.57	---	---	112.99	95	61.93	N	---	---	Y	
EW-96	9/11/2024	6.42	54.53	49.57	606458	---	164.35	145	109.82	Y	---	N	Y	Air disconnected
EW-98	9/10/2024	4.50	46.30	55.53	1186505	1155091	51.00	43	4.70	Y	100	N	Y	
EW-100	9/10/2024	4.33	78.28	109.27	733311	733311	108.50	96.5	30.22	Y	0	N	Y	Pump disconnected

City of Bristol SWP 588 Landfill
Dual Phase LFG-EW Liquid Level Measurement Log

Date	9/10/24-9/12/24													
Personnel	W. Fabrie, L. Tucker								L. Howard					
Location ID	Date	Casing Stickup (ft)	Depth to Liquid (ft)	Prior Depth to Liquid (ft)	Cycle Count	Prior Cycle Count (8/28)	Measured Well Casing Depth (ft)	Pump Depth (ft)	Liquid Column Thickness	Pump (Y/N)	Pump PSI	Sample Collected	Check/Photo	Comments
NO PUMP														
EW-56	9/10/2024	4.67	Dry	Dry	---	---	42.71	58	---	N	---	---	Y	
EW-58	9/11/2024	3.92	29.24	28.31	---	---	84.50	82	55.26	N	---	---	Y	
EW-63*	---	---	---	---	---	---	62.10	64	---	---	---	---	---	
EW-66	9/11/2024	5.33	37.03	36.81	---	---	---	---	---	N	---	---	Y	
EW-71	9/11/2024	4.25	>165	165.90	---	---	185.80	---	---	N	---	---	Y	Unable to detect water past 165'
EW-72	9/11/2024	4.83	128.64	131.64	---	---	141.21	---	12.57	N	---	---	Y	
EW-73	9/11/2024	3.67	106.15	106.59	---	---	116.00	---	9.85		---	---	Y	
EW-77*	---	---	---	---	---	---	185.22	---	---	---	---	---	---	
EW-79*	---	---	---	---	---	---	185.64	---	---	---	---	---	---	
EW-80*	---	---	---	---	---	---	149.00	---	---	---	---	---	---	
EW-84*	---	---	---	---	---	---	130.56	---	---	---	---	---	---	
EW-86	9/10/2024	2.92	75.23	74.90	---	---	153.00	---	77.77	N	---	---	Y	
EW-93	9/10/2024	3.83	32.53	32.22	---	---	111.00	---	78.47	N	---	---	Y	
EW-95	9/10/2024	3.92	60.03	59.10	---	---	68.00	---	7.97	N	---	---	Y	
EW-97	9/10/2024	7.33	94.66	94.12	---	---	144.50	---	49.84	N	---	---	Y	
EW-99	9/10/2024	4.17	60.77	60.40	---	---	65.00	---	4.23	N	---	---	Y	
MEASURE CASING STICKUP AND CYCLE COUNTER ONLY														
EW-76	9/11/2024	3.50	DNM	---	41	41	127.00	108	---	Y	80	N	Y	
EW-75*	---	---	DNM	---	---	---	130.82	140	---	---	---	---	---	
EW-94	9/10/2024	3.58	DNM	---	475255	434431	50.00	45	---	Y	80	N	Y	

DNM = Do not measure

* = No measurements taken due to damage to forcemain causing wells to be not under vacuum and therefore unsafe to access.

Dual Phase LFG-EW Sample Collection Log

Location ID	Sample Date	Sample Time	Temperature (oC)	pH (s.u.)	Specific Conductance (mS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Observations
EW-33B	---	---	---	---	---	---	---	---	---
EW-36A	---	---	---	---	---	---	---	---	---
EW-49	---	---	---	---	---	---	---	---	---
EW-50	---	---	---	---	---	---	---	---	---
EW-51	---	---	---	---	---	---	---	---	---
EW-52	9/11/2024	8:20	---	---	---	---	-150.2	9.80	Dark brown, sheen
EW-53	---	---	---	---	---	---	---	---	---
EW-54	9/11/2024	10:20	---	---	---	---	-140.4	7.25	Dark brown
EW-55	---	---	---	---	---	---	---	---	---
EW-57	---	---	---	---	---	---	---	---	---
EW-58	---	---	---	---	---	---	---	---	---
EW-59	---	---	---	---	---	---	---	---	---
EW-60	---	---	---	---	---	---	---	---	---
EW-61	---	---	---	---	---	---	---	---	---
EW-62	---	---	---	---	---	---	---	---	---
EW-64	---	---	---	---	---	---	---	---	---
EW-67	---	---	---	---	---	---	---	---	---
EW-68	9/11/2024	8:50	---	---	---	---	-225.4	8.43	Dark green, foamy
EW-70	---	---	---	---	---	---	---	---	---
EW-72	---	---	---	---	---	---	---	---	---

Dual Phase LFG-EW Sample Collection Log

Location ID	Sample Date	Sample Time	Temperature (oC)	pH (s.u.)	Specific Conductance (mS/cm)	Dissolved Oxygen (mg/L)	ORP (mV)	Turbidity (NTU)	Observations
EW-73	---	---	---	---	---	---	---	---	---
EW-74	---	---	---	---	---	---	---	---	---
EW-75	---	---	---	---	---	---	---	---	---
EW-76	---	---	---	---	---	---	---	---	---
EW-78	---	---	---	---	---	---	---	---	---
EW-81	---	---	---	---	---	---	---	---	---
EW-82	---	---	---	---	---	---	---	---	---
EW-83	---	---	---	---	---	---	---	---	---
EW-85	---	---	---	---	---	---	---	---	---
EW-87	---	---	---	---	---	---	---	---	---
EW-88	---	---	---	---	---	---	---	---	---
EW-89	---	---	---	---	---	---	---	---	---
EW-90	---	---	---	---	---	---	---	---	---
EW-91	---	---	---	---	---	---	---	---	---
EW-92	---	---	---	---	---	---	---	---	---
EW-94	---	---	---	---	---	---	---	---	---
EW-96	---	---	---	---	---	---	---	---	---
EW-98	---	---	---	---	---	---	---	---	---
EW-100	---	---	---	---	---	---	---	---	---
Sampler:		L.Tucker, W. Fabrie				Samples Shipped By: Courier			
Log Checked By:		L. Howard				Laboratory: Enthalpy Analytical			

TNI Accredited
VELAP ID 460021

ENTHALPY ANALYTICAL

1941 Reymet Road ● Richmond, Virginia 23237 ● Tel: (804)-358-8295 Fax: (804)-358-8297

Certificate of Analysis

Final Report

Laboratory Order ID 24I0652

Client Name:	SCS Engineers-Winchester 296 Victory Road Winchester, VA 22602	Date Received:	September 12, 2024 8:00
		Date Issued:	September 30, 2024 9:43
		Project Number:	[none]
Submitted To:	Jennifer Robb	Purchase Order:	
Client Site I.D.:	LFG-EW Monthly Monitoring		

Enclosed are the results of analyses for samples received by the laboratory on 09/12/2024 08:00. If you have any questions concerning this report, please feel free to contact the laboratory.

Sincerely,

Andrew Bruner
Project Manager

End Notes:
The test results listed in this report relate only to the samples submitted to the laboratory and as received by the Laboratory.

Unless otherwise noted, the test results for solid materials are calculated on a wet weight basis. Analyses for pH, dissolved oxygen, temperature, residual chlorine and sulfite that are performed in the laboratory do not meet NELAC requirements due to extremely short holding times. These analyses should be performed in the field. The results of field analyses performed by the Sampler included in the Certificate of Analysis are done so at the client's request and are not included in the laboratory's fields of certification nor have they been audited for adherence to a reference method or procedure.

The signature on the final report certifies that these results conform to all applicable NELAC standards unless otherwise specified. For a complete list of the Laboratory's NELAC certified parameters please contact customer service.

Enthalpy Analytical
1941 Reymet Road
Richmond, VA 23237
(804)-358-8295 - Telephone
(804)-358-8297 - Fax

Analysis Detects Report

Client Name: SCS Engineers-Winchester
Client Site ID: LFG-EW Monthly Monitoring
Submitted To: Jennifer Robb

Date Issued: 9/30/2024 9:43:20AM

Laboratory Sample ID: 24I0652-01 **Client Sample ID:** EW-54

Parameter	Samp ID	Reference Method	Sample Results	Qual	DL	LOQ	Dil. Factor	Units
Arsenic	01	SW6020B	150		5.0	10	10	ug/L
Barium	01	SW6020B	1330		10.0	50.0	10	ug/L
Chromium	01	SW6020B	541		4.00	10.0	10	ug/L
Lead	01	SW6020B	57		10	10	10	ug/L
Nickel	01	SW6020B	113.8		10.00	10.00	10	ug/L
Zinc	01	SW6020B	3680		25.0	50.0	10	ug/L
2-Butanone (MEK)	01	SW8260D	16600		150	500	50	ug/L
Acetone	01RE1	SW8260D	44500		3500	5000	500	ug/L
Benzene	01	SW8260D	727		20.0	50.0	50	ug/L
Ethylbenzene	01	SW8260D	44.0	J	20.0	50.0	50	ug/L
Tetrahydrofuran	01	SW8260D	2730		500	500	50	ug/L
Toluene	01	SW8260D	63.5		25.0	50.0	50	ug/L
Xylenes, Total	01	SW8260D	120	J	50.0	150	50	ug/L
Ammonia as N	01	EPA350.1 R2.0	1440		73.1	100	1000	mg/L
BOD	01	SM5210B-2016	36100		0.2	2.0	1	mg/L
COD	01	SM5220D-2011	55900		5000	5000	500	mg/L
Cyanide	01	SW9012B	0.11	CI	0.05	0.05	5	mg/L
Nitrate as N	01	Calc.	2.42		0.250	1.25	25	mg/L
Nitrate+Nitrite as N	01	SM4500-NO3F-2016	2.42		0.20	0.20	2	mg/L
TKN as N	01	EPA351.2 R2.0	2090		50.0	125	250	mg/L
Total Recoverable Phenolics	01	SW9065	31.6		3.00	5.00	100	mg/L

Enthalpy Analytical
1941 Reymet Road
Richmond, VA 23237
(804)-358-8295 - Telephone
(804)-358-8297 - Fax

Analysis Detects Report

Client Name: SCS Engineers-Winchester
Client Site ID: LFG-EW Monthly Monitoring
Submitted To: Jennifer Robb

Date Issued: 9/30/2024 9:43:20AM

Laboratory Sample ID: **24I0652-02** **Client Sample ID:** **EW-52**

Parameter	Samp ID	Reference Method	Sample Results	Qual	DL	LOQ	Dil. Factor	Units
Arsenic	02	SW6020B	270		5.0	10	10	ug/L
Barium	02	SW6020B	1340		10.0	50.0	10	ug/L
Chromium	02	SW6020B	948		4.00	10.0	10	ug/L
Lead	02	SW6020B	98		10	10	10	ug/L
Mercury	02	SW6020B	2.44		2.00	2.00	10	ug/L
Nickel	02	SW6020B	396.0		10.00	10.00	10	ug/L
Zinc	02RE1	SW6020B	212		2.50	5.00	1	ug/L
2-Butanone (MEK)	02	SW8260D	19000		150	500	50	ug/L
Acetone	02RE1	SW8260D	59800		3500	5000	500	ug/L
Benzene	02	SW8260D	960		20.0	50.0	50	ug/L
Ethylbenzene	02	SW8260D	46.5	J	20.0	50.0	50	ug/L
Tetrahydrofuran	02	SW8260D	2950		500	500	50	ug/L
Toluene	02	SW8260D	80.0		25.0	50.0	50	ug/L
Xylenes, Total	02	SW8260D	90.5	J	50.0	150	50	ug/L
Ammonia as N	02	EPA350.1 R2.0	2210		146	200	2000	mg/L
BOD	02	SM5210B-2016	>41548.32		0.2	2.0	1	mg/L
COD	02	SM5220D-2011	78300		10000	10000	1000	mg/L
Cyanide	02	SW9012B	0.08	CI	0.05	0.05	5	mg/L
TKN as N	02	EPA351.2 R2.0	3320		100	250	500	mg/L
Total Recoverable Phenolics	02	SW9065	39.6		3.00	5.00	100	mg/L

Enthalpy Analytical
1941 Reymet Road
Richmond, VA 23237
(804)-358-8295 - Telephone
(804)-358-8297 - Fax

Analysis Detects Report

Client Name: SCS Engineers-Winchester
Client Site ID: LFG-EW Monthly Monitoring
Submitted To: Jennifer Robb

Date Issued: 9/30/2024 9:43:20AM

Laboratory Sample ID: **24I0652-03** **Client Sample ID:** **EW-68**

Parameter	Samp ID	Reference Method	Sample Results	Qual	DL	LOQ	Dil. Factor	Units
Arsenic	03	SW6020B	190		5.0	10	10	ug/L
Barium	03	SW6020B	3650		10.0	50.0	10	ug/L
Chromium	03	SW6020B	228		4.00	10.0	10	ug/L
Nickel	03	SW6020B	87.72		10.00	10.00	10	ug/L
Zinc	03	SW6020B	111		25.0	50.0	10	ug/L
2-Butanone (MEK)	03RE1	SW8260D	32200		1500	5000	500	ug/L
Acetone	03RE1	SW8260D	69300		3500	5000	500	ug/L
Benzene	03	SW8260D	2710		20.0	50.0	50	ug/L
Ethylbenzene	03	SW8260D	192		20.0	50.0	50	ug/L
Tetrahydrofuran	03	SW8260D	6640		500	500	50	ug/L
Toluene	03	SW8260D	226		25.0	50.0	50	ug/L
Xylenes, Total	03	SW8260D	368		50.0	150	50	ug/L
Ammonia as N	03	EPA350.1 R2.0	2290		146	200	2000	mg/L
BOD	03	SM5210B-2016	27400		0.2	2.0	1	mg/L
COD	03	SM5220D-2011	26800		4000	4000	400	mg/L
Cyanide	03	SW9012B	0.28	CI	0.05	0.05	5	mg/L
Nitrate+Nitrite as N	03RE1	SM4500-NO3F-2016	0.70		0.50	0.50	25	mg/L
TKN as N	03RE1	EPA351.2 R2.0	2650		80.0	200	400	mg/L
Total Recoverable Phenolics	03	SW9065	31.6		3.00	5.00	100	mg/L

Note that this report is not the "Certificate of Analysis". This report only lists the target analytes that displayed concentrations that exceeded the detection limit specified for that analyte. For a complete listing of all analytes requested and the results of the analysis see the " Certificate of Analysis".

Enthalpy Analytical
1941 Reymet Road
Richmond, Virginia 23237
(804)-358-8295 - Telephone
(804)-358-8297 - Fax

Certificate of Analysis

Client Name: SCS Engineers-Winchester
Client Site I.D.: LFG-EW Monthly Monitoring
Submitted To: Jennifer Robb

Date Issued: 9/30/2024 9:43:20AM
Work Order: 24I0652

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
EW-54	24I0652-01	Ground Water	09/11/2024 10:20	09/12/2024 08:00
EW-52	24I0652-02	Ground Water	09/11/2024 08:20	09/12/2024 08:00
EW-68	24I0652-03	Ground Water	09/11/2024 08:50	09/12/2024 08:00
Trip Blank	24I0652-04	Ground Water	09/04/2024 11:35	09/12/2024 08:00

As requested by Logan Howard on September 30, 2024, the project name and site name have been corrected. These changes are reflected in the following revised report.

Enthalpy Analytical
1941 Reymet Road
Richmond, Virginia 23237
(804)-358-8295 - Telephone
(804)-358-8297 - Fax

Certificate of Analysis

Client Name: SCS Engineers-Winchester
Client Site I.D.: LFG-EW Monthly Monitoring
Submitted To: Jennifer Robb

Date Issued: 9/30/2024 9:43:20AM
Work Order: 24I0652

Client Sample ID: **EW-54** **Laboratory Sample ID:** **24I0652-01**

Parameter	Samp ID	CAS	Reference Method	Sample Prep Date/Time	Analyzed Date/Time	Sample Results	Qual	DL	LOQ	DF	Units	Analyst
Metals (Total) by EPA 6000/7000 Series Methods												
Silver	01	7440-22-4	SW6020B	09/16/2024 09:30	09/18/2024 17:47	BLOD		0.600	10.0	10	ug/L	AB
Arsenic	01	7440-38-2	SW6020B	09/16/2024 09:30	09/18/2024 17:47	150		5.0	10	10	ug/L	AB
Barium	01	7440-39-3	SW6020B	09/16/2024 09:30	09/18/2024 17:47	1330		10.0	50.0	10	ug/L	AB
Cadmium	01	7440-43-9	SW6020B	09/16/2024 09:30	09/18/2024 17:47	BLOD		1.00	10.0	10	ug/L	AB
Chromium	01	7440-47-3	SW6020B	09/16/2024 09:30	09/18/2024 17:47	541		4.00	10.0	10	ug/L	AB
Copper	01	7440-50-8	SW6020B	09/16/2024 09:30	09/18/2024 17:47	BLOD		3.00	10.0	10	ug/L	AB
Mercury	01	7439-97-6	SW6020B	09/16/2024 09:30	09/18/2024 17:47	BLOD		2.00	2.00	10	ug/L	AB
Nickel	01	7440-02-0	SW6020B	09/16/2024 09:30	09/18/2024 17:47	113.8		10.00	10.00	10	ug/L	AB
Lead	01	7439-92-1	SW6020B	09/16/2024 09:30	09/18/2024 17:47	57		10	10	10	ug/L	AB
Selenium	01	7782-49-2	SW6020B	09/16/2024 09:30	09/18/2024 17:47	BLOD		8.50	10.0	10	ug/L	AB
Zinc	01	7440-66-6	SW6020B	09/16/2024 09:30	09/18/2024 17:47	3680		25.0	50.0	10	ug/L	AB
Volatile Organic Compounds by GCMS												
2-Butanone (MEK)	01	78-93-3	SW8260D	09/13/2024 17:52	09/13/2024 17:52	16600		150	500	50	ug/L	RJB
Acetone	01RE1	67-64-1	SW8260D	09/13/2024 18:15	09/13/2024 18:15	44500		3500	5000	500	ug/L	RJB
Benzene	01	71-43-2	SW8260D	09/13/2024 17:52	09/13/2024 17:52	727		20.0	50.0	50	ug/L	RJB
Ethylbenzene	01	100-41-4	SW8260D	09/13/2024 17:52	09/13/2024 17:52	44.0	J	20.0	50.0	50	ug/L	RJB
Toluene	01	108-88-3	SW8260D	09/13/2024 17:52	09/13/2024 17:52	63.5		25.0	50.0	50	ug/L	RJB
Xylenes, Total	01	1330-20-7	SW8260D	09/13/2024 17:52	09/13/2024 17:52	120	J	50.0	150	50	ug/L	RJB
Tetrahydrofuran	01	109-99-9	SW8260D	09/13/2024 17:52	09/13/2024 17:52	2730		500	500	50	ug/L	RJB
Surr: 1,2-Dichloroethane-d4 (Surr)	*01*	*94.2 %*	*70-120*	*09/13/2024 17:52*	*09/13/2024 17:52*							
Surr: 4-Bromofluorobenzene (Surr)	*01*	*102 %*	*75-120*	*09/13/2024 17:52*	*09/13/2024 17:52*							
Surr: Dibromofluoromethane (Surr)	*01*	*95.2 %*	*70-130*	*09/13/2024 17:52*	*09/13/2024 17:52*							
Surr: Toluene-d8 (Surr)	*01*	*100 %*	*70-130*	*09/13/2024 17:52*	*09/13/2024 17:52*							
Surr: 1,2-Dichloroethane-d4 (Surr)	*01RE1*	*94.2 %*	*70-120*	*09/13/2024 18:15*	*09/13/2024 18:15*							

Enthalpy Analytical
1941 Reymet Road
Richmond, Virginia 23237
(804)-358-8295 - Telephone
(804)-358-8297 - Fax

Certificate of Analysis

Client Name: SCS Engineers-Winchester
Client Site I.D.: LFG-EW Monthly Monitoring
Submitted To: Jennifer Robb

Date Issued: 9/30/2024 9:43:20AM
Work Order: 24I0652

Client Sample ID: **EW-54** **Laboratory Sample ID:** **24I0652-01**

Parameter	Samp ID	CAS	Reference Method	Sample Prep Date/Time	Analyzed Date/Time	Sample Results	Qual	DL	LOQ	DF	Units	Analys
Volatile Organic Compounds by GCMS												
Surr: 4-Bromofluorobenzene (Surr)	*01RE1*	*102 %*	*75-120*	*09/13/2024 18:15*	*09/13/2024 18:15*							
Surr: Dibromofluoromethane (Surr)	*01RE1*	*95.4 %*	*70-130*	*09/13/2024 18:15*	*09/13/2024 18:15*							
Surr: Toluene-d8 (Surr)	*01RE1*	*100 %*	*70-130*	*09/13/2024 18:15*	*09/13/2024 18:15*							
Semivolatile Organic Compounds by GCMS												
Anthracene	01	120-12-7	SW8270E	09/16/2024 08:45	09/16/2024 19:13	BLOD		200	400	10	ug/L	BMS
Surr: 2,4,6-Tribromophenol (Surr)	*01*	*95.8 %*	*5-136*	*09/16/2024 08:45*	*09/16/2024 19:13*							
Surr: 2-Fluorobiphenyl (Surr)	*01*	*64.8 %*	*9-117*	*09/16/2024 08:45*	*09/16/2024 19:13*							
Surr: 2-Fluorophenol (Surr)	*01*	*28.0 %*	*5-60*	*09/16/2024 08:45*	*09/16/2024 19:13*							
Surr: Nitrobenzene-d5 (Surr)	*01*	*482 %*	*5-151*	*09/16/2024 08:45*	*09/16/2024 19:13*							*DS*
Surr: Phenol-d5 (Surr)	*01*	*0.200 %*	*5-60*	*09/16/2024 08:45*	*09/16/2024 19:13*							*DS*
Surr: p-Terphenyl-d14 (Surr)	*01*	*56.4 %*	*5-141*	*09/16/2024 08:45*	*09/16/2024 19:13*							

Enthalpy Analytical
1941 Reymet Road
Richmond, Virginia 23237
(804)-358-8295 - Telephone
(804)-358-8297 - Fax

Certificate of Analysis

Client Name: SCS Engineers-Winchester
Client Site I.D.: LFG-EW Monthly Monitoring
Submitted To: Jennifer Robb

Date Issued: 9/30/2024 9:43:20AM
Work Order: 24I0652

Client Sample ID: **EW-54** **Laboratory Sample ID:** **24I0652-01**

Parameter	Samp ID	CAS	Reference Method	Sample Prep Date/Time	Analyzed Date/Time	Sample Results	Qual	DL	LOQ	DF	Units	Analyst
Wet Chemistry Analysis												
Ammonia as N	01	7664-41-7	EPA350.1 R2.0	09/18/2024 15:55	09/18/2024 15:55	1440		73.1	100	1000	mg/L	SPH
BOD	01	E1640606	SM5210B-2016	09/12/2024 13:05	09/12/2024 13:05	36100		0.2	2.0	1	mg/L	CET
Cyanide	01	57-12-5	SW9012B	09/24/2024 10:00	09/24/2024 12:00	0.11	CI	0.05	0.05	5	mg/L	BKR
COD	01	NA	SM5220D-2011	09/18/2024 16:40	09/18/2024 16:40	55900		5000	5000	500	mg/L	TEG
Nitrate as N	01	14797-55-8	Calc.	09/23/2024 14:57	09/23/2024 14:57	2.42		0.250	1.25	25	mg/L	EEM
Nitrate+Nitrite as N	01	E701177	SM4500-NO3F-2016	09/23/2024 14:57	09/23/2024 14:57	2.42		0.20	0.20	2	mg/L	BKR
Nitrite as N	01	14797-65-0	SM4500-NO2B-2011	09/12/2024 16:00	09/12/2024 16:00	BLOD		0.25	1.25	25	mg/L	EEM
Total Recoverable Phenolics	01	NA	SW9065	09/26/2024 18:30	09/26/2024 18:30	31.6		3.00	5.00	100	mg/L	MKS
TKN as N	01	E17148461	EPA351.2 R2.0	09/18/2024 17:00	09/19/2024 12:05	2090		50.0	125	250	mg/L	EEM

Enthalpy Analytical
1941 Reymet Road
Richmond, Virginia 23237
(804)-358-8295 - Telephone
(804)-358-8297 - Fax

Certificate of Analysis

Client Name: SCS Engineers-Winchester
Client Site I.D.: LFG-EW Monthly Monitoring
Submitted To: Jennifer Robb

Date Issued: 9/30/2024 9:43:20AM
Work Order: 24I0652

Client Sample ID: **EW-52** **Laboratory Sample ID:** **24I0652-02**

Parameter	Samp ID	CAS	Reference Method	Sample Prep Date/Time	Analyzed Date/Time	Sample Results	Qual	DL	LOQ	DF	Units	Analyst
Metals (Total) by EPA 6000/7000 Series Methods												
Silver	02	7440-22-4	SW6020B	09/16/2024 09:30	09/18/2024 17:50	BLOD		0.600	10.0	10	ug/L	AB
Arsenic	02	7440-38-2	SW6020B	09/16/2024 09:30	09/18/2024 17:50	270		5.0	10	10	ug/L	AB
Barium	02	7440-39-3	SW6020B	09/16/2024 09:30	09/18/2024 17:50	1340		10.0	50.0	10	ug/L	AB
Cadmium	02	7440-43-9	SW6020B	09/16/2024 09:30	09/18/2024 17:50	BLOD		1.00	10.0	10	ug/L	AB
Chromium	02	7440-47-3	SW6020B	09/16/2024 09:30	09/18/2024 17:50	948		4.00	10.0	10	ug/L	AB
Copper	02	7440-50-8	SW6020B	09/16/2024 09:30	09/18/2024 17:50	BLOD		3.00	10.0	10	ug/L	AB
Mercury	02	7439-97-6	SW6020B	09/16/2024 09:30	09/18/2024 17:50	2.44		2.00	2.00	10	ug/L	AB
Nickel	02	7440-02-0	SW6020B	09/16/2024 09:30	09/18/2024 17:50	396.0		10.00	10.00	10	ug/L	AB
Lead	02	7439-92-1	SW6020B	09/16/2024 09:30	09/18/2024 17:50	98		10	10	10	ug/L	AB
Selenium	02	7782-49-2	SW6020B	09/16/2024 09:30	09/18/2024 17:50	BLOD		8.50	10.0	10	ug/L	AB
Zinc	02RE1	7440-66-6	SW6020B	09/16/2024 09:30	09/16/2024 16:59	212		2.50	5.00	1	ug/L	AB
Volatile Organic Compounds by GCMS												
2-Butanone (MEK)	02	78-93-3	SW8260D	09/13/2024 18:39	09/13/2024 18:39	19000		150	500	50	ug/L	RJB
Acetone	02RE1	67-64-1	SW8260D	09/13/2024 19:03	09/13/2024 19:03	59800		3500	5000	500	ug/L	RJB
Benzene	02	71-43-2	SW8260D	09/13/2024 18:39	09/13/2024 18:39	960		20.0	50.0	50	ug/L	RJB
Ethylbenzene	02	100-41-4	SW8260D	09/13/2024 18:39	09/13/2024 18:39	46.5	J	20.0	50.0	50	ug/L	RJB
Toluene	02	108-88-3	SW8260D	09/13/2024 18:39	09/13/2024 18:39	80.0		25.0	50.0	50	ug/L	RJB
Xylenes, Total	02	1330-20-7	SW8260D	09/13/2024 18:39	09/13/2024 18:39	90.5	J	50.0	150	50	ug/L	RJB
Tetrahydrofuran	02	109-99-9	SW8260D	09/13/2024 18:39	09/13/2024 18:39	2950		500	500	50	ug/L	RJB
Surr: 1,2-Dichloroethane-d4 (Surr)	*02*	*94.9 %*	*70-120*	*09/13/2024 18:39*	*09/13/2024 18:39*							
Surr: 4-Bromofluorobenzene (Surr)	*02*	*100 %*	*75-120*	*09/13/2024 18:39*	*09/13/2024 18:39*							
Surr: Dibromofluoromethane (Surr)	*02*	*95.0 %*	*70-130*	*09/13/2024 18:39*	*09/13/2024 18:39*							
Surr: Toluene-d8 (Surr)	*02*	*101 %*	*70-130*	*09/13/2024 18:39*	*09/13/2024 18:39*							
Surr: 1,2-Dichloroethane-d4 (Surr)	*02RE1*	*95.8 %*	*70-120*	*09/13/2024 19:03*	*09/13/2024 19:03*							

Enthalpy Analytical
1941 Reymet Road
Richmond, Virginia 23237
(804)-358-8295 - Telephone
(804)-358-8297 - Fax

Certificate of Analysis

Client Name: SCS Engineers-Winchester
Client Site I.D.: LFG-EW Monthly Monitoring
Submitted To: Jennifer Robb

Date Issued: 9/30/2024 9:43:20AM
Work Order: 24I0652

Client Sample ID: **EW-52** **Laboratory Sample ID:** **24I0652-02**

Parameter	Samp ID	CAS	Reference Method	Sample Prep Date/Time	Analyzed Date/Time	Sample Results	Qual	DL	LOQ	DF	Units	Analys
Volatile Organic Compounds by GCMS												
Surr: 4-Bromofluorobenzene (Surr)	*02RE1*	*102 %*	*75-120*	*09/13/2024 19:03*	*09/13/2024 19:03*							
Surr: Dibromofluoromethane (Surr)	*02RE1*	*96.6 %*	*70-130*	*09/13/2024 19:03*	*09/13/2024 19:03*							
Surr: Toluene-d8 (Surr)	*02RE1*	*101 %*	*70-130*	*09/13/2024 19:03*	*09/13/2024 19:03*							
Semivolatile Organic Compounds by GCMS												
Anthracene	02	120-12-7	SW8270E	09/16/2024 08:45	09/16/2024 20:11	BLOD		200	400	10	ug/L	BMS
Surr: 2,4,6-Tribromophenol (Surr)	*02*	*88.4 %*	*5-136*	*09/16/2024 08:45*	*09/16/2024 20:11*							
Surr: 2-Fluorobiphenyl (Surr)	*02*	*60.4 %*	*9-117*	*09/16/2024 08:45*	*09/16/2024 20:11*							
Surr: 2-Fluorophenol (Surr)	*02*	*33.6 %*	*5-60*	*09/16/2024 08:45*	*09/16/2024 20:11*							
Surr: Nitrobenzene-d5 (Surr)	*02*	*662 %*	*5-151*	*09/16/2024 08:45*	*09/16/2024 20:11*							*DS*
Surr: Phenol-d5 (Surr)	*02*	*15.6 %*	*5-60*	*09/16/2024 08:45*	*09/16/2024 20:11*							
Surr: p-Terphenyl-d14 (Surr)	*02*	*42.4 %*	*5-141*	*09/16/2024 08:45*	*09/16/2024 20:11*							

Enthalpy Analytical
1941 Reymet Road
Richmond, Virginia 23237
(804)-358-8295 - Telephone
(804)-358-8297 - Fax

Certificate of Analysis

Client Name: SCS Engineers-Winchester
Client Site I.D.: LFG-EW Monthly Monitoring
Submitted To: Jennifer Robb

Date Issued: 9/30/2024 9:43:20AM
Work Order: 24I0652

Client Sample ID: **EW-52** **Laboratory Sample ID:** **24I0652-02**

Parameter	Samp ID	CAS	Reference Method	Sample Prep Date/Time	Analyzed Date/Time	Sample Results	Qual	DL	LOQ	DF	Units	Analyst
Wet Chemistry Analysis												
Ammonia as N	02	7664-41-7	EPA350.1 R2.0	09/18/2024 15:55	09/18/2024 15:55	2210		146	200	2000	mg/L	SPH
BOD	02	E1640606	SM5210B-2016	09/12/2024 13:46	09/12/2024 13:46	>41548.32		0.2	2.0	1	mg/L	CET
BOD	02	E1640606	SM5210B-2016	09/12/2024 13:46	09/12/2024 13:46	>41548.32		0.2	2.0	1	mg/L	CET
Cyanide	02	57-12-5	SW9012B	09/24/2024 10:00	09/24/2024 12:00	0.08	CI	0.05	0.05	5	mg/L	BKR
COD	02	NA	SM5220D-2011	09/18/2024 16:40	09/18/2024 16:40	78300		10000	10000	1000	mg/L	TEG
Nitrate as N	02	14797-55-8	Calc.	09/19/2024 16:04	09/19/2024 16:04	BLOD		0.250	1.25	25	mg/L	EEM
Nitrate+Nitrite as N	02	E701177	SM4500-NO3F-2016	09/19/2024 16:04	09/19/2024 16:04	BLOD		0.10	0.10	5	mg/L	TEG
Nitrite as N	02	14797-65-0	SM4500-NO2B-2011	09/12/2024 16:00	09/12/2024 16:00	BLOD		0.25	1.25	25	mg/L	EEM
Total Recoverable Phenolics	02	NA	SW9065	09/26/2024 18:30	09/26/2024 18:30	39.6		3.00	5.00	100	mg/L	MKS
TKN as N	02	E17148461	EPA351.2 R2.0	09/18/2024 17:00	09/19/2024 12:06	3320		100	250	500	mg/L	EEM

ENTHALPY ANALYTICAL

Enthalpy Analytical
1941 Reymet Road
Richmond, Virginia 23237
(804)-358-8295 - Telephone
(804)-358-8297 - Fax

Certificate of Analysis

Client Name: SCS Engineers-Winchester
Client Site I.D.: LFG-EW Monthly Monitoring
Submitted To: Jennifer Robb

Date Issued: 9/30/2024 9:43:20AM
Work Order: 24I0652

Client Sample ID: **EW-68** **Laboratory Sample ID:** **24I0652-03**

Parameter	Samp ID	CAS	Reference Method	Sample Prep Date/Time	Analyzed Date/Time	Sample Results	Qual	DL	LOQ	DF	Units	Analyst
Metals (Total) by EPA 6000/7000 Series Methods												
Silver	03	7440-22-4	SW6020B	09/16/2024 09:30	09/18/2024 17:53	BLOD		0.600	10.0	10	ug/L	AB
Arsenic	03	7440-38-2	SW6020B	09/16/2024 09:30	09/18/2024 17:53	190		5.0	10	10	ug/L	AB
Barium	03	7440-39-3	SW6020B	09/16/2024 09:30	09/18/2024 17:53	3650		10.0	50.0	10	ug/L	AB
Cadmium	03	7440-43-9	SW6020B	09/16/2024 09:30	09/18/2024 17:53	BLOD		1.00	10.0	10	ug/L	AB
Chromium	03	7440-47-3	SW6020B	09/16/2024 09:30	09/18/2024 17:53	228		4.00	10.0	10	ug/L	AB
Copper	03	7440-50-8	SW6020B	09/16/2024 09:30	09/18/2024 17:53	BLOD		3.00	10.0	10	ug/L	AB
Mercury	03	7439-97-6	SW6020B	09/16/2024 09:30	09/18/2024 17:53	BLOD		2.00	2.00	10	ug/L	AB
Nickel	03	7440-02-0	SW6020B	09/16/2024 09:30	09/18/2024 17:53	87.72		10.00	10.00	10	ug/L	AB
Lead	03	7439-92-1	SW6020B	09/16/2024 09:30	09/18/2024 17:53	BLOD		10	10	10	ug/L	AB
Selenium	03	7782-49-2	SW6020B	09/16/2024 09:30	09/18/2024 17:53	BLOD		8.50	10.0	10	ug/L	AB
Zinc	03	7440-66-6	SW6020B	09/16/2024 09:30	09/18/2024 17:53	111		25.0	50.0	10	ug/L	AB
Volatile Organic Compounds by GCMS												
2-Butanone (MEK)	03RE1	78-93-3	SW8260D	09/13/2024 19:50	09/13/2024 19:50	32200		1500	5000	500	ug/L	RJB
Acetone	03RE1	67-64-1	SW8260D	09/13/2024 19:50	09/13/2024 19:50	69300		3500	5000	500	ug/L	RJB
Benzene	03	71-43-2	SW8260D	09/13/2024 19:26	09/13/2024 19:26	2710		20.0	50.0	50	ug/L	RJB
Ethylbenzene	03	100-41-4	SW8260D	09/13/2024 19:26	09/13/2024 19:26	192		20.0	50.0	50	ug/L	RJB
Toluene	03	108-88-3	SW8260D	09/13/2024 19:26	09/13/2024 19:26	226		25.0	50.0	50	ug/L	RJB
Xylenes, Total	03	1330-20-7	SW8260D	09/13/2024 19:26	09/13/2024 19:26	368		50.0	150	50	ug/L	RJB
Tetrahydrofuran	03	109-99-9	SW8260D	09/13/2024 19:26	09/13/2024 19:26	6640		500	500	50	ug/L	RJB
Surr: 1,2-Dichloroethane-d4 (Surr)	*03*	*94.6 %*	*70-120*	*09/13/2024 19:26*	*09/13/2024 19:26*							
Surr: 4-Bromofluorobenzene (Surr)	*03*	*101 %*	*75-120*	*09/13/2024 19:26*	*09/13/2024 19:26*							
Surr: Dibromofluoromethane (Surr)	*03*	*95.2 %*	*70-130*	*09/13/2024 19:26*	*09/13/2024 19:26*							
Surr: Toluene-d8 (Surr)	*03*	*100 %*	*70-130*	*09/13/2024 19:26*	*09/13/2024 19:26*							
Surr: 1,2-Dichloroethane-d4 (Surr)	*03RE1*	*94.9 %*	*70-120*	*09/13/2024 19:50*	*09/13/2024 19:50*							

Enthalpy Analytical
1941 Reymet Road
Richmond, Virginia 23237
(804)-358-8295 - Telephone
(804)-358-8297 - Fax

Certificate of Analysis

Client Name: SCS Engineers-Winchester
Client Site I.D.: LFG-EW Monthly Monitoring
Submitted To: Jennifer Robb

Date Issued: 9/30/2024 9:43:20AM
Work Order: 24I0652

Client Sample ID: **EW-68** **Laboratory Sample ID:** **24I0652-03**

Parameter	Samp ID	CAS	Reference Method	Sample Prep Date/Time	Analyzed Date/Time	Sample Results	Qual	DL	LOQ	DF	Units	Analys
Volatile Organic Compounds by GCMS												
Surr: 4-Bromofluorobenzene (Surr)	*03RE1*	*103 %*	*75-120*	*09/13/2024 19:50*	*09/13/2024 19:50*							
Surr: Dibromofluoromethane (Surr)	*03RE1*	*95.7 %*	*70-130*	*09/13/2024 19:50*	*09/13/2024 19:50*							
Surr: Toluene-d8 (Surr)	*03RE1*	*102 %*	*70-130*	*09/13/2024 19:50*	*09/13/2024 19:50*							
Semivolatile Organic Compounds by GCMS												
Anthracene	03	120-12-7	SW8270E	09/16/2024 08:45	09/16/2024 21:10	BLOD		100	200	10	ug/L	BMS
Surr: 2,4,6-Tribromophenol (Surr)	*03*	*65.5 %*	*5-136*	*09/16/2024 08:45*	*09/16/2024 21:10*							
Surr: 2-Fluorobiphenyl (Surr)	*03*	*45.8 %*	*9-117*	*09/16/2024 08:45*	*09/16/2024 21:10*							
Surr: 2-Fluorophenol (Surr)	*03*	*28.0 %*	*5-60*	*09/16/2024 08:45*	*09/16/2024 21:10*							
Surr: Nitrobenzene-d5 (Surr)	*03*	*96.2 %*	*5-151*	*09/16/2024 08:45*	*09/16/2024 21:10*							
Surr: Phenol-d5 (Surr)	*03*	*%*	*5-60*	*09/16/2024 08:45*	*09/16/2024 21:10*							*DS*
Surr: p-Terphenyl-d14 (Surr)	*03*	*16.6 %*	*5-141*	*09/16/2024 08:45*	*09/16/2024 21:10*							

Enthalpy Analytical
1941 Reymet Road
Richmond, Virginia 23237
(804)-358-8295 - Telephone
(804)-358-8297 - Fax

Certificate of Analysis

Client Name: SCS Engineers-Winchester
Client Site I.D.: LFG-EW Monthly Monitoring
Submitted To: Jennifer Robb

Date Issued: 9/30/2024 9:43:20AM
Work Order: 24I0652

Client Sample ID: **EW-68** **Laboratory Sample ID:** **24I0652-03**

Parameter	Samp ID	CAS	Reference Method	Sample Prep Date/Time	Analyzed Date/Time	Sample Results	Qual	DL	LOQ	DF	Units	Analyst
Wet Chemistry Analysis												
Ammonia as N	03	7664-41-7	EPA350.1 R2.0	09/18/2024 15:55	09/18/2024 15:55	2290		146	200	2000	mg/L	SPH
BOD	03	E1640606	SM5210B-2016	09/12/2024 13:55	09/12/2024 13:55	27400		0.2	2.0	1	mg/L	CET
Cyanide	03	57-12-5	SW9012B	09/24/2024 10:00	09/24/2024 12:00	0.28	CI	0.05	0.05	5	mg/L	BKR
COD	03	NA	SM5220D-2011	09/21/2024 15:00	09/21/2024 15:00	26800		4000	4000	400	mg/L	MJRL
Nitrate as N	03	14797-55-8	Calc.	09/19/2024 16:33	09/19/2024 16:33	BLOD		5.00	25.0	500	mg/L	TEG
Nitrate+Nitrite as N	03RE1	E701177	SM4500-NO3F-2016	09/19/2024 16:33	09/19/2024 16:33	0.70		0.50	0.50	25	mg/L	TEG
Nitrite as N	03	14797-65-0	SM4500-NO2B-2011	09/12/2024 16:00	09/12/2024 16:00	BLOD		5.00	25.0	500	mg/L	EEM
Total Recoverable Phenolics	03	NA	SW9065	09/26/2024 18:30	09/26/2024 18:30	31.6		3.00	5.00	100	mg/L	MKS
TKN as N	03RE1	E17148461	EPA351.2 R2.0	09/23/2024 14:46	09/24/2024 17:35	2650		80.0	200	400	mg/L	SPH

Enthalpy Analytical
1941 Reymet Road
Richmond, Virginia 23237
(804)-358-8295 - Telephone
(804)-358-8297 - Fax

Certificate of Analysis

Client Name: SCS Engineers-Winchester
Client Site I.D.: LFG-EW Monthly Monitoring
Submitted To: Jennifer Robb

Date Issued: 9/30/2024 9:43:20AM
Work Order: 24I0652

Client Sample ID: **Trip Blank** **Laboratory Sample ID:** **24I0652-04**

Parameter	Samp ID	CAS	Reference Method	Sample Prep Date/Time	Analyzed Date/Time	Sample Results	Qual	DL	LOQ	DF	Units	Analyst
Volatile Organic Compounds by GCMS												
2-Butanone (MEK)	04	78-93-3	SW8260D	09/13/2024 15:05	09/13/2024 15:05	BLOD		3.00	10.0	1	ug/L	RJB
Acetone	04	67-64-1	SW8260D	09/13/2024 15:05	09/13/2024 15:05	BLOD		7.00	10.0	1	ug/L	RJB
Benzene	04	71-43-2	SW8260D	09/13/2024 15:05	09/13/2024 15:05	BLOD		0.40	1.00	1	ug/L	RJB
Ethylbenzene	04	100-41-4	SW8260D	09/13/2024 15:05	09/13/2024 15:05	BLOD		0.40	1.00	1	ug/L	RJB
Toluene	04	108-88-3	SW8260D	09/13/2024 15:05	09/13/2024 15:05	BLOD		0.50	1.00	1	ug/L	RJB
Xylenes, Total	04	1330-20-7	SW8260D	09/13/2024 15:05	09/13/2024 15:05	BLOD		1.00	3.00	1	ug/L	RJB
Tetrahydrofuran	04	109-99-9	SW8260D	09/13/2024 15:05	09/13/2024 15:05	BLOD		10.0	10.0	1	ug/L	RJB
Surr: 1,2-Dichloroethane-d4 (Surr)	*04*	*97.9 %*	*70-120*	*09/13/2024 15:05*	*09/13/2024 15:05*							
Surr: 4-Bromofluorobenzene (Surr)	*04*	*100 %*	*75-120*	*09/13/2024 15:05*	*09/13/2024 15:05*							
Surr: Dibromofluoromethane (Surr)	*04*	*97.3 %*	*70-130*	*09/13/2024 15:05*	*09/13/2024 15:05*							
Surr: Toluene-d8 (Surr)	*04*	*100 %*	*70-130*	*09/13/2024 15:05*	*09/13/2024 15:05*							

Enthalpy Analytical
1941 Reymet Road
Richmond, Virginia 23237
(804)-358-8295 - Telephone
(804)-358-8297 - Fax

Certificate of Analysis

Client Name: SCS Engineers-Winchester
Client Site I.D.: LFG-EW Monthly Monitoring
Submitted To: Jennifer Robb

Date Issued: 9/30/2024 9:43:20AM
Work Order: 24I0652

Metals (Total) by EPA 6000/7000 Series Methods - Quality Control

Enthalpy Analytical

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch BHI0542 - EPA200.8 R5.4										
Blank (BHI0542-BLK1)				Prepared & Analyzed: 09/16/2024						
Mercury	ND	0.200	ug/L							
Arsenic	ND	1.0	ug/L							
Barium	ND	5.00	ug/L							
Cadmium	ND	1.00	ug/L							
Chromium	ND	1.00	ug/L							
Copper	ND	1.00	ug/L							
Lead	ND	1.0	ug/L							
Nickel	ND	1.000	ug/L							
Selenium	ND	1.00	ug/L							
Silver	ND	1.00	ug/L							
Zinc	ND	5.00	ug/L							
LCS (BHI0542-BS1)				Prepared & Analyzed: 09/16/2024						
Mercury	1.02	0.200	ug/L	1.00		102	80-120			
Arsenic	51	1.0	ug/L	50.0		103	80-120			
Barium	52.8	5.00	ug/L	50.0		106	80-120			
Cadmium	51.9	1.00	ug/L	50.0		104	80-120			
Chromium	52.2	1.00	ug/L	50.0		104	80-120			
Copper	52.9	1.00	ug/L	50.0		106	80-120			
Lead	53	1.0	ug/L	50.0		106	80-120			
Nickel	53.01	1.000	ug/L	50.0		106	80-120			
Selenium	51.8	1.00	ug/L	50.0		104	80-120			
Silver	10.4	1.00	ug/L	10.0		104	80-120			
Zinc	51.8	5.00	ug/L	50.0		104	80-120			
Matrix Spike (BHI0542-MS1)	**Source: 24I0654-01**			Prepared & Analyzed: 09/16/2024						

Enthalpy Analytical
1941 Reymet Road
Richmond, Virginia 23237
(804)-358-8295 - Telephone
(804)-358-8297 - Fax

Certificate of Analysis

Client Name: SCS Engineers-Winchester
Client Site I.D.: LFG-EW Monthly Monitoring
Submitted To: Jennifer Robb

Date Issued: 9/30/2024 9:43:20AM
Work Order: 24I0652

Metals (Total) by EPA 6000/7000 Series Methods - Quality Control

Enthalpy Analytical

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch BHI0542 - EPA200.8 R5.4										
Matrix Spike (BHI0542-MS1)	**Source: 24I0654-01**			Prepared & Analyzed: 09/16/2024						
Mercury	0.993	0.200	ug/L	1.00	BLOD	99.3	70-130			
Arsenic	51	1.0	ug/L	50.0	BLOD	103	75-125			
Barium	53.9	5.00	ug/L	50.0	2.20	103	75-125			
Cadmium	51.7	1.00	ug/L	50.0	BLOD	103	75-125			
Chromium	53.7	1.00	ug/L	50.0	0.474	106	75-125			
Copper	53.0	1.00	ug/L	50.0	0.418	105	75-125			
Lead	53	1.0	ug/L	50.0	BLOD	106	75-125			
Nickel	53.07	1.000	ug/L	50.0	BLOD	106	75-125			
Selenium	50.5	1.00	ug/L	50.0	BLOD	101	75-125			
Silver	10.4	1.00	ug/L	10.0	BLOD	104	75-125			
Zinc	52.6	5.00	ug/L	50.0	BLOD	105	75-125			
Matrix Spike (BHI0542-MS2)	**Source: 24I0654-07**			Prepared & Analyzed: 09/16/2024						
Mercury	1.00	0.200	ug/L	1.00	BLOD	100	70-130			
Arsenic	51	1.0	ug/L	50.0	BLOD	103	75-125			
Barium	51.8	5.00	ug/L	50.0	BLOD	104	75-125			
Cadmium	52.1	1.00	ug/L	50.0	BLOD	104	75-125			
Chromium	51.9	1.00	ug/L	50.0	BLOD	104	75-125			
Copper	52.2	1.00	ug/L	50.0	BLOD	104	75-125			
Lead	54	1.0	ug/L	50.0	BLOD	109	75-125			
Nickel	52.14	1.000	ug/L	50.0	BLOD	104	75-125			
Selenium	50.9	1.00	ug/L	50.0	BLOD	102	75-125			
Silver	10.4	1.00	ug/L	10.0	BLOD	104	75-125			
Zinc	52.4	5.00	ug/L	50.0	BLOD	105	75-125			
Matrix Spike Dup (BHI0542-MSD1)	**Source: 24I0654-01**			Prepared & Analyzed: 09/16/2024						

Enthalpy Analytical
1941 Reymet Road
Richmond, Virginia 23237
(804)-358-8295 - Telephone
(804)-358-8297 - Fax

Certificate of Analysis

Client Name: SCS Engineers-Winchester
Client Site I.D.: LFG-EW Monthly Monitoring
Submitted To: Jennifer Robb

Date Issued: 9/30/2024 9:43:20AM
Work Order: 24I0652

Metals (Total) by EPA 6000/7000 Series Methods - Quality Control

Enthalpy Analytical

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch BHI0542 - EPA200.8 R5.4										
Matrix Spike Dup (BHI0542-MSD1)	**Source: 24I0654-01**			Prepared & Analyzed: 09/16/2024						
Mercury	1.01	0.200	ug/L	1.00	BLOD	101	70-130	1.92	20	
Arsenic	52	1.0	ug/L	50.0	BLOD	103	75-125	0.0241	20	
Barium	55.0	5.00	ug/L	50.0	2.20	106	75-125	2.02	20	
Cadmium	52.5	1.00	ug/L	50.0	BLOD	105	75-125	1.37	20	
Chromium	53.0	1.00	ug/L	50.0	0.474	105	75-125	1.30	20	
Copper	52.5	1.00	ug/L	50.0	0.418	104	75-125	0.925	20	
Lead	53	1.0	ug/L	50.0	BLOD	107	75-125	0.568	20	
Nickel	52.38	1.000	ug/L	50.0	BLOD	105	75-125	1.31	20	
Selenium	51.0	1.00	ug/L	50.0	BLOD	102	75-125	1.00	20	
Silver	10.5	1.00	ug/L	10.0	BLOD	105	75-125	1.04	20	
Zinc	52.8	5.00	ug/L	50.0	BLOD	106	75-125	0.478	20	
Matrix Spike Dup (BHI0542-MSD2)	**Source: 24I0654-07**			Prepared & Analyzed: 09/16/2024						
Mercury	1.00	0.200	ug/L	1.00	BLOD	100	70-130	0.226	20	
Arsenic	51	1.0	ug/L	50.0	BLOD	102	75-125	1.13	20	
Barium	51.8	5.00	ug/L	50.0	BLOD	104	75-125	0.0510	20	
Cadmium	52.0	1.00	ug/L	50.0	BLOD	104	75-125	0.184	20	
Chromium	51.2	1.00	ug/L	50.0	BLOD	102	75-125	1.53	20	
Copper	51.9	1.00	ug/L	50.0	BLOD	104	75-125	0.624	20	
Lead	55	1.0	ug/L	50.0	BLOD	109	75-125	0.534	20	
Nickel	51.86	1.000	ug/L	50.0	BLOD	104	75-125	0.533	20	
Selenium	50.8	1.00	ug/L	50.0	BLOD	102	75-125	0.225	20	
Silver	10.5	1.00	ug/L	10.0	BLOD	105	75-125	1.61	20	
Zinc	51.8	5.00	ug/L	50.0	BLOD	104	75-125	1.06	20	

Enthalpy Analytical
1941 Reymet Road
Richmond, Virginia 23237
(804)-358-8295 - Telephone
(804)-358-8297 - Fax

Certificate of Analysis

Client Name: SCS Engineers-Winchester
Client Site I.D.: LFG-EW Monthly Monitoring
Submitted To: Jennifer Robb

Date Issued: 9/30/2024 9:43:20AM
Work Order: 24I0652

Volatile Organic Compounds by GCMS - Quality Control

Enthalpy Analytical

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch BHI0533 - SW5030B-MS										
Blank (BHI0533-BLK1)				Prepared & Analyzed: 09/13/2024						
1,1,1,2-Tetrachloroethane	ND	0.40	ug/L							
1,1,1-Trichloroethane	ND	1.00	ug/L							
1,1,2,2-Tetrachloroethane	ND	0.40	ug/L							
1,1,2-Trichloroethane	ND	1.00	ug/L							
1,1-Dichloroethane	ND	1.00	ug/L							
1,1-Dichloroethylene	ND	1.00	ug/L							
1,1-Dichloropropene	ND	1.00	ug/L							
1,2,3-Trichlorobenzene	ND	1.00	ug/L							
1,2,3-Trichloropropane	ND	1.00	ug/L							
1,2,4-Trichlorobenzene	ND	1.00	ug/L							
1,2,4-Trimethylbenzene	ND	1.00	ug/L							
1,2-Dibromo-3-chloropropane (DBCP)	ND	1.00	ug/L							
1,2-Dibromoethane (EDB)	ND	1.00	ug/L							
1,2-Dichlorobenzene	ND	0.50	ug/L							
1,2-Dichloroethane	ND	1.00	ug/L							
1,2-Dichloropropane	ND	0.50	ug/L							
1,3,5-Trimethylbenzene	ND	1.00	ug/L							
1,3-Dichlorobenzene	ND	1.00	ug/L							
1,3-Dichloropropane	ND	1.00	ug/L							
1,4-Dichlorobenzene	ND	1.00	ug/L							
2,2-Dichloropropane	ND	1.00	ug/L							
2-Butanone (MEK)	ND	10.0	ug/L							
2-Chlorotoluene	ND	1.00	ug/L							
2-Hexanone (MBK)	ND	5.00	ug/L							
4-Chlorotoluene	ND	1.00	ug/L							

Enthalpy Analytical
1941 Reymet Road
Richmond, Virginia 23237
(804)-358-8295 - Telephone
(804)-358-8297 - Fax

Certificate of Analysis

Client Name: SCS Engineers-Winchester
Client Site I.D.: LFG-EW Monthly Monitoring
Submitted To: Jennifer Robb

Date Issued: 9/30/2024 9:43:20AM
Work Order: 24I0652

Volatile Organic Compounds by GCMS - Quality Control

Enthalpy Analytical

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch BHI0533 - SW5030B-MS										
Blank (BHI0533-BLK1)				Prepared & Analyzed: 09/13/2024						
4-Isopropyltoluene	ND	1.00	ug/L							
4-Methyl-2-pentanone (MIBK)	ND	5.00	ug/L							
Acetone	ND	10.0	ug/L							
Benzene	ND	1.00	ug/L							
Bromobenzene	ND	1.00	ug/L							
Bromochloromethane	ND	1.00	ug/L							
Bromodichloromethane	ND	0.50	ug/L							
Bromoform	ND	1.00	ug/L							
Bromomethane	ND	1.00	ug/L							
Carbon disulfide	ND	10.0	ug/L							
Carbon tetrachloride	ND	1.00	ug/L							
Chlorobenzene	ND	1.00	ug/L							
Chloroethane	ND	1.00	ug/L							
Chloroform	ND	0.50	ug/L							
Chloromethane	ND	1.00	ug/L							
cis-1,2-Dichloroethylene	ND	1.00	ug/L							
cis-1,3-Dichloropropene	ND	1.00	ug/L							
Dibromochloromethane	ND	0.50	ug/L							
Dibromomethane	ND	1.00	ug/L							
Dichlorodifluoromethane	ND	1.00	ug/L							
Di-isopropyl ether (DIPE)	ND	5.00	ug/L							
Ethylbenzene	ND	1.00	ug/L							
Hexachlorobutadiene	ND	0.80	ug/L							
Iodomethane	ND	10.0	ug/L							
Isopropylbenzene	ND	1.00	ug/L							

Enthalpy Analytical
1941 Reymet Road
Richmond, Virginia 23237
(804)-358-8295 - Telephone
(804)-358-8297 - Fax

Certificate of Analysis

Client Name: SCS Engineers-Winchester
Client Site I.D.: LFG-EW Monthly Monitoring
Submitted To: Jennifer Robb

Date Issued: 9/30/2024 9:43:20AM
Work Order: 24I0652

Volatile Organic Compounds by GCMS - Quality Control

Enthalpy Analytical

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch BHI0533 - SW5030B-MS										
Blank (BHI0533-BLK1)				Prepared & Analyzed: 09/13/2024						
m+p-Xylenes	ND	2.00	ug/L							
Methylene chloride	ND	4.00	ug/L							
Methyl-t-butyl ether (MTBE)	ND	1.00	ug/L							
Naphthalene	ND	1.00	ug/L							
n-Butylbenzene	ND	1.00	ug/L							
n-Propylbenzene	ND	1.00	ug/L							
o-Xylene	ND	1.00	ug/L							
sec-Butylbenzene	ND	1.00	ug/L							
Styrene	ND	1.00	ug/L							
tert-Butylbenzene	ND	1.00	ug/L							
Tetrachloroethylene (PCE)	ND	1.00	ug/L							
Toluene	ND	1.00	ug/L							
trans-1,2-Dichloroethylene	ND	1.00	ug/L							
trans-1,3-Dichloropropene	ND	1.00	ug/L							
Trichloroethylene	ND	1.00	ug/L							
Trichlorofluoromethane	ND	1.00	ug/L							
Vinyl acetate	ND	10.0	ug/L							
Vinyl chloride	ND	0.50	ug/L							
Xylenes, Total	ND	3.00	ug/L							
Surr: 1,2-Dichloroethane-d4 (Surr)	*45.4*		ug/L	*50.0*		*90.8*	*70-120*			
Surr: 4-Bromofluorobenzene (Surr)	*50.4*		ug/L	*50.0*		*101*	*75-120*			
Surr: Dibromofluoromethane (Surr)	*46.0*		ug/L	*50.0*		*92.1*	*70-130*			
Surr: Toluene-d8 (Surr)	*49.9*		ug/L	*50.0*		*99.9*	*70-130*			
LCS (BHI0533-BS1)				Prepared & Analyzed: 09/13/2024						

Enthalpy Analytical
1941 Reymet Road
Richmond, Virginia 23237
(804)-358-8295 - Telephone
(804)-358-8297 - Fax

Certificate of Analysis

Client Name: SCS Engineers-Winchester
Client Site I.D.: LFG-EW Monthly Monitoring
Submitted To: Jennifer Robb

Date Issued: 9/30/2024 9:43:20AM
Work Order: 24I0652

Volatile Organic Compounds by GCMS - Quality Control

Enthalpy Analytical

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch BHI0533 - SW5030B-MS										
LCS (BHI0533-BS1)				Prepared & Analyzed: 09/13/2024						
1,1,1,2-Tetrachloroethane	49.4	0.4	ug/L	50.0		98.7	80-130			
1,1,1-Trichloroethane	46.2	1	ug/L	50.0		92.3	65-130			
1,1,2,2-Tetrachloroethane	53.1	0.4	ug/L	50.0		106	65-130			
1,1,2-Trichloroethane	53.7	1	ug/L	50.0		107	75-125			
1,1-Dichloroethane	50.8	1	ug/L	50.0		102	70-135			
1,1-Dichloroethylene	39.5	1	ug/L	50.0		78.9	70-130			
1,1-Dichloropropene	52.1	1	ug/L	50.0		104	75-135			
1,2,3-Trichlorobenzene	54.0	1	ug/L	50.0		108	55-140			
1,2,3-Trichloropropane	47.9	1	ug/L	50.0		95.8	75-125			
1,2,4-Trichlorobenzene	53.3	1	ug/L	50.0		107	65-135			
1,2,4-Trimethylbenzene	52.4	1	ug/L	50.0		105	75-130			
1,2-Dibromo-3-chloropropane (DBCP)	46.6	1	ug/L	50.0		93.1	50-130			
1,2-Dibromoethane (EDB)	51.2	1	ug/L	50.0		102	80-120			
1,2-Dichlorobenzene	53.6	0.5	ug/L	50.0		107	70-120			
1,2-Dichloroethane	47.4	1	ug/L	50.0		94.9	70-130			
1,2-Dichloropropane	53.2	0.5	ug/L	50.0		106	75-125			
1,3,5-Trimethylbenzene	52.6	1	ug/L	50.0		105	75-125			
1,3-Dichlorobenzene	53.1	1	ug/L	50.0		106	75-125			
1,3-Dichloropropane	51.8	1	ug/L	50.0		104	75-125			
1,4-Dichlorobenzene	52.8	1	ug/L	50.0		106	75-125			
2,2-Dichloropropane	47.2	1	ug/L	50.0		94.3	70-135			
2-Butanone (MEK)	41.4	10	ug/L	50.0		82.8	30-150			
2-Chlorotoluene	50.3	1	ug/L	50.0		101	75-125			
2-Hexanone (MBK)	51.0	5	ug/L	50.0		102	55-130			
4-Chlorotoluene	51.4	1	ug/L	50.0		103	75-130			

Enthalpy Analytical
1941 Reymet Road
Richmond, Virginia 23237
(804)-358-8295 - Telephone
(804)-358-8297 - Fax

Certificate of Analysis

Client Name: SCS Engineers-Winchester
Client Site I.D.: LFG-EW Monthly Monitoring
Submitted To: Jennifer Robb

Date Issued: 9/30/2024 9:43:20AM
Work Order: 24I0652

Volatile Organic Compounds by GCMS - Quality Control

Enthalpy Analytical

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch BHI0533 - SW5030B-MS										
LCS (BHI0533-BS1)				Prepared & Analyzed: 09/13/2024						
4-Isopropyltoluene	54.9	1	ug/L	50.0		110	75-130			
4-Methyl-2-pentanone (MIBK)	52.0	5	ug/L	50.0		104	60-135			
Acetone	38.4	10	ug/L	50.0		76.8	40-140			
Benzene	51.6	1	ug/L	50.0		103	80-120			
Bromobenzene	46.9	1	ug/L	50.0		93.8	75-125			
Bromochloromethane	45.2	1	ug/L	50.0		90.5	65-130			
Bromodichloromethane	48.8	0.5	ug/L	50.0		97.6	75-120			
Bromoform	51.1	1	ug/L	50.0		102	70-130			
Bromomethane	33.7	1	ug/L	50.0		67.5	30-145			
Carbon disulfide	40.3	10	ug/L	50.0		80.6	35-160			
Carbon tetrachloride	50.6	1	ug/L	50.0		101	65-140			
Chlorobenzene	51.5	1	ug/L	50.0		103	80-120			
Chloroethane	39.9	1	ug/L	50.0		79.9	60-135			
Chloroform	49.4	0.5	ug/L	50.0		98.8	65-135			
Chloromethane	58.3	1	ug/L	50.0		117	40-125			
cis-1,2-Dichloroethylene	45.5	1	ug/L	50.0		91.0	70-125			
cis-1,3-Dichloropropene	48.9	1	ug/L	50.0		97.8	70-130			
Dibromochloromethane	48.1	0.5	ug/L	50.0		96.2	60-135			
Dibromomethane	52.0	1	ug/L	50.0		104	75-125			
Dichlorodifluoromethane	67.5	1	ug/L	50.0		135	30-155			
Ethylbenzene	50.7	1	ug/L	50.0		101	75-125			
Hexachlorobutadiene	51.2	0.8	ug/L	50.0		102	50-140			
Isopropylbenzene	45.1	1	ug/L	50.0		90.2	75-125			
m+p-Xylenes	98.0	2	ug/L	100		98.0	75-130			
Methylene chloride	40.7	4	ug/L	50.0		81.3	55-140			

Enthalpy Analytical
1941 Reymet Road
Richmond, Virginia 23237
(804)-358-8295 - Telephone
(804)-358-8297 - Fax

Certificate of Analysis

Client Name: SCS Engineers-Winchester
Client Site I.D.: LFG-EW Monthly Monitoring
Submitted To: Jennifer Robb

Date Issued: 9/30/2024 9:43:20AM
Work Order: 24I0652

Volatile Organic Compounds by GCMS - Quality Control

Enthalpy Analytical

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch BHI0533 - SW5030B-MS										
LCS (BHI0533-BS1)				Prepared & Analyzed: 09/13/2024						
Methyl-t-butyl ether (MTBE)	45.6	1	ug/L	50.0		91.1	65-125			
Naphthalene	54.2	1	ug/L	50.0		108	55-140			
n-Butylbenzene	56.3	1	ug/L	50.0		113	70-135			
n-Propylbenzene	49.8	1	ug/L	50.0		99.7	70-130			
o-Xylene	48.1	1	ug/L	50.0		96.2	80-120			
sec-Butylbenzene	56.0	1	ug/L	50.0		112	70-125			
Styrene	47.5	1	ug/L	50.0		95.0	65-135			
tert-Butylbenzene	51.4	1	ug/L	50.0		103	70-130			
Tetrachloroethylene (PCE)	44.3	1	ug/L	50.0		88.5	45-150			
Toluene	50.6	1	ug/L	50.0		101	75-120			
trans-1,2-Dichloroethylene	43.7	1	ug/L	50.0		87.4	60-140			
trans-1,3-Dichloropropene	52.2	1	ug/L	50.0		104	55-140			
Trichloroethylene	50.7	1	ug/L	50.0		101	70-125			
Trichlorofluoromethane	50.1	1	ug/L	50.0		100	60-145			
Vinyl chloride	54.7	0.5	ug/L	50.0		109	50-145			
Surr: 1,2-Dichloroethane-d4 (Surr)	*45.5*		ug/L	*50.0*		*91.0*	*70-120*			
Surr: 4-Bromofluorobenzene (Surr)	*50.0*		ug/L	*50.0*		*100*	*75-120*			
Surr: Dibromofluoromethane (Surr)	*46.5*		ug/L	*50.0*		*93.0*	*70-130*			
Surr: Toluene-d8 (Surr)	*50.0*		ug/L	*50.0*		*99.9*	*70-130*			
LCS (BHI0533-BS2)				Prepared & Analyzed: 09/13/2024						
1,1,1,2-Tetrachloroethane	50.2	0.4	ug/L	50.0		100	80-130			
1,1,1-Trichloroethane	47.3	1	ug/L	50.0		94.6	65-130			
1,1,2,2-Tetrachloroethane	56.2	0.4	ug/L	50.0		112	65-130			
1,1,2-Trichloroethane	55.7	1	ug/L	50.0		111	75-125			

Enthalpy Analytical
1941 Reymet Road
Richmond, Virginia 23237
(804)-358-8295 - Telephone
(804)-358-8297 - Fax

Certificate of Analysis

Client Name: SCS Engineers-Winchester
Client Site I.D.: LFG-EW Monthly Monitoring
Submitted To: Jennifer Robb

Date Issued: 9/30/2024 9:43:20AM
Work Order: 24I0652

Volatile Organic Compounds by GCMS - Quality Control

Enthalpy Analytical

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch BHI0533 - SW5030B-MS										
LCS (BHI0533-BS2)				Prepared & Analyzed: 09/13/2024						
1,1-Dichloroethane	52.4	1	ug/L	50.0		105	70-135			
1,1-Dichloroethylene	43.6	1	ug/L	50.0		87.1	70-130			
1,1-Dichloropropene	53.9	1	ug/L	50.0		108	75-135			
1,2,3-Trichlorobenzene	57.6	1	ug/L	50.0		115	55-140			
1,2,3-Trichloropropane	50.0	1	ug/L	50.0		99.9	75-125			
1,2,4-Trichlorobenzene	57.3	1	ug/L	50.0		115	65-135			
1,2,4-Trimethylbenzene	55.8	1	ug/L	50.0		112	75-130			
1,2-Dibromo-3-chloropropane (DBCP)	50.5	1	ug/L	50.0		101	50-130			
1,2-Dibromoethane (EDB)	52.9	1	ug/L	50.0		106	80-120			
1,2-Dichlorobenzene	56.6	0.5	ug/L	50.0		113	70-120			
1,2-Dichloroethane	49.1	1	ug/L	50.0		98.3	70-130			
1,2-Dichloropropane	55.2	0.5	ug/L	50.0		110	75-125			
1,3,5-Trimethylbenzene	56.1	1	ug/L	50.0		112	75-125			
1,3-Dichlorobenzene	56.2	1	ug/L	50.0		112	75-125			
1,3-Dichloropropane	54.3	1	ug/L	50.0		109	75-125			
1,4-Dichlorobenzene	55.3	1	ug/L	50.0		111	75-125			
2,2-Dichloropropane	48.8	1	ug/L	50.0		97.7	70-135			
2-Butanone (MEK)	40.4	10	ug/L	50.0		80.9	30-150			
2-Chlorotoluene	52.6	1	ug/L	50.0		105	75-125			
2-Hexanone (MBK)	49.7	5	ug/L	50.0		99.4	55-130			
4-Chlorotoluene	54.2	1	ug/L	50.0		108	75-130			
4-Isopropyltoluene	57.6	1	ug/L	50.0		115	75-130			
4-Methyl-2-pentanone (MIBK)	50.6	5	ug/L	50.0		101	60-135			
Acetone	39.6	10	ug/L	50.0		79.2	40-140			
Benzene	53.4	1	ug/L	50.0		107	80-120			

Enthalpy Analytical
1941 Reymet Road
Richmond, Virginia 23237
(804)-358-8295 - Telephone
(804)-358-8297 - Fax

Certificate of Analysis

Client Name: SCS Engineers-Winchester
Client Site I.D.: LFG-EW Monthly Monitoring
Submitted To: Jennifer Robb

Date Issued: 9/30/2024 9:43:20AM
Work Order: 24I0652

Volatile Organic Compounds by GCMS - Quality Control

Enthalpy Analytical

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch BHI0533 - SW5030B-MS										
LCS (BHI0533-BS2)				Prepared & Analyzed: 09/13/2024						
Bromobenzene	48.9	1	ug/L	50.0		97.8	75-125			
Bromochloromethane	47.9	1	ug/L	50.0		95.8	65-130			
Bromodichloromethane	51.0	0.5	ug/L	50.0		102	75-120			
Bromoform	53.2	1	ug/L	50.0		106	70-130			
Bromomethane	50.6	1	ug/L	50.0		101	30-145			
Carbon disulfide	34.4	10	ug/L	50.0		68.7	35-160			
Carbon tetrachloride	52.7	1	ug/L	50.0		105	65-140			
Chlorobenzene	53.3	1	ug/L	50.0		107	80-120			
Chloroethane	42.3	1	ug/L	50.0		84.7	60-135			
Chloroform	51.4	0.5	ug/L	50.0		103	65-135			
Chloromethane	60.6	1	ug/L	50.0		121	40-125			
cis-1,2-Dichloroethylene	46.8	1	ug/L	50.0		93.6	70-125			
cis-1,3-Dichloropropene	50.9	1	ug/L	50.0		102	70-130			
Dibromochloromethane	50.1	0.5	ug/L	50.0		100	60-135			
Dibromomethane	53.7	1	ug/L	50.0		107	75-125			
Dichlorodifluoromethane	74.6	1	ug/L	50.0		149	30-155			
Ethylbenzene	52.8	1	ug/L	50.0		106	75-125			
Hexachlorobutadiene	54.7	0.8	ug/L	50.0		109	50-140			
Isopropylbenzene	47.0	1	ug/L	50.0		93.9	75-125			
m+p-Xylenes	101	2	ug/L	100		101	75-130			
Methylene chloride	44.6	4	ug/L	50.0		89.3	55-140			
Methyl-t-butyl ether (MTBE)	47.4	1	ug/L	50.0		94.8	65-125			
Naphthalene	58.2	1	ug/L	50.0		116	55-140			
n-Butylbenzene	59.6	1	ug/L	50.0		119	70-135			
n-Propylbenzene	52.5	1	ug/L	50.0		105	70-130			

Enthalpy Analytical
1941 Reymet Road
Richmond, Virginia 23237
(804)-358-8295 - Telephone
(804)-358-8297 - Fax

Certificate of Analysis

Client Name: SCS Engineers-Winchester
Client Site I.D.: LFG-EW Monthly Monitoring
Submitted To: Jennifer Robb

Date Issued: 9/30/2024 9:43:20AM
Work Order: 24I0652

Volatile Organic Compounds by GCMS - Quality Control

Enthalpy Analytical

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch BHI0533 - SW5030B-MS										
LCS (BHI0533-BS2)				Prepared & Analyzed: 09/13/2024						
o-Xylene	48.9	1	ug/L	50.0		97.8	80-120			
sec-Butylbenzene	59.4	1	ug/L	50.0		119	70-125			
Styrene	49.3	1	ug/L	50.0		98.6	65-135			
tert-Butylbenzene	54.2	1	ug/L	50.0		108	70-130			
Tetrachloroethylene (PCE)	43.0	1	ug/L	50.0		86.0	45-150			
Toluene	52.9	1	ug/L	50.0		106	75-120			
trans-1,2-Dichloroethylene	45.2	1	ug/L	50.0		90.3	60-140			
trans-1,3-Dichloropropene	54.8	1	ug/L	50.0		110	55-140			
Trichloroethylene	53.3	1	ug/L	50.0		107	70-125			
Trichlorofluoromethane	52.3	1	ug/L	50.0		105	60-145			
Vinyl chloride	56.6	0.5	ug/L	50.0		113	50-145			
Surr: 1,2-Dichloroethane-d4 (Surr)	*45.7*		ug/L	*50.0*		*91.4*	*70-120*			
Surr: 4-Bromofluorobenzene (Surr)	*50.0*		ug/L	*50.0*		*99.9*	*75-120*			
Surr: Dibromofluoromethane (Surr)	*46.2*		ug/L	*50.0*		*92.4*	*70-130*			
Surr: Toluene-d8 (Surr)	*49.6*		ug/L	*50.0*		*99.2*	*70-130*			
Matrix Spike (BHI0533-MS1)	**Source: 24I0535-01**			Prepared & Analyzed: 09/13/2024						
1,1,1,2-Tetrachloroethane	45.0	0.4	ug/L	50.0	BLOD	90.1	80-130			
1,1,1-Trichloroethane	42.4	1	ug/L	50.0	BLOD	84.9	65-130			
1,1,2,2-Tetrachloroethane	50.7	0.4	ug/L	50.0	BLOD	101	65-130			
1,1,2-Trichloroethane	50.7	1	ug/L	50.0	BLOD	101	75-125			
1,1-Dichloroethane	48.2	1	ug/L	50.0	BLOD	96.3	70-135			
1,1-Dichloroethylene	36.9	1	ug/L	50.0	BLOD	73.9	50-145			
1,1-Dichloropropene	49.1	1	ug/L	50.0	BLOD	98.2	75-135			
1,2,3-Trichlorobenzene	50.5	1	ug/L	50.0	BLOD	101	55-140			

Enthalpy Analytical
1941 Reymet Road
Richmond, Virginia 23237
(804)-358-8295 - Telephone
(804)-358-8297 - Fax

Certificate of Analysis

Client Name: SCS Engineers-Winchester
Client Site I.D.: LFG-EW Monthly Monitoring
Submitted To: Jennifer Robb

Date Issued: 9/30/2024 9:43:20AM
Work Order: 24I0652

Volatile Organic Compounds by GCMS - Quality Control

Enthalpy Analytical

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch BHI0533 - SW5030B-MS										
Matrix Spike (BHI0533-MS1)	**Source: 24I0535-01**			Prepared & Analyzed: 09/13/2024						
1,2,3-Trichloropropane	45.4	1	ug/L	50.0	BLOD	90.9	75-125			
1,2,4-Trichlorobenzene	49.7	1	ug/L	50.0	BLOD	99.4	65-135			
1,2,4-Trimethylbenzene	49.6	1	ug/L	50.0	BLOD	99.3	75-130			
1,2-Dibromo-3-chloropropane (DBCP)	44.7	1	ug/L	50.0	BLOD	89.5	50-130			
1,2-Dibromoethane (EDB)	48.1	1	ug/L	50.0	BLOD	96.2	80-120			
1,2-Dichlorobenzene	50.3	0.5	ug/L	50.0	BLOD	101	70-120			
1,2-Dichloroethane	45.2	1	ug/L	50.0	BLOD	90.4	70-130			
1,2-Dichloropropane	50.5	0.5	ug/L	50.0	BLOD	101	75-125			
1,3,5-Trimethylbenzene	49.1	1	ug/L	50.0	BLOD	98.2	75-124			
1,3-Dichlorobenzene	49.6	1	ug/L	50.0	BLOD	99.3	75-125			
1,3-Dichloropropane	48.9	1	ug/L	50.0	BLOD	97.8	75-125			
1,4-Dichlorobenzene	49.2	1	ug/L	50.0	BLOD	98.4	75-125			
2,2-Dichloropropane	44.4	1	ug/L	50.0	BLOD	88.8	70-135			
2-Butanone (MEK)	39.0	10	ug/L	50.0	BLOD	78.0	30-150			
2-Chlorotoluene	47.0	1	ug/L	50.0	BLOD	93.9	75-125			
2-Hexanone (MBK)	47.4	5	ug/L	50.0	BLOD	94.9	55-130			
4-Chlorotoluene	48.1	1	ug/L	50.0	BLOD	96.1	75-130			
4-Isopropyltoluene	51.7	1	ug/L	50.0	BLOD	103	75-130			
4-Methyl-2-pentanone (MIBK)	49.2	5	ug/L	50.0	BLOD	98.3	60-135			
Acetone	282	10	ug/L	50.0	BLOD	557	40-140			*M*
Benzene	48.5	1	ug/L	50.0	BLOD	96.9	80-120			
Bromobenzene	44.2	1	ug/L	50.0	BLOD	88.5	75-125			
Bromochloromethane	43.1	1	ug/L	50.0	BLOD	86.2	65-130			
Bromodichloromethane	46.7	0.5	ug/L	50.0	BLOD	93.4	75-136			
Bromoform	48.0	1	ug/L	50.0	BLOD	96.0	70-130			

Enthalpy Analytical
1941 Reymet Road
Richmond, Virginia 23237
(804)-358-8295 - Telephone
(804)-358-8297 - Fax

Certificate of Analysis

Client Name: SCS Engineers-Winchester
Client Site I.D.: LFG-EW Monthly Monitoring
Submitted To: Jennifer Robb

Date Issued: 9/30/2024 9:43:20AM
Work Order: 24I0652

Volatile Organic Compounds by GCMS - Quality Control

Enthalpy Analytical

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch BHI0533 - SW5030B-MS										
Matrix Spike (BHI0533-MS1)	**Source: 24I0535-01**			Prepared & Analyzed: 09/13/2024						
Bromomethane	47.4	1	ug/L	50.0	BLOD	94.9	30-145			
Carbon disulfide	46.4	10	ug/L	50.0	BLOD	92.2	35-160			
Carbon tetrachloride	47.7	1	ug/L	50.0	BLOD	95.4	65-140			
Chlorobenzene	48.6	1	ug/L	50.0	BLOD	97.2	80-120			
Chloroethane	38.2	1	ug/L	50.0	BLOD	76.4	60-135			
Chloroform	46.7	0.5	ug/L	50.0	BLOD	93.4	65-135			
Chloromethane	54.5	1	ug/L	50.0	BLOD	109	40-125			
cis-1,2-Dichloroethylene	43.3	1	ug/L	50.0	BLOD	86.6	70-125			
cis-1,3-Dichloropropene	46.1	1	ug/L	50.0	BLOD	92.2	47-136			
Dibromochloromethane	45.1	0.5	ug/L	50.0	BLOD	90.2	60-135			
Dibromomethane	49.2	1	ug/L	50.0	BLOD	98.4	75-125			
Dichlorodifluoromethane	96.7	1	ug/L	50.0	BLOD	193	30-155			*M*
Ethylbenzene	48.1	1	ug/L	50.0	BLOD	96.3	75-125			
Hexachlorobutadiene	48.2	0.8	ug/L	50.0	BLOD	96.4	50-140			
Isopropylbenzene	42.5	1	ug/L	50.0	BLOD	85.0	75-125			
m+p-Xylenes	91.3	2	ug/L	100	BLOD	91.3	75-130			
Methylene chloride	39.0	4	ug/L	50.0	BLOD	78.1	55-140			
Methyl-t-butyl ether (MTBE)	43.3	1	ug/L	50.0	BLOD	86.7	65-125			
Naphthalene	51.6	1	ug/L	50.0	BLOD	103	55-140			
n-Butylbenzene	52.8	1	ug/L	50.0	BLOD	106	70-135			
n-Propylbenzene	46.2	1	ug/L	50.0	BLOD	92.5	70-130			
o-Xylene	45.1	1	ug/L	50.0	BLOD	90.3	80-120			
sec-Butylbenzene	52.6	1	ug/L	50.0	BLOD	105	70-125			
Styrene	44.9	1	ug/L	50.0	BLOD	89.8	65-135			
tert-Butylbenzene	48.0	1	ug/L	50.0	BLOD	96.0	70-130			

Enthalpy Analytical
1941 Reymet Road
Richmond, Virginia 23237
(804)-358-8295 - Telephone
(804)-358-8297 - Fax

Certificate of Analysis

Client Name: SCS Engineers-Winchester
Client Site I.D.: LFG-EW Monthly Monitoring
Submitted To: Jennifer Robb

Date Issued: 9/30/2024 9:43:20AM
Work Order: 24I0652

Volatile Organic Compounds by GCMS - Quality Control

Enthalpy Analytical

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch BHI0533 - SW5030B-MS										
Matrix Spike (BHI0533-MS1)	**Source: 24I0535-01**			Prepared & Analyzed: 09/13/2024						
Tetrachloroethylene (PCE)	39.3	1	ug/L	50.0	BLOD	78.6	51-231			
Toluene	47.6	1	ug/L	50.0	BLOD	95.2	75-120			
trans-1,2-Dichloroethylene	39.1	1	ug/L	50.0	BLOD	78.3	60-140			
trans-1,3-Dichloropropene	49.7	1	ug/L	50.0	BLOD	99.5	55-140			
Trichloroethylene	47.9	1	ug/L	50.0	BLOD	95.8	70-125			
Trichlorofluoromethane	48.0	1	ug/L	50.0	BLOD	95.9	60-145			
Vinyl chloride	52.4	0.5	ug/L	50.0	BLOD	105	50-145			
Surr: 1,2-Dichloroethane-d4 (Surr)	*46.8*		ug/L	*50.0*		*93.6*	*70-120*			
Surr: 4-Bromofluorobenzene (Surr)	*50.2*		ug/L	*50.0*		*100*	*75-120*			
Surr: Dibromofluoromethane (Surr)	*47.3*		ug/L	*50.0*		*94.7*	*70-130*			
Surr: Toluene-d8 (Surr)	*50.1*		ug/L	*50.0*		*100*	*70-130*			
Matrix Spike Dup (BHI0533-MSD1)	**Source: 24I0535-01**			Prepared & Analyzed: 09/13/2024						
1,1,1,2-Tetrachloroethane	47.2	0.4	ug/L	50.0	BLOD	94.4	80-130	4.68	30	
1,1,1-Trichloroethane	44.8	1	ug/L	50.0	BLOD	89.6	65-130	5.43	30	
1,1,2,2-Tetrachloroethane	53.7	0.4	ug/L	50.0	BLOD	107	65-130	5.73	30	
1,1,2-Trichloroethane	53.5	1	ug/L	50.0	BLOD	107	75-125	5.38	30	
1,1-Dichloroethane	50.0	1	ug/L	50.0	BLOD	100	70-135	3.77	30	
1,1-Dichloroethylene	38.1	1	ug/L	50.0	BLOD	76.2	50-145	3.07	30	
1,1-Dichloropropene	50.6	1	ug/L	50.0	BLOD	101	75-135	2.91	30	
1,2,3-Trichlorobenzene	52.8	1	ug/L	50.0	BLOD	106	55-140	4.35	30	
1,2,3-Trichloropropane	48.1	1	ug/L	50.0	BLOD	96.2	75-125	5.71	30	
1,2,4-Trichlorobenzene	51.8	1	ug/L	50.0	BLOD	104	65-135	4.02	30	
1,2,4-Trimethylbenzene	52.2	1	ug/L	50.0	BLOD	104	75-130	4.93	30	
1,2-Dibromo-3-chloropropane (DBCP)	49.0	1	ug/L	50.0	BLOD	97.9	50-130	9.03	30	

Enthalpy Analytical
1941 Reymet Road
Richmond, Virginia 23237
(804)-358-8295 - Telephone
(804)-358-8297 - Fax

Certificate of Analysis

Client Name: SCS Engineers-Winchester
Client Site I.D.: LFG-EW Monthly Monitoring
Submitted To: Jennifer Robb

Date Issued: 9/30/2024 9:43:20AM
Work Order: 24I0652

Volatile Organic Compounds by GCMS - Quality Control

Enthalpy Analytical

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch BHI0533 - SW5030B-MS										
Matrix Spike Dup (BHI0533-MSD1)	**Source: 24I0535-01**			Prepared & Analyzed: 09/13/2024						
1,2-Dibromoethane (EDB)	50.1	1	ug/L	50.0	BLOD	100	80-120	4.15	30	
1,2-Dichlorobenzene	52.8	0.5	ug/L	50.0	BLOD	106	70-120	4.75	30	
1,2-Dichloroethane	46.7	1	ug/L	50.0	BLOD	93.4	70-130	3.29	30	
1,2-Dichloropropane	52.5	0.5	ug/L	50.0	BLOD	105	75-125	3.83	30	
1,3,5-Trimethylbenzene	51.6	1	ug/L	50.0	BLOD	103	75-124	5.06	30	
1,3-Dichlorobenzene	52.5	1	ug/L	50.0	BLOD	105	75-125	5.64	30	
1,3-Dichloropropane	51.3	1	ug/L	50.0	BLOD	103	75-125	4.75	30	
1,4-Dichlorobenzene	51.7	1	ug/L	50.0	BLOD	103	75-125	4.95	30	
2,2-Dichloropropane	45.3	1	ug/L	50.0	BLOD	90.6	70-135	2.05	30	
2-Butanone (MEK)	44.0	10	ug/L	50.0	BLOD	88.0	30-150	12.0	30	
2-Chlorotoluene	49.1	1	ug/L	50.0	BLOD	98.2	75-125	4.45	30	
2-Hexanone (MBK)	52.3	5	ug/L	50.0	BLOD	105	55-130	9.71	30	
4-Chlorotoluene	49.8	1	ug/L	50.0	BLOD	99.7	75-130	3.62	30	
4-Isopropyltoluene	53.8	1	ug/L	50.0	BLOD	108	75-130	3.89	30	
4-Methyl-2-pentanone (MIBK)	54.3	5	ug/L	50.0	BLOD	109	60-135	9.92	30	
Acetone	48.1	10	ug/L	50.0	BLOD	88.0	40-140	142	30	*P*
Benzene	50.5	1	ug/L	50.0	BLOD	101	80-120	4.10	30	
Bromobenzene	45.7	1	ug/L	50.0	BLOD	91.4	75-125	3.31	30	
Bromochloromethane	43.9	1	ug/L	50.0	BLOD	87.8	65-130	1.91	30	
Bromodichloromethane	48.9	0.5	ug/L	50.0	BLOD	97.8	75-136	4.64	30	
Bromoform	50.4	1	ug/L	50.0	BLOD	101	70-130	4.96	30	
Bromomethane	48.2	1	ug/L	50.0	BLOD	96.3	30-145	1.51	30	
Carbon disulfide	40.9	10	ug/L	50.0	BLOD	81.2	35-160	12.6	30	
Carbon tetrachloride	49.3	1	ug/L	50.0	BLOD	98.6	65-140	3.30	30	
Chlorobenzene	49.8	1	ug/L	50.0	BLOD	99.6	80-120	2.44	30	

Enthalpy Analytical
1941 Reymet Road
Richmond, Virginia 23237
(804)-358-8295 - Telephone
(804)-358-8297 - Fax

Certificate of Analysis

Client Name: SCS Engineers-Winchester
Client Site I.D.: LFG-EW Monthly Monitoring
Submitted To: Jennifer Robb

Date Issued: 9/30/2024 9:43:20AM
Work Order: 24I0652

Volatile Organic Compounds by GCMS - Quality Control

Enthalpy Analytical

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch BHI0533 - SW5030B-MS										
Matrix Spike Dup (BHI0533-MSD1)	**Source: 24I0535-01**			Prepared & Analyzed: 09/13/2024						
Chloroethane	39.4	1	ug/L	50.0	BLOD	78.9	60-135	3.22	30	
Chloroform	47.8	0.5	ug/L	50.0	BLOD	95.7	65-135	2.43	30	
Chloromethane	56.3	1	ug/L	50.0	BLOD	113	40-125	3.18	30	
cis-1,2-Dichloroethylene	43.4	1	ug/L	50.0	BLOD	86.9	70-125	0.277	30	
cis-1,3-Dichloropropene	47.3	1	ug/L	50.0	BLOD	94.5	47-136	2.48	30	
Dibromochloromethane	47.1	0.5	ug/L	50.0	BLOD	94.1	60-135	4.23	30	
Dibromomethane	51.2	1	ug/L	50.0	BLOD	102	75-125	3.95	30	
Dichlorodifluoromethane	69.6	1	ug/L	50.0	BLOD	139	30-155	32.5	30	*P*
Ethylbenzene	49.1	1	ug/L	50.0	BLOD	98.2	75-125	1.99	30	
Hexachlorobutadiene	50.1	0.8	ug/L	50.0	BLOD	100	50-140	3.88	30	
Isopropylbenzene	43.3	1	ug/L	50.0	BLOD	86.6	75-125	1.89	30	
m+p-Xylenes	94.8	2	ug/L	100	BLOD	94.8	75-130	3.69	30	
Methylene chloride	40.7	4	ug/L	50.0	BLOD	81.3	55-140	4.09	30	
Methyl-t-butyl ether (MTBE)	45.8	1	ug/L	50.0	BLOD	91.7	65-125	5.65	30	
Naphthalene	55.7	1	ug/L	50.0	BLOD	111	55-140	7.60	30	
n-Butylbenzene	54.9	1	ug/L	50.0	BLOD	110	70-135	3.96	30	
n-Propylbenzene	48.9	1	ug/L	50.0	BLOD	97.7	70-130	5.51	30	
o-Xylene	46.1	1	ug/L	50.0	BLOD	92.2	80-120	2.10	30	
sec-Butylbenzene	54.6	1	ug/L	50.0	BLOD	109	70-125	3.82	30	
Styrene	45.9	1	ug/L	50.0	BLOD	91.7	65-135	2.16	30	
tert-Butylbenzene	51.0	1	ug/L	50.0	BLOD	102	70-130	5.96	30	
Tetrachloroethylene (PCE)	40.3	1	ug/L	50.0	BLOD	80.6	51-231	2.51	30	
Toluene	49.8	1	ug/L	50.0	BLOD	99.7	75-120	4.54	30	
trans-1,2-Dichloroethylene	42.6	1	ug/L	50.0	BLOD	85.1	60-140	8.37	30	
trans-1,3-Dichloropropene	51.7	1	ug/L	50.0	BLOD	103	55-140	3.81	30	

Enthalpy Analytical
1941 Reymet Road
Richmond, Virginia 23237
(804)-358-8295 - Telephone
(804)-358-8297 - Fax

Certificate of Analysis

Client Name: SCS Engineers-Winchester
Client Site I.D.: LFG-EW Monthly Monitoring
Submitted To: Jennifer Robb

Date Issued: 9/30/2024 9:43:20AM
Work Order: 24I0652

Volatile Organic Compounds by GCMS - Quality Control

Enthalpy Analytical

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch BHI0533 - SW5030B-MS										
Matrix Spike Dup (BHI0533-MSD1)	**Source: 24I0535-01**			Prepared & Analyzed: 09/13/2024						
Trichloroethylene	49.9	1	ug/L	50.0	BLOD	99.8	70-125	4.15	30	
Trichlorofluoromethane	49.2	1	ug/L	50.0	BLOD	98.4	60-145	2.51	30	
Vinyl chloride	53.1	0.5	ug/L	50.0	BLOD	106	50-145	1.37	30	
Surr: 1,2-Dichloroethane-d4 (Surr)	*45.8*		ug/L	*50.0*		*91.5*	*70-120*			
Surr: 4-Bromofluorobenzene (Surr)	*49.2*		ug/L	*50.0*		*98.4*	*75-120*			
Surr: Dibromofluoromethane (Surr)	*46.1*		ug/L	*50.0*		*92.2*	*70-130*			
Surr: Toluene-d8 (Surr)	*49.7*		ug/L	*50.0*		*99.4*	*70-130*			

Enthalpy Analytical
1941 Reymet Road
Richmond, Virginia 23237
(804)-358-8295 - Telephone
(804)-358-8297 - Fax

Certificate of Analysis

Client Name: SCS Engineers-Winchester
Client Site I.D.: LFG-EW Monthly Monitoring
Submitted To: Jennifer Robb

Date Issued: 9/30/2024 9:43:20AM
Work Order: 24I0652

Semivolatile Organic Compounds by GCMS - Quality Control

Enthalpy Analytical

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch BHI0573 - SW3510C/EPA600-MS										
Blank (BHI0573-BLK1)				Prepared & Analyzed: 09/16/2024						
1,2,4,5-Tetrachlorobenzene	ND	10.0	ug/L							
1,2,4-Trichlorobenzene	ND	10.0	ug/L							
1,2-Dichlorobenzene	ND	10.0	ug/L							
1,2-Diphenylhydrazine	ND	10.0	ug/L							
1,3-Dichlorobenzene	ND	10.0	ug/L							
1,3-Dinitrobenzene	ND	2.50	ug/L							
1,4-Dichlorobenzene	ND	10.0	ug/L							
1-Naphthylamine	ND	10.0	ug/L							
2,3,4,6-Tetrachlorophenol	ND	10.0	ug/L							
2,4,5-Trichlorophenol	ND	10.0	ug/L							
2,4,6-Trichlorophenol	ND	10.0	ug/L							
2,4-Dichlorophenol	ND	10.0	ug/L							
2,4-Dimethylphenol	ND	5.00	ug/L							
2,4-Dinitrophenol	ND	50.0	ug/L							
2,4-Dinitrotoluene	ND	10.0	ug/L							
2,6-Dichlorophenol	ND	10.0	ug/L							
2,6-Dinitrotoluene	ND	10.0	ug/L							
2-Chloronaphthalene	ND	10.0	ug/L							
2-Chlorophenol	ND	10.0	ug/L							
2-Methylnaphthalene	ND	10.0	ug/L							
2-Naphthylamine	ND	10.0	ug/L							
2-Nitroaniline	ND	20.0	ug/L							
2-Nitrophenol	ND	10.0	ug/L							
3,3'-Dichlorobenzidine	ND	10.0	ug/L							
3-Methylcholanthrene	ND	10.0	ug/L							

Enthalpy Analytical
1941 Reymet Road
Richmond, Virginia 23237
(804)-358-8295 - Telephone
(804)-358-8297 - Fax

Certificate of Analysis

Client Name: SCS Engineers-Winchester
Client Site I.D.: LFG-EW Monthly Monitoring
Submitted To: Jennifer Robb

Date Issued: 9/30/2024 9:43:20AM
Work Order: 24I0652

Semivolatile Organic Compounds by GCMS - Quality Control

Enthalpy Analytical

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch BHI0573 - SW3510C/EPA600-MS										
Blank (BHI0573-BLK1)				Prepared & Analyzed: 09/16/2024						
3-Nitroaniline	ND	20.0	ug/L							
4,6-Dinitro-2-methylphenol	ND	50.0	ug/L							
4-Aminobiphenyl	ND	10.0	ug/L							
4-Bromophenyl phenyl ether	ND	10.0	ug/L							
4-Chloroaniline	ND	10.0	ug/L							
4-Chlorophenyl phenyl ether	ND	10.0	ug/L							
4-Nitroaniline	ND	20.0	ug/L							
4-Nitrophenol	ND	50.0	ug/L							
7,12-Dimethylbenz (a) anthracene	ND	10.0	ug/L							
Acenaphthene	ND	10.0	ug/L							
Acenaphthylene	ND	10.0	ug/L							
Acetophenone	ND	20.0	ug/L							
Aniline	ND	50.0	ug/L							
Anthracene	ND	10.0	ug/L							
Benzidine	ND	50.0	ug/L							
Benzo (a) anthracene	ND	10.0	ug/L							
Benzo (a) pyrene	ND	10.0	ug/L							
Benzo (b) fluoranthene	ND	10.0	ug/L							
Benzo (g,h,i) perylene	ND	10.0	ug/L							
Benzo (k) fluoranthene	ND	10.0	ug/L							
Benzoic acid	ND	50.0	ug/L							
Benzyl alcohol	ND	20.0	ug/L							
bis (2-Chloroethoxy) methane	ND	10.0	ug/L							
bis (2-Chloroethyl) ether	ND	10.0	ug/L							
2,2'-Oxybis (1-chloropropane)	ND	10.0	ug/L							

Enthalpy Analytical
1941 Reymet Road
Richmond, Virginia 23237
(804)-358-8295 - Telephone
(804)-358-8297 - Fax

Certificate of Analysis

Client Name: SCS Engineers-Winchester
Client Site I.D.: LFG-EW Monthly Monitoring
Submitted To: Jennifer Robb

Date Issued: 9/30/2024 9:43:20AM
Work Order: 24I0652

Semivolatile Organic Compounds by GCMS - Quality Control

Enthalpy Analytical

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch BHI0573 - SW3510C/EPA600-MS										
Blank (BHI0573-BLK1)				Prepared & Analyzed: 09/16/2024						
bis (2-Ethylhexyl) phthalate	ND	10.0	ug/L							
Butyl benzyl phthalate	ND	10.0	ug/L							
Chrysene	ND	10.0	ug/L							
Dibenz (a,h) anthracene	ND	10.0	ug/L							
Dibenz (a,j) acridine	ND	10.0	ug/L							
Dibenzofuran	ND	5.00	ug/L							
Diethyl phthalate	ND	10.0	ug/L							
Dimethyl phthalate	ND	10.0	ug/L							
Di-n-butyl phthalate	ND	10.0	ug/L							
Di-n-octyl phthalate	ND	10.0	ug/L							
Diphenylamine	ND	10.0	ug/L							
Ethyl methanesulfonate	ND	20.0	ug/L							
Fluoranthene	ND	10.0	ug/L							
Fluorene	ND	10.0	ug/L							
Hexachlorobenzene	ND	1.00	ug/L							
Hexachlorobutadiene	ND	10.0	ug/L							
Hexachlorocyclopentadiene	ND	10.0	ug/L							
Hexachloroethane	ND	10.0	ug/L							
Indeno (1,2,3-cd) pyrene	ND	10.0	ug/L							
Isophorone	ND	10.0	ug/L							
m+p-Cresols	ND	10.0	ug/L							
Methyl methanesulfonate	ND	10.0	ug/L							
Naphthalene	ND	5.00	ug/L							
Nitrobenzene	ND	10.0	ug/L							
n-Nitrosodimethylamine	ND	10.0	ug/L							

Enthalpy Analytical
1941 Reymet Road
Richmond, Virginia 23237
(804)-358-8295 - Telephone
(804)-358-8297 - Fax

Certificate of Analysis

Client Name: SCS Engineers-Winchester
Client Site I.D.: LFG-EW Monthly Monitoring
Submitted To: Jennifer Robb

Date Issued: 9/30/2024 9:43:20AM
Work Order: 24I0652

Semivolatile Organic Compounds by GCMS - Quality Control

Enthalpy Analytical

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch BHI0573 - SW3510C/EPA600-MS										
Blank (BHI0573-BLK1)				Prepared & Analyzed: 09/16/2024						
n-Nitrosodi-n-butylamine	ND	10.0	ug/L							
n-Nitrosodi-n-propylamine	ND	10.0	ug/L							
n-Nitrosodiphenylamine	ND	10.0	ug/L							
n-Nitrosopiperidine	ND	10.0	ug/L							
o+m+p-Cresols	ND	10.0	ug/L							
o-Cresol	ND	10.0	ug/L							
p-(Dimethylamino) azobenzene	ND	2.50	ug/L							
p-Chloro-m-cresol	ND	10.0	ug/L							
Pentachloronitrobenzene (quintozene)	ND	10.0	ug/L							
Pentachlorophenol	ND	20.0	ug/L							
Phenacetin	ND	10.0	ug/L							
Phenanthrene	8.59	10.0	ug/L							*B*
Phenol	ND	10.0	ug/L							
Pronamide	ND	10.0	ug/L							
Pyrene	ND	10.0	ug/L							
Pyridine	ND	10.0	ug/L							
Surr: 2,4,6-Tribromophenol (Surr)	*75.1*		ug/L	*100*		*75.1*	*5-136*			
Surr: 2-Fluorobiphenyl (Surr)	*29.4*		ug/L	*50.0*		*58.8*	*9-117*			
Surr: 2-Fluorophenol (Surr)	*38.4*		ug/L	*100*		*38.4*	*5-60*			
Surr: Nitrobenzene-d5 (Surr)	*39.1*		ug/L	*50.0*		*78.1*	*5-151*			
Surr: Phenol-d5 (Surr)	*27.2*		ug/L	*100*		*27.2*	*5-60*			
Surr: p-Terphenyl-d14 (Surr)	*35.6*		ug/L	*50.0*		*71.2*	*5-141*			
LCS (BHI0573-BS1)				Prepared & Analyzed: 09/16/2024						
1,2,4-Trichlorobenzene	33.2	10.0	ug/L	50.0		66.5	57-130			

Enthalpy Analytical
1941 Reymet Road
Richmond, Virginia 23237
(804)-358-8295 - Telephone
(804)-358-8297 - Fax

Certificate of Analysis

Client Name: SCS Engineers-Winchester
Client Site I.D.: LFG-EW Monthly Monitoring
Submitted To: Jennifer Robb

Date Issued: 9/30/2024 9:43:20AM
Work Order: 24I0652

Semivolatile Organic Compounds by GCMS - Quality Control

Enthalpy Analytical

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch BHI0573 - SW3510C/EPA600-MS										
LCS (BHI0573-BS1)				Prepared & Analyzed: 09/16/2024						
1,2-Dichlorobenzene	31.9	10.0	ug/L	50.0		63.9	22-115			
1,3-Dichlorobenzene	31.2	10.0	ug/L	50.0		62.4	22-112			
1,4-Dichlorobenzene	34.4	10.0	ug/L	50.0		68.9	13-112			
2,4,6-Trichlorophenol	39.9	10.0	ug/L	50.0		79.8	52-129			
2,4-Dichlorophenol	36.2	10.0	ug/L	50.0		72.4	53-122			
2,4-Dimethylphenol	39.0	5.00	ug/L	50.0		78.1	42-120			
2,4-Dinitrophenol	39.1	50.0	ug/L	50.0		78.2	48-127			
2,4-Dinitrotoluene	43.3	10.0	ug/L	50.0		86.5	10-173			
2,6-Dinitrotoluene	39.3	10.0	ug/L	50.0		78.5	68-137			
2-Chloronaphthalene	32.6	10.0	ug/L	50.0		65.3	65-120			
2-Chlorophenol	33.3	10.0	ug/L	50.0		66.6	36-120			
2-Nitrophenol	39.6	10.0	ug/L	50.0		79.2	45-167			
3,3'-Dichlorobenzidine	22.5	10.0	ug/L	50.0		45.0	10-213			
4,6-Dinitro-2-methylphenol	44.1	50.0	ug/L	50.0		88.2	53-130			
4-Bromophenyl phenyl ether	33.5	10.0	ug/L	50.0		67.1	65-120			
4-Chlorophenyl phenyl ether	33.6	10.0	ug/L	50.0		67.3	38-145			
4-Nitrophenol	20.0	50.0	ug/L	50.0		40.1	13-129			
Acenaphthene	35.9	10.0	ug/L	50.0		71.8	60-132			
Acenaphthylene	35.4	10.0	ug/L	50.0		70.7	54-126			
Acetophenone	31.7	20.0	ug/L	50.0		63.4	0-200			
Anthracene	34.7	10.0	ug/L	50.0		69.4	43-120			
Benzo (a) anthracene	38.0	10.0	ug/L	50.0		76.1	42-133			
Benzo (a) pyrene	41.8	10.0	ug/L	50.0		83.6	32-148			
Benzo (b) fluoranthene	47.3	10.0	ug/L	50.0		94.7	42-140			
Benzo (g,h,i) perylene	45.1	10.0	ug/L	50.0		90.2	10-195			

Enthalpy Analytical
1941 Reymet Road
Richmond, Virginia 23237
(804)-358-8295 - Telephone
(804)-358-8297 - Fax

Certificate of Analysis

Client Name: SCS Engineers-Winchester
Client Site I.D.: LFG-EW Monthly Monitoring
Submitted To: Jennifer Robb

Date Issued: 9/30/2024 9:43:20AM
Work Order: 24I0652

Semivolatile Organic Compounds by GCMS - Quality Control

Enthalpy Analytical

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch BHI0573 - SW3510C/EPA600-MS										
LCS (BHI0573-BS1)				Prepared & Analyzed: 09/16/2024						
Benzo (k) fluoranthene	40.0	10.0	ug/L	50.0		80.0	25-146			
bis (2-Chloroethoxy) methane	34.8	10.0	ug/L	50.0		69.7	49-165			
bis (2-Chloroethyl) ether	33.0	10.0	ug/L	50.0		66.0	43-126			
2,2'-Oxybis (1-chloropropane)	32.8	10.0	ug/L	50.0		65.5	63-139			
bis (2-Ethylhexyl) phthalate	40.4	10.0	ug/L	50.0		80.7	29-137			
Butyl benzyl phthalate	38.1	10.0	ug/L	50.0		76.2	10-140			
Chrysene	35.2	10.0	ug/L	50.0		70.3	44-140			
Dibenz (a,h) anthracene	38.2	10.0	ug/L	50.0		76.5	10-200			
Diethyl phthalate	39.2	10.0	ug/L	50.0		78.3	10-120			
Dimethyl phthalate	35.3	10.0	ug/L	50.0		70.6	10-120			
Di-n-butyl phthalate	38.7	10.0	ug/L	50.0		77.4	10-120			
Di-n-octyl phthalate	56.8	10.0	ug/L	50.0		114	19-132			
Fluoranthene	40.6	10.0	ug/L	50.0		81.2	43-121			
Fluorene	36.7	10.0	ug/L	50.0		73.5	70-120			
Hexachlorobenzene	35.6	1.00	ug/L	50.0		71.3	10-142			
Hexachlorobutadiene	40.3	10.0	ug/L	50.0		80.5	38-120			
Hexachlorocyclopentadiene	31.5	10.0	ug/L	50.0		63.0	10-76			
Hexachloroethane	39.3	10.0	ug/L	50.0		78.5	55-120			
Indeno (1,2,3-cd) pyrene	41.2	10.0	ug/L	50.0		82.3	10-151			
Isophorone	19.2	10.0	ug/L	50.0		38.4	47-180			*L*
Naphthalene	33.9	5.00	ug/L	50.0		67.8	36-120			
Nitrobenzene	42.5	10.0	ug/L	50.0		85.1	54-158			
n-Nitrosodimethylamine	23.2	10.0	ug/L	50.0		46.3	10-85			
n-Nitrosodi-n-propylamine	36.7	10.0	ug/L	50.0		73.4	14-198			
n-Nitrosodiphenylamine	29.6	10.0	ug/L	50.0		59.1	12-97			

Enthalpy Analytical
1941 Reymet Road
Richmond, Virginia 23237
(804)-358-8295 - Telephone
(804)-358-8297 - Fax

Certificate of Analysis

Client Name: SCS Engineers-Winchester
Client Site I.D.: LFG-EW Monthly Monitoring
Submitted To: Jennifer Robb

Date Issued: 9/30/2024 9:43:20AM
Work Order: 24I0652

Semivolatile Organic Compounds by GCMS - Quality Control

Enthalpy Analytical

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch BHI0573 - SW3510C/EPA600-MS										
LCS (BHI0573-BS1)				Prepared & Analyzed: 09/16/2024						
p-Chloro-m-cresol	38.8	10.0	ug/L	50.0		77.6	10-142			
Pentachloronitrobenzene (quintozene)	ND	10.0	ug/L				0-200			
Pentachlorophenol	29.5	20.0	ug/L	50.0		59.0	38-152			
Phenanthrene	48.8	10.0	ug/L	50.0		97.7	65-120			
Phenol	16.6	10.0	ug/L	50.5		32.8	17-120			
Pyrene	36.2	10.0	ug/L	50.0		72.3	70-120			
Pyridine	26.3	10.0	ug/L	50.0		52.6	10-103			
Surr: 2,4,6-Tribromophenol (Surr)	*79.5*		ug/L	*100*		*79.5*	*5-136*			
Surr: 2-Fluorobiphenyl (Surr)	*29.2*		ug/L	*50.0*		*58.4*	*9-117*			
Surr: 2-Fluorophenol (Surr)	*40.0*		ug/L	*100*		*40.0*	*5-60*			
Surr: Nitrobenzene-d5 (Surr)	*41.6*		ug/L	*50.0*		*83.2*	*5-151*			
Surr: Phenol-d5 (Surr)	*28.8*		ug/L	*100*		*28.8*	*5-60*			
Surr: p-Terphenyl-d14 (Surr)	*36.4*		ug/L	*50.0*		*72.8*	*5-141*			

Enthalpy Analytical
1941 Reymet Road
Richmond, Virginia 23237
(804)-358-8295 - Telephone
(804)-358-8297 - Fax

Certificate of Analysis

Client Name: SCS Engineers-Winchester
Client Site I.D.: LFG-EW Monthly Monitoring
Submitted To: Jennifer Robb

Date Issued: 9/30/2024 9:43:20AM
Work Order: 24I0652

Wet Chemistry Analysis - Quality Control

Enthalpy Analytical

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch BHI0448 - No Prep Wet Chem										
Blank (BHI0448-BLK1)				Prepared & Analyzed: 09/12/2024						
BOD	ND	2.0	mg/L							
LCS (BHI0448-BS1)				Prepared & Analyzed: 09/12/2024						
BOD	221	2	mg/L	198		112	84.6-115.4			
Duplicate (BHI0448-DUP1)	**Source: 24I0559-03**			Prepared & Analyzed: 09/12/2024						
BOD	ND	2.0	mg/L		BLOD			NA	20	
Batch BHI0449 - No Prep Wet Chem										
Blank (BHI0449-BLK1)				Prepared & Analyzed: 09/12/2024						
BOD	ND	2.0	mg/L							
LCS (BHI0449-BS1)				Prepared & Analyzed: 09/12/2024						
BOD	220	2	mg/L	198		111	84.6-115.4			
Duplicate (BHI0449-DUP1)	**Source: 24I0559-04**			Prepared & Analyzed: 09/12/2024						
BOD	ND	2.0	mg/L		BLOD			NA	20	
Batch BHI0488 - No Prep Wet Chem										
Blank (BHI0488-BLK1)				Prepared & Analyzed: 09/12/2024						
Nitrite as N	ND	0.05	mg/L							
LCS (BHI0488-BS1)				Prepared & Analyzed: 09/12/2024						
Nitrite as N	0.10	0.05	mg/L	0.100		95.0	80-120			

Enthalpy Analytical
1941 Reymet Road
Richmond, Virginia 23237
(804)-358-8295 - Telephone
(804)-358-8297 - Fax

Certificate of Analysis

Client Name: SCS Engineers-Winchester
Client Site I.D.: LFG-EW Monthly Monitoring
Submitted To: Jennifer Robb

Date Issued: 9/30/2024 9:43:20AM
Work Order: 24I0652

Wet Chemistry Analysis - Quality Control

Enthalpy Analytical

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch BHI0488 - No Prep Wet Chem										
Matrix Spike (BHI0488-MS1)		**Source: 24I0654-01**		Prepared & Analyzed: 09/12/2024						
Nitrite as N	0.10	0.05	mg/L	0.100	BLOD	102	80-120			
Matrix Spike Dup (BHI0488-MSD1)		**Source: 24I0654-01**		Prepared & Analyzed: 09/12/2024						
Nitrite as N	0.10	0.05	mg/L	0.100	BLOD	102	80-120	0.00	20	
Batch BHI0735 - No Prep Wet Chem										
Blank (BHI0735-BLK1)				Prepared & Analyzed: 09/18/2024						
Ammonia as N	ND	0.10	mg/L							
LCS (BHI0735-BS1)				Prepared & Analyzed: 09/18/2024						
Ammonia as N	1.06	0.1	mg/L	1.00		106	90-110			
Matrix Spike (BHI0735-MS1)		**Source: 24I0654-01**		Prepared & Analyzed: 09/18/2024						
Ammonia as N	0.93	0.10	mg/L	1.00	BLOD	93.0	89.3-131			
Matrix Spike (BHI0735-MS2)		**Source: 24I0654-07**		Prepared & Analyzed: 09/18/2024						
Ammonia as N	0.93	0.10	mg/L	1.00	BLOD	92.8	89.3-131			
Matrix Spike Dup (BHI0735-MSD1)		**Source: 24I0654-01**		Prepared & Analyzed: 09/18/2024						
Ammonia as N	0.93	0.10	mg/L	1.00	BLOD	92.8	89.3-131	0.215	20	
Matrix Spike Dup (BHI0735-MSD2)		**Source: 24I0654-07**		Prepared & Analyzed: 09/18/2024						
Ammonia as N	0.93	0.10	mg/L	1.00	BLOD	93.3	89.3-131	0.537	20	
Batch BHI0738 - No Prep Wet Chem										
Blank (BHI0738-BLK1)				Prepared: 09/18/2024 Analyzed: 09/19/2024						
TKN as N	ND	0.50	mg/L							

Enthalpy Analytical
1941 Reymet Road
Richmond, Virginia 23237
(804)-358-8295 - Telephone
(804)-358-8297 - Fax

Certificate of Analysis

Client Name: SCS Engineers-Winchester
Client Site I.D.: LFG-EW Monthly Monitoring
Submitted To: Jennifer Robb

Date Issued: 9/30/2024 9:43:20AM
Work Order: 24I0652

Wet Chemistry Analysis - Quality Control

Enthalpy Analytical

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch BHI0738 - No Prep Wet Chem										
LCS (BHI0738-BS1)				Prepared: 09/18/2024 Analyzed: 09/19/2024						
TKN as N	5.19	0.5	mg/L	5.00		104	90-110			
Matrix Spike (BHI0738-MS1)	**Source: 24I0972-01**			Prepared: 09/18/2024 Analyzed: 09/19/2024						
TKN as N	6.52	0.50	mg/L	5.00	1.28	105	90-110			
Matrix Spike (BHI0738-MS2)	**Source: 24I0671-02**			Prepared: 09/18/2024 Analyzed: 09/19/2024						
TKN as N	5.94	0.50	mg/L	5.00	0.92	101	90-110			
Matrix Spike Dup (BHI0738-MSD1)	**Source: 24I0972-01**			Prepared: 09/18/2024 Analyzed: 09/19/2024						
TKN as N	6.42	0.50	mg/L	5.00	1.28	103	90-110	1.42	20	
Matrix Spike Dup (BHI0738-MSD2)	**Source: 24I0671-02**			Prepared: 09/18/2024 Analyzed: 09/19/2024						
TKN as N	6.04	0.50	mg/L	5.00	0.92	102	90-110	1.57	20	
Batch BHI0744 - No Prep Wet Chem										
Blank (BHI0744-BLK1)				Prepared & Analyzed: 09/18/2024						
COD	ND	10.0	mg/L							
LCS (BHI0744-BS1)				Prepared & Analyzed: 09/18/2024						
COD	51.0	10.0	mg/L	50.0		102	88-119			
Matrix Spike (BHI0744-MS1)	**Source: 24I0501-07**			Prepared & Analyzed: 09/18/2024						
COD	49.2	10.0	mg/L	50.0	BLOD	98.5	72.4-130			
Matrix Spike Dup (BHI0744-MSD1)	**Source: 24I0501-07**			Prepared & Analyzed: 09/18/2024						
COD	52.3	10.0	mg/L	50.0	BLOD	105	72.4-130	6.05	20	

Enthalpy Analytical
1941 Reymet Road
Richmond, Virginia 23237
(804)-358-8295 - Telephone
(804)-358-8297 - Fax

Certificate of Analysis

Client Name: SCS Engineers-Winchester
Client Site I.D.: LFG-EW Monthly Monitoring
Submitted To: Jennifer Robb

Date Issued: 9/30/2024 9:43:20AM
Work Order: 24I0652

Wet Chemistry Analysis - Quality Control

Enthalpy Analytical

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch BHI0809 - No Prep Wet Chem										
Blank (BHI0809-BLK1)				Prepared & Analyzed: 09/19/2024						
Nitrate+Nitrite as N	ND	0.10	mg/L							
LCS (BHI0809-BS1)				Prepared & Analyzed: 09/19/2024						
Nitrate+Nitrite as N	1.01	0.1	mg/L	1.00		101	90-110			
Matrix Spike (BHI0809-MS1)	**Source: 24I0654-01**			Prepared & Analyzed: 09/19/2024						
Nitrate+Nitrite as N	0.96	0.10	mg/L	1.00	BLOD	95.9	90-120			
Matrix Spike Dup (BHI0809-MSD1)	**Source: 24I0654-01**			Prepared & Analyzed: 09/19/2024						
Nitrate+Nitrite as N	0.99	0.10	mg/L	1.00	BLOD	98.6	90-120	2.78	20	
Batch BHI0888 - No Prep Wet Chem										
Blank (BHI0888-BLK1)				Prepared & Analyzed: 09/21/2024						
COD	ND	10.0	mg/L							
LCS (BHI0888-BS1)				Prepared & Analyzed: 09/21/2024						
COD	50.3	10.0	mg/L	50.0		101	88-119			
Matrix Spike (BHI0888-MS1)	**Source: 24I0654-01**			Prepared & Analyzed: 09/21/2024						
COD	60.5	10.0	mg/L	50.0	11.3	98.4	72.4-130			
Matrix Spike Dup (BHI0888-MSD1)	**Source: 24I0654-01**			Prepared & Analyzed: 09/21/2024						
COD	58.5	10.0	mg/L	50.0	11.3	94.3	72.4-130	3.45	20	
Batch BHI0928 - No Prep Wet Chem										
Blank (BHI0928-BLK1)				Prepared: 09/23/2024 Analyzed: 09/24/2024						
TKN as N	ND	0.50	mg/L							

Enthalpy Analytical
1941 Reymet Road
Richmond, Virginia 23237
(804)-358-8295 - Telephone
(804)-358-8297 - Fax

Certificate of Analysis

Client Name: SCS Engineers-Winchester
Client Site I.D.: LFG-EW Monthly Monitoring
Submitted To: Jennifer Robb

Date Issued: 9/30/2024 9:43:20AM
Work Order: 24I0652

Wet Chemistry Analysis - Quality Control

Enthalpy Analytical

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch BHI0928 - No Prep Wet Chem										
LCS (BHI0928-BS1)				Prepared: 09/23/2024 Analyzed: 09/24/2024						
TKN as N	5.09	0.5	mg/L	5.00		102	90-110			
Matrix Spike (BHI0928-MS1)	**Source: 24I0695-01**			Prepared: 09/23/2024 Analyzed: 09/24/2024						
TKN as N	5.59	0.50	mg/L	5.00	0.50	102	90-110			
Matrix Spike (BHI0928-MS2)	**Source: 24I0750-01**			Prepared: 09/23/2024 Analyzed: 09/24/2024						
TKN as N	6.67	0.50	mg/L	5.00	0.98	114	90-110			*M*
Matrix Spike Dup (BHI0928-MSD1)	**Source: 24I0695-01**			Prepared: 09/23/2024 Analyzed: 09/24/2024						
TKN as N	5.13	0.50	mg/L	5.00	0.50	92.5	90-110	8.58	20	
Matrix Spike Dup (BHI0928-MSD2)	**Source: 24I0750-01**			Prepared: 09/23/2024 Analyzed: 09/24/2024						
TKN as N	7.65	0.50	mg/L	5.00	0.98	133	90-110	13.6	20	*M*
Batch BHI0929 - No Prep Wet Chem										
Blank (BHI0929-BLK1)				Prepared & Analyzed: 09/23/2024						
Nitrate+Nitrite as N	ND	0.10	mg/L							
LCS (BHI0929-BS1)				Prepared & Analyzed: 09/23/2024						
Nitrate+Nitrite as N	1.02	0.1	mg/L	1.00		102	90-110			
Matrix Spike (BHI0929-MS1)	**Source: 24I1100-01**			Prepared & Analyzed: 09/23/2024						
Nitrate+Nitrite as N	1.12	0.10	mg/L	1.00	BLOD	112	90-120			
Matrix Spike Dup (BHI0929-MSD1)	**Source: 24I1100-01**			Prepared & Analyzed: 09/23/2024						
Nitrate+Nitrite as N	1.16	0.10	mg/L	1.00	BLOD	116	90-120	3.08	20	

Enthalpy Analytical
1941 Reymet Road
Richmond, Virginia 23237
(804)-358-8295 - Telephone
(804)-358-8297 - Fax

Certificate of Analysis

Client Name: SCS Engineers-Winchester
Client Site I.D.: LFG-EW Monthly Monitoring
Submitted To: Jennifer Robb

Date Issued: 9/30/2024 9:43:20AM
Work Order: 24I0652

Wet Chemistry Analysis - Quality Control

Enthalpy Analytical

Analyte	Result	LOQ	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Qual
Batch BHI0985 - No Prep Wet Chem										
LCS (BHI0985-BS1)				Prepared & Analyzed: 09/24/2024						
Cyanide	0.26	0.01	mg/L	0.250		102	80-120			
Matrix Spike (BHI0985-MS1)	**Source: 24I0694-03**			Prepared & Analyzed: 09/24/2024						
Cyanide	0.26	0.01	mg/L	0.250	BLOD	104	80-120			
Matrix Spike Dup (BHI0985-MSD1)	**Source: 24I0694-03**			Prepared & Analyzed: 09/24/2024						
Cyanide	0.26	0.01	mg/L	0.250	BLOD	106	80-120	1.79	20	
Batch BHI1083 - No Prep Wet Chem										
Blank (BHI1083-BLK1)				Prepared & Analyzed: 09/26/2024						
Total Recoverable Phenolics	ND	0.050	mg/L							
LCS (BHI1083-BS1)				Prepared & Analyzed: 09/26/2024						
Total Recoverable Phenolics	0.42	0.050	mg/L	0.510		81.6	80-120			
Matrix Spike (BHI1083-MS1)	**Source: 24I0652-03**			Prepared & Analyzed: 09/26/2024						
Total Recoverable Phenolics	77.0	5.00	mg/L	50.0	31.6	90.8	70-130			
Matrix Spike Dup (BHI1083-MSD1)	**Source: 24I0652-03**			Prepared & Analyzed: 09/26/2024						
Total Recoverable Phenolics	78.0	5.00	mg/L	50.0	31.6	92.8	70-130	1.29	20	

Enthalpy Analytical
1941 Reymet Road
Richmond, Virginia 23237
(804)-358-8295 - Telephone
(804)-358-8297 - Fax

Certificate of Analysis

Client Name: SCS Engineers-Winchester
Client Site I.D.: LFG-EW Monthly Monitoring
Submitted To: Jennifer Robb

Date Issued: 9/30/2024 9:43:20AM
Work Order: 24I0652

Analytical Summary

24I0652-01	Subcontract
24I0652-02	Subcontract
24I0652-03	Subcontract

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
Metals (Total) by EPA 6000/7000 Series Methods			**Preparation Method:**	**EPA200.8 R5.4**	
24I0652-01	50.0 mL / 50.0 mL	SW6020B	BHI0542	SHI0680	AI40247
24I0652-02	50.0 mL / 50.0 mL	SW6020B	BHI0542	SHI0680	AI40247
24I0652-02RE1	50.0 mL / 50.0 mL	SW6020B	BHI0542	SHI0528	AI40229
24I0652-03	50.0 mL / 50.0 mL	SW6020B	BHI0542	SHI0680	AI40247

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
Wet Chemistry Analysis			**Preparation Method:**	**No Prep Wet Chem**	
24I0652-02	300 mL / 300 mL	SM5210B-2016	BHI0448	SHI0592	
24I0652-01	300 mL / 300 mL	SM5210B-2016	BHI0449	SHI0592	
24I0652-03	300 mL / 300 mL	SM5210B-2016	BHI0449	SHI0592	
24I0652-01	25.0 mL / 25.0 mL	SM4500-NO2B-2011	BHI0488	SHI0455	AD40276
24I0652-02	25.0 mL / 25.0 mL	SM4500-NO2B-2011	BHI0488	SHI0455	AD40276
24I0652-03	25.0 mL / 25.0 mL	SM4500-NO2B-2011	BHI0488	SHI0455	AD40276
24I0652-01	6.00 mL / 6.00 mL	EPA350.1 R2.0	BHI0735	SHI0665	AI40249
24I0652-02	6.00 mL / 6.00 mL	EPA350.1 R2.0	BHI0735	SHI0665	AI40249
24I0652-03	6.00 mL / 6.00 mL	EPA350.1 R2.0	BHI0735	SHI0665	AI40249
24I0652-01	25.0 mL / 25.0 mL	EPA351.2 R2.0	BHI0738	SHI0701	AI40255
24I0652-02	25.0 mL / 25.0 mL	EPA351.2 R2.0	BHI0738	SHI0701	AI40255
24I0652-01	2.00 mL / 2.00 mL	SM5220D-2011	BHI0744	SHI0670	AI40245
24I0652-02	2.00 mL / 2.00 mL	SM5220D-2011	BHI0744	SHI0670	AI40245
24I0652-02	5.00 mL / 5.00 mL	SM4500-NO3F-2016	BHI0809	SHI0733	AI40257

Enthalpy Analytical
1941 Reymet Road
Richmond, Virginia 23237
(804)-358-8295 - Telephone
(804)-358-8297 - Fax

Certificate of Analysis

Client Name: SCS Engineers-Winchester
Client Site I.D.: LFG-EW Monthly Monitoring
Submitted To: Jennifer Robb

Date Issued: 9/30/2024 9:43:20AM
Work Order: 24I0652

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
Wet Chemistry Analysis			**Preparation Method:**	**No Prep Wet Chem**	
24I0652-03	5.00 mL / 5.00 mL	SM4500-NO3F-2016	BHI0809	SHI0733	AI40257
24I0652-03RE1	5.00 mL / 5.00 mL	SM4500-NO3F-2016	BHI0809	SHI0733	AI40257
24I0652-03	2.00 mL / 2.00 mL	SM5220D-2011	BHI0888	SHI0801	AI40245
24I0652-03	25.0 mL / 25.0 mL	EPA351.2 R2.0	BHI0928	SHI0867	AI40282
24I0652-03RE1	25.0 mL / 25.0 mL	EPA351.2 R2.0	BHI0928	SHI0867	AI40282
24I0652-01	5.00 mL / 5.00 mL	SM4500-NO3F-2016	BHI0929	SHI0840	AI40271
24I0652-01	6.00 mL / 6.00 mL	SW9012B	BHI0985	SHI0898	AI40280
24I0652-02	6.00 mL / 6.00 mL	SW9012B	BHI0985	SHI0898	AI40280
24I0652-03	6.00 mL / 6.00 mL	SW9012B	BHI0985	SHI0898	AI40280
24I0652-01	5.00 mL / 10.0 mL	SW9065	BHI1083	SHI0966	AI40293
24I0652-02	5.00 mL / 10.0 mL	SW9065	BHI1083	SHI0966	AI40293
24I0652-03	5.00 mL / 10.0 mL	SW9065	BHI1083	SHI0966	AI40293

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
Semivolatile Organic Compounds by GCMS			**Preparation Method:**	**SW3510C/EPA600-MS**	
24I0652-01	500 mL / 2.00 mL	SW8270E	BHI0573	SHI0571	AH40297
24I0652-02	500 mL / 2.00 mL	SW8270E	BHI0573	SHI0571	AH40297
24I0652-03	500 mL / 1.00 mL	SW8270E	BHI0573	SHI0571	AH40297

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
Volatile Organic Compounds by GCMS			**Preparation Method:**	**SW5030B-MS**	
24I0652-01	5.00 mL / 5.00 mL	SW8260D	BHI0533	SHI0494	AH40160
24I0652-01RE1	5.00 mL / 5.00 mL	SW8260D	BHI0533	SHI0494	AH40160
24I0652-02	5.00 mL / 5.00 mL	SW8260D	BHI0533	SHI0494	AH40160
24I0652-02RE1	5.00 mL / 5.00 mL	SW8260D	BHI0533	SHI0494	AH40160
24I0652-03	5.00 mL / 5.00 mL	SW8260D	BHI0533	SHI0494	AH40160

Enthalpy Analytical
1941 Reymet Road
Richmond, Virginia 23237
(804)-358-8295 - Telephone
(804)-358-8297 - Fax

Certificate of Analysis

Client Name: SCS Engineers-Winchester
Client Site I.D.: LFG-EW Monthly Monitoring
Submitted To: Jennifer Robb

Date Issued: 9/30/2024 9:43:20AM
Work Order: 24I0652

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
Volatile Organic Compounds by GCMS			**Preparation Method:**	**SW5030B-MS**	
24I0652-03RE1	5.00 mL / 5.00 mL	SW8260D	BHI0533	SHI0494	AH40160
24I0652-04	5.00 mL / 5.00 mL	SW8260D	BHI0533	SHI0494	AH40160

Enthalpy Analytical
1941 Reymet Road
Richmond, Virginia 23237
(804)-358-8295 - Telephone
(804)-358-8297 - Fax

Certificate of Analysis

Client Name: SCS Engineers-Winchester
Client Site I.D.: LFG-EW Monthly Monitoring
Submitted To: Jennifer Robb

Date Issued: 9/30/2024 9:43:20AM
Work Order: 24I0652

QC Analytical Summary

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
Metals (Total) by EPA 6000/7000 Series Methods			**Preparation Method:**	**EPA200.8 R5.4**	
BHI0542-BLK1	50.0 mL / 50.0 mL	SW6020B	BHI0542	SHI0528	AI40229
BHI0542-BS1	50.0 mL / 50.0 mL	SW6020B	BHI0542	SHI0528	AI40229
BHI0542-MS1	50.0 mL / 50.0 mL	SW6020B	BHI0542	SHI0528	AI40229
BHI0542-MS2	50.0 mL / 50.0 mL	SW6020B	BHI0542	SHI0528	AI40229
BHI0542-MSD1	50.0 mL / 50.0 mL	SW6020B	BHI0542	SHI0528	AI40229
BHI0542-MSD2	50.0 mL / 50.0 mL	SW6020B	BHI0542	SHI0528	AI40229

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
Wet Chemistry Analysis			**Preparation Method:**	**No Prep Wet Chem**	
BHI0448-BLK1	300 mL / 300 mL	SM5210B-2016	BHI0448	SHI0592	
BHI0448-BS1	300 mL / 300 mL	SM5210B-2016	BHI0448	SHI0592	
BHI0448-DUP1	300 mL / 300 mL	SM5210B-2016	BHI0448	SHI0592	
BHI0449-BLK1	300 mL / 300 mL	SM5210B-2016	BHI0449	SHI0592	
BHI0449-BS1	300 mL / 300 mL	SM5210B-2016	BHI0449	SHI0592	
BHI0449-DUP1	300 mL / 300 mL	SM5210B-2016	BHI0449	SHI0592	
BHI0488-BLK1	25.0 mL / 25.0 mL	SM4500-NO2B-2011	BHI0488	SHI0455	AD40276
BHI0488-BS1	25.0 mL / 25.0 mL	SM4500-NO2B-2011	BHI0488	SHI0455	AD40276
BHI0488-MRL1	25.0 mL / 25.0 mL	SM4500-NO2B-2011	BHI0488	SHI0455	AD40276
BHI0488-MS1	25.0 mL / 25.0 mL	SM4500-NO2B-2011	BHI0488	SHI0455	AD40276
BHI0488-MSD1	25.0 mL / 25.0 mL	SM4500-NO2B-2011	BHI0488	SHI0455	AD40276
BHI0735-BLK1	6.00 mL / 6.00 mL	EPA350.1 R2.0	BHI0735	SHI0665	AI40249
BHI0735-BS1	6.00 mL / 6.00 mL	EPA350.1 R2.0	BHI0735	SHI0665	AI40249
BHI0735-MS1	6.00 mL / 6.00 mL	EPA350.1 R2.0	BHI0735	SHI0665	AI40249
BHI0735-MS2	6.00 mL / 6.00 mL	EPA350.1 R2.0	BHI0735	SHI0665	AI40249
BHI0735-MSD1	6.00 mL / 6.00 mL	EPA350.1 R2.0	BHI0735	SHI0665	AI40249

Enthalpy Analytical
1941 Reymet Road
Richmond, Virginia 23237
(804)-358-8295 - Telephone
(804)-358-8297 - Fax

Certificate of Analysis

Client Name: SCS Engineers-Winchester
Client Site I.D.: LFG-EW Monthly Monitoring
Submitted To: Jennifer Robb

Date Issued: 9/30/2024 9:43:20AM
Work Order: 24I0652

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
Wet Chemistry Analysis			**Preparation Method:**	**No Prep Wet Chem**	
BHI0735-MSD2	6.00 mL / 6.00 mL	EPA350.1 R2.0	BHI0735	SHI0665	AI40249
BHI0738-BLK1	25.0 mL / 25.0 mL	EPA351.2 R2.0	BHI0738	SHI0701	AI40255
BHI0738-BS1	25.0 mL / 25.0 mL	EPA351.2 R2.0	BHI0738	SHI0701	AI40255
BHI0738-MRL1	25.0 mL / 25.0 mL	EPA351.2 R2.0	BHI0738	SHI0701	AI40255
BHI0738-MRL2	25.0 mL / 25.0 mL	EPA351.2 R2.0	BHI0738	SHI0701	AI40255
BHI0738-MS1	25.0 mL / 25.0 mL	EPA351.2 R2.0	BHI0738	SHI0701	AI40255
BHI0738-MS2	25.0 mL / 25.0 mL	EPA351.2 R2.0	BHI0738	SHI0701	AI40255
BHI0738-MSD1	25.0 mL / 25.0 mL	EPA351.2 R2.0	BHI0738	SHI0701	AI40255
BHI0738-MSD2	25.0 mL / 25.0 mL	EPA351.2 R2.0	BHI0738	SHI0701	AI40255
BHI0744-BLK1	2.00 mL / 2.00 mL	SM5220D-2011	BHI0744	SHI0670	AI40245
BHI0744-BS1	2.00 mL / 2.00 mL	SM5220D-2011	BHI0744	SHI0670	AI40245
BHI0744-MRL1	2.00 mL / 2.00 mL	SM5220D-2011	BHI0744	SHI0670	AI40245
BHI0744-MS1	2.00 mL / 2.00 mL	SM5220D-2011	BHI0744	SHI0670	AI40245
BHI0744-MSD1	2.00 mL / 2.00 mL	SM5220D-2011	BHI0744	SHI0670	AI40245
BHI0809-BLK1	5.00 mL / 5.00 mL	SM4500-NO3F-2016	BHI0809	SHI0733	AI40257
BHI0809-BS1	5.00 mL / 5.00 mL	SM4500-NO3F-2016	BHI0809	SHI0733	AI40257
BHI0809-MS1	10.0 mL / 10.0 mL	SM4500-NO3F-2016	BHI0809	SHI0733	AI40257
BHI0809-MSD1	10.0 mL / 10.0 mL	SM4500-NO3F-2016	BHI0809	SHI0733	AI40257
BHI0888-BLK1	2.00 mL / 2.00 mL	SM5220D-2011	BHI0888	SHI0801	AI40245
BHI0888-BS1	2.00 mL / 2.00 mL	SM5220D-2011	BHI0888	SHI0801	AI40245
BHI0888-MRL1	2.00 mL / 2.00 mL	SM5220D-2011	BHI0888	SHI0801	AI40245
BHI0888-MS1	2.00 mL / 2.00 mL	SM5220D-2011	BHI0888	SHI0801	AI40245
BHI0888-MSD1	2.00 mL / 2.00 mL	SM5220D-2011	BHI0888	SHI0801	AI40245
BHI0928-BLK1	25.0 mL / 25.0 mL	EPA351.2 R2.0	BHI0928	SHI0867	AI40282
BHI0928-BS1	25.0 mL / 25.0 mL	EPA351.2 R2.0	BHI0928	SHI0867	AI40282
BHI0928-MRL1	25.0 mL / 25.0 mL	EPA351.2 R2.0	BHI0928	SHI0867	AI40282
BHI0928-MRL2	25.0 mL / 25.0 mL	EPA351.2 R2.0	BHI0928	SHI0867	AI40282
BHI0928-MS1	25.0 mL / 25.0 mL	EPA351.2 R2.0	BHI0928	SHI0867	AI40282

Enthalpy Analytical
1941 Reymet Road
Richmond, Virginia 23237
(804)-358-8295 - Telephone
(804)-358-8297 - Fax

Certificate of Analysis

Client Name: SCS Engineers-Winchester
Client Site I.D.: LFG-EW Monthly Monitoring
Submitted To: Jennifer Robb

Date Issued: 9/30/2024 9:43:20AM
Work Order: 24I0652

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
Wet Chemistry Analysis			**Preparation Method:**	**No Prep Wet Chem**	
BHI0928-MS2	25.0 mL / 25.0 mL	EPA351.2 R2.0	BHI0928	SHI0867	AI40282
BHI0928-MSD1	25.0 mL / 25.0 mL	EPA351.2 R2.0	BHI0928	SHI0867	AI40282
BHI0928-MSD2	25.0 mL / 25.0 mL	EPA351.2 R2.0	BHI0928	SHI0867	AI40282
BHI0929-BLK1	5.00 mL / 5.00 mL	SM4500-NO3F-2016	BHI0929	SHI0840	AI40271
BHI0929-BS1	5.00 mL / 5.00 mL	SM4500-NO3F-2016	BHI0929	SHI0840	AI40271
BHI0929-MRL1	5.00 mL / 5.00 mL	SM4500-NO3F-2016	BHI0929	SHI0840	AI40271
BHI0929-MRL2	5.00 mL / 5.00 mL	SM4500-NO3F-2016	BHI0929	SHI0840	AI40271
BHI0929-MS1	10.0 mL / 10.0 mL	SM4500-NO3F-2016	BHI0929	SHI0840	AI40271
BHI0929-MSD1	10.0 mL / 10.0 mL	SM4500-NO3F-2016	BHI0929	SHI0840	AI40271
BHI0985-BLK1		SW9012B	BHI0985	SHI0898	AI40280
BHI0985-BS1	6.00 mL / 6.00 mL	SW9012B	BHI0985	SHI0898	AI40280
BHI0985-MRL1	6.00 mL / 6.00 mL	SW9012B	BHI0985	SHI0898	AI40280
BHI0985-MRL2	6.00 mL / 6.00 mL	SW9012B	BHI0985	SHI0898	AI40280
BHI0985-MS1	6.00 mL / 6.00 mL	SW9012B	BHI0985	SHI0898	AI40280
BHI0985-MSD1	6.00 mL / 6.00 mL	SW9012B	BHI0985	SHI0898	AI40280
BHI1083-BLK1	5.00 mL / 10.0 mL	SW9065	BHI1083	SHI0966	AI40293
BHI1083-BS1	5.00 mL / 10.0 mL	SW9065	BHI1083	SHI0966	AI40293
BHI1083-MRL1	5.00 mL / 10.0 mL	SW9065	BHI1083	SHI0966	AI40293
BHI1083-MS1	0.0500 mL / 10.0 mL	SW9065	BHI1083	SHI0966	AI40293
BHI1083-MSD1	0.0500 mL / 10.0 mL	SW9065	BHI1083	SHI0966	AI40293

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
Semivolatile Organic Compounds by GCMS			**Preparation Method:**	**SW3510C/EPA600-MS**	
BHI0573-BLK1	1000 mL / 1.00 mL	SW8270E	BHI0573	SHI0582	AH40174
BHI0573-BLK2		SW8270E	BHI0573	SHI0543	AG40237
BHI0573-BS1	1000 mL / 1.00 mL	SW8270E	BHI0573	SHI0582	AH40174

Enthalpy Analytical
1941 Reymet Road
Richmond, Virginia 23237
(804)-358-8295 - Telephone
(804)-358-8297 - Fax

Certificate of Analysis

Client Name: SCS Engineers-Winchester
Client Site I.D.: LFG-EW Monthly Monitoring
Submitted To: Jennifer Robb

Date Issued: 9/30/2024 9:43:20AM
Work Order: 24I0652

Sample ID	Preparation Factors Initial / Final	Method	Batch ID	Sequence ID	Calibration ID
Volatile Organic Compounds by GCMS			**Preparation Method:**	**SW5030B-MS**	
BHI0533-BLK1	5.00 mL / 5.00 mL	SW8260D	BHI0533	SHI0494	AH40160
BHI0533-BLK2	5.00 mL / 5.00 mL	SW8260D	BHI0533	SHI0494	AH40160
BHI0533-BS1	5.00 mL / 5.00 mL	SW8260D	BHI0533	SHI0494	AH40160
BHI0533-BS2	5.00 mL / 5.00 mL	SW8260D	BHI0533	SHI0494	AH40160
BHI0533-MS1	5.00 mL / 5.00 mL	SW8260D	BHI0533	SHI0494	AH40160
BHI0533-MSD1	5.00 mL / 5.00 mL	SW8260D	BHI0533	SHI0494	AH40160

Enthalpy Analytical
1941 Reymet Road
Richmond, Virginia 23237
(804)-358-8295 - Telephone
(804)-358-8297 - Fax

Certificate of Analysis

Client Name: SCS Engineers-Winchester
Client Site I.D.: LFG-EW Monthly Monitoring
Submitted To: Jennifer Robb

Date Issued: 9/30/2024 9:43:20AM
Work Order: 24I0652

Certified Analyses included in this Report

Analyte	Certifications
EPA350.1 R2.0 in Non-Potable Water	
Ammonia as N	VELAP,NCDEQ,PADEP,WVDEP
EPA351.2 R2.0 in Non-Potable Water	
TKN as N	VELAP,NCDEQ,WVDEP
SM4500-NO2B-2011 in Non-Potable Water	
Nitrite as N	VELAP,WVDEP,NCDEQ
SM4500-NO3F-2016 in Non-Potable Water	
Nitrate+Nitrite as N	VELAP,WVDEP,NCDEQ
SM5210B-2016 in Non-Potable Water	
BOD	VELAP,NCDEQ,WVDEP
SM5220D-2011 in Non-Potable Water	
COD	VELAP,NCDEQ,PADEP,WVDEP
SW6020B in Non-Potable Water	
Mercury	VELAP
Arsenic	VELAP,WVDEP,NCDEQ
Barium	VELAP,WVDEP,NCDEQ
Cadmium	VELAP,WVDEP,NCDEQ
Chromium	VELAP,WVDEP,NCDEQ
Copper	VELAP,WVDEP,NCDEQ
Lead	VELAP,WVDEP
Nickel	VELAP,WVDEP
Selenium	VELAP,WVDEP
Silver	VELAP,WVDEP
Zinc	VELAP,WVDEP
SW8260D in Non-Potable Water	

Enthalpy Analytical
1941 Reymet Road
Richmond, Virginia 23237
(804)-358-8295 - Telephone
(804)-358-8297 - Fax

Certificate of Analysis

Client Name: SCS Engineers-Winchester
Client Site I.D.: LFG-EW Monthly Monitoring
Submitted To: Jennifer Robb

Date Issued: 9/30/2024 9:43:20AM
Work Order: 24I0652

Certified Analyses included in this Report

Analyte	Certifications
2-Butanone (MEK)	VELAP,NCDEQ,PADEP,WVDEP
Acetone	VELAP,NCDEQ,PADEP,WVDEP
Benzene	VELAP,NCDEQ,PADEP,WVDEP
Ethylbenzene	VELAP,NCDEQ,PADEP,WVDEP
Toluene	VELAP,NCDEQ,PADEP,WVDEP
Xylenes, Total	VELAP,NCDEQ,PADEP,WVDEP
Tetrahydrofuran	VELAP,PADEP
SW8270E in Non-Potable Water	
Anthracene	NCDEQ,WVDEP,VELAP,PADEP
SW9012B in Non-Potable Water	
Cyanide	VELAP,WVDEP,NCDEQ
SW9065 in Non-Potable Water	
Total Recoverable Phenolics	VELAP,WVDEP

Enthalpy Analytical
1941 Reymet Road
Richmond, Virginia 23237
(804)-358-8295 - Telephone
(804)-358-8297 - Fax

Certificate of Analysis

Client Name: SCS Engineers-Winchester
Client Site I.D.: LFG-EW Monthly Monitoring
Submitted To: Jennifer Robb

Date Issued: 9/30/2024 9:43:20AM
Work Order: 24I0652

Code	Description	Laboratory ID	Expires
MdDOE	Maryland DE Drinking Water	341	12/31/2024
NCDEQ	North Carolina DEQ	495	12/31/2024
NCDOH	North Carolina Department of Health	51714	07/31/2025
NYDOH	New York DOH Drinking Water	12069	04/01/2025
PADEP	NELAP-Pennsylvania Certificate #009	68-03503	10/31/2024
SCDHEC	South Carolina Dept of Health and Environmental Control Certificate 93016001	93016	09/14/2024
TXCEQ	Texas Comm on Environmental Quality #T104704576-23-1	T104704576	05/31/2025
VELAP	NELAP-Virginia Certificate #12969	460021	06/14/2025
WVDEP	West Virginia DEP	350	11/30/2024

Enthalpy Analytical
1941 Reymet Road
Richmond, Virginia 23237
(804)-358-8295 - Telephone
(804)-358-8297 - Fax

Certificate of Analysis

Client Name: SCS Engineers-Winchester
Client Site I.D.: LFG-EW Monthly Monitoring
Submitted To: Jennifer Robb

Date Issued: 9/30/2024 9:43:20AM
Work Order: 24I0652

Qualifiers and Definitions

B	Blank contamination. The recorded result is associated with a contaminated blank.
Cl	Residual Chlorine or other oxidizing agent was detected in the container used to analyze this sample.
DS	Surrogate concentration reflects a dilution factor.
J	The reported result is an estimated value.
L	LCS recovery is outside of established acceptance limits
M	Matrix spike recovery is outside established acceptance limits
P	Duplicate analysis does not meet the acceptance criteria for precision

RPD	Relative Percent Difference
Qual	Qualifers
-RE	Denotes sample was re-analyzed
LOD	Limit of Detection, same as Method Detection Limit (MDL) as defined by 40 CFR 136 Appendix B
BLOD	Below Limit of Detection, same as Below Method Detection Limit (MDL) as defined by 40 CFR 136 Appendix B
LOQ	Limit of Quantitation
DF	Dilution Factor
DL	Detection Limit, same as MDL as defined by 40 CFR 136 Appendix B
TIC	Tentatively Identified Compounds are compounds that are identified by comparing the analyte mass spectral pattern with the NIST spectral library. A TIC spectral match is reported when the pattern is at least 75% consistent with the published pattern. Compound concentrations are estimated and are calculated using an internal standard response factor of 1.
PCBs, Total	Total PCBs are defined as the sum of detected Aroclors 1016, 1221, 1232, 1248, 1254, 1260, 1262, and 1268.

ENTHALPY ANALYTICAL

1941 REYMET ROAD
RICHMOND, VIRGINIA 23237
(804) 358-8295 PHONE
(804)358-8297 FAX

CHAIN OF CUSTODY

COMPANY NAME: SCS Engineers	INVOICE TO: SAME	PROJECT NAME/Quote #: City of Bristol Landfill #588	
CONTACT: Jennifer Robb	INVOICE CONTACT:	SITE NAME: 24-08 LFG-EW Monthly Monitoring	
ADDRESS: 296 Victory Road	INVOICE ADDRESS:	PROJECT NUMBER: 02218208.15 Task 2	
Winchester, VA 22602	INVOICE PHONE #:	P.O. #:	
PHONE #: 703-471-6150 EMAIL: jrobb@scsengineers.com		Pretreatment Program:	
Is sample for compliance reporting? YES NO	Regulatory State: V A	Is sample from a chlorinated supply? YES NO	PWS I.D. #:
SAMPLER NAME (PRINT): Will Fabric/Laurel Ticket	SAMPLER SIGNATURE: Will Fabric / Laurel Ticket	Turn Around Time: 10 Day(s)	

Matrix Codes: WW=Waste Water/Storm Water GW=Ground Water DW=Drinking Water S=Soil/Solids OR=Organic A=Air WP=Wipe OT=Other_____

CLIENT SAMPLE I.D.	Grab	Composite	Field Filtered (Dissolved Metals)	Composite Start Date	Composite Start Time	Grab Date or Composite Stop Date	Grab Time or Composite Stop Time	Time Preserved	Matrix (See Codes)	Number of Containers	Ammonia - EPA 350.1	BOD - SM22 5210B-2021	COD - SM22 5220D-2011	Cyanide - SW9012	Nitrate SM22 450-NO3F-2011 (report seperatly from Nitrite)	Nitrite SM22 450-NO3F-2011	SVOC (Anthracene) 8270	Total Metals (As, Ba, Cd, Cr, Cu, Pb, Ni, Se, Ag, Zn) 6020	TKN - EPA 351.2 R2.0	Mercury - 6020	Total Recoverable Phenolics - 9065	V. Fatty Acids (See List) 8015	VOCs (See List) 8260	COMMENTS
1) EW-54	X					9/11/24	1020		GW	13													
2) EW-52	X					↓	820		GW	18													
3) EW-68	X					↓	850		GW	13													
4)									GW														
5)									GW														
6)									GW														
7)									GW														
8)									GW														
9)									GW														OT: 2.4
10) Trip Blank	X					9/4/24	1135		DI	2													CF: 1.0

Preservative Codes: N=Nitric Acid C=Hydrochloric Acid S=Sulfuric Acid H=Sodium Hydroxide A=Ascorbic Acid Z=Zinc Acetate T=Sodium Thiosulfate M=Methanol

Note VOC 8260 no HCl

PLEASE NOTE PRESERVATIVE(S), INTERFERENCE CHECKS or PUMP RATE (L/min)

RELINQUISHED:	DATE / TIME	RECEIVED:	DATE / TIME
Laurel Tucker	9/11/24 1300	[illegible] 9/12/24	LCN
LCN		[illegible]	9/12/24 0800

QC Data Package
Level III ☐
Level IV ☐

LAB USE ONLY Therm ID: 393 COOLER TEMP 2.4 °C
Custody Seals used and intact? (Y) N Received on ice? (Y) N

SCS-W **24I0652**
24-08 Bristol LFG-EW
Recd: 09/12/2024 Due: 09/26/2024

v130325002

ENTHALPY ANALYTICAL

Sample Preservation Log

Order ID 2410652 Date Performed: 9/12/24 Analyst Performing Check: HG for AER

Sample ID	Container ID	Metals			Cyanide			Sulfide			Ammonia			TKN			Phos, Tot			NO3+NO2			DRO			Pesticide (8081/608/508) PCB DW only			SVOC (525/8270/625)			CrVI * **		Pest/PCB (508) / SVOC(525)			COD			phenolics		
		pH as Received		Final pH	pH as Received		Final pH	pH as Received		Final pH	pH as Received		Final pH	pH as Received		Final pH	pH as Received		Final pH	pH as Received		Final pH	pH as Received		Final pH	Received Res. Cl		final + or -	Received Res. Cl		final + or -	Received pH	Final pH	pH as Received		Final pH	pH as Received		Final pH	pH as Received		Final pH
		<2	Other		>12	Other		>9	Other		<2	Other		<2	Other		<2	Other		<2	Other		<2	Other		+	-		+	-				<2	Other		<2	Other		<2	Other	
1	A		5	<2																																				
1	D											5	<2		5	<2					5	<2															5	<2			
1	E					6	>12																																	
1	F																																					6	<2
1	G																												-										
2	A		5	<2																																			
2	D											5	<2		5	<2					5	<2															5	<2			
2	E					6	>12																																	
2	F																																					6	<2
2	G																												-										
3	A		5	<2																																			
3	D											5	<2		5	<2					5	<2															5	<2			
3	E					10	>12																																	
3	F																																					6	<2
3	G																												-										

NaOH ID: _____ HNO3 ID: 4604458 CrVI preserved date/time: _____ Analyst Initials: _____

*pH must be adjusted between 9.3 - 9.7

H_2SO_4 ID: 4604424 $Na_2S_2O_3$ ID: _____ Ammonia Buffer Sol'n ID: _____

HCL ID: _____ Na_2SO_3 ID: _____ 5N NaOH ID: _____

Metals were received with pH = 5 HNO3 was added at 1353 on 12th of September, 2024, by AER in the Log-In room to bring pH= <2.

**W.Va only certifies DISS CrVI and not T CrVI as an approved analyte under 40CFR136 for waste water.

Enthalpy Analytical
1941 Reymet Road
Richmond, Virginia 23237
(804)-358-8295 - Telephone
(804)-358-8297 - Fax

Certificate of Analysis

Client Name: SCS Engineers-Winchester
Client Site I.D.: LFG-EW Monthly Monitoring
Submitted To: Jennifer Robb

Date Issued: 9/30/2024 9:43:20AM
Work Order: 24I0652

Enthalpy Analytical
1941 Reymet Road
Richmond, Virginia 23237
(804)-358-8295 - Telephone
(804)-358-8297 - Fax

Certificate of Analysis

Client Name: SCS Engineers-Winchester
Client Site I.D.: LFG-EW Monthly Monitoring
Submitted To: Jennifer Robb

Date Issued: 9/30/2024 9:43:20AM
Work Order: 24I0652

Laboratory Order ID: 24I0652

Sample Conditions Checklist

Samples Received at:	**2.40°C**
How were samples received?	Logistics Courier
Were Custody Seals used? If so, were they received intact?	Yes
Are the custody papers filled out completely and correctly?	Yes
Do all bottle labels agree with custody papers?	Yes
Is the temperature blank or representative sample within acceptable limits or received on ice, and recently taken?	Yes
Are all samples within holding time for requested laboratory tests?	Yes
Is a sufficient amount of sample provided to perform the tests included?	Yes
Are all samples in appropriate containers for the analyses requested?	Yes
Were volatile organic containers received?	Yes
Are all volatile organic and TOX containers free of headspace?	No
Is a trip blank provided for each VOC sample set? VOC sample sets include EPA8011, EPA504, EPA8260, EPA624, EPA8015 GRO, EPA8021, EPA524, and RSK-175.	Yes
Are all samples received appropriately preserved? Note that metals containers do not require field preservation but lab preservation may delay analysis. In addition, field parameters are always received outside holding time and will be marked accordingly.	No

Jennifer Robb notified via email for the VOAC40mL containers were received with headspace and the samples were preserved in the lab to the appropriate pH. HEG 9/12/24 1528

Enthalpy Analytical
1941 Reymet Road
Richmond, Virginia 23237
(804)-358-8295 - Telephone
(804)-358-8297 - Fax

Certificate of Analysis

Client Name: SCS Engineers-Winchester
Client Site I.D.: LFG-EW Monthly Monitoring
Submitted To: Jennifer Robb

Date Issued: 9/30/2024 9:43:20AM
Work Order: 24I0652

Jennifer Robb confirmed via email to proceed with analysis. HEG 9/12/24 1744

Pace Analytical Services, LLC
7979 Innovation Park Drive
Baton Rouge, LA 70820
(225) 769-4900

September 23, 2024

Virginia Thrasher
Enthalpy
1941 Reymet Road
Richmond, VA 23237

RE: Project: 24I0652/Enthalpy
Pace Project No.: 20330045

Dear Virginia Thrasher:

Enclosed are the analytical results for sample(s) received by the laboratory on September 13, 2024. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

The test results provided in this final report were generated by each of the following laboratories within the Pace Network:

- Pace Analytical Services - Baton Rouge

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Devin McDougal
devin.mcdougal@pacelabs.com
(225) 769-4900
Project Manager

Enclosures

cc: Andrew Bruner, Enthalpy
Daniel Elliott, Enthalpy
Meghan Meyer, Enthalpy

Pace Analytical Services, LLC
7979 Innovation Park Drive
Baton Rouge, LA 70820
(225) 769-4900

CERTIFICATIONS

Project: 24I0652/Enthalpy
Pace Project No.: 20330045

Pace Analytical Services Baton Rouge
7979 Innovation Park Drive Ste A, Baton Rouge, LA 70820-7402
Louisiana Dept of Enviromental Quality (NELAC/LELAP): 01979
Florida Dept of Health (NELAC/FELAP): E87854
DoD ELAP (A2LA) #: 6429.01
Alabama DEM #: 41900
Alaska DEC-DW #: LA00024
Alaska DEC CS-LAP #: 21-001
Arkansas DEQ #: 88-0655
California ELAP #: 3063
Georgia DPD #: C050
Hawaii DOH State Laboratories Division
Illinois EPA #: 200048
Kansas DoHE #: E-10354
Kentucky DEP UST Branch #: 123054
Louisiana DOH #: LA036
Minnesota DOH #: 2233799
Mississippi State Dept of Health
Montana Department of Environmental Quality
Nebraska DHHS #: NE-OS-35.21
Nevada DCNR DEP #: LA00024
New York DOH #: 12149
North Carolina DEQ - WW & GW #: 618
North Dakota DEQ #: R195
Ohio EPA #: 87782
Oklahoma Dept of Environmental Quality #: 9403
Oregon ELAP #: 4168
Pennsylvania Dept of Environmental Protection #: 68-05973
South Carolina DHEC #: 73006001
Texas CEQ #: T104704178-23-15
Utah DOH #: LA00024
Virginia DCLS #: 6460215
Washington Dept of Ecology #: C929
Wisconsin DNR #: 399139510

Pace Analytical Services, LLC
7979 Innovation Park Drive
Baton Rouge, LA 70820
(225) 769-4900

SAMPLE SUMMARY

Project: 24I0652/Enthalpy
Pace Project No.: 20330045

Lab ID	Sample ID	Matrix	Date Collected	Date Received
20330045001	**24I0652-01: EW-54**	Water	09/11/24 10:20	09/13/24 10:45
20330045002	**24I0652-02: EW-52**	Water	09/11/24 08:20	09/13/24 10:45
20330045003	**24I0652-03: EW-68**	Water	09/11/24 08:50	09/13/24 10:45

Pace Analytical Services, LLC
7979 Innovation Park Drive
Baton Rouge, LA 70820
(225) 769-4900

SAMPLE ANALYTE COUNT

Project: 24I0652/Enthalpy
Pace Project No.: 20330045

Lab ID	Sample ID	Method	Analysts	Analytes Reported
20330045001	**24I0652-01: EW-54**	Pace ENV-SOP-BTRO-0042	VAM	10
20330045002	**24I0652-02: EW-52**	Pace ENV-SOP-BTRO-0042	VAM	10
20330045003	**24I0652-03: EW-68**	Pace ENV-SOP-BTRO-0042	VAM	10

PASI-BR = Pace Analytical Services - Baton Rouge

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
7979 Innovation Park Drive
Baton Rouge, LA 70820
(225) 769-4900

PROJECT NARRATIVE

Project: 24I0652/Enthalpy
Pace Project No.: 20330045

Method: **Pace ENV-SOP-BTRO-0042**
Description: BR AM23G Low Level VFA
Client: BR-Enthalpy
Date: September 23, 2024

General Information:
3 samples were analyzed for Pace ENV-SOP-BTRO-0042 by Pace Analytical Services Baton Rouge. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:
The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):
All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:
All criteria were within method requirements with any exceptions noted below.

Internal Standards:
All internal standards were within QC limits with any exceptions noted below.

Surrogates:
All surrogates were within QC limits with any exceptions noted below.

Method Blank:
All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:
All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:
All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

Analyte Comments:

QC Batch: 341897

D4: Sample was diluted due to the presence of high levels of target analytes.

- 24I0652-01: EW-54 (Lab ID: 20330045001)
  - Lactic Acid
- 24I0652-03: EW-68 (Lab ID: 20330045003)
  - Lactic Acid

N2: The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

- 24I0652-01: EW-54 (Lab ID: 20330045001)
  - Hexanoic Acid
  - i-Hexanoic Acid
  - i-Pentanoic Acid

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
7979 Innovation Park Drive
Baton Rouge, LA 70820
(225) 769-4900

PROJECT NARRATIVE

Project: 24I0652/Enthalpy
Pace Project No.: 20330045

Method: **Pace ENV-SOP-BTRO-0042**
Description: BR AM23G Low Level VFA
Client: BR-Enthalpy
Date: September 23, 2024

Analyte Comments:

QC Batch: 341897

N2: The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

- 24I0652-01: EW-54 (Lab ID: 20330045001)
  - Pentanoic Acid
- 24I0652-02: EW-52 (Lab ID: 20330045002)
  - Hexanoic Acid
  - i-Hexanoic Acid
  - i-Pentanoic Acid
  - Pentanoic Acid
- 24I0652-03: EW-68 (Lab ID: 20330045003)
  - Hexanoic Acid
  - i-Hexanoic Acid
  - i-Pentanoic Acid
  - Pentanoic Acid
- BLANK (Lab ID: 1642343)
  - Hexanoic Acid
  - i-Hexanoic Acid
  - i-Pentanoic Acid
  - Pentanoic Acid
- LCS (Lab ID: 1642344)
  - Hexanoic Acid
  - i-Hexanoic Acid
  - i-Pentanoic Acid
  - Pentanoic Acid
- MS (Lab ID: 1642406)
  - Hexanoic Acid
  - i-Hexanoic Acid
  - i-Pentanoic Acid
  - Pentanoic Acid
- MSD (Lab ID: 1642407)
  - Hexanoic Acid
  - i-Hexanoic Acid
  - i-Pentanoic Acid
  - Pentanoic Acid

This data package has been reviewed for quality and completeness and is approved for release.

Pace Analytical Services, LLC
7979 Innovation Park Drive
Baton Rouge, LA 70820
(225) 769-4900

ANALYTICAL RESULTS

Project: 24I0652/Enthalpy
Pace Project No.: 20330045

Sample: 24I0652-01: EW-54 **Lab ID: 20330045001** Collected: 09/11/24 10:20 Received: 09/13/24 10:45 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
BR AM23G Low Level VFA	Analytical Method: Pace ENV-SOP-BTRO-0042 Pace Analytical Services - Baton Rouge							
Pentanoic Acid	ND	mg/L	250	500		09/19/24 01:37	109-52-4	N2
Acetic Acid	**5970**	mg/L	500	1000		09/20/24 14:39	64-19-7	
Butyric Acid	**2060**	mg/L	250	500		09/19/24 01:37	107-92-6	
Formic acid	**2730**	mg/L	250	500		09/19/24 01:37	64-18-6	
Hexanoic Acid	ND	mg/L	250	500		09/19/24 01:37	142-62-1	N2
i-Hexanoic Acid	ND	mg/L	250	500		09/19/24 01:37	646-07-1	N2
Lactic Acid	**2550**	mg/L	250	500		09/19/24 01:37	50-21-5	D4
i-Pentanoic Acid	**258**	mg/L	250	500		09/19/24 01:37	503-74-2	N2
Propionic Acid	**1690**	mg/L	250	500		09/19/24 01:37	79-09-4	
Pyruvic Acid	ND	mg/L	250	500		09/19/24 01:37	127-17-3	

Sample: 24I0652-02: EW-52 **Lab ID: 20330045002** Collected: 09/11/24 08:20 Received: 09/13/24 10:45 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
BR AM23G Low Level VFA	Analytical Method: Pace ENV-SOP-BTRO-0042 Pace Analytical Services - Baton Rouge							
Pentanoic Acid	**352**	mg/L	250	500		09/19/24 02:02	109-52-4	N2
Acetic Acid	**10400**	mg/L	1250	2500		09/20/24 15:04	64-19-7	
Butyric Acid	**3550**	mg/L	250	500		09/19/24 02:02	107-92-6	
Formic acid	**4230**	mg/L	250	500		09/19/24 02:02	64-18-6	
Hexanoic Acid	**293**	mg/L	250	500		09/19/24 02:02	142-62-1	N2
i-Hexanoic Acid	ND	mg/L	250	500		09/19/24 02:02	646-07-1	N2
Lactic Acid	**5510**	mg/L	1250	2500		09/20/24 15:04	50-21-5	
i-Pentanoic Acid	**341**	mg/L	250	500		09/19/24 02:02	503-74-2	N2
Propionic Acid	**2640**	mg/L	250	500		09/19/24 02:02	79-09-4	
Pyruvic Acid	ND	mg/L	250	500		09/19/24 02:02	127-17-3	

Sample: 24I0652-03: EW-68 **Lab ID: 20330045003** Collected: 09/11/24 08:50 Received: 09/13/24 10:45 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
BR AM23G Low Level VFA	Analytical Method: Pace ENV-SOP-BTRO-0042 Pace Analytical Services - Baton Rouge							
Pentanoic Acid	ND	mg/L	250	500		09/19/24 02:27	109-52-4	N2
Acetic Acid	**2950**	mg/L	250	500		09/19/24 02:27	64-19-7	
Butyric Acid	**670**	mg/L	250	500		09/19/24 02:27	107-92-6	
Formic acid	**407**	mg/L	250	500		09/19/24 02:27	64-18-6	
Hexanoic Acid	ND	mg/L	250	500		09/19/24 02:27	142-62-1	N2
i-Hexanoic Acid	ND	mg/L	250	500		09/19/24 02:27	646-07-1	N2
Lactic Acid	ND	mg/L	250	500		09/19/24 02:27	50-21-5	D4
i-Pentanoic Acid	**251**	mg/L	250	500		09/19/24 02:27	503-74-2	N2
Propionic Acid	**1300**	mg/L	250	500		09/19/24 02:27	79-09-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
7979 Innovation Park Drive
Baton Rouge, LA 70820
(225) 769-4900

ANALYTICAL RESULTS

Project: 24I0652/Enthalpy
Pace Project No.: 20330045

Sample: 24I0652-03: EW-68 **Lab ID: 20330045003** Collected: 09/11/24 08:50 Received: 09/13/24 10:45 Matrix: Water

Parameters	Results	Units	Report Limit	DF	Prepared	Analyzed	CAS No.	Qual
BR AM23G Low Level VFA	Analytical Method: Pace ENV-SOP-BTRO-0042 Pace Analytical Services - Baton Rouge							
Pyruvic Acid	ND	mg/L	250	500		09/19/24 02:27	127-17-3	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
7979 Innovation Park Drive
Baton Rouge, LA 70820
(225) 769-4900

QUALITY CONTROL DATA

Project: 24I0652/Enthalpy
Pace Project No.: 20330045

QC Batch: 341897
QC Batch Method: Pace ENV-SOP-BTRO-0042
Analysis Method: Pace ENV-SOP-BTRO-0042
Analysis Description: BR AM23G Low Level VFA
Laboratory: Pace Analytical Services - Baton Rouge
Associated Lab Samples: 20330045001, 20330045002, 20330045003

METHOD BLANK: 1642343 Matrix: Water
Associated Lab Samples: 20330045001, 20330045002, 20330045003

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Acetic Acid	mg/L	ND	0.50	09/18/24 23:03	
Butyric Acid	mg/L	ND	0.50	09/18/24 23:03	
Formic acid	mg/L	ND	0.50	09/18/24 23:03	
Hexanoic Acid	mg/L	ND	0.50	09/18/24 23:03	N2
i-Hexanoic Acid	mg/L	ND	0.50	09/18/24 23:03	N2
i-Pentanoic Acid	mg/L	ND	0.50	09/18/24 23:03	N2
Lactic Acid	mg/L	ND	0.50	09/18/24 23:03	
Pentanoic Acid	mg/L	ND	0.50	09/18/24 23:03	N2
Propionic Acid	mg/L	ND	0.50	09/18/24 23:03	
Pyruvic Acid	mg/L	ND	0.50	09/18/24 23:03	

LABORATORY CONTROL SAMPLE: 1642344

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acetic Acid	mg/L	2	2.0	99	70-130	
Butyric Acid	mg/L	2	2.0	98	70-130	
Formic acid	mg/L	2	2.0	100	70-130	
Hexanoic Acid	mg/L	2	1.9	94	39-114	N2
i-Hexanoic Acid	mg/L	2	1.7	87	39-114	N2
i-Pentanoic Acid	mg/L	2	2.1	105	59-121	N2
Lactic Acid	mg/L	2	1.9	97	70-130	
Pentanoic Acid	mg/L	2	1.9	97	59-121	N2
Propionic Acid	mg/L	2	2.0	98	70-130	
Pyruvic Acid	mg/L	2	2.0	98	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1642406 1642407

Parameter	Units	20330028009 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Acetic Acid	mg/L	1.2U	20	20	20.2	20.1	98	98	70-130	1	30	
Butyric Acid	mg/L	0.58U	20	20	19.8	19.5	99	97	70-130	1	30	
Formic acid	mg/L	1.1U	20	20	20.8	20.8	101	101	70-130	0	30	
Hexanoic Acid	mg/L	2.4U	20	20	19.7	19.5	98	98	39-114	1	30	N2
i-Hexanoic Acid	mg/L	1.1U	20	20	18.6	18.6	93	93	39-114	0	30	N2
i-Pentanoic Acid	mg/L	1.2U	20	20	21.4	20.7	107	103	59-121	3	30	N2
Lactic Acid	mg/L	1.2U	20	20	19.8	19.9	99	100	70-130	0	30	
Pentanoic Acid	mg/L	1.7U	20	20	19.7	19.7	98	99	59-121	0	30	N2

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
7979 Innovation Park Drive
Baton Rouge, LA 70820
(225) 769-4900

QUALITY CONTROL DATA

Project: 24I0652/Enthalpy
Pace Project No.: 20330045

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1642406 1642407

Parameter	Units	20330028009 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Propionic Acid	mg/L	0.53U	20	20	19.8	19.7	99	98	70-130	1	30	
Pyruvic Acid	mg/L	1.2U	20	20	19.7	19.4	98	97	70-130	1	30	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
7979 Innovation Park Drive
Baton Rouge, LA 70820
(225) 769-4900

QUALITY CONTROL DATA

Project: 24I0652/Enthalpy
Pace Project No.: 20330045

QC Batch: 342240
QC Batch Method: Pace ENV-SOP-BTRO-0042
Analysis Method: Pace ENV-SOP-BTRO-0042
Analysis Description: BR AM23G Low Level VFA
Laboratory: Pace Analytical Services - Baton Rouge
Associated Lab Samples: 20330045001, 20330045002

METHOD BLANK: 1644115 Matrix: Water
Associated Lab Samples: 20330045001, 20330045002

Parameter	Units	Blank Result	Reporting Limit	Analyzed	Qualifiers
Acetic Acid	mg/L	ND	0.50	09/20/24 13:47	
Lactic Acid	mg/L	ND	0.50	09/20/24 13:47	

LABORATORY CONTROL SAMPLE: 1644116

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Acetic Acid	mg/L	2	2.0	102	70-130	
Lactic Acid	mg/L	2	2.1	104	70-130	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 1644172 1644173

Parameter	Units	20330568001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Acetic Acid	mg/L	40.4	20	20	59.1	59.0	93	93	70-130	0	30	
Lactic Acid	mg/L	ND	20	20	20.4	20.0	102	100	70-130	2	30	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
7979 Innovation Park Drive
Baton Rouge, LA 70820
(225) 769-4900

QUALIFIERS

Project: 24I0652/Enthalpy
Pace Project No.: 20330045

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

J - Estimated concentration above the adjusted method detection limit and below the adjusted reporting limit.

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

RL - Reporting Limit - The lowest concentration value that meets project requirements for quantitative data with known precision and bias for a specific analyte in a specific matrix.

S - Surrogate

1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.

Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

U - Indicates the compound was analyzed for, but not detected.

N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.

Reported results are not rounded until the final step prior to reporting. Therefore, calculated parameters that are typically reported as "Total" may vary slightly from the sum of the reported component parameters.

Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.

TNI - The Nelac Institute

ANALYTE QUALIFIERS

D4	Sample was diluted due to the presence of high levels of target analytes.
N2	The lab does not hold NELAC/TNI accreditation for this parameter but other accreditations/certifications may apply. A complete list of accreditations/certifications is available upon request.

Pace Analytical Services, LLC
7979 Innovation Park Drive
Baton Rouge, LA 70820
(225) 769-4900

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 24I0652/Enthalpy
Pace Project No.: 20330045

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
20330045001	**24I0652-01: EW-54**	Pace ENV-SOP-BTRO-0042	341897		
20330045001	**24I0652-01: EW-54**	Pace ENV-SOP-BTRO-0042	342240		
20330045002	**24I0652-02: EW-52**	Pace ENV-SOP-BTRO-0042	341897		
20330045002	**24I0652-02: EW-52**	Pace ENV-SOP-BTRO-0042	342240		
20330045003	**24I0652-03: EW-68**	Pace ENV-SOP-BTRO-0042	341897		

ENTHALPY ANALYTICAL

Pace - Gulf Coast
7979 Innovation Park Dr
Baton Rouge, LA 70820

1941
RICHMOND,
(804) 3
(80

WO# : 20330045

20330045

CHAIN OF CUSTODY

COMPANY NAME: Enthalpy	INVOICE TO: Enthalpy	PROJECT NAME/Quote #: 24I0652
CONTACT: Dan Elliot	INVOICE CONTACT:	SITE NAME: 24I0652
ADDRESS: 1941 Reymet Rd Richmond VA 23237	INVOICE ADDRESS: 1941 Reymet Rd Richmond VA 23237	PROJECT NUMBER: 24I0652
PHONE #: (804) 358-8295	INVOICE PHONE #: (804) 358-8295	P.O. #: To be emailed
FAX #:	EMAIL:	Pretreatment Program:
Is sample for compliance reporting? YES NO	Is sample from a chlorinated supply? YES NO	PWS I.D. #:
SAMPLER NAME (PRINT):Will Falorie/Laurel Tucker	SAMPLER SIGNATURE:	Turn Around Time: 10

Matrix Codes: WW=Waste Water/Storm Water GW=Ground Water DW=Drinking Water S=Soil/Solids OR=Organic A=Air WP=Wipe OT=Other_____

CLIENT SAMPLE I.D.	Grab	Composite	Field Filtered (Dissolved Metals)	Composite Start Date	Composite Start Time	Grab Date or Composite Stop Date	Grab Time or Composite Stop Time	Time Preserved	Matrix (See Codes)	Number of Containers	ANALYSIS / (PRESERVATIVE) Volatile Fatty Acid								COMMENTS
1) 24I0652-01: EW-54	x					9/11/24	1020		GW	3	X								1
2) 24I0652-02: EW-52	x					9/11/25	0820		GW	3	X								2
3) 24I0652-03: EW-68	x					9/11/26	850		GW	3	X								3
4)																			
5)																			
6)																			
7)																			
8)																			
9)																			
10)																			

Preservative Codes: N=Nitric Acid C=Hydrochloric Acid S=Sulfuric Acid H=Sodium Hydroxide A=Ascorbic Acid Z=Zinc Acetate T=Sodium Thiosulfate M=Methanol

PLEASE NOTE PRESERVATIVE(S), INTERFERENCE CHECKS or PUMP RATE (L/min)

RELINQUISHED:	DATE / TIME	RECEIVED:	DATE / TIME
[signature]	9/12/24 1650	FedEx Express	9/12/24 1650
RELINQUISHED: FedEx	DATE / TIME 9/13/24 1045	RECEIVED: [signature]	DATE / TIME 9/13/24 1045
RELINQUISHED:	DATE / TIME	RECEIVED:	DATE / TIME

QC Data Package
Level I ☐
Level II ☐
Level III ☐
Level IV ☐

LAB USE ONLY COOLER TEMP _____°C

Page 14 of 15

WO# : 20330045

PM: DRM **Due Date: 09/27/24**

CLIENT: BR-Enthalpy

Pace

Sample Condition Upon R

Workorder #: _____

7979 Innovation Park Dr. Baton Rouge, LA 70806

Cooler Inspected by/date: SG / 9-13-24

Means of receipt: ☐ Pace ☐ Client ☐ UPS ☑ FedEx ☐ Other: _____

☑ Yes	☐ No		Were custody seals present on the cooler?
☑ Yes	☐ No	☐ NA	If custody seals were present, were they intact and unbroken?

Method: ☐ Temperature Blank ☑ Against Bottles IR Gun ID: 243 IR Gun Correction Factor: 0 °C

Cooler #1	Cooler Temp °C: 2.1	(Actual/True)	Samples on ice ☑ Yes ☐ No; pH Strip Lot #
Cooler #2	Cooler Temp °C: _____	(Actual/True)	
Cooler #3	Cooler Temp °C: _____	(Actual/True)	Method of coolant: ☑ Wet ☐ Ice Packs ☐ Dry Ice ☐ None
Cooler #4	Cooler Temp °C: _____	(Actual/True)	

Tracking #: 7785 5503 9305

☐ Yes	☑ No	☐ NA	Is a temperature blank present?	
☑ Yes	☐ No	☐ NA	Was a chain of custody (COC) recieved?	
☐ Yes	☑ No	☐ NA	Was the line and profile number listed on the COC?	
☑ Yes	☐ No	☐ NA	Were all coolers received at or below 6.0°C? If no, notify Project Manager notified via email.	
☑ Yes	☐ No		Were proper custody procedures (relinquished/received) followed?	
☐ Yes	☑ No	☐ NA	Is the sampler name and signature on the COC?	
☑ Yes	☐ No		Were sample IDs listed on the COC and all sample containers?	
☑ Yes	☐ No		Was collection date & time listed on the COC and all sample containers?	
☑ Yes	☐ No		Did all container label information (ID, date, time) agree with the COC?	
☑ Yes	☐ No		Were tests to be performed listed on the COC?	
☑ Yes	☐ No		Did all samples arrive in the proper containers for each test and/or in good condition (unbroken, lids on, etc.)?	
☑ Yes	☐ No		Was adequate sample volume available?	
☑ Yes	☐ No		Were all samples received within ½ the holding time or 48 hours, whichever comes first?	
☑ Yes	☐ No		Were all samples containers accounted for? (No missing / excess)	
☐ Yes	☐ No	☑ NA	Were VOA, 8015C (GRO/VPH), and RSK-175 samples free of bubbles > "pea size" (1/4" or 6mm in diameter) in any of the VOA vials?	
☐ Yes	☐ No	☑ NA	Trip blank present?	
☐ Yes	☐ No	☑ NA	Filtered volume received for dissolved tests? *If no, list affected sample(s) in comments below.*	
☐ Yes	☐ No	☑ NA	Were all metals/nutrient samples received at a pH of < 2?	If No, was preservative added? ☐ Yes ☐ No If added, record lots. Dispenser/pipette lot #: _____
☐ Yes	☐ No	☑ NA	Were all cyanide samples received at a pH > 12 and sulfide samples received at a pH > 9?	HNO_3 _____ H_2SO_4 _____ NaOH _____ Date: _____ Time: _____

Comments:

Historical LFG-EW Leachate Monitoring Results Summary

Well ID		EW-50	EW-51	EW-52	EW-53	EW-54	EW-55	EW-57	EW-58	EW-59	EW-60	EW-61	EW-62	EW-64	EW-65	EW-67	EW-68	EW-78	EW-85	EW-87	EW-88	EW-94	EW-98	LOD	LOQ
Parameter	**Monitoring Event**	**Concentration**																							
Ammonia as N (mg/L)	November-2022	---	---	---	---	---	---	---	---	**1560**	---	**1400**	---	---	**1380**	---	---	---	---	---	---	---	---	50	50
	December-2022	**1700**	---	**2280**	---	---	---	**2110**	---	**1410**	**1310**	---	---	---	---	**1150**	**1780**	---	---	---	---	---	---	100	100
	January-2023	**1520**	---	---	---	---	---	---	**936**	---	---	---	---	---	**1330**	---	---	---	---	---	---	---	---	50	50
		---	---	---	---	---	---	---	---	**2440**	---	---	---	---	---	---	---	---	---	---	---	---	---	100	100
	February-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**1490**	---	---	---	---	---	---	100	100
	March-2023	---	---	---	---	---	---	---	**667**	**1480**	---	---	---	---	---	---	---	---	---	---	---	---	---	73.1	100
	April-2023	---	---	---	---	---	---	---	**1410**	---	**1220**	---	---	---	---	---	---	---	---	---	---	---	---	73.1	100
	May-2023	**1390**	---	---	---	---	---	---	**1860**	**2380**	---	---	---	---	---	---	---	---	---	---	---	---	---	146	200
	June-2023	---	---	---	---	---	---	---	---	**2740**	---	**2370**	---	**2170**	---	---	---	---	---	---	---	---	---	146	200
	July-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**1180**	---	---	---	---	---	73.1	100
		1570	---	---	---	---	---	**2260**	---	---	---	---	---	---	---	---	---	---	---	---	---	**2350**	**310**	146	200
	August-2023	---	---	---	---	**1600**	---	**1890**	---	---	---	---	---	---	---	---	---	---	---	---	---	**2140**	**222**	146	200
	September-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**1720**	---	---	---	---	---	73.1	100
		---	---	**1250**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	146	200
	October-2023	---	---	---	---	---	**1980**	---	---	---	---	---	---	---	---	---	---	**1730**	---	**2890**	---	---	---	146	200
	November-2023	**1260**	---	**2490**	**1830**	---	**2070**	---	---	---	---	---	---	---	---	---	---	**1800**	---	**2590**	---	---	---	146	200
		---	---	---	---	---	---	---	---	---	---	---	**1170**	---	---	---	---	---	---	---	---	---	**2080**	183	250
		---	---	---	---	---	---	---	---	**2440**	---	---	---	---	---	---	---	---	---	---	---	---	---	366	500
	December-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**1540**	---	---	---	---	---	73.1	100
		---	---	**2900**	---	---	---	---	---	---	---	---	---	---	---	---	**2200**	---	---	---	---	---	---	146	200
	January-2024	---	**2160**	---	---	---	---	---	---	**2400**	---	---	---	---	---	---	---	---	---	---	---	---	**1610**	146	200
	February-2024	---	**1900**	---	**2600**	---	---	---	---	---	---	---	---	---	---	---	---	---	**1780**	---	**2380**	---	---	146	200
	March-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**2280**	---	**968**	146	200
	April-2024	---	---	**2290**	---	---	---	---	---	---	---	---	**928**	---	---	---	**2140**	**1800**	---	---	---	---	---	146	200
	May-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**898**	73.1	100
		---	---	---	---	---	---	---	---	**2550**	---	---	---	---	---	---	---	**1620**	**1950**	**2660**	---	---	---	146	200
	June-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**1990**	**2170**	---	---	---	**1850**	146	200
	July-2024	---	---	---	---	---	---	---	---	**1860**	---	---	---	---	---	---	---	---	---	---	---	---	---	73.1	100
		---	---	---	---	---	---	---	---	---	**1950**	---	---	---	---	---	---	---	---	---	---	---	---	146	200
	August-2024	---	---	---	---	**1110**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	73.1	100
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**2130**	---	---	**2550**	---	146	200
	September-2024	---	---	---	---	**1440**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	73.1	100
		---	---	**2210**	---	---	---	---	---	---	---	---	---	---	---	---	**2290**	---	---	---	---	---	---	146	200
Biological Oxygen Demand (mg/L)	November-2022	---	---	---	---	---	---	---	---	**15700**	---	**5860**	---	---	**5140**	---	---	---	---	---	---	---	---	0.2	2
	December-2022	**6440**	---	**12500**	---	---	---	**11400**	---	**9240**	**3330**	---	---	---	---	**8360**	**6770**	---	---	---	---	---	---	0.2	2
	January-2023	**9920**	---	---	---	---	---	---	**999**	**28100**	---	---	---	---	**7060**	---	---	---	---	---	---	---	---	0.2	2
	February-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**7230**	---	---	---	---	---	---	0.2	2
	March-2023	---	---	---	---	---	---	---	**1570**	**9190**	---	---	---	---	---	---	---	---	---	---	---	---	---	0.2	2
	April-2023	---	---	---	---	---	---	---	**8430**	---	**2860**	---	---	---	---	---	---	---	---	---	---	---	---	0.2	2
	May-2023	**7350**	---	---	---	---	---	---	**11900**	**35300**	---	---	---	---	---	---	---	---	---	---	---	---	---	0.2	2
	June-2023	---	---	---	---	---	---	---	---	**20000**	---	**27400**	---	**23100**	---	---	---	---	---	---	---	---	---	0.2	2
	July-2023	**6820**	---	---	---	---	---	**32900**	---	---	---	---	---	---	---	---	---	**330**	---	---	---	**31800**	**937**	0.2	2
	August-2023	---	---	---	---	**>33045**	---	**>33225**	---	---	---	---	---	---	---	---	---	---	---	---	---	**>32805**	**506**	0.2	2
	September-2023	---	---	**40185.5**	---	---	---	---	---	---	---	---	---	---	---	---	---	**659**	---	---	---	---	---	0.2	2
	October-2023	---	---	---	---	---	**34600**	---	---	---	---	---	---	---	---	---	---	**690**	---	**37000**	---	---	---	0.2	2
	November-2023	**1910**	---	**30400**	**27500**	---	**32015**	---	---	**29600**	---	---	**3640**	---	---	---	---	**480**	---	**32135**	---	---	**21500**	0.2	2
	December-2023	---	---	**>44105**	---	---	---	---	---	---	---	---	---	---	---	---	**13700**	**681**	---	---	---	---	---	0.2	2
	January-2024	---	**26000**	---	---	---	---	---	---	**17100**	---	---	---	---	---	---	---	---	---	---	---	---	**14000**	0.2	2
	February-2024	---	**23200**	---	**26200**	---	---	---	---	---	---	---	---	---	---	---	---	---	**21400**	---	**34300**	---	---	0.2	2
	March-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**40600**	---	**7680**	0.2	2
	April-2024	---	---	**41142**	---	---	---	---	---	---	---	---	**1210**	---	---	---	**19600**	**386**	---	---	---	---	---	0.2	2
	May-2024	---	---	---	---	---	---	---	---	**25600**	---	---	---	---	---	---	---	**448**	**22200**	**33400**	---	---	**7750**	0.2	2
	June-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**421**	**24400**	---	---	---	**16200**	0.2	2
	July-2024	---	---	---	---	---	---	---	---	**25800**	**4750**	---	---	---	---	---	---	---	---	---	---	---	---	0.2	2
	August-2024	---	---	---	---	**31000**	---	---	---	---	---	---	---	---	---	---	---	---	**20800**	---	---	**33400**	---	0.2	2
	September-2024	---	---	ND	---	**36100**	---	---	---	---	---	---	---	---	---	---	**27400**	---	---	---	---	---	---	0.2	2

Historical LFG-EW Leachate Monitoring Results Summary

Well ID		EW-50	EW-51	EW-52	EW-53	EW-54	EW-55	EW-57	EW-58	EW-59	EW-60	EW-61	EW-62	EW-64	EW-65	EW-67	EW-68	EW-78	EW-85	EW-87	EW-88	EW-94	EW-98	LOD	LOQ
Parameter	Monitoring Event	Concentration																							
Chemical Oxygen Demand (mg/L)	November-2022	---	---	---	---	---	---	---	---	---	---	**9790**	---	---	**10800**	---	---	---	---	---	---	---	---	1000	1000
		---	---	---	---	---	---	---	---	**23500**	---	---	---	---	---	---	---	---	---	---	---	---	---	2000	2000
	December-2022	**7440**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1000	1000
		---	---	---	---	---	---	---	---	**13200**	**8000**	---	---	---	---	**20300**	**14100**	---	---	---	---	---	---	2000	2000
		---	---	---	---	---	---	**22400**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	5000	5000
		---	---	**86800**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	10000	10000
	January-2023	---	---	---	---	---	---	---	**3630**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	500	500
		14900	---	---	---	---	---	---	---	---	---	---	---	---	**8430**	---	---	---	---	---	---	---	---	2000	2000
		---	---	---	---	---	---	---	---	**47600**	---	---	---	---	---	---	---	---	---	---	---	---	---	5000	5000
	February-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**9210**	---	---	---	---	---	---	1000	1000
	March-2023	---	---	---	---	---	---	---	**1690**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	500	500
		---	---	---	---	---	---	---	---	**10600**	---	---	---	---	---	---	---	---	---	---	---	---	---	2000	2000
	April-2023	---	---	---	---	---	---	---	---	---	**7370**	---	---	---	---	---	---	---	---	---	---	---	---	1000	1000
		---	---	---	---	---	---	---	**16800**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2000	2000
	May-2023	**7590**	---	---	---	---	---	---	**18700**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2000	2000
		---	---	---	---	---	---	---	---	**44700**	---	---	---	---	---	---	---	---	---	---	---	---	---	4000	4000
	June-2023	---	---	---	---	---	---	---	---	---	---	**44800**	---	---	---	---	---	---	---	---	---	---	---	5000	5000
		---	---	---	---	---	---	---	---	**41300**	---	---	---	**55000**	---	---	---	---	---	---	---	---	---	10000	10000
	July-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**2180**	500	500
		6480	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**2460**	---	---	---	---	---	1000	1000
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**41000**	---	5000	5000
		---	---	---	---	---	---	**50100**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	10000	10000
	August-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**1750**	500	500
		---	---	---	---	**59000**	---	**58600**	---	---	---	---	---	---	---	---	---	---	---	---	---	**60600**	---	5000	5000
	September-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**6260**	---	---	---	---	---	1000	1000
		---	---	**87400**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	10000	10000
	October-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**5320**	---	---	---	---	---	500	500
		---	---	---	---	---	**51000**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	5000	5000
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**63600**	---	---	---	10000	10000
	November-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**4710**	---	---	---	---	---	1000	1000
		6200	---	---	---	---	---	---	---	---	---	---	**5620**	---	---	---	---	---	---	---	---	---	---	2000	2000
		---	---	---	**48100**	---	**57900**	---	---	**43700**	---	---	---	---	---	---	---	---	---	---	---	---	**37600**	5000	5000
		---	---	**77100**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**63900**	---	---	---	10000	10000
	December-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**4870**	---	---	---	---	---	1000	1000
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**19900**	---	---	---	---	---	---	5000	5000
		---	---	**94200**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	10000	10000
	January-2024	---	**48600**	---	---	---	---	---	---	**59800**	---	---	---	---	---	---	---	---	---	---	---	---	**38200**	5000	5000
	February-2024	---	**42700**	---	**51200**	---	---	---	---	---	---	---	---	---	---	---	---	---	**48900**	---	---	---	---	5000	5000
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**68400**	---	---	10000	10000
	March-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**14400**	2000	2000
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**75500**	---	---	10000	10000
	April-2024	---	---	---	---	---	---	---	---	---	---	---	**3110**	---	---	---	---	**4200**	---	---	---	---	---	1000	1000
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**32400**	---	---	---	---	---	---	5000	5000
		---	---	**79700**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	10000	10000
	May-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**4930**	---	---	---	---	---	1000	1000
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**17700**	5000	5000
		---	---	---	---	---	---	---	---	**48500**	---	---	---	---	---	---	---	---	**43100**	**70700**	---	---	---	10000	10000
	June-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**4520**	---	---	---	---	---	1000	1000
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**51400**	---	---	---	**31300**	5000	5000
	July-2024	---	---	---	---	---	---	---	---	**42400**	---	---	---	---	---	---	---	---	---	---	---	---	---	5000	5000
		---	---	---	---	---	---	---	---	---	**98500**	---	---	---	---	---	---	---	---	---	---	---	---	10000	10000
	August-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**48100**	---	---	**59500**	---	5000	5000
		---	---	---	---	**56600**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	10000	10000
	September-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**26800**	---	---	---	---	---	---	4000	4000
		---	---	---	---	**55900**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	5000	5000
		---	---	**78300**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	10000	10000
Nitrate+Nitrite as N (mg/L)	November-2022	---	---	---	---	---	---	---	---	**2.91**	---	**0.16**	---	---	**0.33**	---	---	---	---	---	---	---	---	0.1	0.1

Well ID		EW-50	EW-51	EW-52	EW-53	EW-54	EW-55	EW-57	EW-58	EW-59	EW-60	EW-61	EW-62	EW-64	EW-65	EW-67	EW-68	EW-78	EW-85	EW-87	EW-88	EW-94	EW-98	LOD	LOQ
Parameter	**Monitoring Event**	**Concentration**																							
Nitrate as N (mg/L)	December-2022	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	0.2	0.2
		---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	0.2	0.6
		ND	---	ND	---	---	---	ND	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	1.1	5.1
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	1.5	5.5
	January-2023	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.35	1.35
		---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	1.1	1.1
		3.9	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2.1	2.1
		---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	2.2	2.2
	February-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	0.35	1.35
	March-2023	---	---	---	---	---	---	---	ND	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	1.04	5.1
	April-2023	---	---	---	---	---	---	---	ND	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	0.6	2.6
	May-2023	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1.1	5.1
		---	---	---	---	---	---	---	ND	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	1.2	5.2
	June-2023	---	---	---	---	---	---	---	---	ND	---	---	---	ND	---	---	---	---	---	---	---	---	---	1.1	5.1
		---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	1.2	5.2
	July-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.355**	---	---	---	---	---	0.15	0.35
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	0.55	0.75
		ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1	3
		---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	1.5	5.5
	August-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	0.15	0.35
		---	---	---	---	ND	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	1.5	3.5
	September-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	0.3	1.1
		---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.7	1.5
	October-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	0.35	1.35
		---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1	3
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	1.5	3.5
	November-2023	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	0.15	0.35
		---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	0.35	1.35
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.75	1.75
		---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1.1	5.1
		---	---	---	ND	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	ND	---	---	ND	1.5	5.5
	December-2023	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	1.1	5.1
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	1.5	5.5
	January-2024	---	**2.01**	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	ND	1.5	5.5
	February-2024	---	**9.1**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	ND	---	---	1.5	5.5
		---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	3.5	7.5
	March-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	ND	0.75	1.75
	April-2024	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	ND	---	---	---	---	---	0.35	0.35
		---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1.5	5.5
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	2.5	10.5
	May-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	0.15	0.35
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	0.35	1.35
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	0.6	2.6
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**1.9**	---	---	---	1	3
		---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	1.1	5.1
	June-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.692**	---	---	---	---	---	0.6	2.6
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	ND	1.5	3.5
	July-2024	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	0.5	2.5
		---	---	---	---	---	---	---	---	**6.66**	---	---	---	---	---	---	---	---	---	---	---	---	---	5	25
	August-2024	---	---	---	---	**1.57**	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	ND	---	0.25	1.25
	September-2024	---	---	ND	---	**2.42**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.25	1.25
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	5	25

Well ID		EW-50	EW-51	EW-52	EW-53	EW-54	EW-55	EW-57	EW-58	EW-59	EW-60	EW-61	EW-62	EW-64	EW-65	EW-67	EW-68	EW-78	EW-85	EW-87	EW-88	EW-94	EW-98	LOD	LOQ
Parameter	**Monitoring Event**	**Concentration**																							
Nitrite as N (mg/L)	December-2022	---	---	---	---	---	---	---	---	---	**0.12 J**	---	---	---	---	---	---	---	---	---	---	---	---	0.1	0.5
		ND	---	ND	---	---	---	ND	---	ND	---	---	---	---	---	ND	ND	---	---	---	---	---	---	1	5
	January-2023	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.25	1.25
		---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	1	1
		ND	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	2	2
	February-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.48 J**	---	---	---	---	---	---	0.25	1.25
	March-2023	---	---	---	---	---	---	---	ND	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	1	5
	April-2023	---	---	---	---	---	---	---	ND	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	0.5	2.5
	May-2023	ND	---	---	---	---	---	---	ND	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	1	5
	June-2023	---	---	---	---	---	---	---	---	**2 J**	---	ND	---	ND	---	---	---	---	---	---	---	---	---	1	5
	July-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	ND	0.05	0.25
		ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.5	2.5
		---	---	---	---	---	---	**1.2 J**	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	1	5
	August-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	0.05	0.25
		---	---	---	---	ND	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	0.5	2.5
	September-2023	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	0.2	1
	October-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	0.25	1.25
		---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	0.5	2.5
	November-2023	**0.06 J**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	0.05	0.25
		---	---	---	---	---	ND	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	0.25	1.25
		---	---	ND	ND	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	ND	---	---	ND	1	5
	December-2023	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	ND	ND	---	---	---	---	---	1	5
	January-2024	---	**1.7 J**	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	ND	1	5
	February-2024	---	ND	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	ND	---	---	1	5
	March-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	**0.25 J**	0.25	1.25
	April-2024	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	ND	---	---	---	---	---	0.25	0.25
		---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1	5
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	2	10
	May-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	0.05	0.25
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	0.25	1.25
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	ND	---	---	---	0.5	2.5
	June-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	ND	---	---	---	ND	0.5	2.5
	July-2024	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	0.5	2.5
		---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	5	25
	August-2024	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	ND	---	0.25	1.25
	September-2024	---	---	ND	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.25	1.25
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	5	25

Historical LFG-EW Leachate Monitoring Results Summary

Well ID		EW-50	EW-51	EW-52	EW-53	EW-54	EW-55	EW-57	EW-58	EW-59	EW-60	EW-61	EW-62	EW-64	EW-65	EW-67	EW-68	EW-78	EW-85	EW-87	EW-88	EW-94	EW-98	LOD	LOQ
Parameter	Monitoring Event	Concentration																							
Total Kjeldahl Nitrogen (mg/L)	November-2022	---	---	---	---	---	---	---	---	---	---	**1290**	---	---	**1470**	---	---	---	---	---	---	---	---	20	50
		---	---	---	---	---	---	---	---	**2110**	---	---	---	---	---	---	---	---	---	---	---	---	---	50	125
	December-2022	**1510**	---	**3570**	---	---	---	**1790**	---	**1830**	**1490**	---	---	---	---	**1340**	**1940**	---	---	---	---	---	---	200	500
	January-2023	**1840**	---	---	---	---	---	---	**881**	---	---	---	---	---	**1410**	---	---	---	---	---	---	---	---	20	50
		---	---	---	---	---	---	---	---	**2970**	---	---	---	---	---	---	---	---	---	---	---	---	---	40	100
	February-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**1870**	---	---	---	---	---	---	16.8	50
	March-2023	---	---	---	---	---	---	---	**879**	**1920**	---	---	---	---	---	---	---	---	---	---	---	---	---	33.6	100
	April-2023	---	---	---	---	---	---	---	**1820**	---	**1510**	---	---	---	---	---	---	---	---	---	---	---	---	16.8	50
	May-2023	**1590**	---	---	---	---	---	---	**1950**	**2910**	---	---	---	---	---	---	---	---	---	---	---	---	---	40	100
	June-2023	---	---	---	---	---	---	---	---	**3080**	---	---	---	**2750**	---	---	---	---	---	---	---	---	---	100	250
		---	---	---	---	---	---	---	---	---	---	**2650**	---	---	---	---	---	---	---	---	---	---	---	200	500
	July-2023	**1670**	---	---	---	---	---	**2960**	---	---	---	---	---	---	---	---	---	**1670**	---	---	---	**2720**	**285**	40	100
	August-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**279**	10	25
		---	---	---	---	**2240**	---	**2820**	---	---	---	---	---	---	---	---	---	---	---	---	---	**2850**	---	100	250
	September-2023	---	---	**3340**	---	---	---	---	---	---	---	---	---	---	---	---	---	**2680**	---	---	---	---	---	100	250
	October-2023	---	---	---	---	---	**1050**	---	---	---	---	---	---	---	---	---	---	---	---	**1320**	---	---	---	40	100
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**4630**	---	---	---	---	---	100	250
	November-2023	---	---	---	---	---	**2240**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**2120**	80	200
		1440	---	**3290**	**2630**	---	---	---	---	**2530**	---	---	**1120**	---	---	---	---	**2270**	---	**3170**	---	---	---	100	250
	December-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**1880**	---	---	---	---	---	---	80	200
		---	---	**3130**	---	---	---	---	---	---	---	---	---	---	---	---	---	**1890**	---	---	---	---	---	100	250
	January-2024	---	**2450**	---	---	---	---	---	---	**3020**	---	---	---	---	---	---	---	---	---	---	---	---	**1810**	100	250
	February-2024	---	**2540**	---	**2890**	---	---	---	---	---	---	---	---	---	---	---	---	---	**2470**	---	**2970**	---	---	100	250
	March-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**1030**	50	125
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**2980**	---	---	100	250
	April-2024	---	---	---	---	---	---	---	---	---	---	---	**1030**	---	---	---	---	**1730**	---	---	---	---	---	40	100
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**2320**	---	---	---	---	---	---	50	125
		---	---	**3260**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	100	250
	May-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**1140**	40	100
		---	---	---	---	---	---	---	---	**3120**	---	---	---	---	---	---	---	**1780**	**2470**	**3280**	---	---	---	100	250
	June-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**1870**	---	---	---	---	**4750**	100	250
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**2680**	---	---	---	---	200	500
	July-2024	---	---	---	---	---	---	---	---	**2840**	**2680**	---	---	---	---	---	---	---	---	---	---	---	---	100	250
	August-2024	---	---	---	---	**1980**	---	---	---	---	---	---	---	---	---	---	---	---	**1460**	---	---	**3150**	---	100	250
	September-2024	---	---	---	---	**2090**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	50	125
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**2650**	---	---	---	---	---	---	80	200
		---	---	**3320**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	100	250

Historical LFG-EW Leachate Monitoring Results Summary

Well ID		EW-50	EW-51	EW-52	EW-53	EW-54	EW-55	EW-57	EW-58	EW-59	EW-60	EW-61	EW-62	EW-64	EW-65	EW-67	EW-68	EW-78	EW-85	EW-87	EW-88	EW-94	EW-98	LOD	LOQ
Parameter	**Monitoring Event**	**Concentration**																							
Total Recoverable Phenolics (mg/L)	November-2022	---	---	---	---	---	---	---	---	---	---	**5.68**	---	---	**3**	---	---	---	---	---	---	---	---	0.3	0.5
		---	---	---	---	---	---	---	---	**28.8**	---	---	---	---	---	---	---	---	---	---	---	---	---	0.75	1.25
	December-2022	---	---	---	---	---	---	---	---	---	**8.94**	---	---	---	---	---	---	---	---	---	---	---	---	0.3	0.5
		24.9	---	**54.6**	---	---	---	**28.3**	---	**32**	---	---	---	---	---	**20.2**	**36**	---	---	---	---	---	---	1.5	2.5
	January-2023	**27.2**	---	---	---	---	---	---	**1.3**	---	---	---	---	---	**20.2**	---	---	---	---	---	---	---	---	0.75	1.25
		---	---	---	---	---	---	---	---	**56.5**	---	---	---	---	---	---	---	---	---	---	---	---	---	1.5	2.5
	February-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**22.4**	---	---	---	---	---	---	1.5	2.5
	March-2023	---	---	---	---	---	---	---	**0.4**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.03	0.05
		---	---	---	---	---	---	---	---	**13.9**	---	---	---	---	---	---	---	---	---	---	---	---	---	0.3	0.5
	April-2023	---	---	---	---	---	---	---	**18.7**	---	**5.1**	---	---	---	---	---	---	---	---	---	---	---	---	0.3	0.5
	May-2023	**18.6**	---	---	---	---	---	---	**20**	**50**	---	---	---	---	---	---	---	---	---	---	---	---	---	1.5	2.5
	June-2023	---	---	---	---	---	---	---	---	**39.1**	---	**45.6**	---	**80.6**	---	---	---	---	---	---	---	---	---	1.5	2.5
	July-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.7**	---	---	---	---	---	0.15	0.25
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**2.92**	0.3	0.5
		11.6	---	---	---	---	---	**47.9**	---	---	---	---	---	---	---	---	---	---	---	---	---	**37.3**	---	1.5	2.5
	August-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**1.46**	0.15	0.25
		---	---	---	---	**28.6**	---	**31.4**	---	---	---	---	---	---	---	---	---	---	---	---	---	**40.4**	---	1.5	2.5
	September-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**4.58**	---	---	---	---	---	0.3	0.5
		---	---	**38.2**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	3	5
	October-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**4.13**	---	---	---	---	---	0.15	0.25
		---	---	---	---	---	**37**	---	---	---	---	---	---	---	---	---	---	---	---	**38.7**	---	---	---	0.6	1
	November-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**3.65**	---	---	---	---	---	0.15	0.25
		7.88	---	---	**36.4**	---	---	---	---	---	---	---	**4.76**	---	---	---	---	---	---	---	---	---	---	0.6	1
		---	---	**38.8**	---	---	**47.4**	---	---	---	---	---	---	---	---	---	---	---	---	**47.1**	---	---	---	0.75	1.25
		---	---	---	---	---	---	---	---	**46.9**	---	---	---	---	---	---	---	---	---	---	---	---	**29.1**	1.5	2.5
	December-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**3.72**	---	---	---	---	---	0.06	0.1
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**23**	---	---	---	---	---	---	0.75	1.25
		---	---	**34.2**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1.5	2.5
	January-2024	---	**38**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**22.7**	1.5	2.5
		---	---	---	---	---	---	---	---	**39.2**	---	---	---	---	---	---	---	---	---	---	---	---	---	3	5
	February-2024	---	**37.3**	---	**42.9**	---	---	---	---	---	---	---	---	---	---	---	---	---	**50.2**	---	**43.1**	---	---	1.5	2.5
	March-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**46.6**	---	**12.8**	3	5
	April-2024	---	---	---	---	---	---	---	---	---	---	---	**1.68**	---	---	---	---	**1.16**	---	---	---	---	---	0.3	0.5
		---	---	**38.4**	---	---	---	---	---	---	---	---	---	---	---	---	**28.6**	---	---	---	---	---	---	1.5	2.5
	May-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**1.06**	---	---	---	---	---	0.3	0.5
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**13.6**	1.5	2.5
		---	---	---	---	---	---	---	---	**36.6**	---	---	---	---	---	---	---	---	**33.6**	**51**	---	---	---	3	5
	June-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.82**	---	---	---	---	---	0.3	0.5
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**23.2**	1.5	2.5
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**44.8**	---	---	---	---	3	5
	July-2024	---	---	---	---	---	---	---	---	---	**28.8**	---	---	---	---	---	---	---	---	---	---	---	---	0.75	1.25
		---	---	---	---	---	---	---	---	**37.8**	---	---	---	---	---	---	---	---	---	---	---	---	---	3	5
	August-2024	---	---	---	---	**29.2**	---	---	---	---	---	---	---	---	---	---	---	---	**44.2**	---	---	**39.2**	---	3	5
	September-2024	---	---	**39.6**	---	**31.6**	---	---	---	---	---	---	---	---	---	---	**31.6**	---	---	---	---	---	---	3	5

Well ID		EW-50	EW-51	EW-52	EW-53	EW-54	EW-55	EW-57	EW-58	EW-59	EW-60	EW-61	EW-62	EW-64	EW-65	EW-67	EW-68	EW-78	EW-85	EW-87	EW-88	EW-94	EW-98	LOD	LOQ
Parameter	Monitoring Event	Concentration																							
SEMI-VOLATILE ORGANIC COMPOUND (ug/L)																									
Anthracene	November-2022	---	---	---	---	---	---	---	---	---	---	ND	---	---	ND	---	---	---	---	---	---	---	---	46.7	93.5
		---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	93.5	187
	December-2022	---	---	---	---	---	---	---	---	ND	ND	---	---	---	---	---	ND	---	---	---	---	---	---	9.35	9.35
		---	---	---	---	---	---	ND	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	11.7	11.7
		---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	23.4	23.4
		ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	485	971
	January-2023	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	243	485
		---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	253	505
		ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	490	980
		---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	500	1000
	February-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	187	374
	March-2023	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	51	102
		---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	117	234
	April-2023	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	37.4	74.8
		---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	38.8	77.7
	May-2023	ND	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	93.5	187
		---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	467	935
	June-2023	---	---	---	---	---	---	---	---	ND	---	---	---	ND	---	---	---	---	---	---	---	---	---	485	971
		---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	490	980
	July-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	46.7	93.5
		ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	100	200
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	250	500
		---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	1000	2000
	August-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	19.6	39.2
		---	---	---	---	ND	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	1000	2000
	September-2023	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	40	80
	October-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	40	80
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	50	100
		---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	500	1000
	November-2023	ND	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	20	40
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	50	100
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	100	200
		---	---	---	ND	---	ND	---	---	ND	---	---	---	---	---	---	---	---	---	ND	---	---	---	400	800
		---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1000	2000
	December-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	50	100
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	100	200
		---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	200	400
	January-2024	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	100	200
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	250	500
		---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	1000	2000
	February-2024	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	200	400
		---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	250	500
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	ND	---	---	400000	800000
	March-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	20	40
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	80	160
	April-2024	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	5	10
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	20	40
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	100	200
		---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	400	800
	May-2024	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	ND	ND	---	---	---	ND	10	10
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	80	160
	June-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	20	40
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	ND	100	200
	July-2024	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	40	80
		---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	80	160
	August-2024	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	400	800
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	500	1000
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	1000	2000
	September-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	100	200
		---	---	ND	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	200	400

Well ID		EW-50	EW-51	EW-52	EW-53	EW-54	EW-55	EW-57	EW-58	EW-59	EW-60	EW-61	EW-62	EW-64	EW-65	EW-67	EW-68	EW-78	EW-85	EW-87	EW-88	EW-94	EW-98	LOD	LOQ
Parameter	**Monitoring Event**	**Concentration**																							
TOTAL METALS (mg/L)																									
Arsenic	November-2022	---	---	---	---	---	---	---	---	**0.863**	---	**0.464**	---	---	**1.3**	---	---	---	---	---	---	---	---	0.02	0.04
	December-2022	**1.02**	---	**0.406**	---	---	---	**0.174**	---	**1.69**	**0.49**	---	---	---	---	**0.159**	**0.574**	---	---	---	---	---	---	0.02	0.04
	January-2023	**0.285**	---	---	---	---	---	---	**0.596**	**0.225**	---	---	---	---	**0.846**	---	---	---	---	---	---	---	---	0.01	0.02
	February-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.29**	---	---	---	---	---	---	0.005	0.01
	March-2023	---	---	---	---	---	---	---	**1.07**	**1**	---	---	---	---	---	---	---	---	---	---	---	---	---	0.01	0.02
	April-2023	---	---	---	---	---	---	---	---	---	**0.11**	---	---	---	---	---	---	---	---	---	---	---	---	0.0005	0.001
		---	---	---	---	---	---	---	**0.36**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.005	0.01
	May-2023	**0.26**	---	---	---	---	---	---	**0.3**	**0.27**	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0025	0.005
	June-2023	---	---	---	---	---	---	---	---	**0.26**	---	**0.5**	---	**0.14**	---	---	---	---	---	---	---	---	---	0.0025	0.005
	July-2023	**0.23**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.24**	---	---	---	**0.19**	**0.06**	0.0005	0.001
		---	---	---	---	---	---	**0.7**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0025	0.005
	August-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.15**	0.0025	0.005
		---	---	---	---	**0.32**	---	**0.43**	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.29**	---	0.005	0.01
	September-2023	---	---	**0.42**	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.25**	---	---	---	---	---	0.005	0.01
	October-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.24**	---	**0.31**	---	---	---	0.0005	0.001
		---	---	---	---	---	**0.36**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.001	0.002
	November-2023	**0.23**	---	**0.33**	**0.53**	---	**0.43**	---	---	**0.35**	---	---	**0.78**	---	---	---	---	**0.34**	---	**0.27**	---	---	**0.2**	0.003	0.003
	December-2023	---	---	**0.4**	---	---	---	---	---	---	---	---	---	---	---	---	**0.26**	---	---	---	---	---	---	0.0025	0.005
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.24**	---	---	---	---	---	0.001	0.002
	January-2024	---	**0.47**	---	---	---	---	---	---	**0.23**	---	---	---	---	---	---	---	---	---	---	---	---	**0.18**	0.0025	0.005
	February-2024	---	**0.68**	---	**0.42**	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.33**	---	**0.23**	---	---	0.002	0.002
	March-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.12**	0.001	0.002
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.23**	---	---	0.0025	0.005
	April-2024	---	---	---	---	---	---	---	---	---	---	---	**0.49**	---	---	---	---	**0.18**	---	---	---	---	---	0.0005	0.001
		---	---	**0.31**	---	---	---	---	---	---	---	---	---	---	---	---	**0.33**	---	---	---	---	---	---	0.004	0.004
	May-2024	---	---	---	---	---	---	---	---	**0.33**	---	---	---	---	---	---	---	**0.2**	**0.73**	**0.22**	---	---	**0.22**	0.005	0.01
	June-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.19**	**0.49**	---	---	---	**0.14**	0.005	0.01
	July-2024	---	---	---	---	---	---	---	---	**300**	**0.095**	---	---	---	---	---	---	---	---	---	---	---	---	0.0025	0.005
	August-2024	---	---	---	---	**0.18**	---	---	---	---	---	---	---	---	---	---	---	---	**0.49**	---	---	**0.13**	---	0.005	0.01
	September-2024	---	---	**0.27**	---	**0.15**	---	---	---	---	---	---	---	---	---	---	**0.19**	---	---	---	---	---	---	0.005	0.01

Historical LFG-EW Leachate Monitoring Results Summary

Well ID		EW-50	EW-51	EW-52	EW-53	EW-54	EW-55	EW-57	EW-58	EW-59	EW-60	EW-61	EW-62	EW-64	EW-65	EW-67	EW-68	EW-78	EW-85	EW-87	EW-88	EW-94	EW-98	LOD	LOQ
Parameter	**Monitoring Event**	**Concentration**																							
Barium	November-2022	---	---	---	---	---	---	---	---	**0.871**	---	**0.485**	---	---	**0.36**	---	---	---	---	---	---	---	---	0.01	0.02
	December-2022	**0.566**	---	**0.803**	---	---	---	**0.978**	---	**0.438**	**0.214**	---	---	---	---	**0.856**	**0.793**	---	---	---	---	---	---	0.01	0.02
	January-2023	**0.643**	---	---	---	---	---	---	**0.683**	**1.92**	---	---	---	---	**0.554**	---	---	---	---	---	---	---	---	0.005	0.01
	February-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**1.04**	---	---	---	---	---	---	0.01	0.05
	March-2023	---	---	---	---	---	---	---	**0.406**	**0.683**	---	---	---	---	---	---	---	---	---	---	---	---	---	0.005	0.01
	April-2023	---	---	---	---	---	---	---	**1.21**	---	**0.326**	---	---	---	---	---	---	---	---	---	---	---	---	0.01	0.05
	May-2023	**0.636**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.005	0.025
		---	---	---	---	---	---	---	**1.2**	**1.83**	---	---	---	---	---	---	---	---	---	---	---	---	---	0.01	0.05
	June-2023	---	---	---	---	---	---	---	---	**1.69**	---	---	---	**1.65**	---	---	---	---	---	---	---	---	---	0.005	0.025
		---	---	---	---	---	---	---	---	---	---	**3.01**	---	---	---	---	---	---	---	---	---	---	---	0.01	0.05
	July-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.217**	0.001	0.005
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.558**	---	---	---	---	---	0.002	0.01
		0.542	---	---	---	---	---	**2.28**	---	---	---	---	---	---	---	---	---	---	---	---	---	**1.02**	---	0.005	0.025
	August-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.218**	0.005	0.025
		---	---	---	---	**1.61**	---	**1.58**	---	---	---	---	---	---	---	---	---	---	---	---	---	**1.48**	---	0.01	0.05
	September-2023	---	---	**0.72**	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.649**	---	---	---	---	---	0.01	0.05
	October-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.664**	---	---	---	---	---	0.002	0.01
		---	---	---	---	---	**2.56**	---	---	---	---	---	---	---	---	---	---	---	---	**1.93**	---	---	---	0.005	0.025
	November-2023	**0.572**	---	**0.81**	**2.28**	---	**2.51**	---	---	**1.96**	---	---	**0.418**	---	---	---	---	**0.67**	---	**2.06**	---	---	**2.84**	0.01	0.05
	December-2023	---	---	**0.68**	---	---	---	---	---	---	---	---	---	---	---	---	**1.36**	---	---	---	---	---	---	0.005	0.025
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.672**	---	---	---	---	---	0.002	0.01
	January-2024	---	---	---	---	---	---	---	---	**1.92**	---	---	---	---	---	---	---	---	---	---	---	---	**1.91**	0.005	0.025
		---	**3.27**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.01	0.05
	February-2024	---	**3.03**	---	**4.41**	---	---	---	---	---	---	---	---	---	---	---	---	---	**2.65**	---	**0.925**	---	---	0.005	0.025
	March-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**1.03**	0.002	0.01
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**1.54**	---	---	0.005	0.025
	April-2024	---	---	---	---	---	---	---	---	---	---	---	**0.4**	---	---	---	---	**0.634**	---	---	---	---	---	0.001	0.005
		---	---	**1.02**	---	---	---	---	---	---	---	---	---	---	---	---	**2.15**	---	---	---	---	---	---	0.01	0.05
	May-2024	---	---	---	---	---	---	---	---	**1.79**	---	---	---	---	---	---	---	**0.619**	**2.8**	**2.06**	---	---	**0.872**	0.01	0.05
	June-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.6**	**3.44**	---	---	---	**1.51**	0.01	0.05
	July-2024	---	---	---	---	---	---	---	---	**1.28**	**2.75**	---	---	---	---	---	---	---	---	---	---	---	---	0.005	0.025
	August-2024	---	---	---	---	**1.27**	---	---	---	---	---	---	---	---	---	---	---	---	**2.39**	---	---	**0.862**	---	0.01	0.05
	September-2024	---	---	**1.34**	---	**1.33**	---	---	---	---	---	---	---	---	---	---	**3.65**	---	---	---	---	---	---	0.01	0.05

Well ID		EW-50	EW-51	EW-52	EW-53	EW-54	EW-55	EW-57	EW-58	EW-59	EW-60	EW-61	EW-62	EW-64	EW-65	EW-67	EW-68	EW-78	EW-85	EW-87	EW-88	EW-94	EW-98	LOD	LOQ
Parameter	**Monitoring Event**	**Concentration**																							
Cadmium	November-2022	---	---	---	---	---	---	---	---	ND	---	ND	---	---	ND	---	---	---	---	---	---	---	---	0.004	0.008
	December-2022	ND	---	**0.0104**	---	---	---	ND	---	ND	ND	---	---	---	---	ND	ND	---	---	---	---	---	---	0.004	0.008
	January-2023	ND	---	---	---	---	---	---	ND	ND	---	---	---	---	ND	---	---	---	---	---	---	---	---	0.002	0.004
	February-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.000297 J**	---	---	---	---	---	---	0.0001	0.001
	March-2023	---	---	---	---	---	---	---	ND	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	0.002	0.004
	April-2023	---	---	---	---	---	---	---	**0.000158 J**	---	**0.000333 J**	---	---	---	---	---	---	---	---	---	---	---	---	0.0001	0.001
	May-2023	ND	---	---	---	---	---	---	ND	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0005	0.005
	June-2023	---	---	---	---	---	---	---	---	ND	---	ND	---	ND	---	---	---	---	---	---	---	---	---	0.0005	0.005
	July-2023	**0.000219 J**	---	---	---	---	---	**0.000156 J**	---	---	---	---	---	---	---	---	---	**0.000186 J**	---	---	---	ND	ND	0.0001	0.001
	August-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	0.0005	0.005
		---	---	---	---	ND	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	0.001	0.01
	September-2023	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	0.001	0.01
	October-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.000171 J**	---	ND	---	---	---	0.0001	0.001
		---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0002	0.002
	November-2023	ND	---	ND	ND	---	ND	---	---	ND	---	---	ND	---	---	---	---	ND	---	ND	---	---	ND	0.001	0.003
	December-2023	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	**0.000604 J**	---	---	---	---	---	---	0.0005	0.0015
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	0.0002	0.002
	January-2024	---	ND	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	ND	0.0005	0.005
	February-2024	---	ND	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.0175**	---	ND	---	---	0.0005	0.005
	March-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	0.0002	0.002
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	0.0005	0.005
	April-2024	---	---	---	---	---	---	---	---	---	---	---	**0.000204 J**	---	---	---	---	**0.000195 J**	---	---	---	---	---	0.0001	0.001
		---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	0.001	0.004
	May-2024	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	ND	**0.0483**	ND	---	---	ND	0.001	0.01
	June-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	**0.0175**	---	---	---	ND	0.001	0.01
	July-2024	---	---	---	---	---	---	---	---	ND	ND	---	---	---	---	---	---	---	---	---	---	---	---	0.0005	0.005
	August-2024	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	**0.00508 J**	---	---	**0.00247 J**	---	0.001	0.01
	September-2024	---	---	ND	---	ND	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	0.001	0.01
Chromium	November-2022	---	---	---	---	---	---	---	---	**0.208**	---	**0.112**	---	---	**0.354**	---	---	---	---	---	---	---	---	0.016	0.02
	December-2022	**0.503**	---	**1.08**	---	---	---	**1.76**	---	**0.274**	**0.319**	---	---	---	---	**0.499**	**0.822**	---	---	---	---	---	---	0.016	0.02
	January-2023	**0.31**	---	---	---	---	---	---	**0.488**	**0.178**	---	---	---	---	**0.155**	---	---	---	---	---	---	---	---	0.008	0.01
	February-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.277**	---	---	---	---	---	---	0.004	0.01
	March-2023	---	---	---	---	---	---	---	**0.213**	**0.188**	---	---	---	---	---	---	---	---	---	---	---	---	---	0.008	0.01
	April-2023	---	---	---	---	---	---	---	---	---	**0.142**	---	---	---	---	---	---	---	---	---	---	---	---	0.0004	0.001
		---	---	---	---	---	---	---	**0.306**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.004	0.01
	May-2023	**0.422**	---	---	---	---	---	---	**0.281**	**0.237**	---	---	---	---	---	---	---	---	---	---	---	---	---	0.002	0.005
	June-2023	---	---	---	---	---	---	---	---	**0.251**	---	**0.191**	---	**0.272**	---	---	---	---	---	---	---	---	---	0.002	0.005
	July-2023	**0.308**	---	---	---	---	---	**0.535**	---	---	---	---	---	---	---	---	---	**0.231**	---	---	---	**0.215**	**0.0265**	0.0004	0.001
	August-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.0276**	0.002	0.005
		---	---	---	---	**0.606**	---	**0.449**	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.259**	---	0.004	0.01
	September-2023	---	---	**1.17**	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.234**	---	---	---	---	0.004	0.01
	October-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.144**	---	**0.194**	---	---	---	0.0004	0.001
		---	---	---	---	---	**0.273**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0008	0.002
	November-2023	**0.391**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0	0.003
		---	---	---	**0.51**	---	---	---	---	---	---	---	---	---	---	---	---	**0.251**	---	**0.403**	---	---	---	0.003	0.003
		---	---	**1.04**	---	---	**0.402**	---	---	**0.246**	---	---	**0.343**	---	---	---	---	---	---	---	---	---	**0.222**	0.004	0.01
	December-2023	---	---	**1.34**	---	---	---	---	---	---	---	---	---	---	---	---	**0.259**	---	---	---	---	---	0.002	0.005
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.219**	---	---	---	---	---	0.0008	0.002
	January-2024	---	**0.17**	---	---	---	---	---	---	**0.193**	---	---	---	---	---	---	---	---	---	---	---	---	**0.128**	0.002	0.005
	February-2024	---	**0.23**	---	**0.272**	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.203**	---	**0.336**	---	---	0.002	0.005
	March-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.0759**	0.0008	0.002
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.414**	---	---	0.002	0.005
	April-2024	---	---	---	---	---	---	---	---	---	---	---	**0.36**	---	---	---	---	**0.245**	---	---	---	---	---	0.0004	0.001
		---	---	**0.836**	---	---	---	---	---	---	---	---	---	---	---	---	**0.228**	---	---	---	---	---	---	0.004	0.01
	May-2024	---	---	---	---	---	---	---	---	**0.268**	---	---	---	---	---	---	---	**0.226**	**0.183**	**0.352**	---	---	**0.11**	0.004	0.01
	June-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.226**	**0.188**	---	---	---	**0.16**	0.004	0.01
	July-2024	---	---	---	---	---	---	---	---	**0.252**	**0.246**	---	---	---	---	---	---	---	---	---	---	---	---	0.002	0.005
	August-2024	---	---	---	---	**0.549**	---	---	---	---	---	---	---	---	---	---	---	---	**0.185**	---	---	**0.233**	---	0.004	0.01
	September-2024	---	---	**0.948**	---	**0.541**	---	---	---	---	---	---	---	---	---	---	**0.228**	---	---	---	---	---	---	0.004	0.01

Historical LFG-EW Leachate Monitoring Results Summary

Well ID		EW-50	EW-51	EW-52	EW-53	EW-54	EW-55	EW-57	EW-58	EW-59	EW-60	EW-61	EW-62	EW-64	EW-65	EW-67	EW-68	EW-78	EW-85	EW-87	EW-88	EW-94	EW-98	LOD	LOQ
Parameter	Monitoring Event	Concentration																							
Copper	November-2022	---	---	---	---	---	---	---	---	ND	---	ND	---	---	ND	---	---	---	---	---	---	---	---	0.016	0.02
	December-2022	ND	---	ND	---	---	---	ND	---	ND	ND	---	---	---	---	ND	ND	---	---	---	---	---	---	0.016	0.02
	January-2023	ND	---	---	---	---	---	---	**0.0127**	**0.0256**	---	---	---	---	ND	---	---	---	---	---	---	---	---	0.008	0.01
	February-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.00365**	---	---	---	---	---	---	0.0003	0.001
	March-2023	---	---	---	---	---	---	---	ND	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	0.008	0.01
	April-2023	---	---	---	---	---	---	---	**0.00664**	---	**0.00767**	---	---	---	---	---	---	---	---	---	---	---	---	0.0003	0.001
	May-2023	ND	---	---	---	---	---	---	ND	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0015	0.005
	June-2023	---	---	---	---	---	---	---	---	**0.00154 J**	---	**0.00362 J**	---	**0.00269 J**	---	---	---	---	---	---	---	---	---	0.0015	0.005
	July-2023	**0.00124**	---	---	---	---	---	**0.00163**	---	---	---	---	---	---	---	---	---	**0.00811**	---	---	---	ND	**0.0027**	0.0003	0.001
	August-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	0.0015	0.005
		---	---	---	---	**0.00343 J**	---	**0.0176**	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	0.003	0.01
	September-2023	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.00407 J**	---	---	---	---	---	0.003	0.01
	October-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.00361**	---	**0.000609 J**	---	---	---	0.0003	0.001
		---	---	---	---	---	**0.00806**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0006	0.002
	November-2023	**0.00607**	---	**0.00352**	**0.0212**	---	**0.00756**	---	---	ND	---	---	**0.00341**	---	---	---	---	**0.00387**	---	ND	---	---	ND	0.003	0.003
	December-2023	---	---	**0.00184**	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	0.0015	0.0015
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.0034**	---	---	---	---	---	0.0006	0.002
	January-2024	---	ND	---	---	---	---	---	---	**0.019**	---	---	---	---	---	---	---	---	---	---	---	---	ND	0.0015	0.005
	February-2024	---	ND	---	**0.00201**	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	ND	---	---	0.0015	0.002
	March-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.00115 J**	0.0006	0.002
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.00184 J**	---	---	0.0015	0.005
	April-2024	---	---	---	---	---	---	---	---	---	---	---	**0.00443**	---	---	---	---	**0.004**	---	---	---	---	---	0.0003	0.001
		---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	0.003	0.004
	May-2024	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	**0.00486 J**	**0.00688 J**	ND	---	---	ND	0.003	0.01
	June-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.00409 J**	ND	---	---	---	ND	0.003	0.01
	July-2024	---	---	---	---	---	---	---	---	**0.398**	ND	---	---	---	---	---	---	---	---	---	---	---	---	0.0015	0.005
	August-2024	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	ND	---	0.003	0.01
	September-2024	---	---	ND	---	ND	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	0.003	0.01
Lead	November-2022	---	---	---	---	---	---	---	---	ND	---	ND	---	---	**0.017 J**	---	---	---	---	---	---	---	---	0.012	0.02
	December-2022	ND	---	**0.0381**	---	---	---	ND	---	ND	ND	---	---	---	---	ND	ND	---	---	---	---	---	---	0.012	0.02
	January-2023	ND	---	---	---	---	---	---	ND	ND	---	---	---	---	ND	---	---	---	---	---	---	---	---	0.006	0.01
	February-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.006**	---	---	---	---	---	---	0.001	0.001
	March-2023	---	---	---	---	---	---	---	ND	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	0.006	0.01
	April-2023	---	---	---	---	---	---	---	**0.0022**	---	**0.0067**	---	---	---	---	---	---	---	---	---	---	---	---	0.001	0.001
	May-2023	ND	---	---	---	---	---	---	ND	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	0.005	0.005
	June-2023	---	---	---	---	---	---	---	---	ND	---	ND	---	**0.0069**	---	---	---	---	---	---	---	---	---	0.005	0.005
	July-2023	**0.0014**	---	---	---	---	---	**0.019**	---	---	---	---	---	---	---	---	---	**0.0092**	---	---	---	ND	**0.0017**	0.001	0.001
	August-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	0.005	0.005
		---	---	---	---	**0.014**	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.013**	---	0.01	0.01
	September-2023	---	---	**0.12**	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	0.01	0.01
	October-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.0036**	---	**0.0034**	---	---	---	0.001	0.001
		---	---	---	---	---	**0.0077**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.002	0.002
	November-2023	ND	---	**0.13**	**0.0046**	---	**0.014**	---	---	ND	---	---	ND	---	---	---	---	**0.0032**	---	**0.0043**	---	---	ND	0.003	0.003
	December-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.0043**	---	---	---	---	---	0.002	0.002
		---	---	**0.16**	---	---	---	---	---	---	---	---	---	---	---	---	**0.002**	---	---	---	---	---	---	0.0015	0.0015
	January-2024	---	ND	---	---	---	---	---	---	**0.0081**	---	---	---	---	---	---	---	---	---	---	---	---	ND	0.005	0.005
	February-2024	---	**0.0065**	---	**0.01**	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.051**	---	**0.012**	---	---	0.001	0.002
	March-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	0.002	0.002
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.02**	---	---	0.005	0.005
	April-2024	---	---	---	---	---	---	---	---	---	---	---	**0.0013**	---	---	---	---	**0.0025**	---	---	---	---	---	0.001	0.001
		---	---	**0.13**	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	0.004	0.004
	May-2024	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	ND	**0.11**	ND	---	---	ND	0.01	0.01
	June-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	**0.024**	---	---	---	ND	0.01	0.01
	July-2024	---	---	---	---	---	---	---	---	ND	ND	---	---	---	---	---	---	---	---	---	---	---	---	0.005	0.005
	August-2024	---	---	---	---	**0.031**	---	---	---	---	---	---	---	---	---	---	---	---	**0.027**	---	---	ND	---	0.01	0.01
	September-2024	---	---	**0.098**	---	**0.057**	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	0.01	0.01

Well ID		EW-50	EW-51	EW-52	EW-53	EW-54	EW-55	EW-57	EW-58	EW-59	EW-60	EW-61	EW-62	EW-64	EW-65	EW-67	EW-68	EW-78	EW-85	EW-87	EW-88	EW-94	EW-98	LOD	LOQ
Parameter	Monitoring Event	Concentration																							
Mercury	November-2022	---	---	---	---	---	---	---	---	---	---	**0.00169**	---	---	**0.00053**	---	---	---	---	---	---	---	---	0.0004	0.0004
		---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0008	0.0008
	December-2022	**0.00051**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0004	0.0004
		---	---	---	---	---	---	**0.00118**	---	ND	**0.00588**	---	---	---	---	**0.0048**	ND	---	---	---	---	---	---	0.0008	0.0008
		---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.004	0.004
	January-2023	ND	---	---	---	---	---	---	ND	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	0.0004	0.0004
		---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	0.004	0.004
	February-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	0.0004	0.0004
	March-2023	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0002	0.0002
		---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0004	0.0004
	April-2023	---	---	---	---	---	---	---	---	---	**0.00128**	---	---	---	---	---	---	---	---	---	---	---	---	0.0002	0.0002
		---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0004	0.0004
	May-2023	ND	---	---	---	---	---	---	ND	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0002	0.0002
	June-2023	---	---	---	---	---	---	---	---	ND	---	ND	---	ND	---	---	---	---	---	---	---	---	---	0.004	0.004
	July-2023	**0.000306**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	ND	0.0002	0.0002
		---	---	---	---	---	---	**0.0107**	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	0.001	0.001
	August-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	0.001	0.001
		---	---	---	---	**0.00312**	---	**0.00397**	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	0.002	0.002
	September-2023	---	---	**0.00503**	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	0.002	0.002
	October-2023	---	---	---	---	---	**0.00165**	---	---	---	---	---	---	---	---	---	---	ND	---	**0.00055**	---	---	0.0004	0.0004
	November-2023	ND	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	0.0000002	0.0000002
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	0.0000004	0.0000004
		---	---	**0.00576**	**0.00606**	---	**0.00578**	---	---	ND	---	---	---	---	---	---	---	---	---	**0.00954**	---	---	ND	0.000004	0.000004
	December-2023	---	---	**0.00484**	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	0.001	0.001
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	0.0004	0.0004
	January-2024	---	ND	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	ND	0.001	0.001
	February-2024	---	**0.00376**	---	**0.0115**	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.00238**	---	**0.00284**	---	---	0.001	0.001
	March-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.00124**	0.0004	0.0004
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	0.001	0.001
	April-2024	---	---	---	---	---	---	---	---	---	---	---	**0.000201**	---	---	---	---	ND	---	---	---	---	---	0.0002	0.0002
		---	---	**0.00382**	---	---	---	---	---	---	---	---	---	---	---	---	**0.00151**	---	---	---	---	---	---	0.0008	0.0008
	May-2024	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	ND	ND	ND	---	---	ND	0.002	0.002
	June-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	**0.0119**	---	---	---	ND	0.002	0.002
	July-2024	---	---	---	---	---	---	---	---	ND	**0.00104**	---	---	---	---	---	---	---	---	---	---	---	---	0.001	0.001
	August-2024	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	**0.00671**	---	---	ND	---	0.002	0.002
	September-2024	---	---	**0.00244**	---	ND	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	0.002	0.002

Well ID		EW-50	EW-51	EW-52	EW-53	EW-54	EW-55	EW-57	EW-58	EW-59	EW-60	EW-61	EW-62	EW-64	EW-65	EW-67	EW-68	EW-78	EW-85	EW-87	EW-88	EW-94	EW-98	LOD	LOQ
Parameter	Monitoring Event	Concentration																							
Nickel	November-2022	---	---	---	---	---	---	---	---	**0.0866**	---	**0.1344**	---	---	**0.173**	---	---	---	---	---	---	---	---	0.014	0.02
	December-2022	**0.1722**	---	**0.5025**	---	---	---	**0.2989**	---	**0.1299**	**0.287**	---	---	---	---	**0.1853**	**0.346**	---	---	---	---	---	---	0.014	0.02
	January-2023	**0.1074**	---	---	---	---	---	---	**0.1442**	**0.0407**	---	---	---	---	**0.0769**	---	---	---	---	---	---	---	---	0.007	0.01
	February-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.1726**	---	---	---	---	---	---	0.001	0.001
	March-2023	---	---	---	---	---	---	---	**0.1254**	**0.1033**	---	---	---	---	---	---	---	---	---	---	---	---	---	0.007	0.01
	April-2023	---	---	---	---	---	---	---	**0.1143**	---	**0.1732**	---	---	---	---	---	---	---	---	---	---	---	---	0.001	0.001
	May-2023	**0.113**	---	---	---	---	---	---	**0.09726**	**0.05657**	---	---	---	---	---	---	---	---	---	---	---	---	---	0.005	0.005
	June-2023	---	---	---	---	---	---	---	---	**0.05978**	---	**0.05892**	---	**0.07161**	---	---	---	---	---	---	---	---	---	0.005	0.005
	July-2023	**0.09872**	---	---	---	---	---	**0.08332**	---	---	---	---	---	---	---	---	---	**0.1576**	---	---	---	**0.03074**	**0.01403**	0.001	0.001
	August-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.02029**	0.005	0.005
		---	---	---	---	**0.1457**	---	**0.09673**	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.0513**	---	0.01	0.01
	September-2023	---	---	**0.5152**	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.2387**	---	---	---	---	---	0.01	0.01
	October-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.2019**	---	**0.09206**	---	---	---	0.001	0.001
		---	---	---	---	---	**0.104**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.002	0.002
	November-2023	**0.1178**	---	**0.4227**	**0.1242**	---	**0.07791**	---	---	**0.05944**	---	---	**0.1493**	---	---	---	---	**0.2492**	---	**0.1332**	---	---	**0.05277**	0.01	0.01
	December-2023	---	---	**0.6091**	---	---	---	---	---	---	---	---	---	---	---	---	**0.1447**	---	---	---	---	---	---	0.005	0.005
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.2127**	---	---	---	---	---	0.002	0.002
	January-2024	---	**0.06308**	---	---	---	---	---	---	**0.04911**	---	---	---	---	---	---	---	---	---	---	---	---	**0.0326**	0.005	0.005
	February-2024	---	**0.07945**	---	**0.07013**	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.09174**	---	**0.06183**	---	---	0.005	0.005
	March-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.02232**	0.002	0.002
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.08678**	---	---	0.005	0.005
	April-2024	---	---	---	---	---	---	---	---	---	---	---	**0.1319**	---	---	---	---	**0.196**	---	---	---	---	---	0.001	0.001
		---	---	**0.3136**	---	---	---	---	---	---	---	---	---	---	---	---	**0.1139**	---	---	---	---	---	---	0.01	0.01
	May-2024	---	---	---	---	---	---	---	---	**0.0538**	---	---	---	---	---	---	---	**0.2065**	**0.07835**	**0.09235**	---	---	**0.02884**	0.01	0.01
	June-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.211**	**0.07664**	---	---	---	**0.03166**	0.01	0.01
	July-2024	---	---	---	---	---	---	---	---	**0.1917**	**0.03634**	---	---	---	---	---	---	---	---	---	---	---	---	0.005	0.005
	August-2024	---	---	---	---	**0.1008**	---	---	---	---	---	---	---	---	---	---	---	---	**0.0822**	---	---	**0.02104**	---	0.01	0.01
	September-2024	---	---	**0.396**	---	**0.1138**	---	---	---	---	---	---	---	---	---	---	**0.08772**	---	---	---	---	---	---	0.01	0.01

Well ID		EW-50	EW-51	EW-52	EW-53	EW-54	EW-55	EW-57	EW-58	EW-59	EW-60	EW-61	EW-62	EW-64	EW-65	EW-67	EW-68	EW-78	EW-85	EW-87	EW-88	EW-94	EW-98	LOD	LOQ
Parameter	**Monitoring Event**	**Concentration**																							
Selenium	November-2022	---	---	---	---	---	---	---	---	ND	---	ND	---	---	ND	---	---	---	---	---	---	---	---	0.08	0.1
	December-2022	ND	---	ND	---	---	---	ND	---	ND	ND	---	---	---	---	ND	ND	---	---	---	---	---	---	0.08	0.1
	January-2023	ND	---	---	---	---	---	---	ND	ND	---	---	---	---	ND	---	---	---	---	---	---	---	---	0.04	0.05
	February-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.00199**	---	---	---	---	---	---	0.00085	0.001
	March-2023	---	---	---	---	---	---	---	ND	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	0.04	0.05
	April-2023	---	---	---	---	---	---	---	**0.00189**	---	**0.00185**	---	---	---	---	---	---	---	---	---	---	---	---	0.00085	0.001
	May-2023	ND	---	---	---	---	---	---	ND	**0.00569**	---	---	---	---	---	---	---	---	---	---	---	---	---	0.00425	0.005
	June-2023	---	---	---	---	---	---	---	---	ND	---	ND	---	ND	---	---	---	---	---	---	---	---	---	0.00425	0.005
	July-2023	**0.00101**	---	---	---	---	---	**0.00331**	---	---	---	---	---	---	---	---	---	**0.00116**	---	---	---	**0.00251**	ND	0.00085	0.001
	August-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	0.00425	0.005
		---	---	---	---	ND	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	0.0085	0.01
	September-2023	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	0.0085	0.01
	October-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.00186**	---	**0.0044**	---	---	---	0.00085	0.001
		---	---	---	---	---	**0.00332**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0017	0.002
	November-2023	ND	---	**0.00425**	**0.00314**	---	**0.00315**	---	---	ND	---	---	ND	---	---	---	---	ND	---	**0.0032**	---	---	ND	0.003	0.003
	December-2023	---	---	**0.00785**	---	---	---	---	---	---	---	---	---	---	---	---	**0.00253**	---	---	---	---	---	---	0.0015	0.0015
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.00215**	---	---	---	---	---	0.0017	0.002
	January-2024	---	ND	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	ND	0.00425	0.005
	February-2024	---	ND	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.00571**	---	**0.00651**	---	---	0.00425	0.005
	March-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	0.0017	0.002
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.00627**	---	---	0.00425	0.005
	April-2024	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	**0.000929 J**	---	---	---	---	---	0.00085	0.001
		---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	0.0085	0.01
	May-2024	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	ND	ND	ND	---	---	ND	0.0085	0.01
	June-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	ND	---	---	---	ND	0.0085	0.01
	July-2024	---	---	---	---	---	---	---	---	ND	ND	---	---	---	---	---	---	---	---	---	---	---	---	0.00425	0.005
	August-2024	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	ND	---	0.0085	0.01
	September-2024	---	---	ND	---	ND	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	0.0085	0.01
Silver	November-2022	---	---	---	---	---	---	---	---	ND	---	ND	---	---	ND	---	---	---	---	---	---	---	---	0.01	0.02
	December-2022	ND	---	**0.0187 J**	---	---	---	ND	---	ND	ND	---	---	---	---	ND	ND	---	---	---	---	---	---	0.01	0.02
	January-2023	ND	---	---	---	---	---	---	ND	ND	---	---	---	---	ND	---	---	---	---	---	---	---	---	0.005	0.01
	February-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	0.00006	0.001
	March-2023	---	---	---	---	---	---	---	ND	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	0.005	0.01
	April-2023	---	---	---	---	---	---	---	ND	---	**0.00011 J**	---	---	---	---	---	---	---	---	---	---	---	---	0.00006	0.001
	May-2023	ND	---	---	---	---	---	---	ND	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0003	0.005
	June-2023	---	---	---	---	---	---	---	---	ND	---	ND	---	ND	---	---	---	---	---	---	---	---	---	0.0003	0.005
	July-2023	ND	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	ND	---	---	---	ND	ND	0.00006	0.001
	August-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	0.0003	0.005
		---	---	---	---	ND	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	0.0006	0.01
	September-2023	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	0.0006	0.01
	October-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	ND	---	---	---	0.00006	0.001
		---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.00012	0.002
	November-2023	ND	---	ND	ND	---	ND	---	---	ND	---	---	ND	---	---	---	---	ND	---	ND	---	---	ND	0.0006	0.01
	December-2023	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	0.00025	0.001
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	0.00012	0.002
	January-2024	---	ND	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	ND	0.0003	0.005
	February-2024	---	ND	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	ND	---	---	0.0003	0.005
	March-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	0.00012	0.002
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	0.0003	0.005
	April-2024	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	ND	---	---	---	---	---	0.00006	0.001
		---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	0.0004	0.001
	May-2024	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	ND	ND	ND	---	---	ND	0.0006	0.01
	June-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	ND	---	---	---	ND	0.0006	0.01
	July-2024	---	---	---	---	---	---	---	---	ND	ND	---	---	---	---	---	---	---	---	---	---	---	---	0.0003	0.0005
	August-2024	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	ND	---	0.0006	0.01
	September-2024	---	---	ND	---	ND	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	0.0006	0.01

Historical LFG-EW Leachate Monitoring Results Summary

Well ID		EW-50	EW-51	EW-52	EW-53	EW-54	EW-55	EW-57	EW-58	EW-59	EW-60	EW-61	EW-62	EW-64	EW-65	EW-67	EW-68	EW-78	EW-85	EW-87	EW-88	EW-94	EW-98	LOD	LOQ
Parameter	Monitoring Event	Concentration																							
Zinc	November-2022	---	---	---	---	---	---	---	---	ND	---	**0.032**	---	---	**0.694**	---	---	---	---	---	---	---	---	0.02	0.02
	December-2022	**0.208**	---	**29.7**	---	---	---	**0.162**	---	**0.0686**	**0.75**	---	---	---	---	**0.364**	**0.286**	---	---	---	---	---	---	0.02	0.02
	January-2023	**0.133**	---	---	---	---	---	---	**0.15**	**0.074**	---	---	---	---	**0.0752**	---	---	---	---	---	---	---	---	0.01	0.01
	February-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.0851**	---	---	---	---	---	---	0.0025	0.005
	March-2023	---	---	---	---	---	---	---	**0.0689**	**0.0538**	---	---	---	---	---	---	---	---	---	---	---	---	---	0.01	0.01
	April-2023	---	---	---	---	---	---	---	**0.0539**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0025	0.005
		---	---	---	---	---	---	---	---	---	**0.414**	---	---	---	---	---	---	---	---	---	---	---	---	0.025	0.05
	May-2023	**0.079**	---	---	---	---	---	---	**0.0635**	**0.0519**	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0125	0.025
	June-2023	---	---	---	---	---	---	---	---	**0.0538**	---	**0.0253**	---	**0.945**	---	---	---	---	---	---	---	---	---	0.0125	0.025
	July-2023	**0.0488**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.0714**	---	---	---	**0.354**	**0.0782**	0.0025	0.005
		---	---	---	---	---	---	**2.03**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0125	0.025
	August-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.112**	0.0125	0.025
		---	---	---	---	---	---	**1.71**	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.914**	---	0.025	0.05
		---	---	---	---	**5.92**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.05	0.1
	September-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.0788**	---	---	---	---	---	0.025	0.05
		---	---	**45**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.25	0.5
	October-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.0622**	---	---	---	---	---	0.0025	0.005
		---	---	---	---	---	**0.203**	---	---	---	---	---	---	---	---	---	---	---	---	**633**	---	---	---	0.005	0.01
	November-2023	**0.0471 J**	---	---	**0.0534**	---	**0.74**	---	---	**0.053**	---	---	**0.0618**	---	---	---	---	**0.0722**	---	**0.845**	---	---	**0.0313 J**	0.025	0.05
		---	---	**30.4**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.25	0.5
	December-2023	---	---	**52.7**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.25	0.5
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.061**	---	---	---	---	---	0.005	0.01
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.0462**	---	---	---	---	---	---	0.025	0.025
	January-2024	---	**0.117**	---	---	---	---	---	---	**0.0974**	---	---	---	---	---	---	---	---	---	---	---	---	**0.0261**	0.0125	0.025
	February-2024	---	**0.0879**	---	**0.0554**	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.475**	---	**0.809**	---	---	0.0125	0.025
	March-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.0342**	0.005	0.01
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**2.09**	---	---	0.0125	0.025
	April-2024	---	---	---	---	---	---	---	---	---	---	---	**0.0565**	---	---	---	---	**0.0539**	---	---	---	---	---	0.0025	0.005
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.0394**	---	---	---	---	---	---	0.02	0.02
		---	---	**24.7**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.25	0.5
	May-2024	---	---	---	---	---	---	---	---	**0.165**	---	---	---	---	---	---	---	**0.0568**	**1.3**	**1.43**	---	---	**0.0812**	0.025	0.05
	June-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**0.0505**	**0.498**	---	---	---	ND	0.025	0.05
	July-2024	---	---	---	---	---	---	---	---	**0.104**	**0.0451**	---	---	---	---	---	---	---	---	---	---	---	---	0.0125	0.025
	August-2024	---	---	---	---	**3.49**	---	---	---	---	---	---	---	---	---	---	---	---	**0.512**	---	---	**0.417**	---	0.025	0.05
	September-2024	---	---	**0.212**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	0.0025	0.005
		---	---	---	---	**3.68**	---	---	---	---	---	---	---	---	---	---	**0.111**	---	---	---	---	---	---	0.025	0.05

Well ID		EW-50	EW-51	EW-52	EW-53	EW-54	EW-55	EW-57	EW-58	EW-59	EW-60	EW-61	EW-62	EW-64	EW-65	EW-67	EW-68	EW-78	EW-85	EW-87	EW-88	EW-94	EW-98	LOD	LOQ
Parameter	Monitoring Event	Concentration																							
VOLATILE FATTY ACIDS (mg/L)																									
Acetic Acid	November-2022	---	---	---	---	---	---	---	---	---	---	**1600**	---	---	---	---	---	---	---	---	---	---	---	25	100
		---	---	---	---	---	---	---	---	**3500**	---	---	---	---	**150 J**	---	---	---	---	---	---	---	---	62	250
	December-2022	**1800**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	62	250
	January-2023	ND	---	---	---	---	---	---	ND	**4400**	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	500
	February-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	500
	March-2023	---	---	---	---	---	---	---	ND	**640**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	500
	April-2023	---	---	---	---	---	---	---	**1200**	---	**520**	---	---	---	---	---	---	---	---	---	---	---	---	370	500
	May-2023	**990**	---	---	---	---	---	---	**1800**	**3000**	---	---	---	---	---	---	---	---	---	---	---	---	---	370	500
	June-2023	---	---	---	---	---	---	---	---	**5900**	---	**4100**	---	**5000**	---	---	---	---	---	---	---	---	---	750	1000
	July-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	150	200
		ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	370	500
		---	---	---	---	---	---	**6100**	---	---	---	---	---	---	---	---	---	---	---	---	---	**750**	---	750	1000
	August-2023	---	---	---	---	**3300**	---	**5300**	---	---	---	---	---	---	---	---	---	---	---	---	---	**4200**	ND	---	500
	September-2023	---	---	**7400**	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	370	500
	October-2023	---	---	---	---	---	**3200**	---	---	---	---	---	---	---	---	---	---	**720**	---	**4100**	---	---	---	370	500
	November-2023	ND	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	ND	---	---	---	---	**4160**	250	500
		---	---	---	**4950**	---	**6650**	---	---	**5350**	---	---	---	---	---	---	---	---	---	**7300**	---	---	---	500	1000
		---	---	**9900**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1000	2000
	December-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**660**	---	---	---	---	---	---	---	100
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	250
		---	---	**11200**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1000
	January-2024	---	**4410**	---	---	---	---	---	---	**5290**	---	---	---	---	---	---	---	---	---	---	---	---	**3080**	---	250
	February-2024	---	**3130**	---	**3530**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	250
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**3530**	---	**6770**	---	---	---	500
	March-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**2700**	---	200
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**46000**	---	---	---	1000
	April-2024	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	ND	---	---	---	---	---	---	100
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**1670**	---	---	---	---	---	---	---	250
		---	---	**9170**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1250
	May-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	**4370**	---	---	---	**221**	---	250
		---	---	---	---	---	---	---	---	**4950**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	500
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**6530**	---	---	---	---	1250
	June-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	100
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**3890**	---	---	---	**4450**	---	500
	July-2024	---	---	---	---	---	---	---	---	**6280**	**6180**	---	---	---	---	---	---	---	---	---	---	---	---	---	1250
	August-2024	---	---	---	---	**5210**	---	---	---	---	---	---	---	---	---	---	---	---	**3500**	---	---	**5540**	---	---	500
	September-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**2950**	---	---	---	---	---	---	---	250
		---	---	---	---	**5970**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	500
		---	---	**10400**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1250

Historical LFG-EW Leachate Monitoring Results Summary

Well ID		EW-50	EW-51	EW-52	EW-53	EW-54	EW-55	EW-57	EW-58	EW-59	EW-60	EW-61	EW-62	EW-64	EW-65	EW-67	EW-68	EW-78	EW-85	EW-87	EW-88	EW-94	EW-98	LOD	LOQ
Parameter	Monitoring Event	Concentration																							
Butyric Acid	November-2022	---	---	---	---	---	---	---	---	---	---	**430**	---	---	---	---	---	---	---	---	---	---	---	12	100
		---	---	---	---	---	---	---	---	**830**	---	---	---	---	ND	---	---	---	---	---	---	---	---	29	250
	December-2022	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	29	250
	January-2023	ND	---	---	---	---	---	---	ND	**1800**	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	500
	February-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	500
	March-2023	---	---	---	---	---	---	---	ND	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	500
	April-2023	---	---	---	---	---	---	---	ND	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	330	500
	May-2023	ND	---	---	---	---	---	---	ND	**1200**	---	---	---	---	---	---	---	---	---	---	---	---	---	330	500
	June-2023	---	---	---	---	---	---	---	---	**2500**	---	**1500**	---	**2900**	---	---	---	---	---	---	---	---	---	650	1000
	July-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	130	200
		ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	330	500
		---	---	---	---	---	---	**2800**	---	---	---	---	---	---	---	---	---	---	---	---	---	**650**	---	650	1000
	August-2023	---	---	---	---	**1400**	---	**1700**	---	---	---	---	---	---	---	---	---	---	---	---	---	**1600**	ND	---	500
	September-2023	---	---	**3100**	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	330	500
	October-2023	---	---	---	---	---	**1200**	---	---	---	---	---	---	---	---	---	---	ND	---	**2000**	---	---	---	330	500
	November-2023	ND	---	---	**1670**	---	**1760**	---	---	**1370**	---	---	ND	---	---	---	---	ND	---	**2730**	---	---	**740**	250	500
		---	---	**3420**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	500	1000
	December-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**336**	---	---	---	---	---	---	---	100
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	250
		---	---	**3390**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1000
	January-2024	---	**813**	---	---	---	---	---	---	**1230**	---	---	---	---	---	---	---	---	---	---	---	---	**594**	---	250
	February-2024	---	**583**	---	**1170**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	250
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**1180**	---	**2980**	---	---	---	500
	March-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**500**	---	20
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**2100**	---	---	---	200
	April-2024	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	ND	---	---	---	---	---	---	100
		---	---	**3120**	---	---	---	---	---	---	---	---	---	---	---	---	**444**	---	---	---	---	---	---	---	250
	May-2024	---	---	---	---	---	---	---	---	**1190**	---	---	---	---	---	---	---	ND	**984**	**2370**	---	---	**448**	---	250
	June-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	**1190**	---	---	---	**1030**	---	100
	July-2024	---	---	---	---	---	---	---	---	**2400**	**2360**	---	---	---	---	---	---	---	---	---	---	---	---	---	250
	August-2024	---	---	---	---	**1630**	---	---	---	---	---	---	---	---	---	---	---	---	**1180**	---	---	**1930**	---	---	500
	September-2024	---	---	**3550**	---	**2060**	---	---	---	---	---	---	---	---	---	---	**670**	---	---	---	---	---	---	---	250
Lactic Acid	November-2022	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	11	100
		---	---	---	---	---	---	---	---	ND	---	---	---	---	ND	---	---	---	---	---	---	---	---	27	250
	December-2022	**90 J**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	27	250
	November-2023	ND	---	---	**968**	---	**1800**	---	---	**969**	---	---	ND	---	---	---	---	ND	---	**1170**	---	---	**324**	250	500
		---	---	**6030**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	500	1000
	December-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	100
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	250
		---	---	**9050**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1000
	January-2024	---	**629**	---	---	---	---	---	---	**979**	---	---	---	---	---	---	---	---	---	---	---	---	**256**	---	250
	February-2024	---	**334**	---	**180**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	250
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**756**	---	**1650**	---	---	---	500
	March-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	20
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	200
	April-2024	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	ND	---	---	---	---	---	---	100
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	250
		---	---	**5120**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1250
	May-2024	---	---	---	---	---	---	---	---	**1160**	---	---	---	---	---	---	---	ND	**1170**	**1730**	---	---	ND	---	250
	June-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	**706**	---	---	---	**246**	---	100
	July-2024	---	---	---	---	---	---	---	---	**1220**	**1210**	---	---	---	---	---	---	---	---	---	---	---	---	---	250
	August-2024	---	---	---	---	**2270**	---	---	---	---	---	---	---	---	---	---	---	---	**593**	---	---	**959**	---	---	500
	September-2024	---	---	---	---	**2550**	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	250
		---	---	**5510**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1250

Well ID		EW-50	EW-51	EW-52	EW-53	EW-54	EW-55	EW-57	EW-58	EW-59	EW-60	EW-61	EW-62	EW-64	EW-65	EW-67	EW-68	EW-78	EW-85	EW-87	EW-88	EW-94	EW-98	LOD	LOQ
Parameter	**Monitoring Event**	**Concentration**																							
Propionic Acid	November-2022	---	---	---	---	---	---	---	---	---	---	**620**	---	---	---	---	---	---	---	---	---	---	---	11	100
		---	---	---	---	---	---	---	---	**1600**	---	---	---	---	**73 J**	---	---	---	---	---	---	---	---	27	250
	December-2022	**640**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	27	250
	January-2023	ND	---	---	---	---	---	---	ND	**2000**	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	500
	February-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	500
	March-2023	---	---	---	---	---	---	---	ND	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	500
	April-2023	---	---	---	---	---	---	---	**600**	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	340	500
	May-2023	**520**	---	---	---	---	---	---	**800**	**1400**	---	---	---	---	---	---	---	---	---	---	---	---	---	340	500
	June-2023	---	---	---	---	---	---	---	---	**2900**	---	**2000**	---	**2900**	---	---	---	---	---	---	---	---	---	680	1000
	July-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	140	200
		ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	340	500
		---	---	---	---	---	---	**3100**	---	---	---	---	---	---	---	---	---	---	---	---	---	**680**	---	680	1000
	August-2023	---	---	---	---	**1200**	---	**2000**	---	---	---	---	---	---	---	---	---	---	---	---	---	**1900**	ND	---	500
	September-2023	---	---	**1800**	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	340	500
	October-2023	---	---	---	---	---	**1300**	---	---	---	---	---	---	---	---	---	---	ND	---	**2000**	---	---	---	340	500
	November-2023	ND	---	---	**2170**	---	**2310**	---	---	**2080**	---	---	**387**	---	---	---	---	ND	---	**3350**	---	---	**1420**	250	500
		---	---	**2580**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	500	1000
	December-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**996**	---	---	---	---	---	---	---	100
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	250
		---	---	**2280**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1000
	January-2024	---	**1680**	---	---	---	---	---	---	**1970**	---	---	---	---	---	---	---	---	---	---	---	---	**1030**	---	250
	February-2024	---	**1210**	---	**1510**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	250
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**1980**	---	**2900**	---	---	---	500
	March-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**570**	---	20
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**2100**	---	---	---	200
	April-2024	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	ND	---	---	---	---	---	---	100
		---	---	**2300**	---	---	---	---	---	---	---	---	---	---	---	---	**1150**	---	---	---	---	---	---	---	250
	May-2024	---	---	---	---	---	---	---	---	**1730**	---	---	---	---	---	---	---	ND	**1640**	**2770**	---	---	**647**	---	250
	June-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	**1870**	---	---	---	**1400**	---	100
	July-2024	---	---	---	---	---	---	---	---	**2500**	**2470**	---	---	---	---	---	---	---	---	---	---	---	---	---	250
	August-2024	---	---	---	---	**1320**	---	---	---	---	---	---	---	---	---	---	---	---	**1920**	---	---	**2040**	---	---	500
	September-2024	---	---	**2640**	---	**1690**	---	---	---	---	---	---	---	---	---	---	**1300**	---	---	---	---	---	---	---	250
Pyruvic Acid	November-2022	---	---	---	---	---	---	---	---	---	---	**46 J**	---	---	---	---	---	---	---	---	---	---	---	12	100
		---	---	---	---	---	---	---	---	**98 J**	---	---	---	---	ND	---	---	---	---	---	---	---	---	30	250
	December-2022	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	30	250
	November-2023	ND	---	---	ND	---	ND	---	---	ND	---	---	ND	---	---	---	---	ND	---	ND	---	---	ND	250	500
		---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	500	1000
	December-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	100
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	250
		---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1000
	January-2024	---	ND	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	250
	February-2024	---	ND	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	250
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	ND	---	---	---	500
	March-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**130**	---	20
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**460**	---	---	---	200
	April-2024	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	ND	---	---	---	---	---	---	100
		---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	250
	May-2024	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	ND	ND	ND	---	---	ND	---	250
	June-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	**113**	---	---	---	ND	---	100
	July-2024	---	---	---	---	---	---	---	---	ND	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	250
	August-2024	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	ND	---	---	500
	September-2024	---	---	ND	---	ND	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	250

Well ID		EW-50	EW-51	EW-52	EW-53	EW-54	EW-55	EW-57	EW-58	EW-59	EW-60	EW-61	EW-62	EW-64	EW-65	EW-67	EW-68	EW-78	EW-85	EW-87	EW-88	EW-94	EW-98	LOD	LOQ
Parameter	**Monitoring Event**	**Concentration**																							
VOLATILE ORGANIC COMPOUNDS (ug/L)																									
2-Butanone (MEK)	November-2022	---	---	---	---	---	---	---	---	**3510**	---	---	---	---	**1140**	---	---	---	---	---	---	---	---	30	100
		---	---	---	---	---	---	---	---	---	---	**15600**	---	---	---	---	---	---	---	---	---	---	---	300	1000
	December-2022	**3140**	---	---	---	---	---	---	---	---	**3390**	---	---	---	---	---	---	---	---	---	---	---	---	30	100
		---	---	**26800**	---	---	---	**27700**	---	**5670**	---	---	---	---	---	**21700**	**7150**	---	---	---	---	---	---	300	1000
	January-2023	**3480**	---	---	---	---	---	---	**632**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	30	100
		---	---	---	---	---	---	---	---	**7840**	---	---	---	---	**5470**	---	---	---	---	---	---	---	---	300	1000
	February-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**14400**	---	---	---	---	---	---	600	2000
	March-2023	---	---	---	---	---	---	---	**257**	**2770**	---	---	---	---	---	---	---	---	---	---	---	---	---	30	100
	April-2023	---	---	---	---	---	---	---	**3420**	---	**5530**	---	---	---	---	---	---	---	---	---	---	---	---	750	2500
	May-2023	**5360**	---	---	---	---	---	---	**5970**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	150	500
		---	---	---	---	---	---	---	---	**13600**	---	---	---	---	---	---	---	---	---	---	---	---	---	750	2500
	June-2023	---	---	---	---	---	---	---	---	**13800**	---	---	---	---	---	---	---	---	---	---	---	---	---	750	2500
		---	---	---	---	---	---	---	---	---	---	**20100**	---	**22600**	---	---	---	---	---	---	---	---	---	1500	5000
	July-2023	**5860**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	60	200
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**13500**	750	2500
		---	---	---	---	---	---	**38400**	---	---	---	---	---	---	---	---	---	---	---	---	---	**31600**	---	3000	10000
	August-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**5950**	60	200
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**7350**	---	150	500
		---	---	---	---	---	---	**3000**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	750	2500
		---	---	---	---	**25600**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1500	5000
	September-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**439**	---	---	---	---	---	60	200
		---	---	**17500**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	750	2500
	October-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**211**	---	---	---	---	---	15	50
		---	---	---	---	---	**17800**	---	---	---	---	---	---	---	---	---	---	---	---	**33400**	---	---	---	1500	5000
	November-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**78.8 J**	---	---	---	---	---	30	100
		---	---	---	---	---	**17700**	---	---	**10600**	---	---	---	---	---	---	---	---	---	---	---	---	---	150	500
		3990	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	300	1000
		---	---	**25700**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	750	2500
		---	---	---	**22300**	---	---	---	---	---	---	---	**17600**	---	---	---	---	---	---	**26700**	---	---	**31200**	1500	5000
	December-2023	---	---	**13700**	---	---	---	---	---	---	---	---	---	---	---	---	**7060**	ND	---	---	---	---	---	150	500
	January-2024	---	---	---	---	---	---	---	---	**10800**	---	---	---	---	---	---	---	---	---	---	---	---	---	150	500
		---	**34700**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**28900**	1500	5000
	February-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**12700**	---	---	---	---	150	500
		---	**30500**	---	**28900**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**17400**	---	---	1500	5000
	March-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**11700**	---	---	150	500
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**25200**	1500	5000
	April-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	30	100
		---	---	---	---	---	---	---	---	---	---	---	**14600**	---	---	---	---	---	---	---	---	---	---	750	2500
		---	---	**37200**	---	---	---	---	---	---	---	---	---	---	---	---	**28700**	---	---	---	---	---	---	1500	5000
	May-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	60	200
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**7340**	---	---	---	**18600**	150	500
		---	---	---	---	---	---	---	---	**25700**	---	---	---	---	---	---	---	---	---	**32700**	---	---	---	1500	5000
	June-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	60	200
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**13800**	---	---	---	---	150	500
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**33200**	15000	25000
	July-2024	---	---	---	---	---	---	---	---	**15600**	---	---	---	---	---	---	---	---	---	---	---	---	---	150	500
		---	---	---	---	---	---	---	---	---	**25400**	---	---	---	---	---	---	---	---	---	---	---	---	1500	5000
	August-2024	---	---	---	---	**17700**	---	---	---	---	---	---	---	---	---	---	---	---	**7260**	---	---	**17900**	---	150	500
	September-2024	---	---	**19000**	---	**16600**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	150	500
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**32200**	---	---	---	---	---	---	1500	5000

Historical LFG-EW Leachate Monitoring Results Summary

Well ID		EW-50	EW-51	EW-52	EW-53	EW-54	EW-55	EW-57	EW-58	EW-59	EW-60	EW-61	EW-62	EW-64	EW-65	EW-67	EW-68	EW-78	EW-85	EW-87	EW-88	EW-94	EW-98	LOD	LOQ
Parameter	Monitoring Event	Concentration																							
Acetone	November-2022	---	---	---	---	---	---	---	---	---	---	---	---	---	**4420**	---	---	---	---	---	---	---	---	70	100
		---	---	---	---	---	---	---	---	**16100**	---	**38300**	---	---	---	---	---	---	---	---	---	---	---	700	1000
	December-2022	---	---	---	---	---	---	---	---	**15600**	**5170**	---	---	---	---	---	**9800**	---	---	---	---	---	---	700	1000
		8500	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1750	2500
		---	---	**53100**	---	---	---	**49900**	---	---	---	---	---	---	---	**45600**	---	---	---	---	---	---	---	3500	5000
	January-2023	---	---	---	---	---	---	---	**1530**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	70	100
		---	---	---	---	---	---	---	---	**22200**	---	---	---	---	**14000**	---	---	---	---	---	---	---	---	700	1000
		8130	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1750	2500
	February-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**23900**	---	---	---	---	---	---	1400	2000
	March-2023	---	---	---	---	---	---	---	**375**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	70	100
		---	---	---	---	---	---	---	---	**6810**	---	---	---	---	---	---	---	---	---	---	---	---	---	700	1000
	April-2023	---	---	---	---	---	---	---	**8290**	---	**7560**	---	---	---	---	---	---	---	---	---	---	---	---	1750	2500
	May-2023	**10700**	---	---	---	---	---	---	**11700**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	350	500
		---	---	---	---	---	---	---	---	**29600**	---	---	---	---	---	---	---	---	---	---	---	---	---	1750	2500
	June-2023	---	---	---	---	---	---	---	---	**29600**	---	---	---	---	---	---	---	---	---	---	---	---	---	1750	2500
		---	---	---	---	---	---	---	---	---	---	**61800**	---	**50800**	---	---	---	---	---	---	---	---	---	3500	5000
	July-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**1180**	---	---	---	---	---	140	200
		9780	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	700	1000
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**11600**	1750	2500
		---	---	---	---	---	---	**77200**	---	---	---	---	---	---	---	---	---	---	---	---	---	**69700**	---	7000	10000
	August-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**20900**	700	1000
		---	---	---	---	---	---	**18700**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1750	2500
		---	---	---	---	**72500**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**87700**	---	3500	5000
	September-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**188 J**	---	---	---	---	---	140	200
		---	---	**40100**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1750	2500
	October-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**79**	---	---	---	---	---	35	50
		---	---	---	---	---	**66900**	---	---	---	---	---	---	---	---	---	---	---	---	**92900**	---	---	---	3500	5000
	November-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**104**	---	---	---	---	---	70	100
		5560	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	700	1000
		---	---	**64700**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1750	2500
		---	---	---	**43100**	---	**61100**	---	---	**36800**	---	---	**32800**	---	---	---	---	---	---	**53900**	---	---	**67800**	3500	5000
	December-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	---	140	200
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	350	500
		---	---	**44300**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	1750	2500
	January-2024	---	**96600**	---	---	---	---	---	---	**22800**	---	---	---	---	---	---	---	---	---	---	---	---	**47300**	3500	5000
	February-2024	---	**81600**	---	**70200**	---	---	---	---	---	---	---	---	---	---	---	---	---	**45600**	---	**63100**	---	---	3500	5000
	March-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**50800**	---	**57600**	3500	5000
	April-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	70	100
		---	---	---	---	---	---	---	---	---	---	---	**24300**	---	---	---	---	---	---	---	---	---	---	1750	2500
		---	---	**95300**	---	---	---	---	---	---	---	---	---	---	---	---	**55200**	---	---	---	---	---	---	3500	5000
	May-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	140	200
		---	---	---	---	---	---	---	---	**63200**	---	---	---	---	---	---	---	---	**39000**	**91300**	---	---	**33300**	3500	5000
	June-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	140	200
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**94400**	---	---	---	**84400**	35000	50000
	July-2024	---	---	---	---	---	---	---	---	**32200**	**52600**	---	---	---	---	---	---	---	---	---	---	---	---	3500	5000
	August-2024	---	---	---	---	**57700**	---	---	---	---	---	---	---	---	---	---	---	---	**36000**	---	---	**81500**	---	3500	5000
	September-2024	---	---	**59800**	---	**44500**	---	---	---	---	---	---	---	---	---	---	**69300**	---	---	---	---	---	---	3500	5000

Well ID		EW-50	EW-51	EW-52	EW-53	EW-54	EW-55	EW-57	EW-58	EW-59	EW-60	EW-61	EW-62	EW-64	EW-65	EW-67	EW-68	EW-78	EW-85	EW-87	EW-88	EW-94	EW-98	LOD	LOQ
Parameter	**Monitoring Event**	**Concentration**																							
Benzene	November-2022	---	---	---	---	---	---	---	---	**7.4 J**	---	**2860**	---	---	**50.4**	---	---	---	---	---	---	---	---	4	10
	December-2022	**301**	---	**2960**	---	---	---	---	---	**6.3 J**	**622**	---	---	---	---	**1750**	**179**	---	---	---	---	---	---	4	10
		---	---	---	---	---	---	**6550**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	40	100
	January-2023	**240**	---	---	---	---	---	---	**28.7**	**1620**	---	---	---	---	**167**	---	---	---	---	---	---	---	---	4	10
	February-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**1370**	---	---	---	---	---	---	4	10
	March-2023	---	---	---	---	---	---	---	**1540**	**727**	---	---	---	---	---	---	---	---	---	---	---	---	---	4	10
	April-2023	---	---	---	---	---	---	---	**3740**	---	**320**	---	---	---	---	---	---	---	---	---	---	---	---	4	10
	May-2023	**814**	---	---	---	---	---	---	**4890**	**3370**	---	---	---	---	---	---	---	---	---	---	---	---	---	20	50
	June-2023	---	---	---	---	---	---	---	---	**2630**	---	---	---	---	---	---	---	---	---	---	---	---	---	8	20
		---	---	---	---	---	---	---	---	---	---	**1400**	---	**1590**	---	---	---	---	---	---	---	---	---	20	50
	July-2023	**824**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**80.8**	---	---	---	---	---	8	20
		---	---	---	---	---	---	**4050**	---	---	---	---	---	---	---	---	---	---	---	---	---	**1420**	---	20	50
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**11800**	100	250
	August-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**379**	8	20
		---	---	---	---	**2320**	---	**168**	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	20	50
	September-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**193**	---	---	---	---	---	8	20
		---	---	**468**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	100	250
	October-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**399**	---	---	---	---	---	2	5
		---	---	---	---	---	**576**	---	---	---	---	---	---	---	---	---	---	---	---	**3100**	---	---	---	20	50
	November-2023	**80.8**	---	---	---	---	---	---	---	---	---	---	**31.3**	---	---	---	---	---	---	---	---	---	---	2	5
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**323**	---	---	---	---	---	4	10
		---	---	---	**1070**	---	**654**	---	---	**982**	---	---	---	---	---	---	---	---	---	**1960**	---	---	**1190**	20	50
		---	---	**870**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	100	250
	December-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**932**	---	---	---	---	---	---	8	20
		---	---	**1330**	---	---	---	---	---	---	---	---	---	---	---	---	---	**463**	---	---	---	---	---	20	50
	January-2024	---	**1410**	---	---	---	---	---	---	**662**	---	---	---	---	---	---	---	---	---	---	---	---	**2900**	20	50
	February-2024	---	**906**	---	**884**	---	---	---	---	---	---	---	---	---	---	---	---	---	**346**	---	**484**	---	---	20	50
	March-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**226**	---	**8910**	20	50
	April-2024	---	---	---	---	---	---	---	---	---	---	---	**52.1**	---	---	---	---	**13.8**	---	---	---	---	---	4	10
		---	---	**2040**	---	---	---	---	---	---	---	---	---	---	---	---	**3420**	---	---	---	---	---	---	20	50
	May-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**276**	---	---	---	---	---	8	20
		---	---	---	---	---	---	---	---	**3080**	---	---	---	---	---	---	---	---	**144**	**818**	---	---	**2990**	20	50
	June-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**173**	---	---	---	---	---	8	20
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**210**	---	---	---	**2740**	20	50
	July-2024	---	---	---	---	---	---	---	---	**1410**	**1820**	---	---	---	---	---	---	---	---	---	---	---	---	20	50
	August-2024	---	---	---	---	**828**	---	---	---	---	---	---	---	---	---	---	---	---	**162**	---	---	**384**	---	20	50
	September-2024	---	---	**960**	---	**727**	---	---	---	---	---	---	---	---	---	---	**2710**	---	---	---	---	---	---	20	50

Historical LFG-EW Leachate Monitoring Results Summary

Well ID		EW-50	EW-51	EW-52	EW-53	EW-54	EW-55	EW-57	EW-58	EW-59	EW-60	EW-61	EW-62	EW-64	EW-65	EW-67	EW-68	EW-78	EW-85	EW-87	EW-88	EW-94	EW-98	LOD	LOQ
Parameter	Monitoring Event	Concentration																							
Ethylbenzene	December-2022	**67.3**	---	**172**	---	---	---	**287**	---	ND	**48.5**	---	---	---	---	**108**	**27.4**	---	---	---	---	---	---	4	10
	November-2022	---	---	---	---	---	---	---	---	ND	---	**194**	---	---	**16.2**	---	---	---	---	---	---	---	---	4	10
	January-2023	**65.1**	---	---	---	---	---	---	ND	**93.9**	---	---	---	---	**20.8**	---	---	---	---	---	---	---	---	4	10
	February-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**151**	---	---	---	---	---	---	4	10
	March-2023	---	---	---	---	---	---	---	**131**	**71.5**	---	---	---	---	---	---	---	---	---	---	---	---	---	4	10
	April-2023	---	---	---	---	---	---	---	**186**	---	**43.4**	---	---	---	---	---	---	---	---	---	---	---	---	4	10
	May-2023	**124**	---	---	---	---	---	---	**276**	**144**	---	---	---	---	---	---	---	---	---	---	---	---	---	20	50
	June-2023	---	---	---	---	---	---	---	---	**104**	---	---	---	---	---	---	---	---	---	---	---	---	---	8	20
		---	---	---	---	---	---	---	---	---	---	**98**	---	**116**	---	---	---	---	---	---	---	---	---	20	50
	July-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**666**	4	10
		128	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**82**	---	---	---	---	---	8	20
		---	---	---	---	---	---	**224**	---	---	---	---	---	---	---	---	---	---	---	---	---	**87.5**	---	20	50
	August-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**16.8 J**	8	20
		---	---	---	---	**80**	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	20	50
	September-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**22.8**	---	---	---	---	---	8	20
		---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	100	250
	October-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**34.8**	---	---	---	---	---	2	5
		---	---	---	---	---	**42.5 J**	---	---	---	---	---	---	---	---	---	---	---	---	**247**	---	---	---	20	50
	November-2023	**26.3**	---	---	---	---	---	---	---	---	---	---	**45.4**	---	---	---	---	---	---	---	---	---	---	2	5
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**26.9**	---	---	---	---	---	4	10
		---	---	---	**62**	---	**54**	---	---	**76.5**	---	---	---	---	---	---	---	---	---	**224**	---	---	**60.5**	20	50
		---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	100	250
	December-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**46**	---	---	---	---	---	---	8	20
		---	---	**69.5**	---	---	---	---	---	---	---	---	---	---	---	---	---	**44 J**	---	---	---	---	---	20	50
	January-2024	---	**99**	---	---	---	---	---	---	**28 J**	---	---	---	---	---	---	---	---	---	---	---	---	**248**	20	50
	February-2024	---	**51**	---	**43 J**	---	---	---	---	---	---	---	---	---	---	---	---	---	**31 J**	---	**41 J**	---	---	20	50
	March-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**25 J**	---	**710**	20	50
	April-2024	---	---	---	---	---	---	---	---	---	---	---	**106**	---	---	---	---	ND	---	---	---	---	---	4	10
		---	---	**91.5**	---	---	---	---	---	---	---	---	---	---	---	---	**186**	---	---	---	---	---	---	20	50
	May-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**35.4**	---	---	---	---	---	8	20
		---	---	---	---	---	---	---	---	**146**	---	---	---	---	---	---	---	---	ND	**59**	---	---	**225**	20	50
	June-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**23.6**	---	---	---	---	---	8	20
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	**142**	20	50
	July-2024	---	---	---	---	---	---	---	---	**76**	**118**	---	---	---	---	---	---	---	---	---	---	---	---	20	50
	August-2024	---	---	---	---	**27.5 J**	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	**27 J**	---	20	50
	September-2024	---	---	**46.5 J**	---	**44 J**	---	---	---	---	---	---	---	---	---	---	**192**	---	---	---	---	---	---	20	50

Historical LFG-EW Leachate Monitoring Results Summary

Well ID		EW-50	EW-51	EW-52	EW-53	EW-54	EW-55	EW-57	EW-58	EW-59	EW-60	EW-61	EW-62	EW-64	EW-65	EW-67	EW-68	EW-78	EW-85	EW-87	EW-88	EW-94	EW-98	LOD	LOQ
Parameter	Monitoring Event	Concentration																							
Tetrahydrofuran	November-2022	---	---	---	---	---	---	---	---	**309**	---	---	---	---	**176**	---	---	---	---	---	---	---	---	100	100
		---	---	---	---	---	---	---	---	---	---	**8530**	---	---	---	---	---	---	---	---	---	---	---	1000	1000
	December-2022	**151**	---	---	---	---	---	---	---	**170**	**1120**	---	---	---	---	---	**663**	---	---	---	---	---	---	100	100
		---	---	**5210**	---	---	---	**19800**	---	---	---	---	---	---	---	**6130**	---	---	---	---	---	---	---	1000	1000
	January-2023	**183**	---	---	---	---	---	---	**566**	**1810**	---	---	---	---	**352**	---	---	---	---	---	---	---	---	100	100
	February-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**3760**	---	---	---	---	---	---	2000	2000
	March-2023	---	---	---	---	---	---	---	**353**	**464**	---	---	---	---	---	---	---	---	---	---	---	---	---	100	100
	April-2023	---	---	---	---	---	---	---	**2410**	---	**4790**	---	---	---	---	---	---	---	---	---	---	---	---	100	100
	May-2023	ND	---	---	---	---	---	---	**2740**	**2380**	---	---	---	---	---	---	---	---	---	---	---	---	---	500	500
	June-2023	---	---	---	---	---	---	---	---	**2100**	---	---	---	---	---	---	---	---	---	---	---	---	---	200	200
		---	---	---	---	---	---	---	---	---	---	**7320**	---	**6670**	---	---	---	---	---	---	---	---	---	500	500
	July-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**2960**	100	100
		411	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**616**	---	---	---	---	---	200	200
		---	---	---	---	---	---	**8380**	---	---	---	---	---	---	---	---	---	---	---	---	---	**5310**	---	500	500
	August-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**2880**	200	200
		---	---	---	---	**7370**	---	**3210**	---	---	---	---	---	---	---	---	---	---	---	---	---	**1200**	---	500	500
	September-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**343**	---	---	---	---	---	200	200
		---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2500	2500
	October-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**606**	---	---	---	---	---	50	50
		---	---	---	---	---	**4870**	---	---	---	---	---	---	---	---	---	---	---	---	**9140**	---	---	---	500	500
	November-2023	**199**	---	---	---	---	---	---	---	---	---	---	**325**	---	---	---	---	---	---	---	---	---	---	50	50
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**358**	---	---	---	---	---	100	100
		---	---	---	**4780**	---	**3320**	---	---	**785**	---	---	---	---	---	---	---	---	---	**5370**	---	---	**4600**	500	500
		---	---	**4620**	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	2500	2500
	December-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**4240**	---	---	---	---	---	---	200	200
		---	---	**2620**	---	---	---	---	---	---	---	---	---	---	---	---	---	**502**	---	---	---	---	---	500	500
	January-2024	---	**5160**	---	---	---	---	---	---	**1040**	---	---	---	---	---	---	---	---	---	---	---	---	**10900**	500	500
	February-2024	---	**3500**	---	**4580**	---	---	---	---	---	---	---	---	---	---	---	---	---	**3520**	---	**4910**	---	---	500	500
	March-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**3320**	---	**8710**	500	500
	April-2024	---	---	---	---	---	---	---	---	---	---	---	**697**	---	---	---	---	ND	---	---	---	---	---	100	100
		---	---	**7290**	---	---	---	---	---	---	---	---	---	---	---	---	**7680**	---	---	---	---	---	---	500	500
	May-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**555**	---	---	---	---	---	200	200
		---	---	---	---	---	---	---	---	**2660**	---	---	---	---	---	---	---	---	**1880**	**5860**	---	---	**7640**	500	500
	June-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**568**	---	---	---	---	---	200	200
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**3830**	---	---	---	**13000**	500	500
	July-2024	---	---	---	---	---	---	---	---	**1900**	**4020**	---	---	---	---	---	---	---	---	---	---	---	---	500	500
	August-2024	---	---	---	---	**3220**	---	---	---	---	---	---	---	---	---	---	---	---	**2020**	---	---	**4610**	---	500	500
	September-2024	---	---	**2950**	---	**2730**	---	---	---	---	---	---	---	---	---	---	**6640**	---	---	---	---	---	---	500	500

Historical LFG-EW Leachate Monitoring Results Summary

Well ID		EW-50	EW-51	EW-52	EW-53	EW-54	EW-55	EW-57	EW-58	EW-59	EW-60	EW-61	EW-62	EW-64	EW-65	EW-67	EW-68	EW-78	EW-85	EW-87	EW-88	EW-94	EW-98	LOD	LOQ
Parameter	Monitoring Event	Concentration																							
Toluene	November-2022	---	---	---	---	---	---	---	---	ND	---	**214**	---	---	**32.8**	---	---	---	---	---	---	---	---	5	10
	December-2022	**122**	---	**175**	---	---	---	**195**	---	ND	**113**	---	---	---	---	**113**	**48.3**	---	---	---	---	---	---	5	10
	January-2023	**122**	---	---	---	---	---	---	**8 J**	**139**	---	---	---	---	**35.3**	---	---	---	---	---	---	---	---	5	10
	February-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**224**	---	---	---	---	---	---	5	10
	March-2023	---	---	---	---	---	---	---	**182**	**98.1**	---	---	---	---	---	---	---	---	---	---	---	---	---	5	10
	April-2023	---	---	---	---	---	---	---	**303**	---	**94.4**	---	---	---	---	---	---	---	---	---	---	---	---	5	10
	May-2023	**258**	---	---	---	---	---	---	**371**	**239**	---	---	---	---	---	---	---	---	---	---	---	---	---	25	50
	June-2023	---	---	---	---	---	---	---	---	**165**	---	---	---	---	---	---	---	---	---	---	---	---	---	10	20
		---	---	---	---	---	---	---	---	---	---	**67**	---	**212**	---	---	---	---	---	---	---	---	---	25	50
	July-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**965**	5	10
		248	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**107**	---	---	---	---	---	10	20
		---	---	---	---	---	---	**218**	---	---	---	---	---	---	---	---	---	---	---	---	---	**118**	---	25	50
	August-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**36.6**	10	20
		---	---	---	---	**105**	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	25	50
	September-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**40.6**	---	---	---	---	---	10	20
		---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	125	250
	October-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**59.2**	---	---	---	---	---	2.5	5
		---	---	---	---	---	**37 J**	---	---	---	---	---	---	---	---	---	---	---	---	**235**	---	---	---	25	50
	November-2023	**47.3**	---	---	---	---	---	---	---	---	---	---	**50.4**	---	---	---	---	---	---	---	---	---	---	2.5	5
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**48.7**	---	---	---	---	---	5	10
		---	---	---	**62.5**	---	**51.5**	---	---	**114**	---	---	---	---	---	---	---	---	---	**167**	---	---	**114**	25	50
		---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	125	250
	December-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**73.2**	---	---	---	---	---	---	10	20
		---	---	**83.5**	---	---	---	---	---	---	---	---	---	---	---	---	---	**74.5**	---	---	---	---	---	25	50
	January-2024	---	**95.5**	---	---	---	---	---	---	**60**	---	---	---	---	---	---	---	---	---	---	---	---	**310**	25	50
	February-2024	---	**49 J**	---	**37 J**	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	**30.5 J**	---	---	25	50
	March-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**73**	---	**916**	25	50
	April-2024	---	---	---	---	---	---	---	---	---	---	---	**90.1**	---	---	---	---	ND	---	---	---	---	---	5	10
		---	---	**104**	---	---	---	---	---	---	---	---	---	---	---	---	**263**	---	---	---	---	---	---	25	50
	May-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**53.8**	---	---	---	---	---	10	20
		---	---	---	---	---	---	---	---	**180**	---	---	---	---	---	---	---	---	ND	**62.5**	---	---	**284**	25	50
	June-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**34.6**	---	---	---	---	---	10	20
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	**228**	25	50
	July-2024	---	---	---	---	---	---	---	---	**97**	**125**	---	---	---	---	---	---	---	---	---	---	---	---	25	50
	August-2024	---	---	---	---	**35 J**	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	**25 J**	---	25	50
	September-2024	---	---	**80**	---	**63.5**	---	---	---	---	---	---	---	---	---	---	**226**	---	---	---	---	---	---	25	50

Well ID		EW-50	EW-51	EW-52	EW-53	EW-54	EW-55	EW-57	EW-58	EW-59	EW-60	EW-61	EW-62	EW-64	EW-65	EW-67	EW-68	EW-78	EW-85	EW-87	EW-88	EW-94	EW-98	LOD	LOQ
Parameter	**Monitoring Event**	**Concentration**																							
Xylenes, Total	November-2022	---	---	---	---	---	---	---	---	ND	---	**185**	---	---	**37.8**	---	---	---	---	---	---	---	---	10	30
	December-2022	**161**	---	**222**	---	---	---	**186**	---	ND	**112**	---	---	---	---	**197**	**59.9**	---	---	---	---	---	---	10	30
	January-2023	**138**	---	---	---	---	---	---	ND	**134**	---	---	---	---	**38.1**	---	---	---	---	---	---	---	---	10	30
	February-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**240**	---	---	---	---	---	---	10	30
	March-2023	---	---	---	---	---	---	---	**240**	**111**	---	---	---	---	---	---	---	---	---	---	---	---	---	10	30
	April-2023	---	---	---	---	---	---	---	**329**	---	**97.4**	---	---	---	---	---	---	---	---	---	---	---	---	10	30
	May-2023	**274**	---	---	---	---	---	---	**441**	**230**	---	---	---	---	---	---	---	---	---	---	---	---	---	50	150
	June-2023	---	---	---	---	---	---	---	---	**177**	---	---	---	---	---	---	---	---	---	---	---	---	---	20	60
		---	---	---	---	---	---	---	---	---	---	**92 J**	---	**136 J**	---	---	---	---	---	---	---	---	---	50	150
	July-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**1130**	10	30
		257	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**74.4**	---	---	---	---	---	20	60
		---	---	---	---	---	---	**230**	---	---	---	---	---	---	---	---	---	---	---	---	---	**174**	---	50	150
	August-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**48.4 J**	20	60
		---	---	---	---	**180**	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	50	150
	September-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	20	60
		---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	250	750
	October-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**30.6**	---	---	---	---	---	5	15
		---	---	---	---	---	**134 J**	---	---	---	---	---	---	---	---	---	---	---	---	**328**	---	---	---	50	150
	November-2023	**56**	---	---	---	---	---	---	---	---	---	---	**48**	---	---	---	---	---	---	---	---	---	---	5	15
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**25.3 J**	---	---	---	---	---	10	30
		---	---	---	**116 J**	---	**104 J**	---	---	**132 J**	---	---	---	---	---	---	---	---	---	**306**	---	---	**138 J**	50	150
		---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	250	750
	December-2023	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**167**	---	---	---	---	---	---	20	60
		---	---	**224**	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	50	150
	January-2024	---	**142 J**	---	---	---	---	---	---	ND	---	---	---	---	---	---	---	---	---	---	---	---	**534**	50	150
	February-2024	---	**63 J**	---	**59 J**	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	ND	---	---	50	150
	March-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	**1360**	50	150
	April-2024	---	---	---	---	---	---	---	---	---	---	---	**110**	---	---	---	---	ND	---	---	---	---	---	10	30
		---	---	**140 J**	---	---	---	---	---	---	---	---	---	---	---	---	**352**	---	---	---	---	---	---	50	150
	May-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	**31.6 J**	---	---	---	---	---	20	60
		---	---	---	---	---	---	---	---	**223**	---	---	---	---	---	---	---	---	ND	**105 J**	---	---	**400**	50	150
	June-2024	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	---	---	20	60
		---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	---	**261**	50	150
	July-2024	---	---	---	---	---	---	---	---	**125 J**	**157**	---	---	---	---	---	---	---	---	---	---	---	---	50	150
	August-2024	---	---	---	---	**72.5 J**	---	---	---	---	---	---	---	---	---	---	---	---	ND	---	---	**55.5 J**	---	50	150
	September-2024	---	---	**90.5 J**	---	**120 J**	---	---	---	---	---	---	---	---	---	---	**368**	---	---	---	---	---	---	50	150

--- = not applicable/available

J = Parameter was detected at a concentration greater than the laboratory's LOD, but less than the laboratory's LOQ. Concentration is considered estimated.

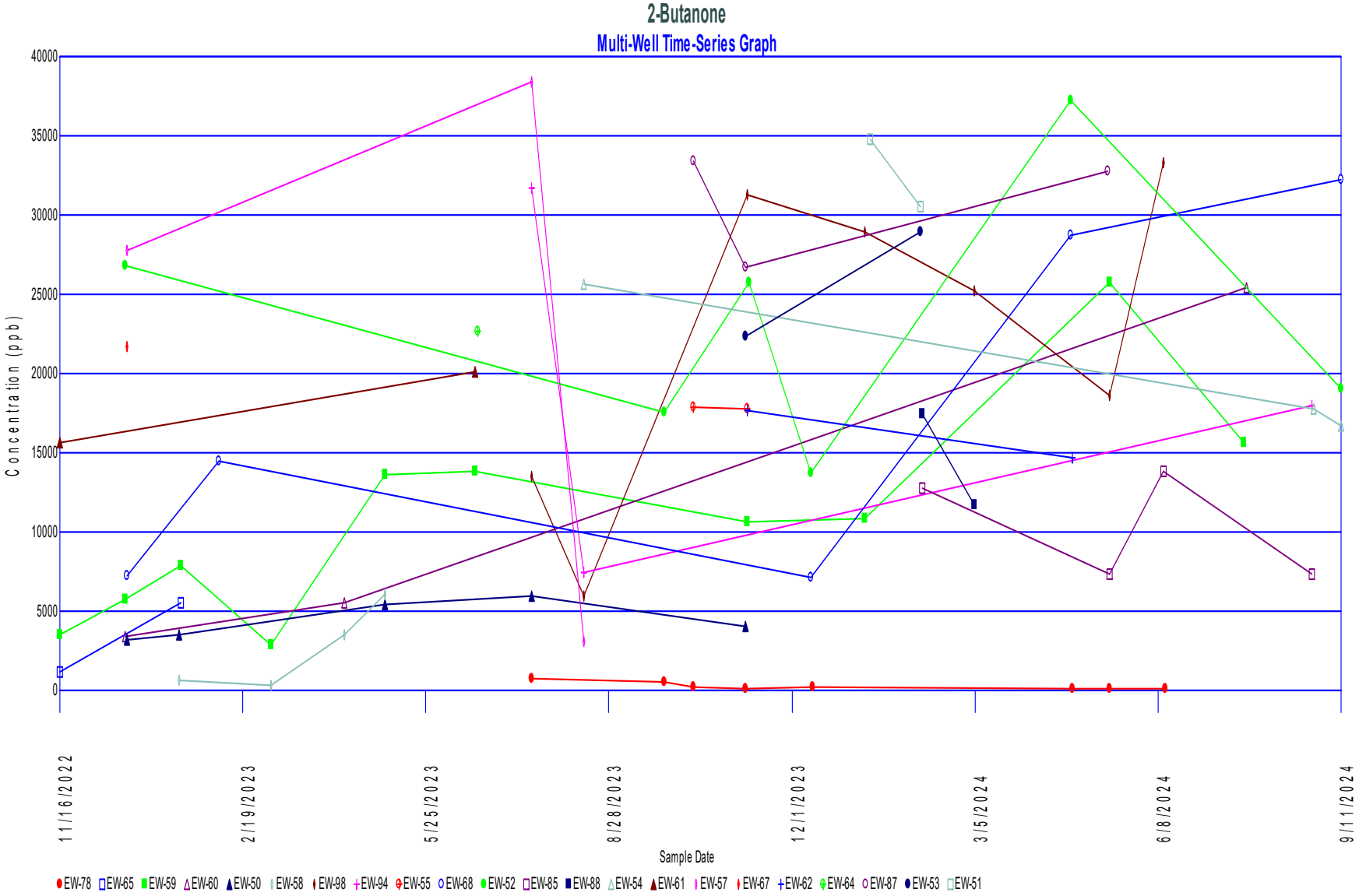
LOD = laboratory's Limit of Detection

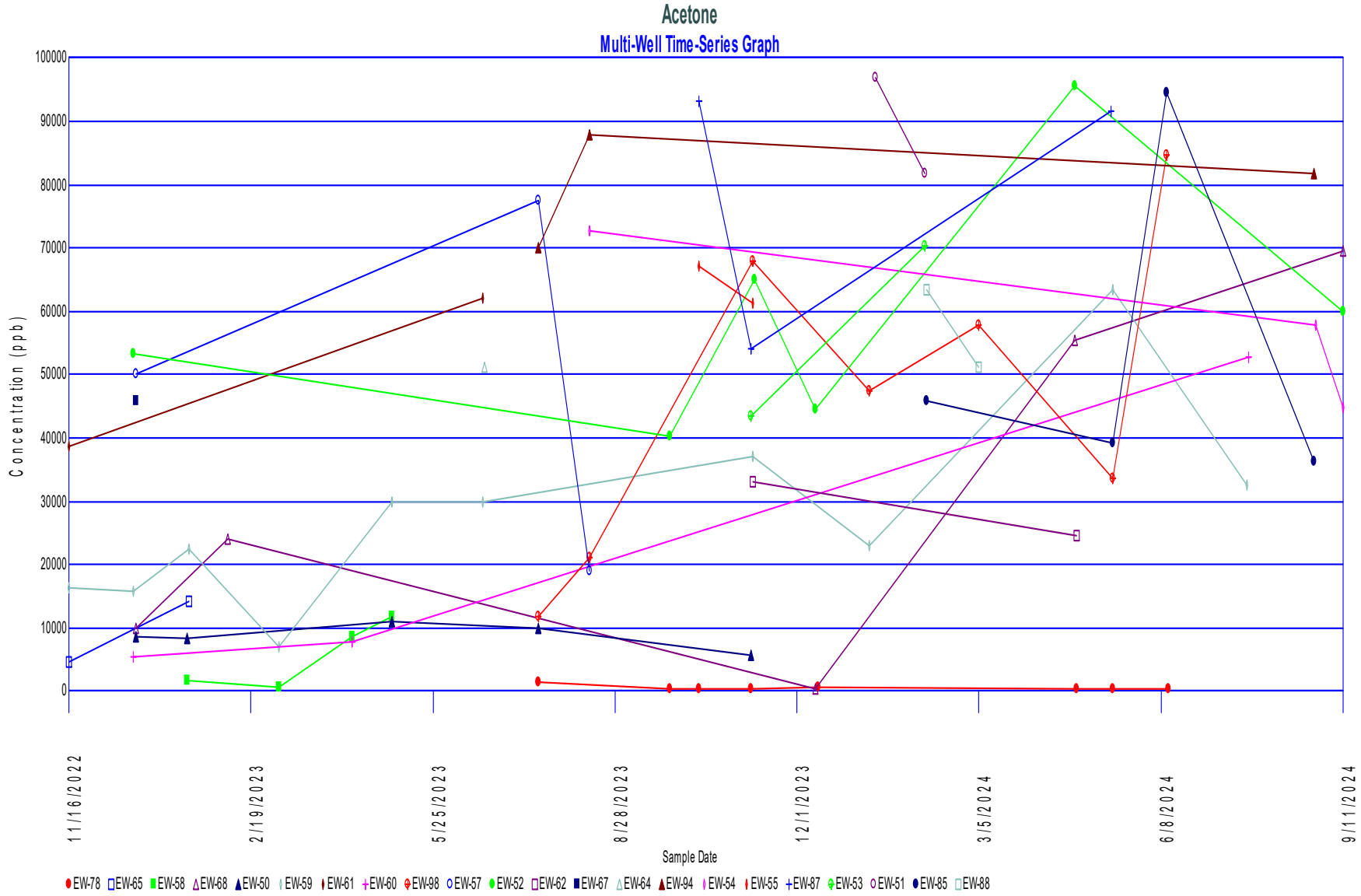
LOQ = laboratory's Limit of Quantitation

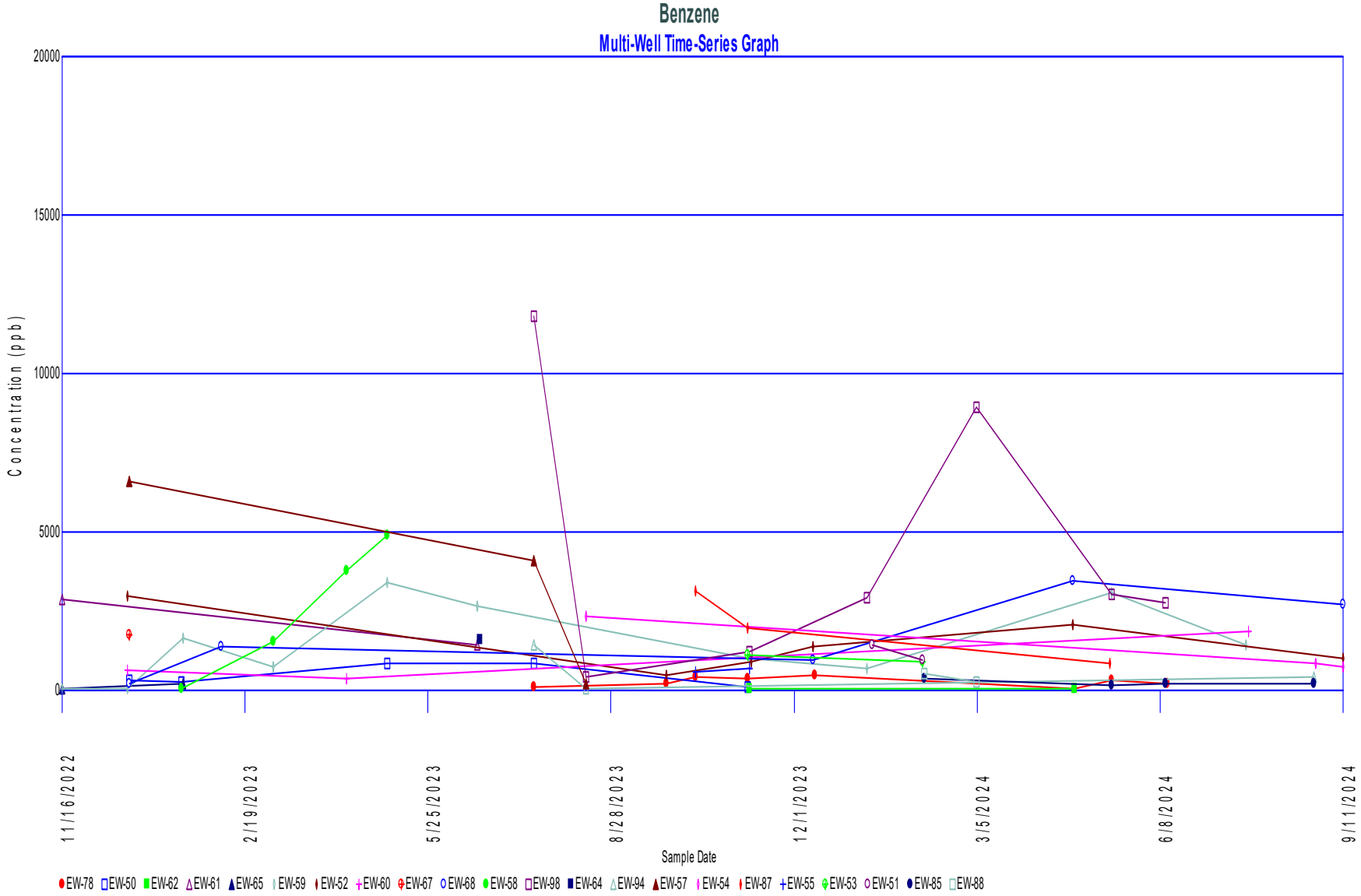
mg/L = milligrams per liter

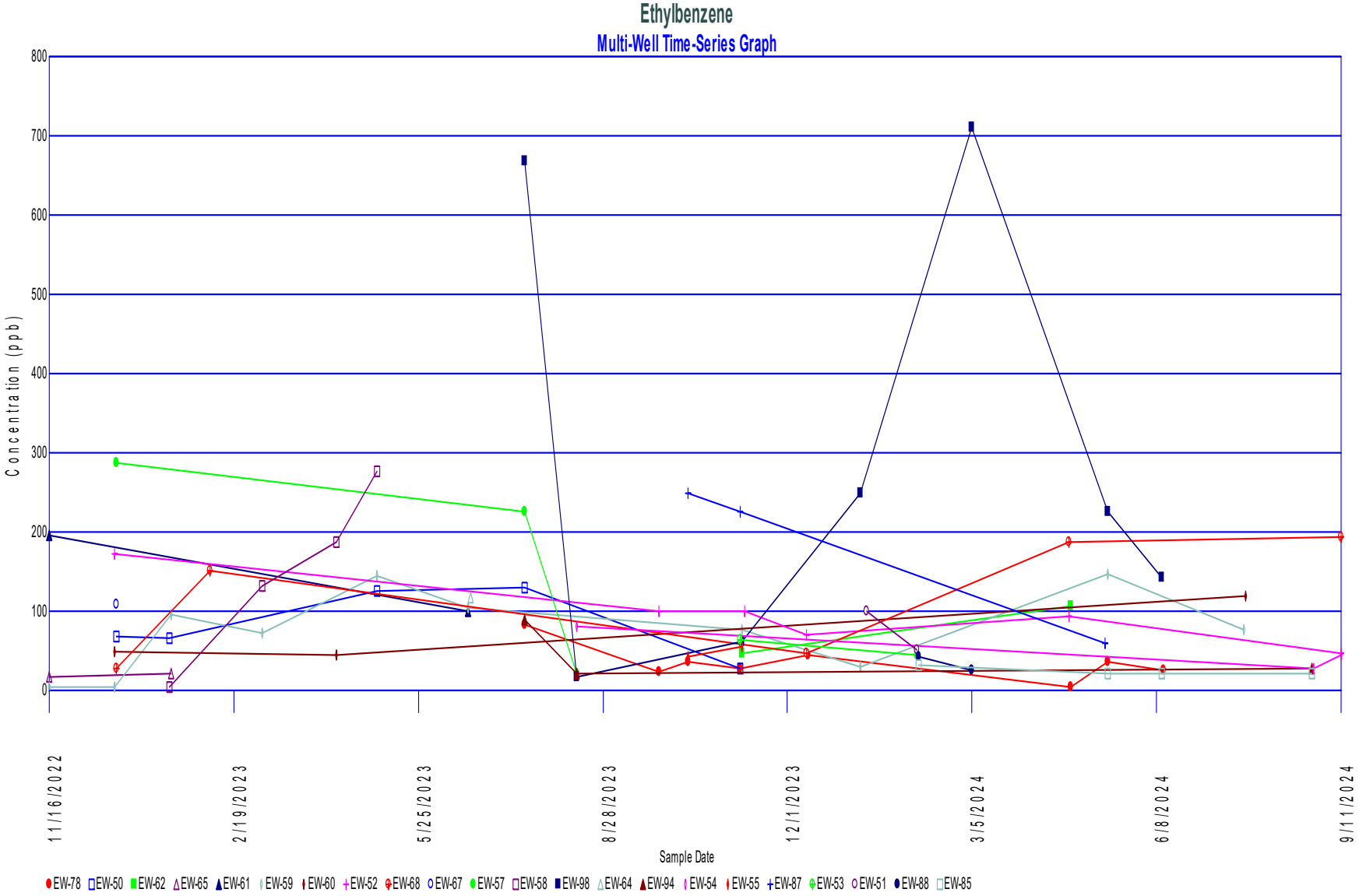
ND = Not Detected

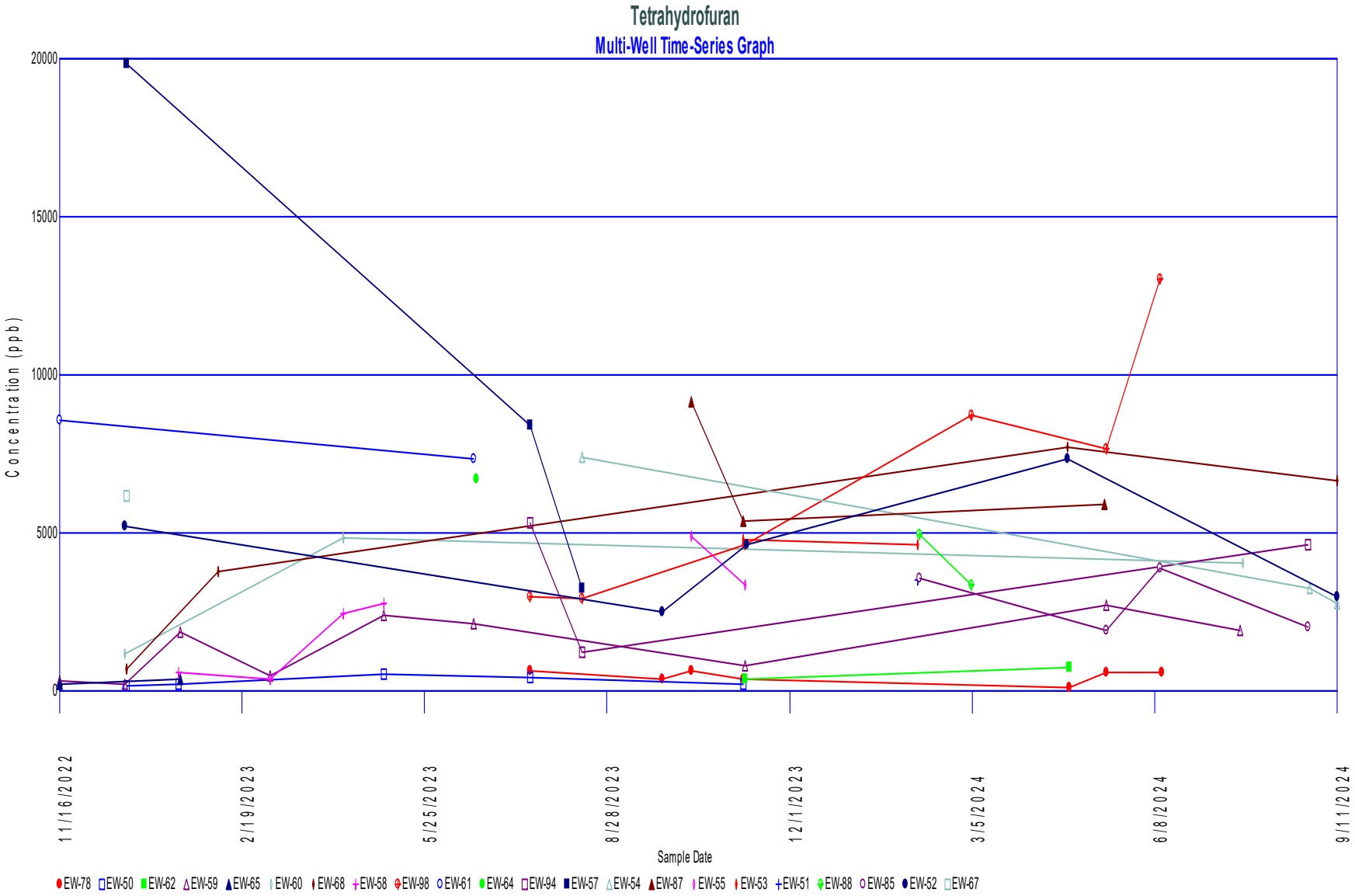
ug/L = micrograms per liter

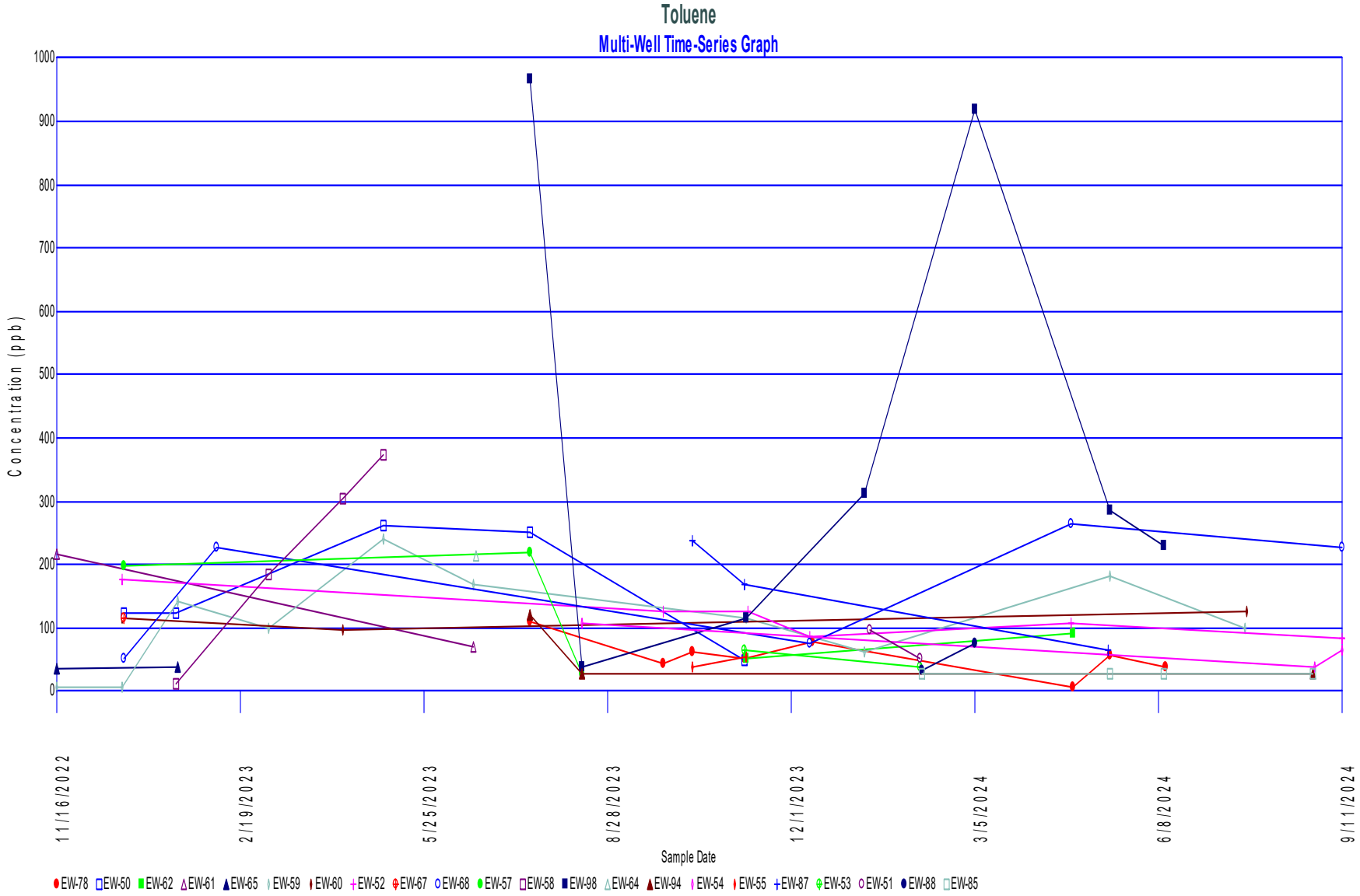

2-Butanone
Multi-Well Time-Series Graph
Concentration (ppb)
40000
35000
30000
25000
20000
15000
10000
5000
0
11/16/2022
2/19/2023
5/25/2023
8/28/2023
12/1/2023
3/5/2024
6/8/2024
9/11/2024
Sample Date
EW-78 EW-65 EW-59 EW-60 EW-50 EW-58 EW-98 EW-94 EW-55 EW-68 EW-52 EW-85 EW-88 EW-54 EW-61 EW-57 EW-67 EW-62 EW-64 EW-87 EW-53 EW-51

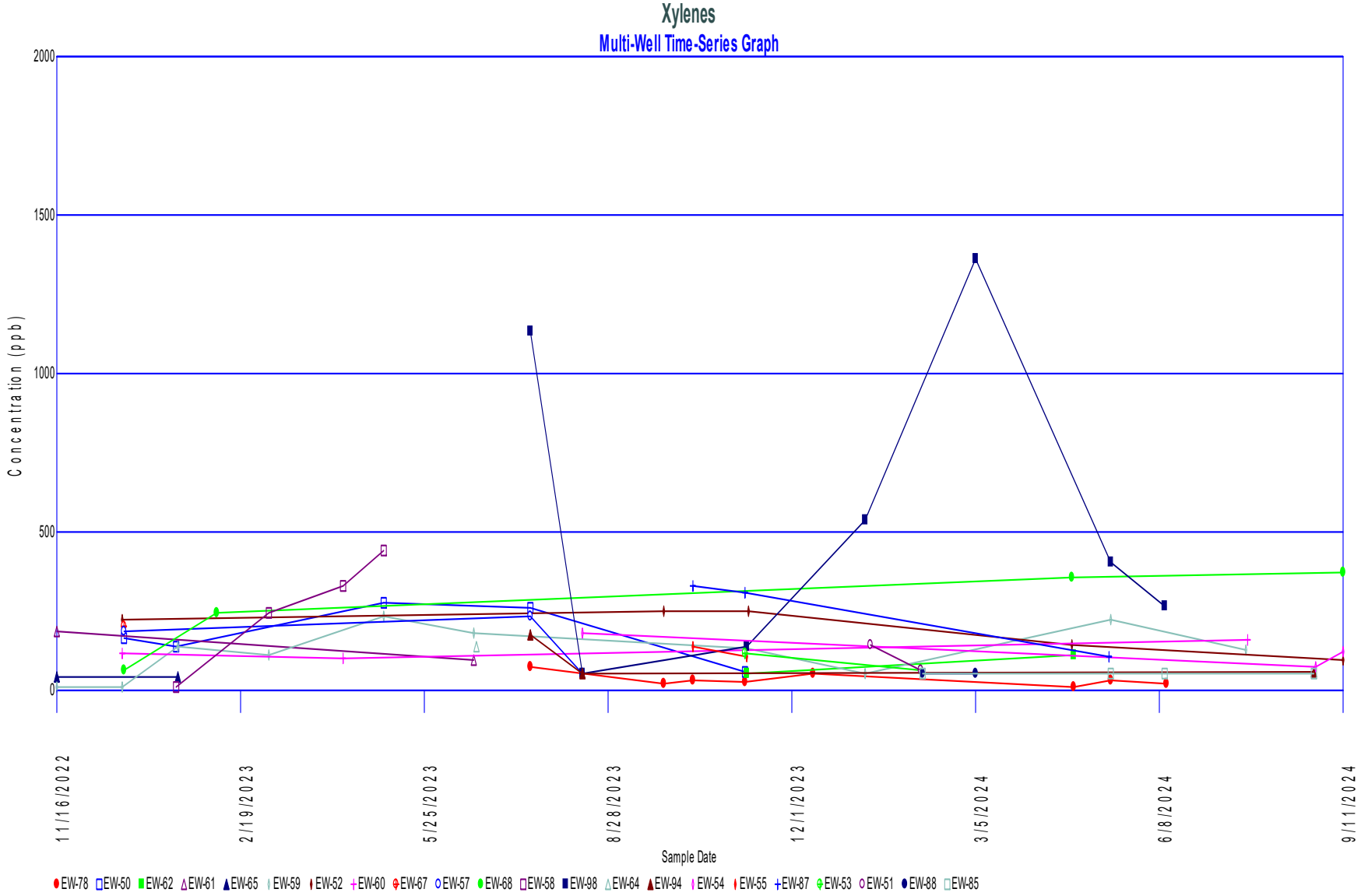

Acetone
Multi-Well Time-Series Graph
Concentration (ppb)
100000
90000
80000
70000
60000
50000
40000
30000
20000
10000
0
11/16/2022
2/19/2023
5/25/2023
8/28/2023
12/1/2023
3/5/2024
6/8/2024
9/11/2024
Sample Date
EW-78 EW-65 EW-58 EW-68 EW-50 EW-59 EW-61 EW-60 EW-98 EW-57 EW-52 EW-62 EW-67 EW-64 EW-94 EW-54 EW-55 EW-87 EW-53 EW-51 EW-85 EW-88


Benzene
Multi-Well Time-Series Graph
20000
15000
10000
5000
0
Concentration (ppb)
11/16/2022
2/19/2023
5/25/2023
8/28/2023
12/1/2023
3/5/2024
6/8/2024
9/11/2024
Sample Date
EW-78 EW-50 EW-62 EW-61 EW-65 EW-59 EW-52 EW-60 EW-67 EW-68 EW-58 EW-98 EW-64 EW-94 EW-57 EW-54 EW-87 EW-55 EW-53 EW-51 EW-85 EW-88


Ethylbenzene
Multi-Well Time-Series Graph
Concentration (ppb)
800
700
600
500
400
300
200
100
0
11/16/2022
2/19/2023
5/25/2023
8/28/2023
12/1/2023
3/5/2024
6/8/2024
9/11/2024
Sample Date
EW-78 EW-50 EW-62 EW-65 EW-61 EW-59 EW-60 EW-52 EW-68 EW-67 EW-57 EW-58 EW-98 EW-64 EW-94 EW-54 EW-55 EW-87 EW-53 EW-51 EW-88 EW-85


Tetrahydrofuran
Multi-Well Time-Series Graph
20000
15000
10000
5000
0
Concentration (ppb)
11/16/2022
2/19/2023
5/25/2023
8/28/2023
12/1/2023
3/5/2024
6/8/2024
9/11/2024
Sample Date
EW-78 EW-50 EW-62 EW-59 EW-65 EW-60 EW-68 EW-58 EW-98 EW-61 EW-64 EW-94 EW-57 EW-54 EW-87 EW-55 EW-53 EW-51 EW-88 EW-85 EW-52 EW-67


Toluene
Multi-Well Time-Series Graph
Concentration (ppb)
1000
900
800
700
600
500
400
300
200
100
0
11/16/2022
2/19/2023
5/25/2023
8/28/2023
12/1/2023
3/5/2024
6/8/2024
9/11/2024
Sample Date
EW-78 EW-50 EW-62 EW-61 EW-65 EW-59 EW-60 EW-52 EW-67 EW-68 EW-57 EW-58 EW-98 EW-64 EW-94 EW-54 EW-55 EW-87 EW-53 EW-51 EW-88 EW-85


Xylenes
Multi-Well Time-Series Graph
2000
1500
1000
500
0
Concentration (ppb)
11/16/2022
2/19/2023
5/25/2023
8/28/2023
12/1/2023
3/5/2024
6/8/2024
9/11/2024
Sample Date
EW-78 EW-50 EW-62 EW-61 EW-65 EW-59 EW-52 EW-60 EW-67 EW-57 EW-68 EW-58 EW-98 EW-64 EW-94 EW-54 EW-55 EW-87 EW-53 EW-51 EW-88 EW-85