



June 2026 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

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

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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 June 2026 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

SCS performed surface emissions monitoring on June 4, 2026; June 11, 2026; June 18, 2026; and June 25, 2026. 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. SCS also performs quarterly SEM at the landfill in accordance with regulatory requirements.

The details and results of the SEM are included in **Appendix A**. A summary of the outcomes is provided in **Table 1**.

Table 1. Summary of June Surface Emissions Monitoring

Description	June 4, 2026	June 11, 2026	June 18, 2026	June 25, 2026
Number of Points Sampled	168	168	168	167
Number of Points in Serpentine Route	100	100	100	100
Number of Points at Surface Cover Penetrations	68	68	68	67
Number of Exceedances	0	1	0	1
Number of Serpentine Exceedances	0	0	0	0
Number of Pipe Penetration Exceedances	0	1	0	1

In response to the SEM results, the City and the City's operations, monitoring, and maintenance contractor, SCS Field Services O&M (SCS-FS) took the following actions or noted the following observations:

- An ongoing exceedance at the pipe penetration was recorded at EW-67 (initial exceedance date 5/20/26). After additional soil placement, monitoring of this well during the one-month retest on 6/18/26 resolved the exceedance.
- An initial exceedance at the pipe penetration was recorded at EW-55. After increasing vacuum at the wellhead, monitoring of this well during a follow-up event did not result in an exceedance.

1.1.2 Monitoring of Leachate Collection Components

SCS Field Services (SCS-FS) was onsite at the Bristol Landfill on June 4, 2026, 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. Leachate Cleanout Pipe Monitoring Results

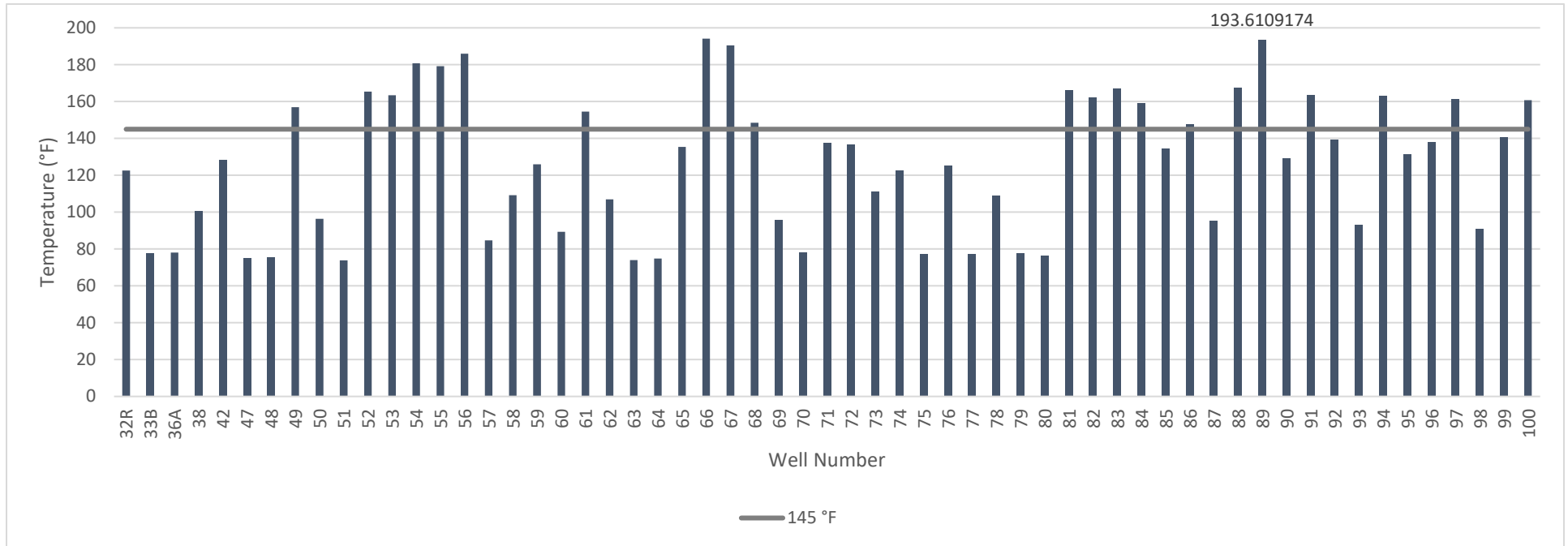
Description	ID#	Record Date	CH4 (% by Vol)	CO2 (% by Vol)	O2 (% by Vol)	Balance Gas (% by Vol)	Initial Temp (°F)	Adj Temp (°F)	Initial Static Pressure (in H2O)	Adj Static Pressure (in H2O)	System Pressure (in H2O)
Southern Cleanouts Gradient West	LC01	6/4/2026 1:56:46 PM	29.9	33.7	0.0	36.4	69.4	69.4	-12.40	-12.51	-17.87
Southern Cleanouts Gradient East	LC02	6/4/2026 1:59:32 PM	34.8	41.5	0.7	23.1	74.4	74.4	-15.29	-15.50	-16.52
Southern Cleanouts Leachate Center	LC03	6/4/2026 1:40:38 PM	27.9	13.0	12.7	46.4	81.3	81.3	-1.92	-1.92	-10.61
Southern Cleanouts Witness East	LC04	6/4/2026 1:37:42 PM	15.4	11.4	13.5	59.7	83.6	84.3	-16.67	-16.46	-16.44
Southern Cleanouts Leachate West	LC05	6/4/2026 1:54:13 PM	32.2	36.3	0.0	31.5	72.0	71.2	-17.12	-16.56	-17.42
Southern Cleanouts Gradient Center West	LC06	6/4/2026 1:51:21 PM	9.1	5.7	17.4	67.9	81.7	82.0	-16.22	-16.22	-17.37
Southern Cleanouts Leachate East	LC08	6/4/2026 1:43:37 PM	37.9	37.5	0.0	24.6	69.3	69.8	-15.45	-16.87	-17.20
Southern Cleanouts Gradient Center East	LC09	6/4/2026 1:48:52 PM	29.0	31.9	0.3	38.8	80.0	79.8	-17.42	-16.99	-18.58
Southern Cleanouts Leachate West	LC10	6/4/2026 1:46:15 PM	29.5	28.1	6.2	36.2	83.9	84.1	-16.50	-16.81	-16.66
Northern Cleanouts Leachate East	NC01	6/4/2026 2:44:29 PM	0.6	0.0	20.2	79.2	90.6	90.5	-0.64	-0.64	-0.67
Northern Cleanouts Leachate Center	NC02	6/4/2026 2:46:49 PM	1.4	0.3	19.9	78.5	90.7	90.8	-0.67	-0.67	-0.67
Northern Cleanouts Leachate West	NC03	6/4/2026 2:19:59 PM	1.9	0.4	20.2	77.6	93.4	93.7	-0.67	-0.67	-0.67
Northern Cleanouts Witness East	NC04	6/4/2026 2:41:38 PM	0.5	0.1	20.1	79.4	89.1	89.1	-3.93	-3.93	-0.67
Northern Cleanouts Witness Center	NC05	6/4/2026 2:23:09 PM	0.6	0.1	20.4	78.9	90.0	90.0	-4.03	-4.04	-0.67
Northern Cleanouts Witness West	NC06	6/4/2026 2:26:00 PM	0.5	0.1	20.3	79.1	89.8	89.9	-2.93	-2.80	-0.67
Northern Cleanouts Gradient East	NC07	6/4/2026 2:38:04 PM	0.6	0.1	20.0	79.3	84.2	84.2	-11.24	-11.22	-0.67
Northern Cleanouts Gradient Center East	NC08	6/4/2026 2:34:47 PM	0.7	0.1	20.1	79.2	83.8	83.9	-11.42	-11.49	-0.67
Northern Cleanouts Gradient Center West	NC09	6/4/2026 2:28:52 PM	0.5	0.1	20.2	79.2	80.2	80.3	-11.49	-11.49	-0.67
Northern Cleanouts Gradient West	NC10	6/4/2026 2:17:00 PM	0.3	0.0	20.9	78.8	89.9	89.9	-0.68	-0.67	-0.70

1.2 EXISTING GAS EXTRACTION SYSTEM PERFORMANCE

SCS reviewed the automated hourly temperature measurements from June 2026, and observed the following:

- The average temperature in June was above the regulatory threshold of 145 °F at 21 of the 59 wells (see **Figure 1**).
- The highest average temperature was 194.1 °F at EW-67. This well experienced ongoing temperature exceedances in June and is being actively monitored. EW-67 has an active dewatering pump, removing heat via the extracted liquids and creating more open pore spaces for hot gas to be extracted in turn. The pump in EW-67 was most active this month. EW-89 showed the second highest average temperature this month; 193.6 °F.

Figure 1. Monthly Average Automated Wellhead Temperatures¹



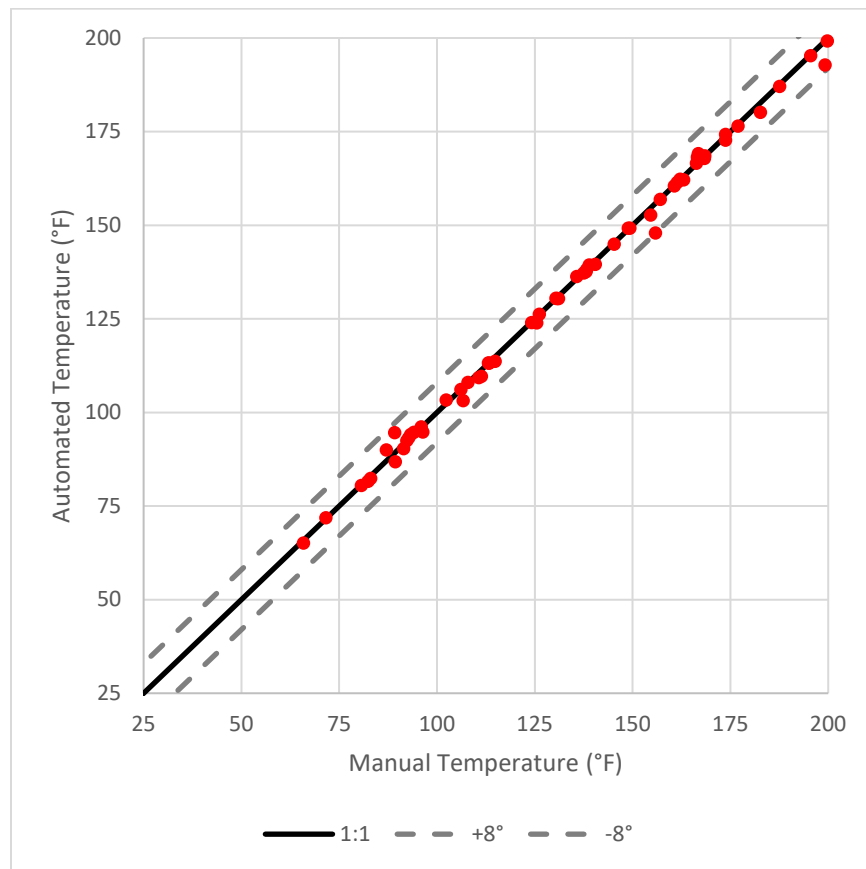
¹ 145 °F is the NESHA AAAA compliance threshold for well temperature, included here for reference.

1.2.1 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 compares instantaneous hourly automated temperature measurements with temperatures measured at each wellhead using a handheld sensor during monthly compliance monitoring. These comparisons are shown in **Figure 2**, with the $\pm 8^{\circ}\text{F}$ deviation thresholds as prescribed in the VDEQ approval.

Temperatures were within the $\pm 8^{\circ}\text{F}$ deviation threshold at all wells during this reporting period.

Figure 2. Automated vs. Manual Temperature Measurements



1.2.2 Monthly Regulatory Wellhead Temperature Measurements

Routine monthly temperature monitoring was conducted on June 8 and June 25, 2026, to comply with 40 CFR 60.36f(a)(5). **Table 3** provides the status of exceedances recorded during this monitoring period.

Table 3. May Temperature Exceedance Summary

Well ID	Initial Exceedance Date	Compliant Reading	Most Recent Reading	Duration of Exceedance	Status as of 7/1/2026
EW-52	6/25/26	6/26/26 177.0 °F	6/26/26 177.0 °F	2 days	Resolved within 15-day timeline
EW-54	5/26/26	6/25/26 178.5 °F	6/26/26 188.4 °F	32 days	Resolved within 60-day timeline
EW-55	5/26/26	6/4/26 162.2 °F	6/26/26 187.4 °F	10 days	Resolved within 15-day timeline
EW-55	6/25/26	N/A	6/26/26 187.4 °F	7 days	Ongoing, within 15-day timeline
EW-66	5/18/26	6/4/26 182.7 °F	6/30/26 201.9 °F	18 days	Resolved within 60-day timeline
EW-66	6/8/26	N/A	6/30/26 201.9 °F	24 days	Ongoing, within 60-day timeline
EW-67	4/27/26	6/8/26 129.0 °F	6/26/26 200.0 °F	43 days	Resolved within 60-day timeline
EW-67	6/24/26	N/A	6/26/26 200.0 °F	8 days	Ongoing, within 15-day timeline
EW-68	5/12/26	6/1/26 144.1 °F	6/26/26 148.9 °F	21 days	Resolved within 60-day timeline
EW-68	6/8/26	N/A	6/26/26 148.9 °F	24 days	Ongoing, within 60-day timeline
EW-97	6/16/26	6/24/26 173.8 °F	6/30/26 168.4 °F	7 days	Resolved within 15-day timeline

1.2.3 LFG Sampling

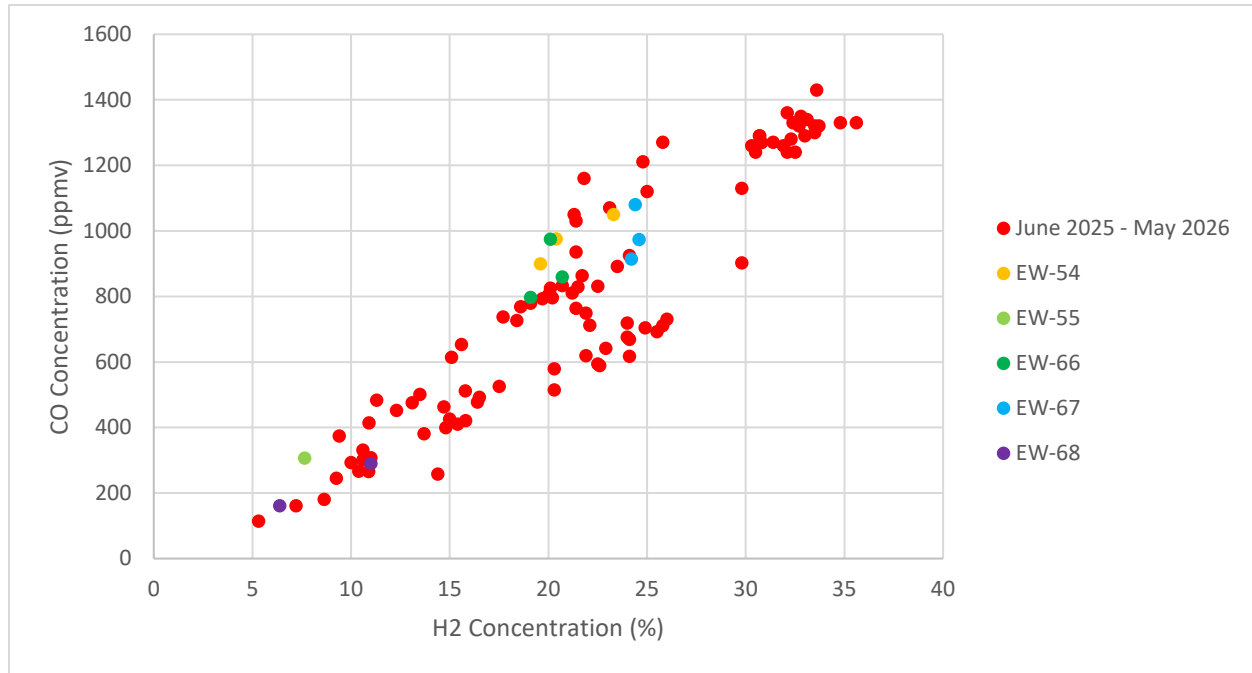
SCS collects weekly LFG samples from wells with temperature exceedances lasting more than seven days using 1.5-L summa canisters. The samples were sent to Enthalpy Analytical for laboratory analysis of carbon monoxide (CO) and hydrogen (H₂) content. As of July 1, 2026, the City has received lab results for sampling on May 18, June 1, June 4, and June 10, 2026, to fulfill the requirement in 40 CFR 63.1961(a)(5). The lab data are summarized in **Table 4**.

Table 4. LFG Wellhead Sampling Summary

Sample Date		5/18/26	6/1/26	6/4/26	6/10/26
EW-54	CO (ppmv)		899	1050	976
	H2 (Vol. %)		19.6	23.3	20.4
EW-55	CO (ppmv)		307		
	H2 (Vol. %)		7.65		
EW-66	CO (ppmv)	797	859		975
	H2 (Vol. %)	19.1	20.7		20.1
EW-67	CO (ppmv)	1080	974	914	
	H2 (Vol. %)	24.4	24.6	24.2	
EW-68	CO (ppmv)	161			290
	H2 (Vol. %)	6.39			11.0

As shown in **Figure 3**, the carbon monoxide and hydrogen data collected during this period are consistent with the data collected previously in 2025 and 2026.

Figure 3. CO vs H₂ Concentration from gas wells in June 2026 with historical trend



2.0 SIDEWALL ODOR MITIGATION

On the City's behalf, SCS designed and constructed a system to control fugitive emissions emanating from the quarry sidewalls.

2.1 PERIMETER GAS COLLECTION SYSTEM

Refer to the April 2023 Monthly Compliance Report for the SWP No. 588 Landfill, for information about the perimeter gas extraction wells.

2.2 SIDEWALL ODOR MITIGATION SYSTEM

Refer to the October 2022 Monthly Compliance Report for the SWP No. 588 Landfill, for information about the design of the sidewall odor mitigation system.

2.3 PILOT SYSTEM

Refer to the February 2023 Monthly Compliance Report for the SWP No. 588 Landfill, for information about the design of the construction of the pilot sidewall odor mitigation system.

2.4 FULL SYSTEM OPERATION

Operation of the sidewall odor mitigation system is monitored on a monthly basis. SCS-FS collected monitoring data at each wellhead under vacuum in June. A summary of system averages during the month is shown in **Table 5**.

Table 5. Average SOMS Gas Composition

Record Dates	Average CH ₄ [%]	Average CO ₂ [%]	Average O ₂ [%]	Average Bal Gas [%]
6/8/2026	4.5	6.1	16.0	73.9
6/25/2026	4.7	6.6	15.7	73.0

The sidewall system average gas composition indicates lower methane content and higher oxygen and balance gases than other components in the LFGCCS. These gas composition measurements indicate that the SOMS is collecting a mixture of LFG escaping the sidewall and air, as anticipated. Adjustments to vacuum at each wellhead are made on a regular basis to address changes in sidewall emissions and facilitate placement of additional soil.

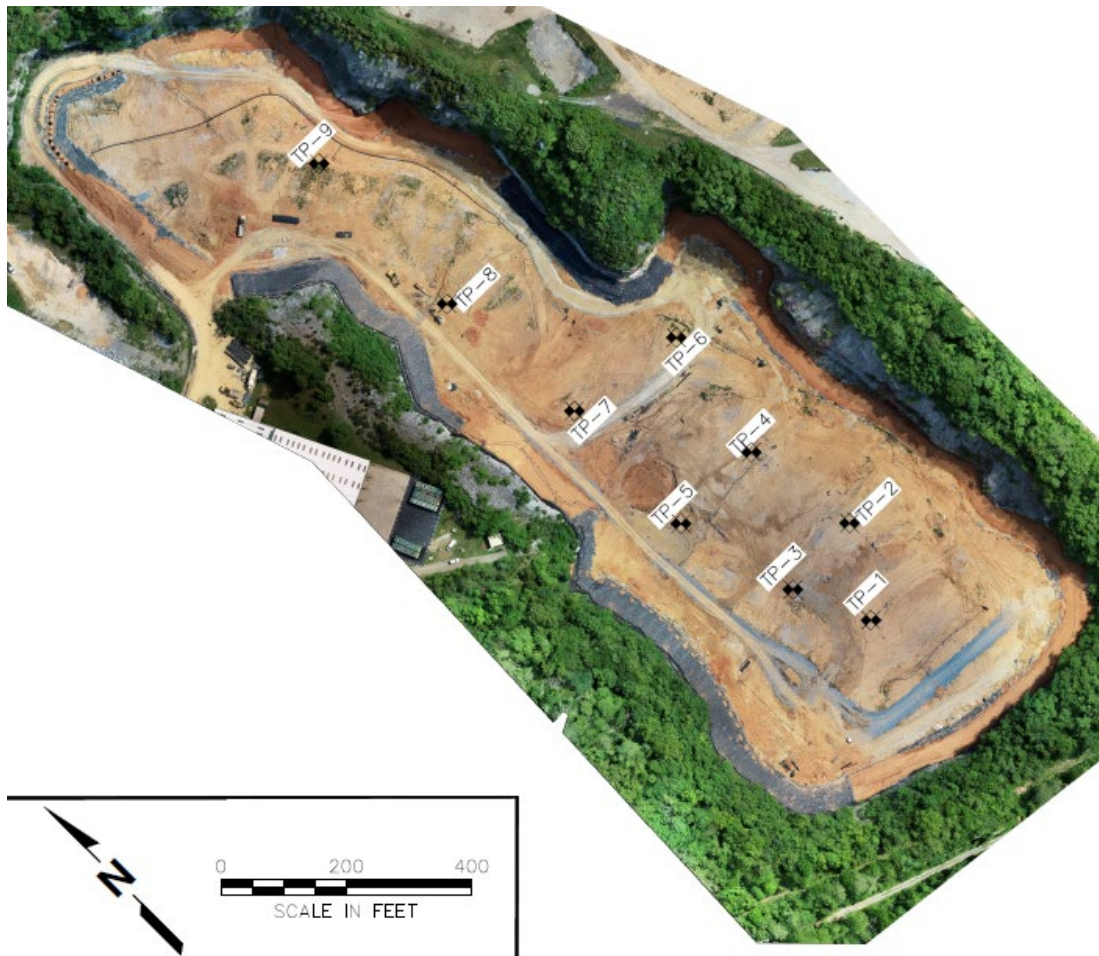
3.0 WASTE TEMPERATURE MONITORING

SCS designed a 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 SUMMARY OF WASTE TEMPERATURE MONITORING

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.

Average daily temperatures recorded by the sensors for the month of May 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 May are shown in **Appendix B**. The average temperatures recorded for March 2023, March 2024, March 2025, April 2026, and May 2026 are shown in **Figures 5 through 9** on the following pages.

Overall, these data indicate that temperatures within the landfill are generally stable and are typical of those observed at elevated temperature landfills (ETLFs). The temperatures recorded are substantially lower than those associated with landfill fires or other combustion processes, which can exceed 1000°F, which is further evidence that the elevated temperatures are due to sources other than combustion.

3.1.1 Operational Challenges

Multiple thermocouples in TP-2 and TP-3 started to fault in late 2024/early 2025. SCS coordinated with the City in March to pull the string of thermocouples from TP-2 and TP-3 but were unable to remove the strings in either probe due to suspected pinching of the casings. TP-7 has been malfunctioning and offline since December 4, 2025. SCS-FS relocated equipment that had been part of TP-2 to TP-7 in January, but the sensors at TP-7 still did not function. TP-2, TP-3, and TP-7 have been abandoned. The City has an invitation to bid currently open for the installation of three replacement probes per the Plan of Action Addendum dated February 2, 2026 that closes on August 7, 2026.

3.1.2 Temperature Profiles

Temperature profiles for the operational thermocouple strings are shown in **Figures 5-9**. Temperatures profiles have been consistent throughout 2026, with peak temperatures between 200 and 275°F in TP-1, TP-5, and TP-8 and 150°F in TP-9.

The profile at TP-6 is an exception, where temperatures have declined below 200°F in 2025 and outlying temperature measurements have been recorded at 75 ft. Troubleshooting by field staff indicated that the sensor at the 75-foot level is malfunctioning. Given that the majority of the sensors within this casing are still functioning properly, the sensor at 75 ft will not be retrieved to avoid damaging the other sensors within the casing. Data from the 75-foot level of TP-6 has been excluded from this report.

Figure 5. TP-1 Average Temperatures for the Months of March 2023, March 2024, March 2025, March 2026, May 2026, and June 2026

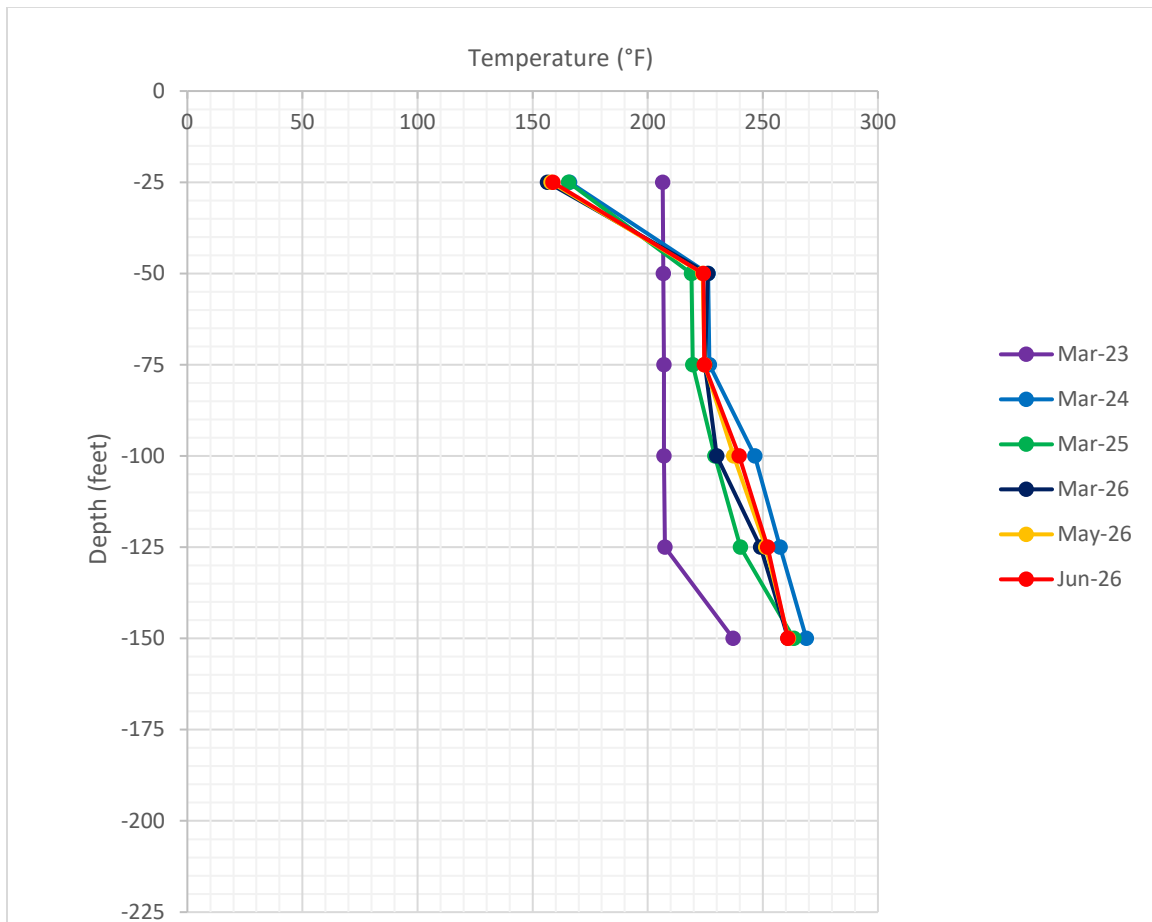


Figure 6. TP-5 Average Temperatures for the Months of March 2023, April 2024, March 2025, March 2026, May 2026, and June 2026

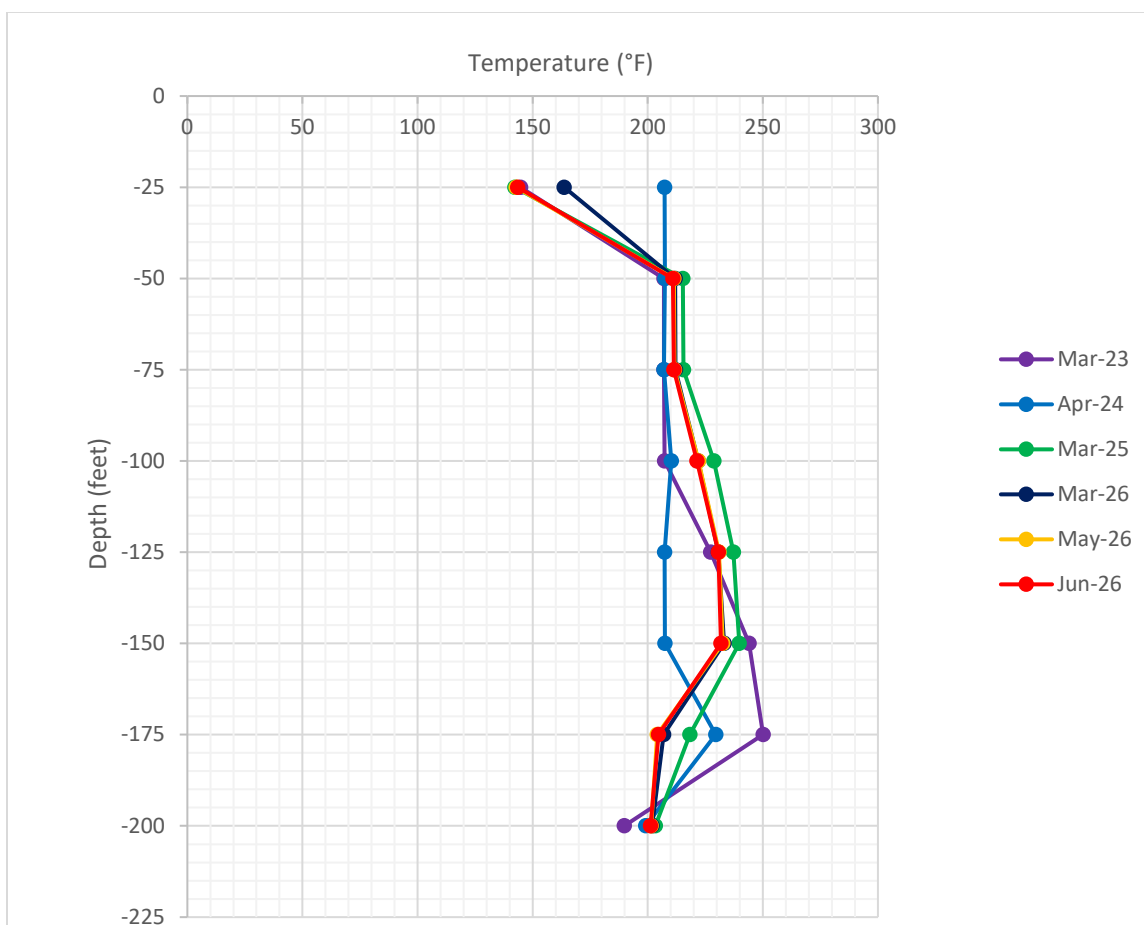


Figure 7. TP-6 Average Temperatures for the Months of March 2023, March 2024, March 2025, March 2026, May 2026, and June 2026

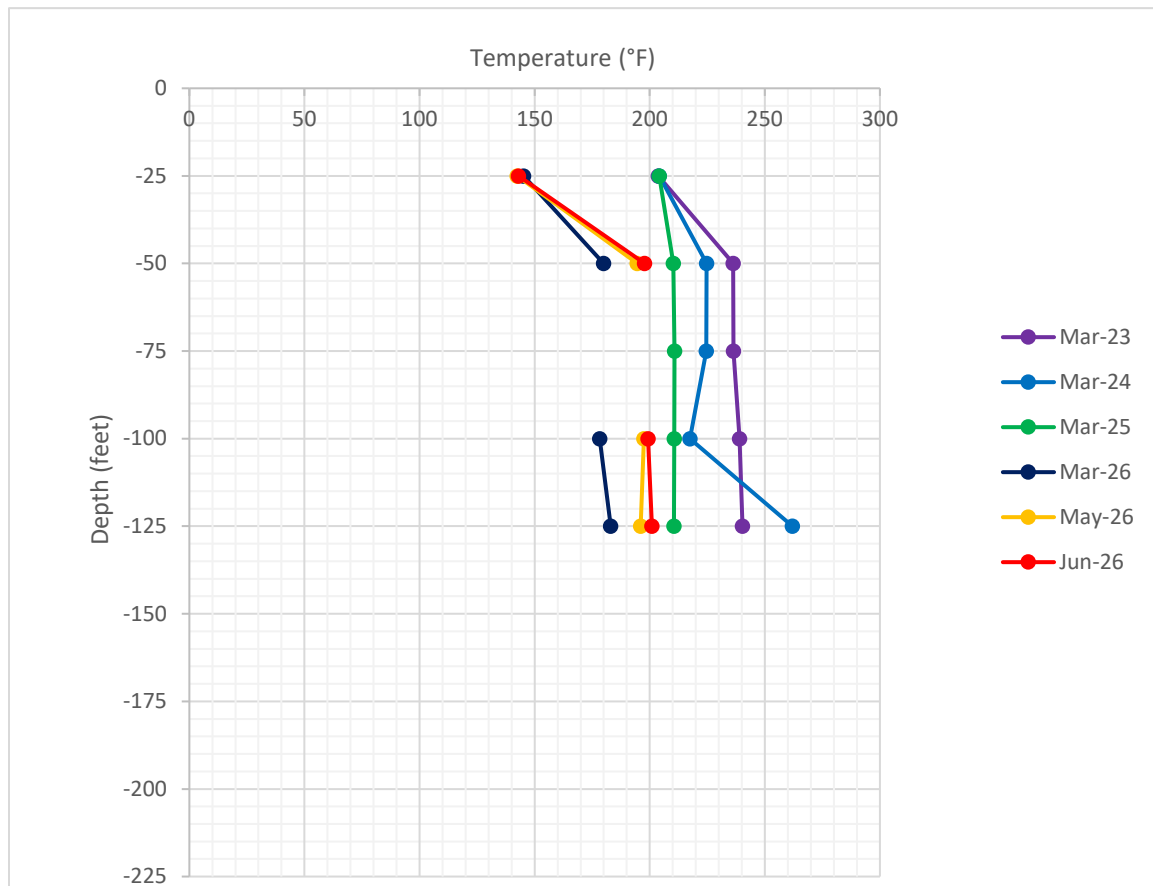


Figure 8. TP-8 Average Temperatures for the Months of March 2023, March 2024, March 2025, March 2026, May 2026, and June 2026

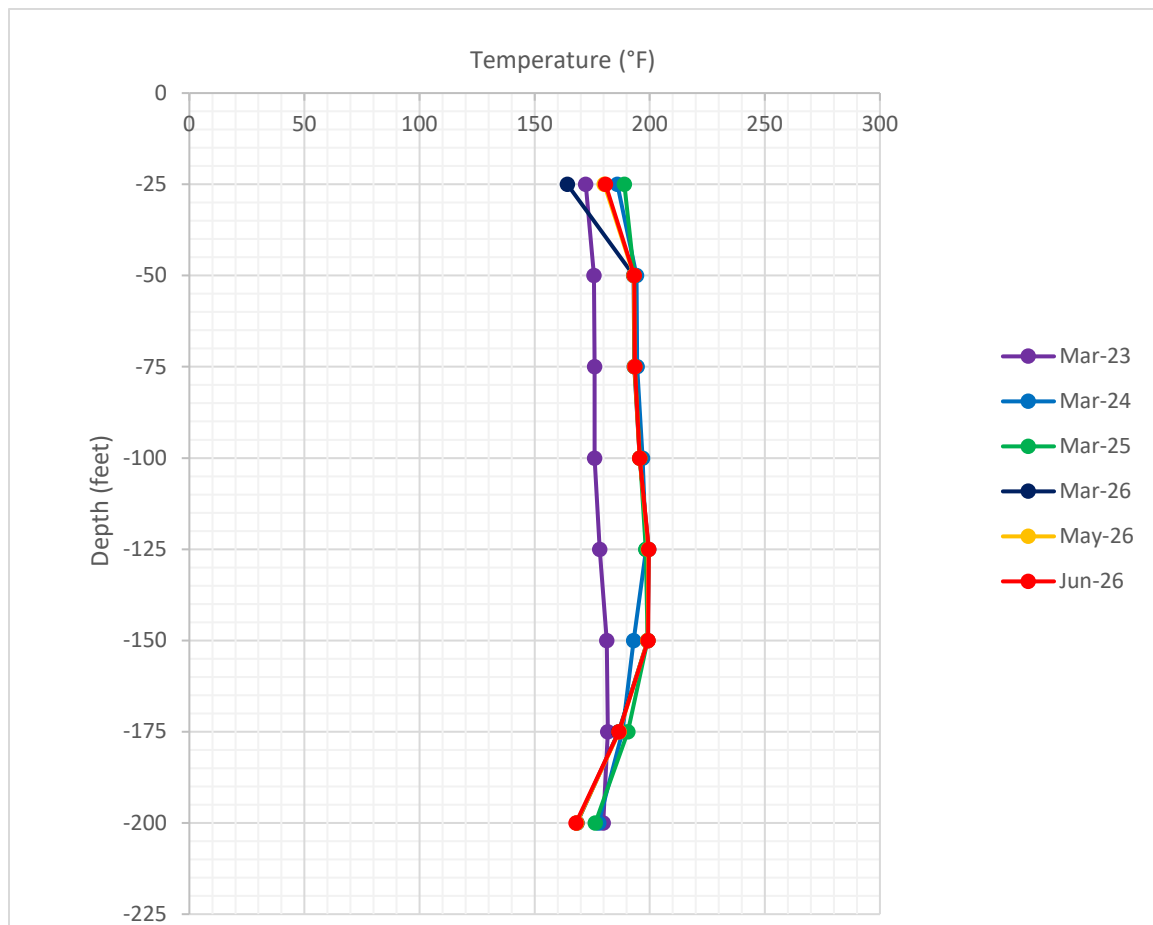
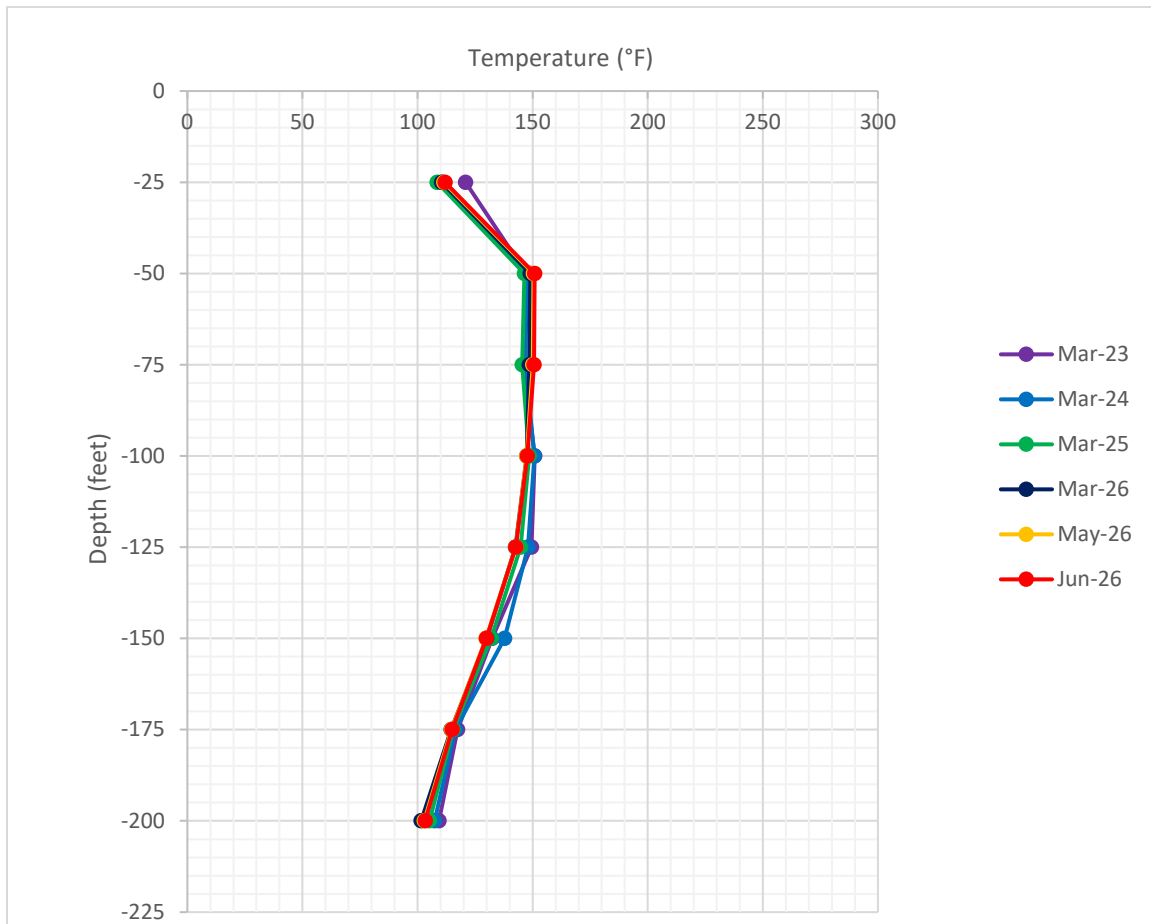


Figure 9. TP-9 Average Temperatures for the Months of March 2023, March 2024, March 2025, March 2026, May 2026, and June 2026



4.0 LEACHATE EXTRACTION AND MONITORING

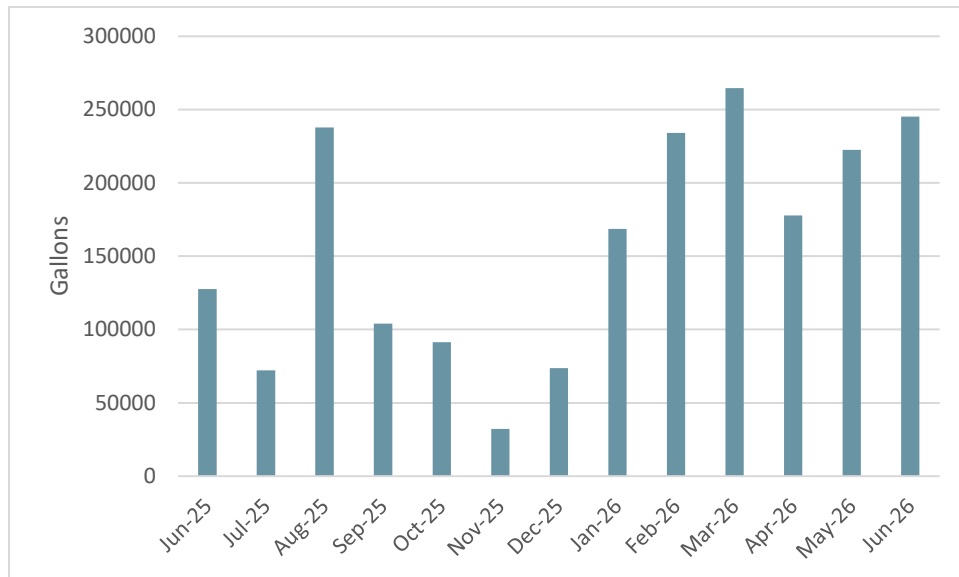
The City is continuously taking steps to maintain and improve the extraction of leachate from the waste mass and collect analytical data on leachate characteristics. The following sections detail steps taken to achieve these goals.

4.1 DEWATERING PUMP OPERATIONS AND MAINTENANCE

4.1.1 Total LFG Liquids Removal

Figure 10 illustrates monthly landfill gas liquids removal over the past year. The volume was estimated from stroke counter data for June 2025 through June 2026. Over the past 6 months, the estimated monthly leachate pumped has ranged from 168,500 to 264,600 gallons per month and has averaged 218,790 gallons per month.

Figure 10. Total Dewatering Liquid Removal



The Harnden Group began an LFG expansion construction project in September 2025, which necessitated pauses in the operation of dewatering pump infrastructure in December. During construction of the expansion, the City worked with the Harnden Group to replace sections of previously identified blocked forcemain piping as part of the project. Jet cleaning of the clogged leachate lines occurred in March and April, along with replacement of some of the most obstructed lines. Removal of blockages and clogging materials contributed to the increasing liquids removal.

4.1.2 LFG Liquids Pump Operations and Maintenance

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. Daily pump checks and maintenance of spare pumps will continue indefinitely, along with pump replacements as needed.

Estimated volumes of liquids removed at each pump are presented in **Table F-1, Appendix F**. SCS has prepared the summary below regarding operating conditions and specific challenges associated with each pump in June 2026.

Pump Maintenance Activities

- Pulled and swapped pumps in EW-49, EW-55 (two times), EW-59, EW-66, EW-67 (four times), EW-68, EW-85, EW-88, and EW-94
- Tri-tubing repaired at EW-67

Wells with Inactive Pumps

- The pump in EW-33B is stuck in the well casing and has been disconnected. SCS-FS plans to remove the existing pump with heavy equipment and replace the pump with a new QED pump in July.

- SCS-FS intends to place a QED pump in EW-36A, .
- The pumps in EW-51, EW-57, EW-87, EW-90, and EW-100 are permanently stuck in their wells even after attempts to remove them with heavy equipment. They cannot be cleaned or repaired.
- All pump types deployed in EW-74 and EW-75 have experienced buildup on the intake screens preventing effective pump operation. To conserve resources for pumping in other wells, pumps are no longer being deployed in these wells.
- The casings of EW-81, EW-83, and EW-91 extend too high above the existing ground level for a pump to be safely accessed. These are stainless steel wells that cannot be lowered through conventional means. SCS-FS and the City are continuing placement of additional soil around the wells to provide safe access.
- Removal of the pump in EW-89 was attempted by SCS-FS in January 2026. The pump became stuck about 30 feet down well, and camera equipment showed an apparent collapse in the well at about 31.5 feet. A new pump will not be installed at this well. This pump was permanently removed in April 2026.
- The pump in EW-93 has been removed due to clogging of the tri tubing and forcemain tee. The City and SCS-FS are exploring additional forcemain pipe cleaning options to alleviate the buildup.

In addition to the challenges associated with the individual pumps, SCS-FS has generally observed high forcemain pressures and significant build-up of solids within the forcemain.

4.2 SAMPLING AND ANALYSIS PLAN

In accordance with the second amendment to the consent decree dated January 16, 2026, the frequency of landfill gas liquids sampling has been reduced to quarterly. Sampling and analysis of landfill gas liquids was conducted in April 2026 for the Second Quarter 2026 monitoring event. Refer to the April 2026 Monthly Compliance Report for the SWP No. 588 Landfill, for results of the Second Quarter 2026 monitoring event.

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

Information about the Settlement Monitoring and Management Plan for the SWP No. 588 Landfill and a copy of the plan can be found in the November 2022 Compliance Report for the SWP No. 588 Landfill.

5.2 MONTHLY SURVEYS

5.2.1 Topographic Data Collection

SCS collected topographic data of the Solid Waste Permit No. 588 Landfill using photogrammetric methods via an unmanned aerial vehicle (UAV or drone) on June 17, 2026. Aerial imagery collected on June 17, 2026, is depicted in **Figure 11**. The topographic data collected is shown on Sheet 4 in **Appendix E**.

Figure 11. Aerial Photo of the SWP No. 588 Landfill



The topography within the landfill footprint was compared to topographic data collected by SCS using photogrammetric methods on May 12, 2026. A drawing depicting the May 12, 2026, 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 13,400 cubic yards across the site. Fill is placed and spread on the site to address differential settlement, surface emissions, and to provide access to LFG collection vertical wells. Fill was also placed in the northern end of the landfill as part of the installation of a new landfill gas header in that part of the landfill.

Vegetation growth, which may occur during the spring and summer months may also be misinterpreted as fill by the photogrammetric survey methods. In some cases, the top of vegetation is measured using this survey method rather than the ground surface. Much of the atypical fill volume shown in comparison with the June 17, 2026 data is likely attributable to vegetation growth along the sidewall. As shown in Figure 11, these vegetated areas correspond to some of the most extreme apparent fill locations. An example of vegetation growth on the sidewalls is shown in a photo in Figure 12.

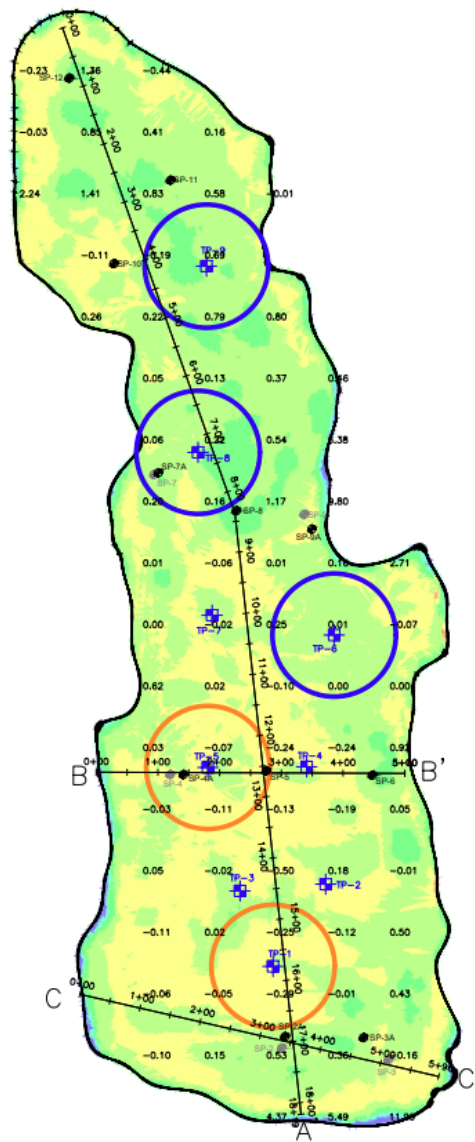
Figure 12. Vegetation Growth on Quarry Sidewalls



During that same time period, calculations indicate a “cut” volume of approximately 1,300 cubic yards. Cut volumes are typically attributed to settlement. This resulted in a net increase in volume within the waste footprint of 12,100 cubic yards.

A visual depiction of settlement and filling at the landfill during this time is depicted in **Figure 13**. Areas in yellow indicate where elevations decreased and areas in green and blue 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 13. 1-Month Elevation Change Map



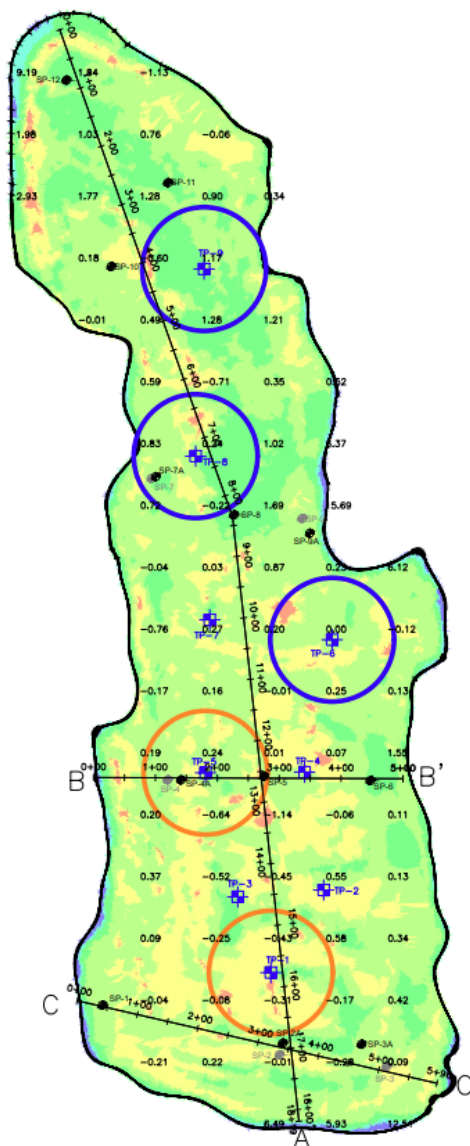
The locations of in-waste temperature monitoring probes are also shown on **Figure 13**, **Figure 14**, and **Figure 15**. The circles around the probes in each of these figures are indicative of the average borehole temperature. The circles shown are offset from the probes for clarity only and do not 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. Probes with no circle around them had no temperature readings for this month due to sensor malfunctions. There were no probes measuring average temperatures greater than 250 °F during the month of May 2026.

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 0.4 ft.

SCS also compared the topographic data collected in March to the topographic data collected on March 24, 2026. 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 2,100 cubic yards. During that same period, calculations indicate approximately 21,600 cubic yards of fill were placed on the landfill, for a net increase in waste volume of 19,500 cubic yards.

A visual depiction of settlement and filling at the landfill during this time is depicted in **Figure 14**. Areas in orange and yellow indicate where elevations decreased and areas in green and blue 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 14. 3-Month Elevation Change Map

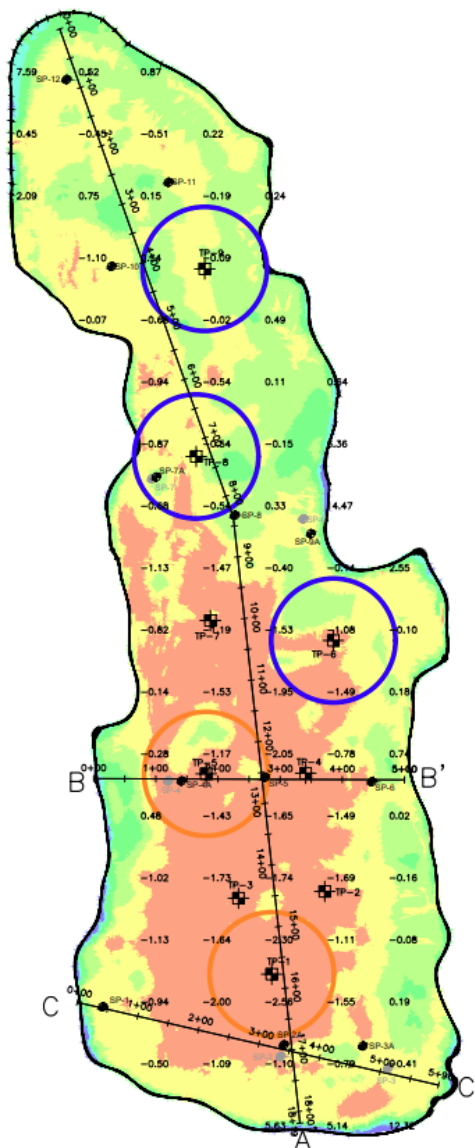


Based on the area of the landfill and the net volume change, the average elevation increase was approximately 0.7 feet.

SCS also compared the topographic data collected in June 2026 to the drone topographic data collected on June 12, 2025. 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 19,400 cubic yards. During that same time period approximately 10,300 cubic yards of construction-related fill were placed on the landfill. This resulted in a net volume decrease of approximately 9,100 cubic yards.

A visual depiction of settlement and filling at the landfill during this time is depicted in **Figure 15**. Areas in red and yellow indicate where elevations decreased and areas in green and blue 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 15. 1-Year Elevation Change Map



The largest settlement in the past year occurred primarily at the southern end of the landfill where the waste settled by 3 feet or more in some areas. Significant settlements 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.

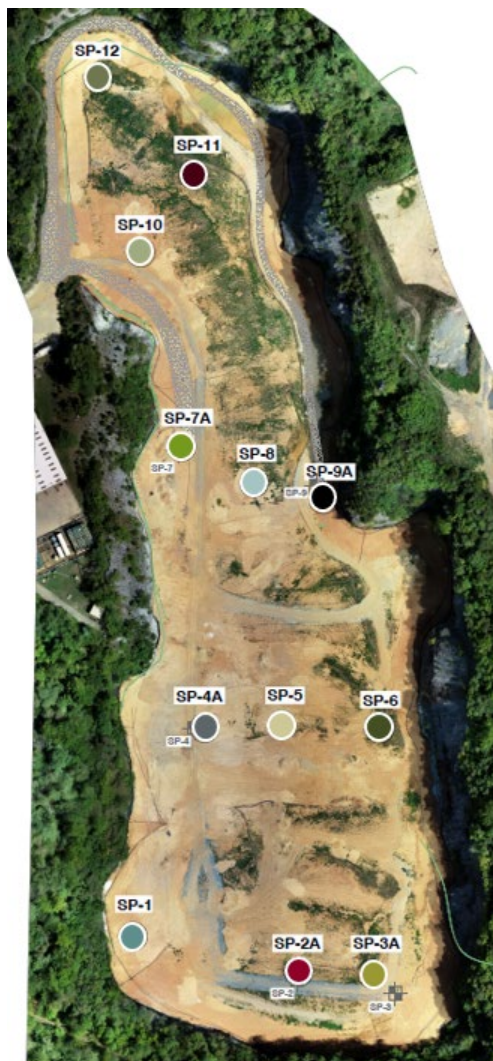
Based on the landfill area and the net volume change, the average elevation decrease in the past year was approximately 0.3 feet.

SCS will collect topographic data covering the landfill surface again in July 2026 using photogrammetric methods via UAV. This data will be compared to the data collected in July 2025, April 2026, and June 2026.

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. 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. The settlement plate locations are depicted in **Figure 16** and on Sheet 1 in **Appendix E**. The construction and installation of the settlement plates generally conform to the description in the Settlement Monitoring and Management Plan.

Figure 16. Settlement Plate Locations



The locations of the settlement plates were initially surveyed on November 14, 2022, and have been surveyed monthly thereafter. The survey coordinates and elevation changes of the settlement plates are shown in **Table 6**.

Table 6. Elevation and Strain Data at Settlement Plate Locations

Settlement Plate	Northing	Easting	Elevation on June 9, 2026 (ft)	Elevation Change Since May 11, 2026 (ft)	Strain ² Since May 11, 2026	Elevation Change Since Installation (ft)
SP-1	3397887.8	10412081.3	1828.0	0.0	0.0%	-6.4
SP-2A	3397823.6	10412370.8	1790.6	-0.2	-0.1%	-5.2
SP-3A	3397820.3	10412498.1	1778.4	0.3	0.3%	-1.8
SP-4A	3398247.0	10412208.1	1800.9	-0.1	0.0%	-4.3
SP-5	3398255.8	10412339.8	1786.0	-0.4	-0.1%	-14.8
SP-6	3398248.7	10412509.9	1771.9	-0.1	0.0%	-5.7
SP-7A	3398731.1	10412158.6	1821.2	-0.2	-0.2%	-2.2
SP-8	3398677.9	10412290.9	1798.5	0.0	0.0%	-8.8
SP-9A	3398644.1	10412416.0	1787.6	0.0	0.0%	-1.2
SP-10	3399079.7	10412095.5	1835.4	-0.1	0.0%	-4.2
SP-11	3399216.5	10412183.8	1813.9	-0.1	0.0%	-2.5
SP-12	3399381.7	10412019.6	1809.2	0.1	0.1%	-1.5

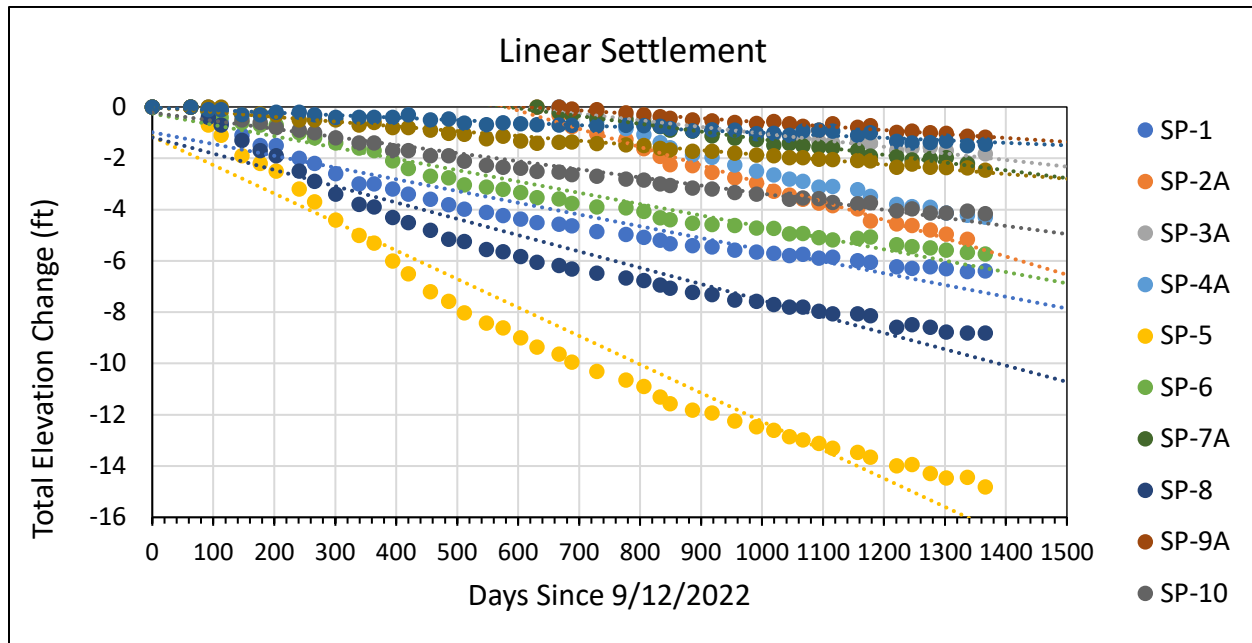
Prior to April 2024, the City's in-house surveyor read the settlement plate elevations. Starting April 2024 through June 2025, the settlement plate elevations were measured by FEI Civil Engineers and Land Surveyors. As of July 2025, the settlement plate elevations are measured by Miller Land Surveying LLC.

SCS and the City will follow up on the condition of SP-3 given the increase in elevation. This outlier value may indicate that the settlement plate was disturbed.

Figure 16 shows the changes in elevation of select settlement plates over time. The data in **Figure 17** are reported in days since the landfill was required to stop accepting waste.

² Strain is defined as the change in elevation divided by the estimated waste depth.

Figure 17. Elevation Change of Select Settlement Plates Over Time



The settlement plates will be surveyed again during July 2026. The elevations surveyed will be compared to the elevations surveyed the previous months.

6.0 INTERMEDIATE COVER AND GEOMEMBRANE COVER SYSTEM

The City has taken steps to provide intermediate and temporary cover of the wastes in the landfill. The sections below describe the steps taken by the City and future plans related to cover.

6.1 INTERMEDIATE COVER INSTALLATION

A summary of the intermediate cover installation can be found in the October 2022 Monthly Compliance Report for the SWP No. 588 Landfill.

6.2 GEOMEMBRANE COVER SYSTEM DESIGN

A second amendment to the Consent Decree was issued on January 16, 2026 which requires a geomembrane deployment once the criteria outlined in the consent decree are achieved. The amended Consent Decree also requires regular settlement assessments that will analyze settlement to evaluate if the criteria have been met. The first settlement assessment was submitted to VDEQ on April 11, 2024. The most recent assessment was submitted on January 8, 2026. The next assessment will be submitted on or before July 14, 2026 in accordance with the second amendment to the consent decree dated January 16, 2026.

6.3 GEOMEMBRANE COVER SYSTEM PROCUREMENT

Information about the procurement of materials for the geomembrane cover system can be found in the January 2023 Monthly Compliance Report for the SWP No. 588 Landfill.

6.4 GEOMEMBRANE COVER SYSTEM INSTALLATION

As outlined in the second amendment to the Consent Decree dated January 16, 2026, the deadline for geomembrane cover system installation has been extended until such time as the criteria outline in the consent decree have been met. The City is conducting the assessments described in Section 6.2 to determine the appropriate time for installation.

7.0 STORMWATER MANAGEMENT

Information about the most recent stormwater management plans, basin location, plan implementation, long-term control, and stormwater monitoring for the SWP No. 588 Landfill can be found in the December 2023 Monthly Compliance Report for the SWP No. 588 Landfill.

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

Refer to the December 2022 and March 2023 Monthly Compliance Reports for the SWP No. 588 Landfill for additional information about the development and implementation of the Monitoring, Maintenance, and Repair Plan.

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

The City's consultant leading community outreach, McGuireWoods Consulting, prepared a summary of the actions taken as part of their community outreach efforts. For the month of June 2026, those actions include:

- Ongoing basis: Four (4) posts on each the BristolVALandfill.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 Permit No. 588 landfill.

- Updates at the Permit No. 588 landfill this month included work on installing the new flare and emergency generator, and both projects are now complete; routine maintenance on the landfill gas system and well heads; as part of the flare project, a single leachate extraction pump was installed in a new condensate pump; a failing condensate pump was replaced to restore flow to the flare; two leachate pumps were removed and replaced; reserve leachate pumps and fittings were cleaned and refurbished; and soil was added to areas that became difficult to access due to settlement.
- There were two (2) news articles posted to the BristolVALandfill.org site from the Bristol Herald-Courier related equalization tank project at the Permit No. 588 landfill.
- 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 Permit No. 588 landfill.
 - Website now includes weekly air monitoring reports starting from May 15, 2023, and running through June 14, 2026.
 - As noted in the ongoing updates, the air monitoring equipment that was responsible for the period of inactivity due to in not being calibrated correctly has been fixed. The air monitoring system is back online and functioning properly.
- 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

Quarterly SEM

SCS performed the Second Quarter 2026 surface emissions monitoring event on May 28, 2026. The surface emissions 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.

No exceedances were detected during this quarterly monitoring event on the serpentine route or at the surface cover penetrations. This monitoring event also represented the weekly monitoring event for the week. A quarterly SEM report 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 June 3, 2026.

Weekly SEM

In addition to the standard regulatory quarterly surface emissions monitoring, the monitoring in June 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 SEM route included the 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 applicable surface cover penetrations within the waste footprint.

The Facility submitted letters to VDEQ describing the results of the June monitoring events on June 10, 2026; June 17, 2026; June 24, 2026; and, July 1, 2026. Copies of those letters are included in this Appendix.

The Facility continues to take proactive steps to limit fugitive surface emissions including dewatering activities, additional cover soil placement, and LFG system maintenance and tuning to increase gas extraction.

June 10, 2026
File No. 02218208.04

Ms. Susan "Tracey" Blalock
Air Compliance Specialist
Virginia Department of Environmental Quality
SW Regional Office
355-A Deadmore Street
Abingdon, VA 24210

Subject: Weekly Surface Emissions Monitoring Event – June 4, 2026
Bristol Integrated Solid Waste Facility – Bristol, Virginia

Dear Ms. Blalock:

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 Management Facility located in Bristol, Virginia on June 4, 2026. 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 Permit No. 588 Landfill. Sampling was conducted with an Inficon IRwin infrared (IR) Methane Leak Detector 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 horizontal collectors. 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 schedule stipulated in 40 CFR 63.1960(b) and 40 CFR 60.36f(b). 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	168
Number of Points in Serpentine Route	100
Number of Points at Surface Cover Penetrations	68
Number of Exceedances	0
Number of Serpentine Exceedances	0
Number of Pipe Penetration Exceedances	0

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.

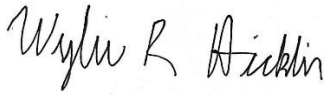
A summary of ongoing exceedance points is provided in Table 2.

Table 2. Ongoing Weekly SEM Exceedances

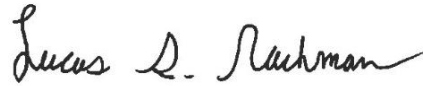
Point ID	Initial Exceedance Date	6/4/26 Event	6/4/26 Event Result	Comments
EW-52	5/5/26	1-Month Retest	Passed	Exceedance Resolved
EW-67	5/20/26	N/A	Passed	Requires 1-Month Retest

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

Sincerely,



Wylie R Hicklin
Staff Professional
SCS Engineers



Lucas S. Nachman
Senior Project Professional
SCS Engineers

LSN/WRH

cc: Jonathan Hayes, City of Bristol
Laura Helander, City of Bristol

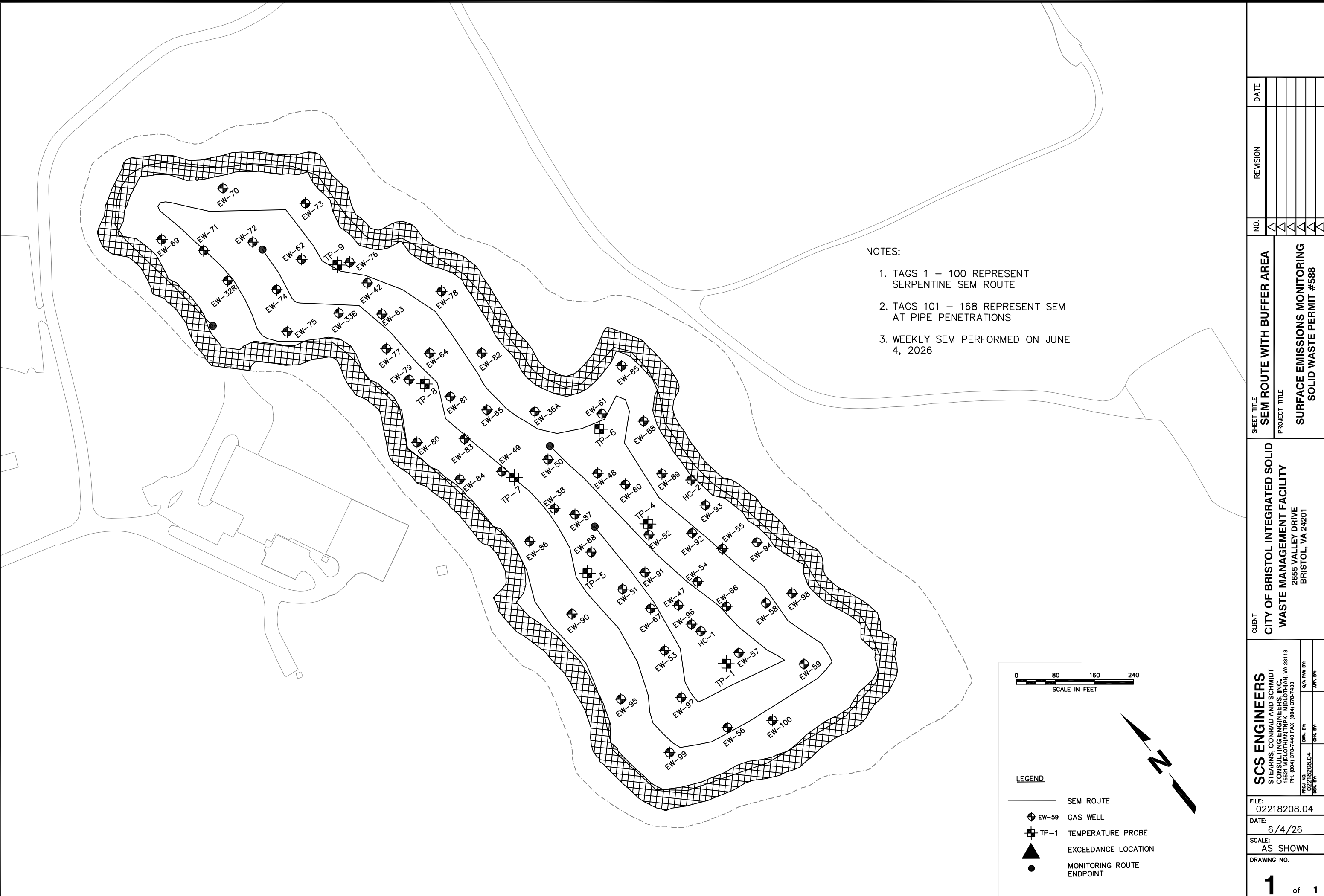
Encl. Surface Emissions Monitoring Results
Bristol SEM Route Drawing

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS WEEKLY MONITORING EVENT - JUNE 4, 2026 BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA					
ID #	Methane Concentration	Compliance	GPS Coordinates Lat. Long.		Comments
1	0.0 PPM	OK			Start Serpentine Route
2	0.0 PPM	OK			
3	0.0 PPM	OK			
4	0.0 PPM	OK			
5	0.0 PPM	OK			
6	0.0 PPM	OK			
7	0.0 PPM	OK			
8	0.0 PPM	OK			
9	0.0 PPM	OK			
10	2.0 PPM	OK			
11	0.0 PPM	OK			
12	0.0 PPM	OK			
13	0.0 PPM	OK			
14	0.0 PPM	OK			
15	1.0 PPM	OK			
16	0.0 PPM	OK			
17	0.0 PPM	OK			
18	0.0 PPM	OK			
19	0.0 PPM	OK			
20	2.0 PPM	OK			
21	0.0 PPM	OK			
22	0.0 PPM	OK			
23	0.0 PPM	OK			
24	0.0 PPM	OK			
25	0.0 PPM	OK			
26	0.0 PPM	OK			
27	0.0 PPM	OK			
28	0.0 PPM	OK			
29	0.0 PPM	OK			
30	0.0 PPM	OK			
31	0.0 PPM	OK			
32	0.0 PPM	OK			
33	150.0 PPM	OK			
34	0.0 PPM	OK			
35	0.0 PPM	OK			
36	0.0 PPM	OK			
37	0.0 PPM	OK			
38	0.0 PPM	OK			
39	1.0 PPM	OK			
40	0.0 PPM	OK			
41	0.0 PPM	OK			
42	0.0 PPM	OK			
43	0.0 PPM	OK			
44	0.0 PPM	OK			
45	0.0 PPM	OK			
46	2.0 PPM	OK			
47	0.0 PPM	OK			

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS WEEKLY MONITORING EVENT - JUNE 4, 2026 BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA					
ID #	Methane Concentration	Compliance	GPS Coordinates Lat. Long.		Comments
48	0.0 PPM	OK			
49	0.0 PPM	OK			
50	0.0 PPM	OK			
51	0.0 PPM	OK			
52	0.0 PPM	OK			
53	0.0 PPM	OK			
54	0.0 PPM	OK			
55	1.0 PPM	OK			
56	235.0 PPM	OK			
57	0.0 PPM	OK			
58	0.0 PPM	OK			
59	2.0 PPM	OK			
60	0.0 PPM	OK			
61	0.0 PPM	OK			
62	0.0 PPM	OK			
63	0.0 PPM	OK			
64	0.0 PPM	OK			
65	0.0 PPM	OK			
66	0.0 PPM	OK			
67	0.0 PPM	OK			
68	0.0 PPM	OK			
69	0.0 PPM	OK			
70	0.0 PPM	OK			
71	1.0 PPM	OK			
72	0.0 PPM	OK			
73	0.0 PPM	OK			
74	0.0 PPM	OK			
75	0.0 PPM	OK			
76	0.0 PPM	OK			
77	2.0 PPM	OK			
78	0.0 PPM	OK			
79	0.0 PPM	OK			
80	0.0 PPM	OK			
81	0.0 PPM	OK			
82	0.0 PPM	OK			
83	0.0 PPM	OK			
84	0.0 PPM	OK			
85	0.0 PPM	OK			
86	0.0 PPM	OK			
87	0.0 PPM	OK			
88	0.0 PPM	OK			
89	0.0 PPM	OK			
90	0.0 PPM	OK			
91	0.0 PPM	OK			
92	0.0 PPM	OK			
93	0.0 PPM	OK			
94	0.0 PPM	OK			

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS WEEKLY MONITORING EVENT - JUNE 4, 2026 BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA					
ID #	Methane Concentration	Compliance	GPS Coordinates Lat. Long.		Comments
95	0.0 PPM	OK			
96	0.0 PPM	OK			
97	0.0 PPM	OK			
98	0.0 PPM	OK			
99	0.0 PPM	OK			
100	0.0 PPM	OK			End Serpentine Route
101	6.0 PPM	OK			EW-75
102	0.0 PPM	OK			EW-74
103	4.0 PPM	OK			EW-33B
104	0.0 PPM	OK			EW-77
105	0.0 PPM	OK			EW-79
106	0.0 PPM	OK			TP-8
107	0.0 PPM	OK			EW-81
108	0.0 PPM	OK			EW-80
109	0.0 PPM	OK			EW-83
110	0.0 PPM	OK			EW-84
111	0.0 PPM	OK			EW-49
112	0.0 PPM	OK			TP-7
113	6.0 PPM	OK			EW-86
114	0.0 PPM	OK			EW-90
115	2.0 PPM	OK			EW-95
116	0.0 PPM	OK			EW-97
117	0.0 PPM	OK			EW-99
118	0.0 PPM	OK			EW-56
119	2.0 PPM	OK			EW-100
120	0.0 PPM	OK			EW-59
121	0.0 PPM	OK			TP-1
122	0.0 PPM	OK			EW-57
123	0.0 PPM	OK			EW-58
124	0.0 PPM	OK			EW-98
125	0.0 PPM	OK			EW-66
126	0.0 PPM	OK			HC-01
127	0.0 PPM	OK			EW-53
128	0.0 PPM	OK			EW-96
129	0.0 PPM	OK			EW-47
130	0.0 PPM	OK			EW-67
131	0.0 PPM	OK			EW-54
132	0.0 PPM	OK			EW-55
133	0.0 PPM	OK			EW-94
134	0.0 PPM	OK			EW-93
135	0.0 PPM	OK			EW-92
136	0.0 PPM	OK			EW-91
137	0.0 PPM	OK			EW-51
138	0.0 PPM	OK			TP-5
139	2.0 PPM	OK			EW-68
140	44.0 PPM	OK			EW-52
141	0.0 PPM	OK			TP-4

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS					
WEEKLY MONITORING EVENT - JUNE 4, 2026					
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA					
ID #	Methane Concentration	Compliance	GPS Coordinates		Comments
			Lat.	Long.	
142	0.0 PPM	OK			HC-02
143	0.0 PPM	OK			EW-89
144	2.0 PPM	OK			EW-60
145	0.0 PPM	OK			EW-87
146	0.0 PPM	OK			EW-38
147	0.0 PPM	OK			EW-48
148	0.0 PPM	OK			EW-88
149	0.0 PPM	OK			EW-85
150	0.0 PPM	OK			EW-61
151	2.0 PPM	OK			TP-6
152	0.0 PPM	OK			EW-50
153	0.0 PPM	OK			EW-36A
154	0.0 PPM	OK			EW-65
155	0.0 PPM	OK			EW-64
156	0.0 PPM	OK			EW-63
157	0.0 PPM	OK			EW-42
158	0.0 PPM	OK			EW-76
159	0.0 PPM	OK			TP-9
160	0.0 PPM	OK			EW-62
161	0.0 PPM	OK			EW-32R
162	0.0 PPM	OK			EW-72
163	0.0 PPM	OK			EW-71
164	0.0 PPM	OK			EW-69
165	0.0 PPM	OK			EW-70
166	0.0 PPM	OK			EW-73
167	0.0 PPM	OK			EW-78
168	0.0 PPM	OK			EW-82
Number of locations sampled:			168		
Number of exceedance locations:			0		
NOTES:					
Points 1 through 100 represent serpentine SEM route.					
Points 101 through 168 represent SEM at Pipe Penetrations					
Weather Conditions: Sunny, 64°F Wind: 5 mph E					
<u>Sampling Calibration: Methane - 500 ppm, Zero Air - 0.0 ppm</u>					
6/4/2026	7:45	ZERO	0.0	PPM	
6/4/2026	7:45	SPAN	498.7	PPM	
<u>Background Reading:</u>					
6/4/2026	7:47	Upwind	0.0	PPM	
6/4/2026	7:55	Downwind	1.0	PPM	



SCS ENGINEERS STEARNS, CONRAD AND SCHMIDT CONSULTING ENGINEERS, INC. 15521 MIDLOTHIAN TRAIL, VA 23113 PH: (804) 378-7440 FAX: (804) 378-7433		CLIENT CITY OF BRISTOL INTEGRATED SOLID WASTE MANAGEMENT FACILITY 2655 VALLEY DRIVE BRISTOL, VA 24201		SHEET TITLE SEM ROUTE WITH BUFFER AREA		NO.		REVISION		DATE	
FILE: 02218208.04		DATE: 6/4/26		SCALE: AS SHOWN		DRAWING NO.		PROJECT TITLE SURFACE EMISSIONS MONITORING SOLID WASTE PERMIT #588		▲	
PROJ. NO. 02218208.04		DWN. BY C/A RWE BY:		APP. BY:		▲		▲		▲	
DRN. BY:		CHK. BY:				▲		▲		▲	
1		of		1		▲		▲		▲	

June 17, 2026
File No. 02218208.04

Ms. Susan "Tracey" Blalock
Air Compliance Specialist
Virginia Department of Environmental Quality
SW Regional Office
355-A Deadmore Street
Abingdon, VA 24210

Subject: Weekly Surface Emissions Monitoring Event – June 11, 2026
Bristol Integrated Solid Waste Facility – Bristol, Virginia

Dear Ms. Blalock:

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 Management Facility located in Bristol, Virginia on June 11, 2026. 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 Permit No. 588 Landfill. Sampling was conducted with an Inficon IRwin infrared (IR) Methane Leak Detector 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 horizontal collectors. 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 schedule stipulated in 40 CFR 63.1960(b) and 40 CFR 60.36f(b). 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	168
Number of Points in Serpentine Route	100
Number of Points at Surface Cover Penetrations	68
Number of Exceedances	1
Number of Serpentine Exceedances	0
Number of Pipe Penetration Exceedances	1

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	6/11/26 Event	6/11/26 Event Result	Comments
EW-67	5/20/26	N/A	Failed	Requires 1-Month Retest

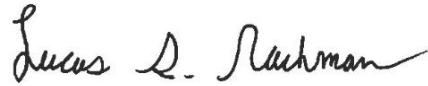
Ms. Susan "Tracey" Blalock
June 17, 2026
Page 3

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

Sincerely,

A handwritten signature in black ink on a light blue background. The signature is cursive and appears to read "William J. Fabrie".

William J. Fabrie
Project Professional
SCS Engineers

A handwritten signature in black ink on a light blue background. The signature is cursive and appears to read "Lucas S. Nachman".

Lucas S. Nachman
Senior Project Professional
SCS Engineers

LSN/WJF

cc: Jonathan Hayes, City of Bristol
Laura Helander, City of Bristol

Encl. Surface Emissions Monitoring Results
Bristol SEM Route Drawing

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS
WEEKLY MONITORING EVENT - JUNE 11, 2026
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA

ID #	Methane Concentration	Compliance	GPS Coordinates		Comments
			Lat.	Long.	
1	0.0 PPM	OK			Start Serpentine Route
2	0.0 PPM	OK			
3	0.0 PPM	OK			
4	0.0 PPM	OK			
5	0.0 PPM	OK			
6	1.0 PPM	OK			
7	0.0 PPM	OK			
8	0.0 PPM	OK			
9	1.0 PPM	OK			
10	0.0 PPM	OK			
11	0.0 PPM	OK			
12	0.0 PPM	OK			
13	2.0 PPM	OK			
14	0.0 PPM	OK			
15	0.0 PPM	OK			
16	0.0 PPM	OK			
17	0.0 PPM	OK			
18	0.0 PPM	OK			
19	0.0 PPM	OK			
20	13.0 PPM	OK			
21	0.0 PPM	OK			
22	0.0 PPM	OK			
23	0.0 PPM	OK			
24	2.0 PPM	OK			
25	11.0 PPM	OK			
26	0.0 PPM	OK			
27	0.0 PPM	OK			
28	0.0 PPM	OK			
29	0.0 PPM	OK			
30	3.0 PPM	OK			
31	0.0 PPM	OK			
32	3.0 PPM	OK			
33	21.0 PPM	OK			
34	2.0 PPM	OK			
35	0.0 PPM	OK			
36	0.0 PPM	OK			
37	0.0 PPM	OK			
38	0.0 PPM	OK			
39	0.0 PPM	OK			
40	0.0 PPM	OK			
41	0.0 PPM	OK			
42	0.0 PPM	OK			
43	0.0 PPM	OK			
44	0.0 PPM	OK			
45	0.0 PPM	OK			
46	0.0 PPM	OK			
47	0.0 PPM	OK			

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS
WEEKLY MONITORING EVENT - JUNE 11, 2026
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA

ID #	Methane Concentration	Compliance	GPS Coordinates		Comments
			Lat.	Long.	
48	0.0 PPM	OK			
49	0.0 PPM	OK			
50	0.0 PPM	OK			
51	0.0 PPM	OK			
52	0.0 PPM	OK			
53	0.0 PPM	OK			
54	9.0 PPM	OK			
55	0.0 PPM	OK			
56	0.0 PPM	OK			
57	0.0 PPM	OK			
58	4.0 PPM	OK			
59	0.0 PPM	OK			
60	0.0 PPM	OK			
61	0.0 PPM	OK			
62	0.0 PPM	OK			
63	0.0 PPM	OK			
64	0.0 PPM	OK			
65	0.0 PPM	OK			
66	1.0 PPM	OK			
67	0.0 PPM	OK			
68	0.0 PPM	OK			
69	0.0 PPM	OK			
70	0.0 PPM	OK			
71	0.0 PPM	OK			
72	0.0 PPM	OK			
73	2.0 PPM	OK			
74	0.0 PPM	OK			
75	0.0 PPM	OK			
76	0.0 PPM	OK			
77	0.0 PPM	OK			
78	0.0 PPM	OK			
79	0.0 PPM	OK			
80	0.0 PPM	OK			
81	0.0 PPM	OK			
82	0.0 PPM	OK			
83	0.0 PPM	OK			
84	0.0 PPM	OK			
85	0.0 PPM	OK			
86	0.0 PPM	OK			
87	0.0 PPM	OK			
88	0.0 PPM	OK			
89	2.0 PPM	OK			
90	0.0 PPM	OK			
91	0.0 PPM	OK			
92	3.0 PPM	OK			
93	0.0 PPM	OK			
94	0.0 PPM	OK			

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS
WEEKLY MONITORING EVENT - JUNE 11, 2026
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA

ID #	Methane Concentration	Compliance	GPS Coordinates		Comments
			Lat.	Long.	
95	0.0 PPM	OK			
96	0.0 PPM	OK			
97	0.0 PPM	OK			
98	0.0 PPM	OK			
99	0.0 PPM	OK			
100	0.0 PPM	OK			End Serpentine Route
101	0.0 PPM	OK			EW-75
102	0.0 PPM	OK			EW-74
103	0.0 PPM	OK			EW-33B
104	0.0 PPM	OK			EW-77
105	0.0 PPM	OK			EW-79
106	0.0 PPM	OK			TP-8
107	0.0 PPM	OK			EW-81
108	0.0 PPM	OK			EW-80
109	0.0 PPM	OK			EW-83
110	0.0 PPM	OK			EW-84
111	0.0 PPM	OK			EW-49
112	5.0 PPM	OK			TP-7
113	0.0 PPM	OK			EW-86
114	0.0 PPM	OK			EW-90
115	0.0 PPM	OK			EW-95
116	0.0 PPM	OK			EW-96
117	0.0 PPM	OK			EW-99
118	0.0 PPM	OK			EW-56
119	3.0 PPM	OK			EW-100
120	0.0 PPM	OK			EW-59
121	160.0 PPM	OK			EW-57
122	2.0 PPM	OK			TP-1
123	0.0 PPM	OK			EW-58
124	0.0 PPM	OK			EW-98
125	0.0 PPM	OK			EW-66
126	0.0 PPM	OK			HC-01
127	0.0 PPM	OK			EW-96
128	0.0 PPM	OK			EW-53
129	2086.0 PPM	HIGH_ALRM	36.598637	-82.147727	EW-67
130	0.0 PPM	OK			EW-47
131	0.0 PPM	OK			EW-54
132	0.0 PPM	OK			EW-55
133	0.0 PPM	OK			EW-94
134	0.0 PPM	OK			EW-93
135	0.0 PPM	OK			EW-92
136	4.0 PPM	OK			EW-91
137	1.0 PPM	OK			EW-51
138	0.0 PPM	OK			TP-5
139	0.0 PPM	OK			EW-68
140	18.0 PPM	OK			EW-52
141	0.0 PPM	OK			TP-4

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS
WEEKLY MONITORING EVENT - JUNE 11, 2026
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA

ID #	Methane Concentration	Compliance	GPS Coordinates		Comments
			Lat.	Long.	
142	0.0 PPM	OK			HC-02
143	1.0 PPM	OK			EW-89
144	28.0 PPM	OK			EW-60
145	0.0 PPM	OK			EW-87
146	0.0 PPM	OK			EW-38
147	0.0 PPM	OK			EW-48
148	0.0 PPM	OK			EW-88
149	0.0 PPM	OK			EW-85
150	0.0 PPM	OK			EW-61
151	0.0 PPM	OK			TP-6
152	0.0 PPM	OK			EW-50
153	0.0 PPM	OK			EW-36A
154	0.0 PPM	OK			EW-65
155	0.0 PPM	OK			EW-64
156	0.0 PPM	OK			EW-63
157	0.0 PPM	OK			EW-42
158	0.0 PPM	OK			EW-76
159	36.0 PPM	OK			TP-9
160	0.0 PPM	OK			EW-62
161	0.0 PPM	OK			EW-32R
162	0.0 PPM	OK			EW-72
163	0.0 PPM	OK			EW-71
164	0.0 PPM	OK			EW-69
165	0.0 PPM	OK			EW-70
166	0.0 PPM	OK			EW-73
167	0.0 PPM	OK			EW-78
168	0.0 PPM	OK			EW-82

Number of locations sampled: 168

Number of exceedance locations: 1

NOTES:

Points 1 through 100 represent serpentine SEM route.
Points 101 through 168 represent SEM at Pipe Penetrations
Weather Conditions: Sunny, 69°F Wind: 3 mph S

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

6/11/2026	6:54	ZERO	0.0	PPM
6/11/2026	6:54	SPAN	500.7	PPM

Background Reading:

6/11/2026	6:57	Upwind	0.0	PPM
6/11/2026	7:11	Downwind	0.0	PPM

June 24, 2026
File No. 02218208.04

Ms. Susan "Tracey" Blalock
Air Compliance Specialist
Virginia Department of Environmental Quality
SW Regional Office
355-A Deadmore Street
Abingdon, VA 24210

Subject: Weekly Surface Emissions Monitoring Event – June 18, 2026
Bristol Integrated Solid Waste Facility – Bristol, Virginia

Dear Ms. Blalock:

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 Management Facility located in Bristol, Virginia on June 18, 2026. 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 Permit No. 588 Landfill. Sampling was conducted with an Inficon IRwin infrared (IR) Methane Leak Detector 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 horizontal collectors. 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 schedule stipulated in 40 CFR 63.1960(b) and 40 CFR 60.36f(b). 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	168
Number of Points in Serpentine Route	100
Number of Points at Surface Cover Penetrations	68
Number of Exceedances	0
Number of Serpentine Exceedances	0
Number of Pipe Penetration Exceedances	0

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.

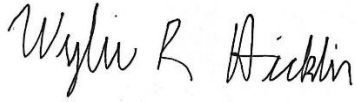
A summary of ongoing exceedance points is provided in Table 2.

Table 2. Ongoing Weekly SEM Exceedances

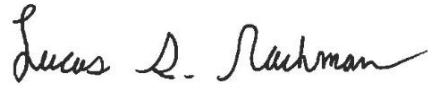
Point ID	Initial Exceedance Date	6/18/26 Event	6/18/26 Event Result	Comments
EW-67	5/20/26	1-Month Retest	Passed	Exceedance Resolved

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

Sincerely,



Wylie R Hicklin
Staff Professional
SCS Engineers



Lucas S. Nachman
Senior Project Professional
SCS Engineers

LSN/WRH

cc: Jonathan Hayes, City of Bristol
Laura Helander, City of Bristol

Encl. Surface Emissions Monitoring Results
Bristol SEM Route Drawing

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS WEEKLY MONITORING EVENT - JUNE 18, 2026 BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA					
ID #	Methane Concentration	Compliance	GPS Coordinates Lat. Long.		Comments
1	0.0 PPM	OK			Start Serpentine Route
2	0.0 PPM	OK			
3	0.0 PPM	OK			
4	0.0 PPM	OK			
5	0.0 PPM	OK			
6	0.0 PPM	OK			
7	0.0 PPM	OK			
8	0.0 PPM	OK			
9	0.0 PPM	OK			
10	0.0 PPM	OK			
11	0.0 PPM	OK			
12	0.0 PPM	OK			
13	0.0 PPM	OK			
14	0.0 PPM	OK			
15	0.0 PPM	OK			
16	0.0 PPM	OK			
17	0.0 PPM	OK			
18	0.0 PPM	OK			
19	0.0 PPM	OK			
20	11.0 PPM	OK			
21	0.0 PPM	OK			
22	0.0 PPM	OK			
23	0.0 PPM	OK			
24	12.0 PPM	OK			
25	0.0 PPM	OK			
26	0.0 PPM	OK			
27	0.0 PPM	OK			
28	0.0 PPM	OK			
29	0.0 PPM	OK			
30	6.0 PPM	OK			
31	31.0 PPM	OK			
32	25.0 PPM	OK			
33	106.0 PPM	OK			
34	0.0 PPM	OK			
35	0.0 PPM	OK			
36	0.0 PPM	OK			
37	16.0 PPM	OK			
38	5.0 PPM	OK			
39	0.0 PPM	OK			
40	0.0 PPM	OK			
41	0.0 PPM	OK			
42	2.0 PPM	OK			
43	37.0 PPM	OK			
44	0.0 PPM	OK			
45	0.0 PPM	OK			
46	0.0 PPM	OK			
47	0.0 PPM	OK			

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS WEEKLY MONITORING EVENT - JUNE 18, 2026 BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA					
ID #	Methane Concentration	Compliance	GPS Coordinates Lat. Long.		Comments
48	0.0 PPM	OK			
49	2.0 PPM	OK			
50	0.0 PPM	OK			
51	0.0 PPM	OK			
52	0.0 PPM	OK			
53	0.0 PPM	OK			
54	10.0 PPM	OK			
55	0.0 PPM	OK			
56	3.0 PPM	OK			
57	0.0 PPM	OK			
58	0.0 PPM	OK			
59	2.0 PPM	OK			
60	1.0 PPM	OK			
61	0.0 PPM	OK			
62	0.0 PPM	OK			
63	2.0 PPM	OK			
64	0.0 PPM	OK			
65	0.0 PPM	OK			
66	11.0 PPM	OK			
67	0.0 PPM	OK			
68	0.0 PPM	OK			
69	4.0 PPM	OK			
70	0.0 PPM	OK			
71	23.0 PPM	OK			
72	0.0 PPM	OK			
73	7.0 PPM	OK			
74	2.0 PPM	OK			
75	0.0 PPM	OK			
76	0.0 PPM	OK			
77	0.0 PPM	OK			
78	0.0 PPM	OK			
79	0.0 PPM	OK			
80	0.0 PPM	OK			
81	0.0 PPM	OK			
82	0.0 PPM	OK			
83	0.0 PPM	OK			
84	0.0 PPM	OK			
85	3.0 PPM	OK			
86	0.0 PPM	OK			
87	0.0 PPM	OK			
88	1.0 PPM	OK			
89	1.0 PPM	OK			
90	4.0 PPM	OK			
91	0.0 PPM	OK			
92	7.0 PPM	OK			
93	6.0 PPM	OK			
94	0.0 PPM	OK			

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS WEEKLY MONITORING EVENT - JUNE 18, 2026 BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA					
ID #	Methane Concentration	Compliance	GPS Coordinates Lat. Long.		Comments
95	0.0 PPM	OK			
96	0.0 PPM	OK			
97	0.0 PPM	OK			
98	0.0 PPM	OK			
99	0.0 PPM	OK			
100	0.0 PPM	OK			End Serpentine Route
101	51.0 PPM	OK			EW-75
102	0.0 PPM	OK			EW-74
103	1.0 PPM	OK			EW-33B
104	0.0 PPM	OK			EW-77
105	4.0 PPM	OK			EW-79
106	0.0 PPM	OK			TP-8
107	0.0 PPM	OK			EW-81
108	0.0 PPM	OK			EW-80
109	0.0 PPM	OK			EW-83
110	0.0 PPM	OK			EW-84
111	0.0 PPM	OK			EW-49
112	61.0 PPM	OK			TP-7
113	12.0 PPM	OK			EW-86
114	0.0 PPM	OK			EW-90
115	8.0 PPM	OK			EW-95
116	0.0 PPM	OK			EW-97
117	25.0 PPM	OK			EW-99
118	10.0 PPM	OK			EW-56
119	0.0 PPM	OK			EW-100
120	0.0 PPM	OK			EW-59
121	0.0 PPM	OK			EW-57
122	0.0 PPM	OK			TP-1
123	73.0 PPM	OK			EW-58
124	0.0 PPM	OK			EW-98
125	3.0 PPM	OK			EW-66
126	0.0 PPM	OK			HC-01
127	0.0 PPM	OK			EW-53
128	0.0 PPM	OK			EW-96
129	159.0 PPM	OK			EW-67
130	0.0 PPM	OK			EW-47
131	0.0 PPM	OK			EW-54
132	63.0 PPM	OK			EW-55
133	14.0 PPM	OK			EW-94
134	7.0 PPM	OK			EW-93
135	0.0 PPM	OK			EW-92
136	0.0 PPM	OK			EW-91
137	2.0 PPM	OK			EW-51
138	0.0 PPM	OK			TP-5
139	0.0 PPM	OK			EW-68
140	13.0 PPM	OK			EW-52
141	0.0 PPM	OK			TP-4

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS
WEEKLY MONITORING EVENT - JUNE 18, 2026
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA

ID #	Methane Concentration	Compliance	GPS Coordinates		Comments
			Lat.	Long.	
142	0.0 PPM	OK			HC-02
143	31.0 PPM	OK			EW-89
144	0.0 PPM	OK			EW-60
145	0.0 PPM	OK			EW-87
146	0.0 PPM	OK			EW-38
147	0.0 PPM	OK			EW-48
148	0.0 PPM	OK			EW-88
149	0.0 PPM	OK			EW-85
150	0.0 PPM	OK			EW-61
151	32.0 PPM	OK			TP-6
152	0.0 PPM	OK			EW-50
153	0.0 PPM	OK			EW-36A
154	0.0 PPM	OK			EW-60
155	12.0 PPM	OK			EW-64
156	0.0 PPM	OK			EW-63
157	3.0 PPM	OK			EW-42
158	0.0 PPM	OK			EW-76
159	0.0 PPM	OK			TP-1
160	0.0 PPM	OK			EW-62
161	0.0 PPM	OK			EW-32R
162	0.0 PPM	OK			EW-72
163	0.0 PPM	OK			EW-71
164	0.0 PPM	OK			EW-69
165	0.0 PPM	OK			EW-70
166	0.0 PPM	OK			EW-73
167	0.0 PPM	OK			EW-78
168	0.0 PPM	OK			EW-82

Number of locations sampled:	168
Number of exceedance locations:	0

NOTES:

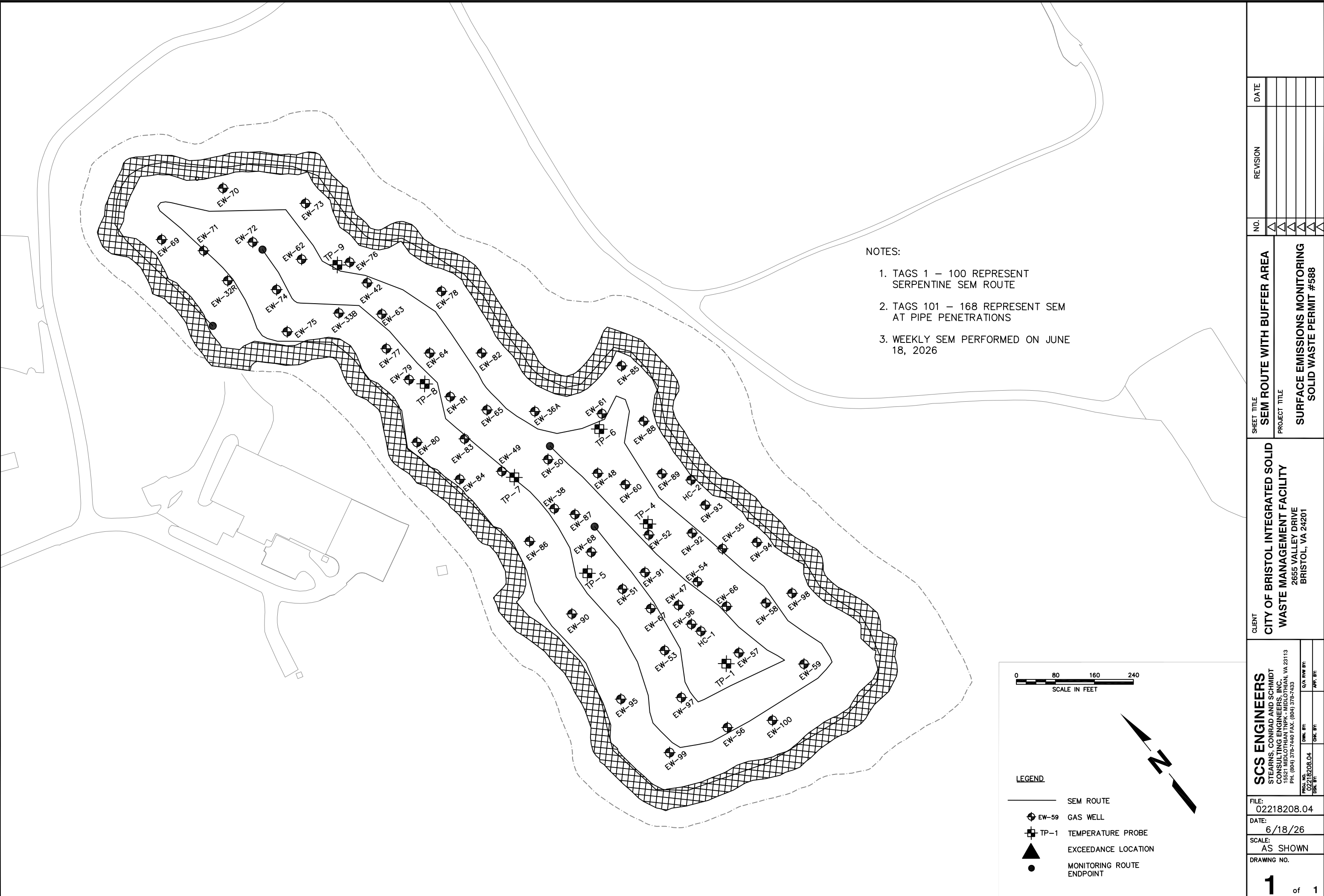
Points 1 through 100 represent serpentine SEM route.
Points 101 through 168 represent SEM at Pipe Penetrations
Weather Conditions: Overcast, 72°F Wind: 13 mph SW

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

6/18/2026	7:06	ZERO	0.0	PPM
6/18/2026	7:06	SPAN	499.3	PPM

Background Reading:

6/18/2026	7:20	Upwind	0.0	PPM
6/18/2026	7:09	Downwind	0.0	PPM



SHEET TITLE		REVISION		DATE	
SEM ROUTE WITH BUFFER AREA					
PROJECT TITLE					
SURFACE EMISSIONS MONITORING					
SOLID WASTE PERMIT #588					
CLIENT		NO.			
CITY OF BRISTOL INTEGRATED SOLID WASTE MANAGEMENT FACILITY		1			
2655 VALLEY DRIVE		2			
BRISTOL, VA 24201		3			
SCS ENGINEERS		4			
STEARN, CONRAD AND SCHMIDT		5			
CONSULTING ENGINEERS, INC.		6			
15521 MIDLOTHIAN TRAIL, MIDLOTHIAN, VA 23113		7			
PH. (804) 378-7440 FAX. (804) 378-7433		8			
PROJ. NO. 02218208.04		9			
DATE: 6/18/26		10			
SCALE: AS SHOWN		11			
DRAWING NO. 1		12			
1 of 1		13			

July 1, 2026
File No. 02218208.04

Ms. Susan "Tracey" Blalock
Air Compliance Specialist
Virginia Department of Environmental Quality
SW Regional Office
355-A Deadmore Street
Abingdon, VA 24210

Subject: Weekly Surface Emissions Monitoring Event – June 25, 2026
Bristol Integrated Solid Waste Facility – Bristol, Virginia

Dear Ms. Blalock:

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 Management Facility located in Bristol, Virginia on June 25, 2026. 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 Permit No. 588 Landfill. Sampling was conducted with an Inficon IRwin infrared (IR) Methane Leak Detector 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 horizontal collectors. 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 schedule stipulated in 40 CFR 63.1960(b) and 40 CFR 60.36f(b). 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	1
Number of Serpentine Exceedances	0
Number of Pipe Penetration Exceedances	1

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.

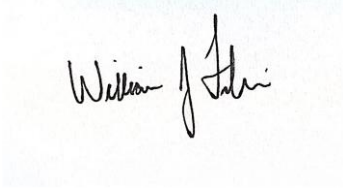
In accordance with 40 CFR 63.1960(c)(4)(v) and 40 CFR 60.36f(c)(4)(v) a new well or collection device must be installed or an alternate remedy must be submitted within 120 days at locations that continue to exhibit methane concentrations above the regulatory threshold for two consecutive re-tests.

During the 6/25/2026 event, there were no ongoing exceedances. An initial exceedance was monitored at penetration EW-55 during the 6/25/2026 event, therefore, this location's retest results will be provided in the following weekly SEM report.

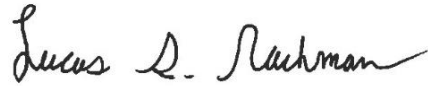
Ms. Susan "Tracey" Blalock
July 1, 2026
Page 3

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

Sincerely,

A handwritten signature in black ink, appearing to read "William J. Fabrie". The signature is written in a cursive style with a large, stylized 'W' and 'F'.

William J. Fabrie
Project Professional
SCS Engineers

A handwritten signature in black ink, appearing to read "Lucas S. Nachman". The signature is written in a cursive style with a large, stylized 'L' and 'N'.

Lucas S. Nachman
Senior Project Professional
SCS Engineers

LSN/WJF

cc: Jonathan Hayes, City of Bristol
Laura Helander, City of Bristol

Encl. Surface Emissions Monitoring Results
Bristol SEM Route Drawing

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS
WEEKLY MONITORING EVENT - JUNE 25, 2026
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA

ID #	Methane Concentration	Compliance	GPS Coordinates		Comments
			Lat.	Long.	
1	0.0 PPM	OK			Start Serpentine Route
2	0.0 PPM	OK			
3	0.0 PPM	OK			
4	0.0 PPM	OK			
5	0.0 PPM	OK			
6	0.0 PPM	OK			
7	0.0 PPM	OK			
8	0.0 PPM	OK			
9	0.0 PPM	OK			
10	0.0 PPM	OK			
11	0.0 PPM	OK			
12	0.0 PPM	OK			
13	0.0 PPM	OK			
14	0.0 PPM	OK			
15	0.0 PPM	OK			
16	0.0 PPM	OK			
17	0.0 PPM	OK			
18	0.0 PPM	OK			
19	0.0 PPM	OK			
20	0.0 PPM	OK			
21	0.0 PPM	OK			
22	1.0 PPM	OK			
23	0.0 PPM	OK			
24	0.0 PPM	OK			
25	0.0 PPM	OK			
26	3.0 PPM	OK			
27	0.0 PPM	OK			
28	0.0 PPM	OK			
29	14.0 PPM	OK			
30	17.0 PPM	OK			
31	31.0 PPM	OK			
32	0.0 PPM	OK			
33	0.0 PPM	OK			
34	0.0 PPM	OK			
35	0.0 PPM	OK			
36	0.0 PPM	OK			
37	45.0 PPM	OK			
38	0.0 PPM	OK			
39	0.0 PPM	OK			
40	0.0 PPM	OK			
41	0.0 PPM	OK			
42	0.0 PPM	OK			
43	0.0 PPM	OK			
44	0.0 PPM	OK			
45	0.0 PPM	OK			
46	0.0 PPM	OK			
47	0.0 PPM	OK			
48	0.0 PPM	OK			
49	0.0 PPM	OK			

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS
WEEKLY MONITORING EVENT - JUNE 25, 2026
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA

ID #	Methane Concentration	Compliance	GPS Coordinates		Comments
			Lat.	Long.	
50	0.0 PPM	OK			
51	0.0 PPM	OK			
52	0.0 PPM	OK			
53	34.0 PPM	OK			
54	0.0 PPM	OK			
55	40.0 PPM	OK			
56	0.0 PPM	OK			
57	0.0 PPM	OK			
58	0.0 PPM	OK			
59	0.0 PPM	OK			
60	0.0 PPM	OK			
61	6.0 PPM	OK			
62	3.0 PPM	OK			
63	0.0 PPM	OK			
64	0.0 PPM	OK			
65	0.0 PPM	OK			
66	0.0 PPM	OK			
67	0.0 PPM	OK			
68	0.0 PPM	OK			
69	0.0 PPM	OK			
70	0.0 PPM	OK			
71	0.0 PPM	OK			
72	0.0 PPM	OK			
73	0.0 PPM	OK			
74	0.0 PPM	OK			
75	0.0 PPM	OK			
76	0.0 PPM	OK			
77	0.0 PPM	OK			
78	0.0 PPM	OK			
79	0.0 PPM	OK			
80	0.0 PPM	OK			
81	0.0 PPM	OK			
82	2.0 PPM	OK			
83	0.0 PPM	OK			
84	0.0 PPM	OK			
85	0.0 PPM	OK			
86	0.0 PPM	OK			
87	0.0 PPM	OK			
88	0.0 PPM	OK			
89	7.0 PPM	OK			
90	0.0 PPM	OK			
91	0.0 PPM	OK			
92	0.0 PPM	OK			
93	0.0 PPM	OK			
94	0.0 PPM	OK			
95	0.0 PPM	OK			
96	0.0 PPM	OK			
97	2.0 PPM	OK			
98	0.0 PPM	OK			

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS
WEEKLY MONITORING EVENT - JUNE 25, 2026
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA

ID #	Methane Concentration	Compliance	GPS Coordinates		Comments
			Lat.	Long.	
99	0.0 PPM	OK			
100	0.0 PPM	OK			End Serpentine Route
101	0.0 PPM	OK			EW-75
102	0.0 PPM	OK			EW-74
103	3.0 PPM	OK			EW-33B
104	0.0 PPM	OK			EW-77
105	0.0 PPM	OK			EW-79
106	0.0 PPM	OK			TP-8
107	0.0 PPM	OK			EW-81
108	0.0 PPM	OK			EW-80
109	0.0 PPM	OK			EW-83
110	0.0 PPM	OK			EW-84
111	0.0 PPM	OK			EW-49
112	19.0 PPM	OK			TP-7
113	16.0 PPM	OK			EW-86
114	2.0 PPM	OK			EW-90
115	18.0 PPM	OK			EW-95
116	0.0 PPM	OK			EW-97
117	8.0 PPM	OK			EW-99
118	0.0 PPM	OK			EW-56
119	0.0 PPM	OK			EW-100
120	0.0 PPM	OK			EW-59
121	0.0 PPM	OK			TP-1
122	6.0 PPM	OK			EW-57
123	0.0 PPM	OK			EW-58
124	18.0 PPM	OK			EW-98
125	41.0 PPM	OK			EW-66
126	0.0 PPM	OK			HC-01
127	237.0 PPM	OK			EW-53
128	0.0 PPM	OK			EW-96
129	1.0 PPM	OK			EW-67
130	2.0 PPM	OK			EW-47
131	0.0 PPM	OK			EW-54
132	1056.0 PPM	HIGH_ALARM	36.598684	-82.147167	EW-55
133	0.0 PPM	OK			EW-94
134	0.0 PPM	OK			EW-93
135	24.0 PPM	OK			EW-92
136	137.0 PPM	OK			EW-91
137	0.0 PPM	OK			EW-51
138	2.0 PPM	OK			TP-5
139	0.0 PPM	OK			EW-68
140	111.0 PPM	OK			EW-52
141	223.0 PPM	OK			TP-4
142	0.0 PPM	OK			HC-02
143	127.0 PPM	OK			EW-89
144	6.0 PPM	OK			EW-60
145	0.0 PPM	OK			EW-87
146	2.0 PPM	OK			EW-48
147	0.0 PPM	OK			EW-88

EXHIBIT 1. SURFACE EMISSIONS MONITORING RESULTS
WEEKLY MONITORING EVENT - JUNE 25, 2026
BRISTOL INTEGRATED SOLID WASTE FACILITY - BRISTOL, VIRGINIA

ID #	Methane Concentration	Compliance	GPS Coordinates		Comments
			Lat.	Long.	
148	3.0 PPM	OK			EW-85
149	3.0 PPM	OK			EW-61
150	25.0 PPM	OK			TP-6
151	0.0 PPM	OK			EW-50
152	3.0 PPM	OK			EW-36A
153	0.0 PPM	OK			EW-65
154	0.0 PPM	OK			EW-64
155	2.0 PPM	OK			EW-63
156	6.0 PPM	OK			EW-42
157	0.0 PPM	OK			EW-76
158	0.0 PPM	OK			TP-9
159	0.0 PPM	OK			EW-62
160	0.0 PPM	OK			EW-32R
161	0.0 PPM	OK			EW-72
162	0.0 PPM	OK			EW-71
163	0.0 PPM	OK			EW-69
164	0.0 PPM	OK			EW-70
165	0.0 PPM	OK			EW-73
166	0.0 PPM	OK			EW-78
167	0.0 PPM	OK			EW-82

Number of locations sampled:	167
Number of exceedance locations:	1

NOTES:

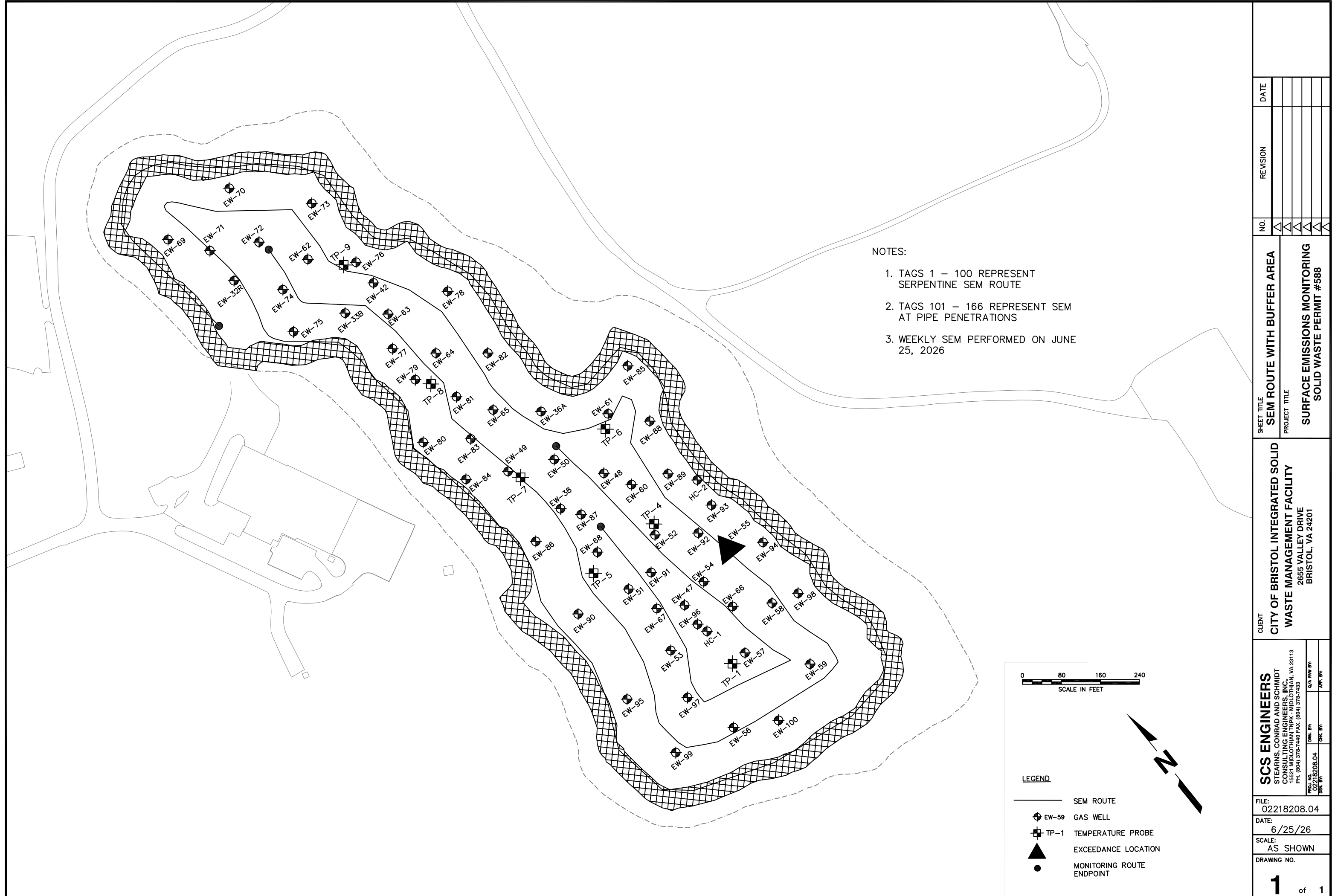
Points 1 through 100 represent serpentine SEM route.
Points 101 through 167 represent SEM at Pipe Penetrations
Weather Conditions: Overcast, 60°F Wind: 3 mph SW

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

6/25/2026	7:33	ZERO	0.0	PPM
6/25/2026	7:33	SPAN	501.0	PPM

Background Reading:

6/25/2026	7:35	Upwind	0.0	PPM
6/25/2026	7:44	Downwind	0.0	PPM





Appendix B

In-Waste Temperatures on Select Days in May

Appendix B Figures

Figure B - 1 Average Temperatures Recorded by TP-1 on June 3, 2026.....	3
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Figure B - 20 Average Temperatures Recorded by TP-9 on June 24, 2026.....	12

Figure B - 1 Average Temperatures Recorded by TP-1 on June 3, 2026

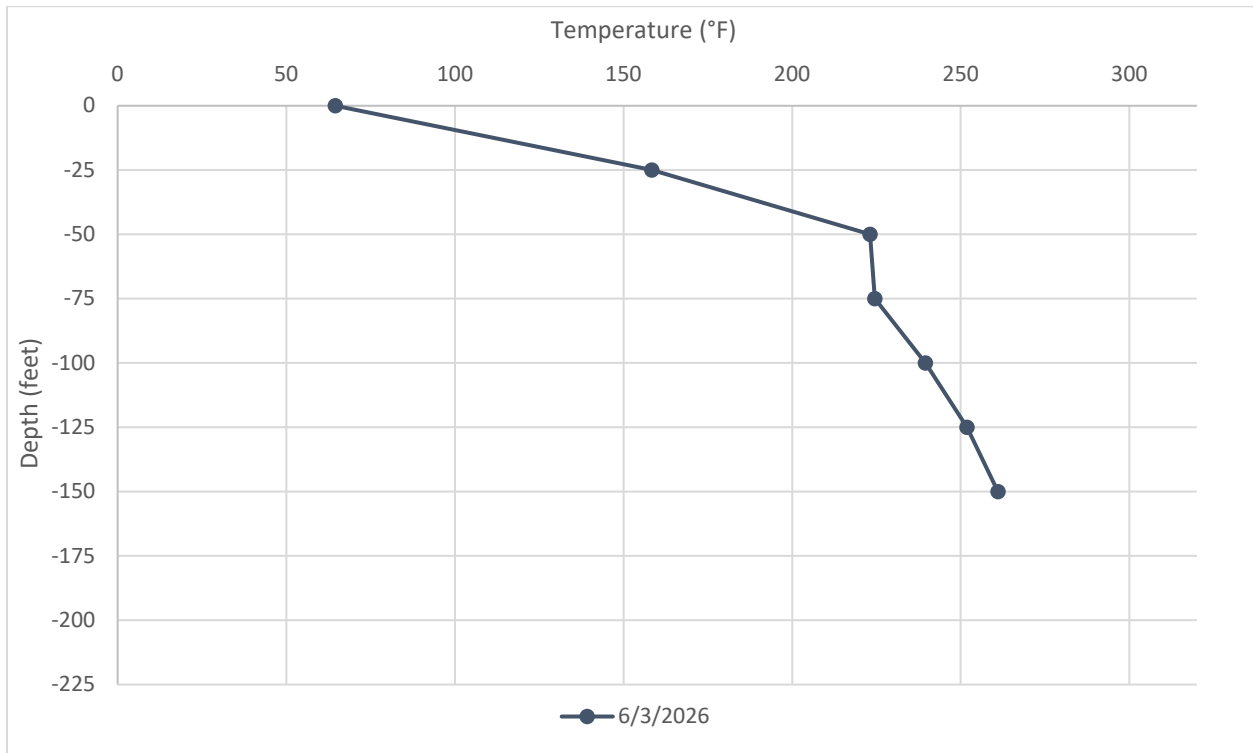


Figure B - 2 Average Temperatures Recorded by TP-1 on June 10, 2026

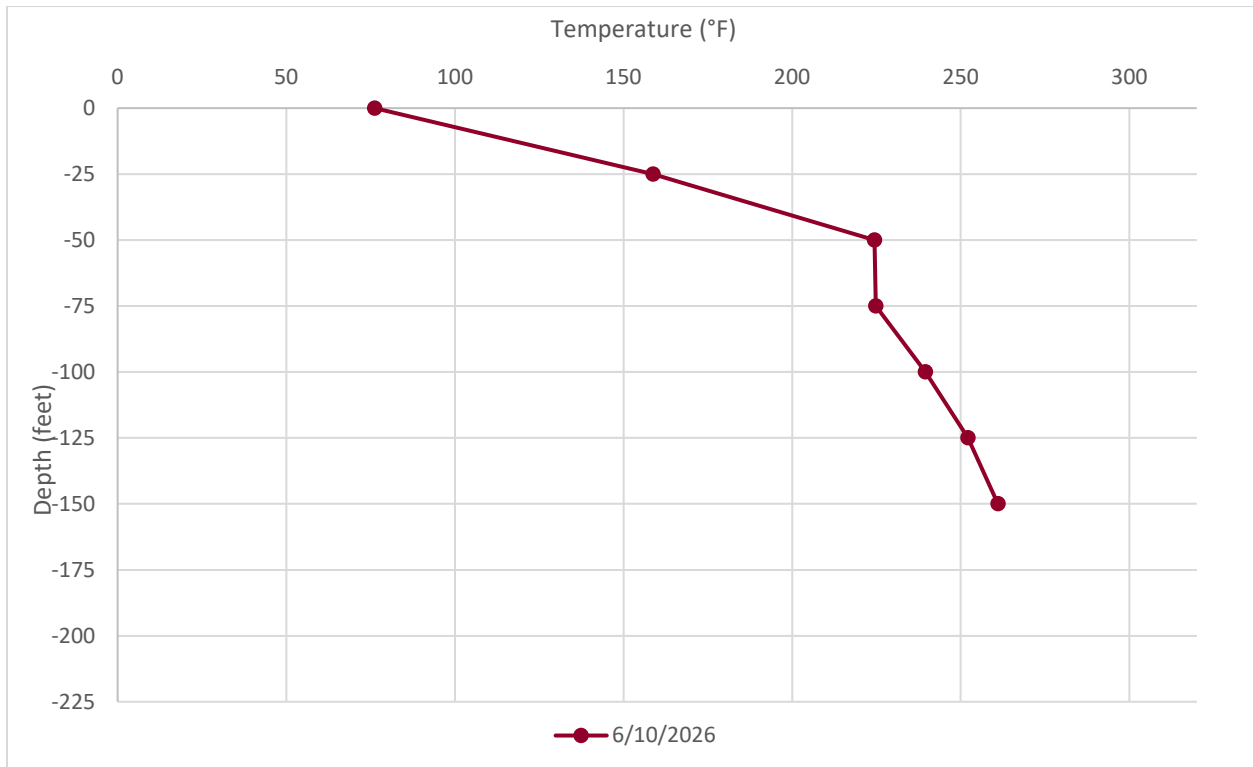


Figure B - 3 Average Temperatures Recorded by TP-1 on June 17, 2026

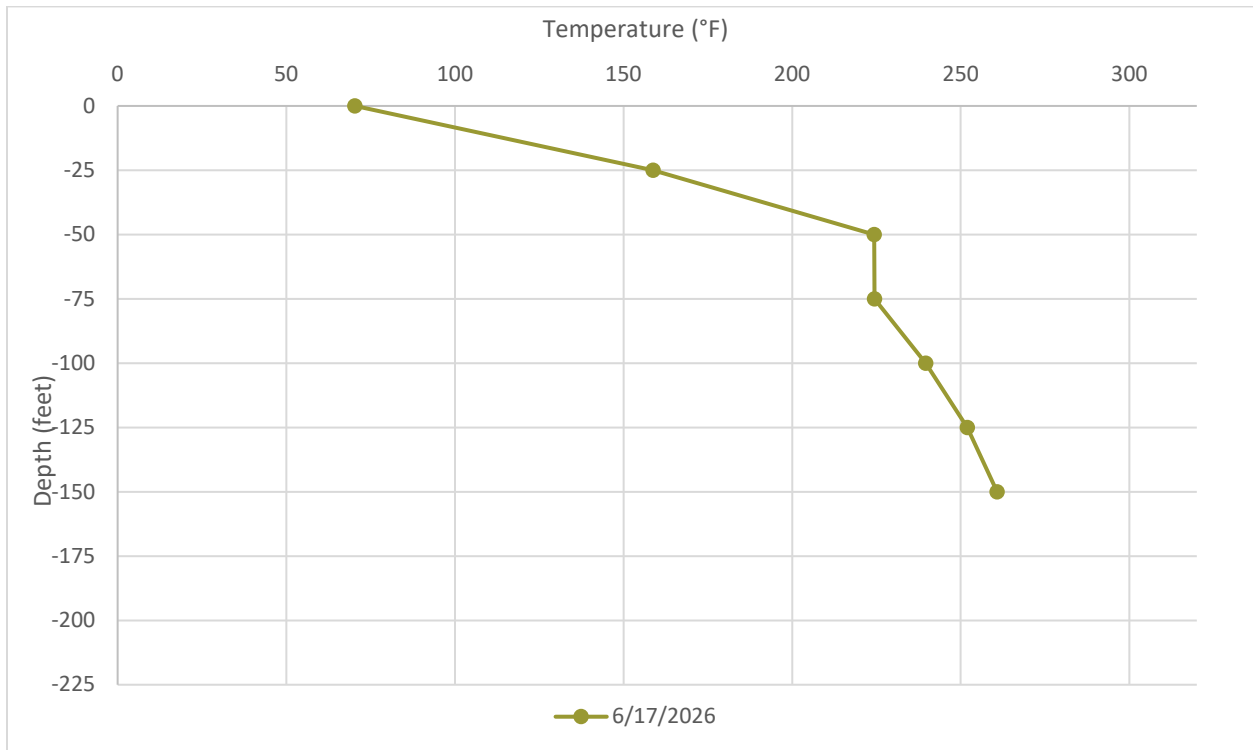


Figure B - 4 Average Temperatures Recorded by TP-1 on June 24, 2026

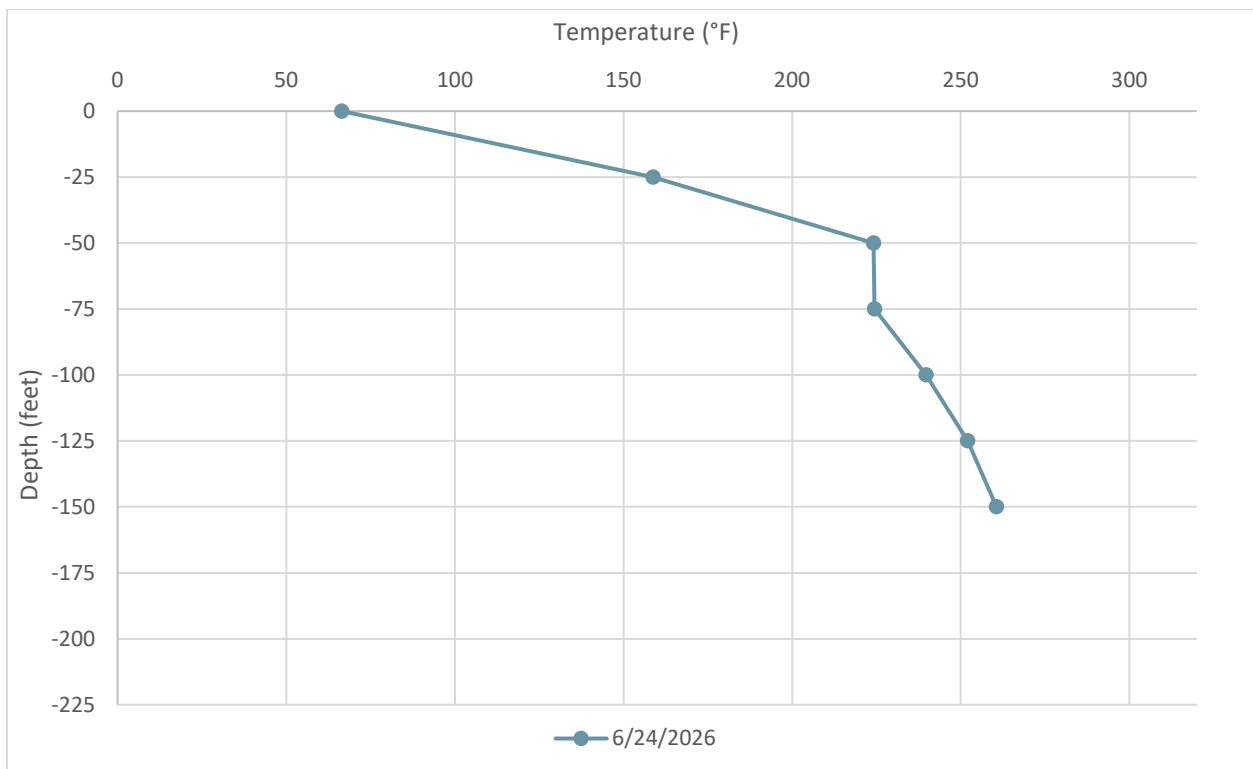


Figure B - 5 Average Temperatures Recorded by TP-5 on June 3, 2026

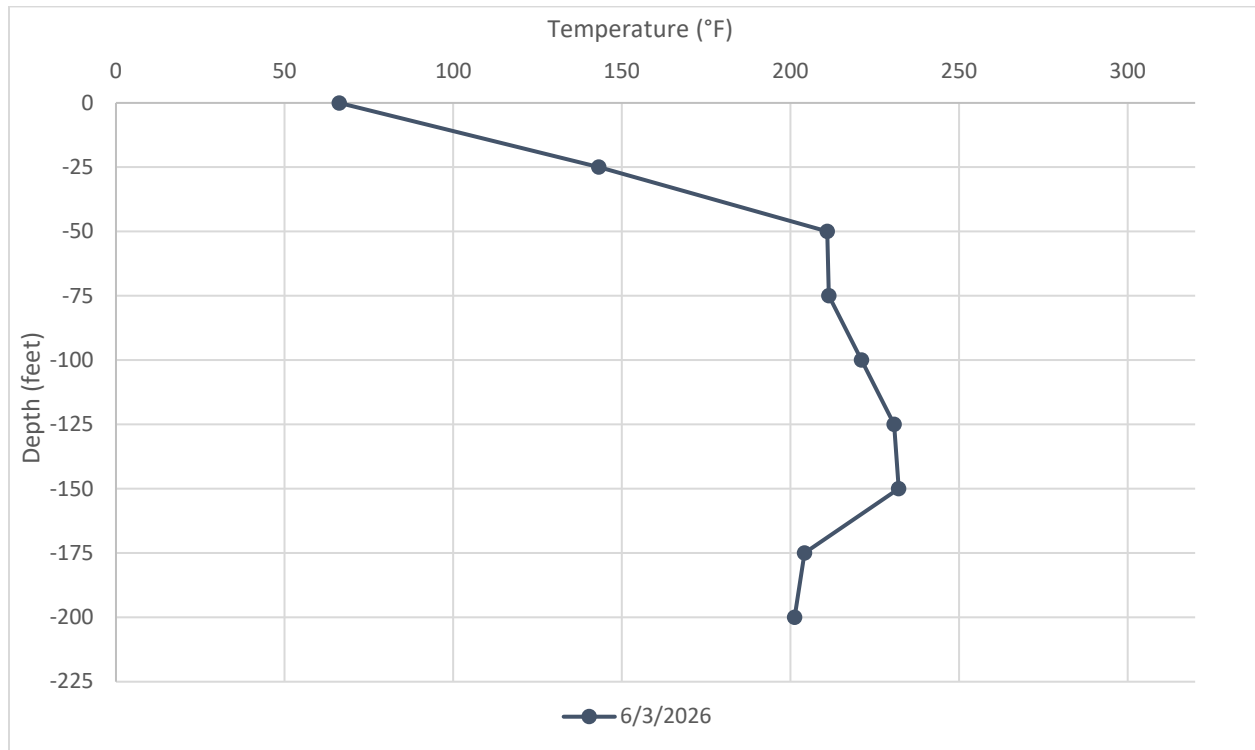


Figure B - 6 Average Temperatures Recorded by TP-5 on June 10, 2026

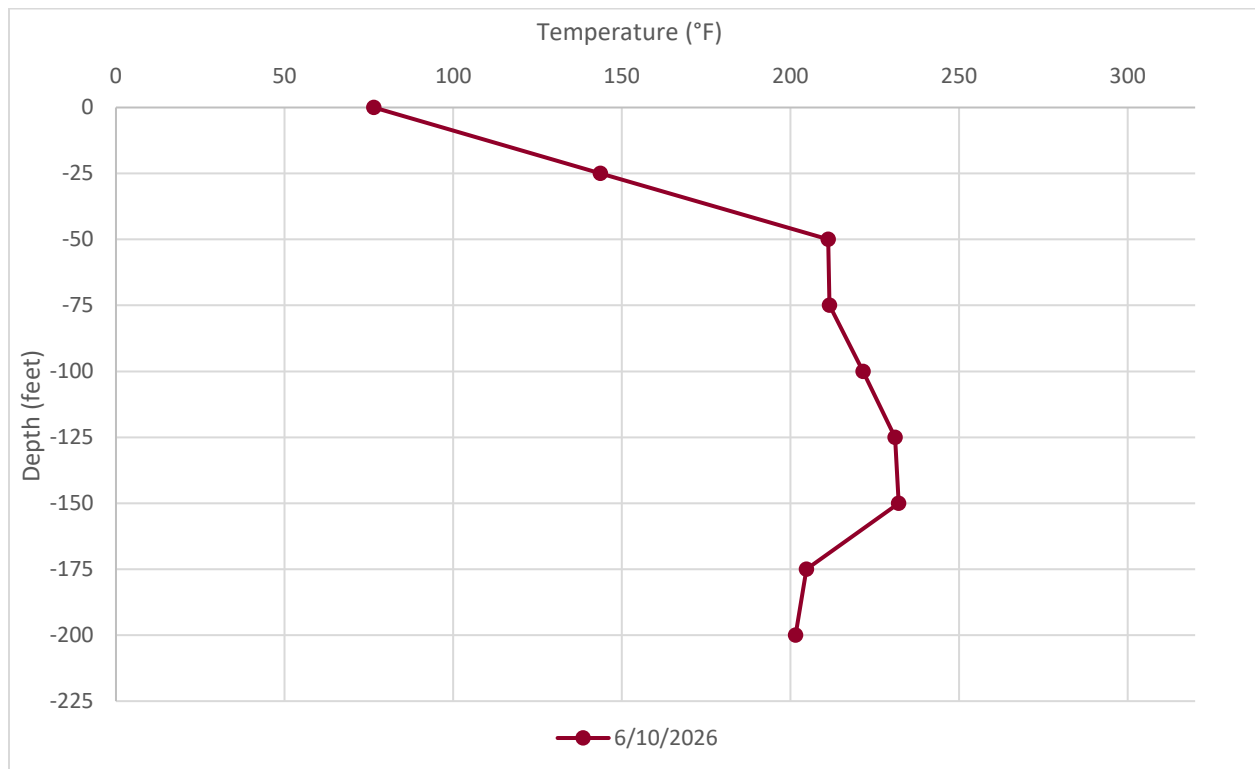


Figure B - 7 Average Temperatures Recorded by TP-5 on June 17, 2026

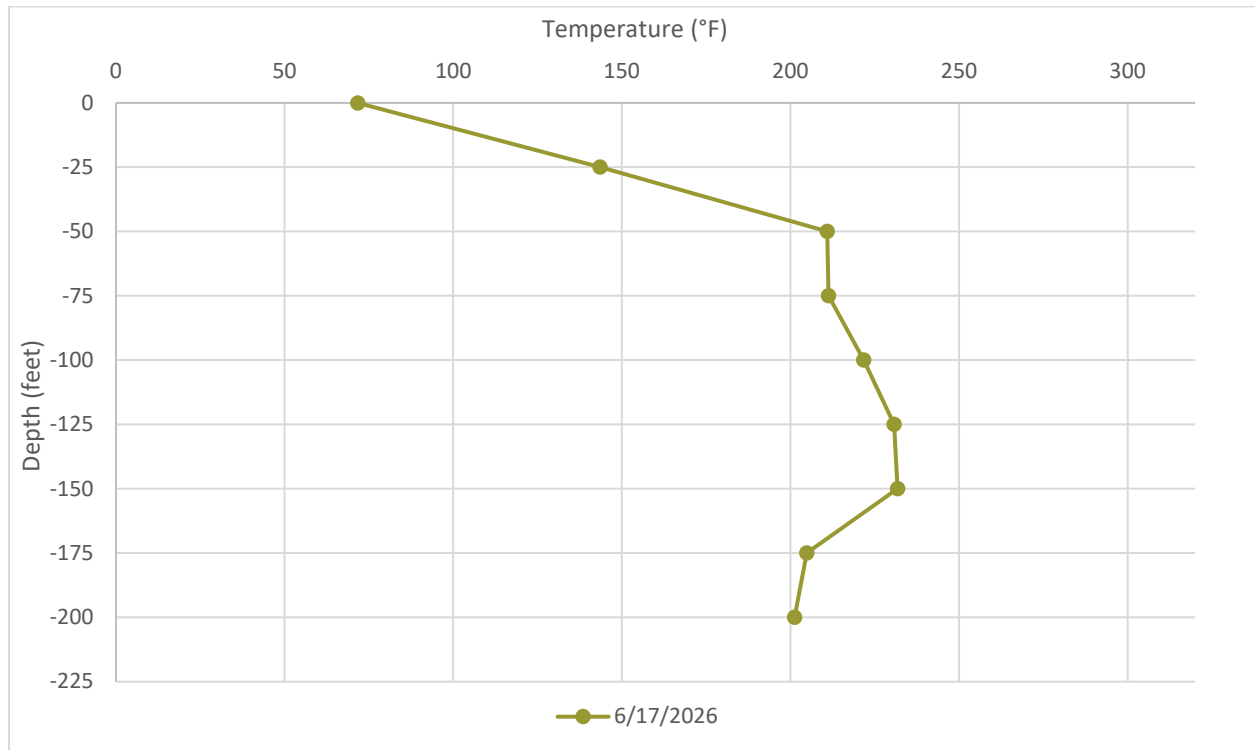


Figure B - 8 Average Temperatures Recorded by TP-5 on June 24, 2026

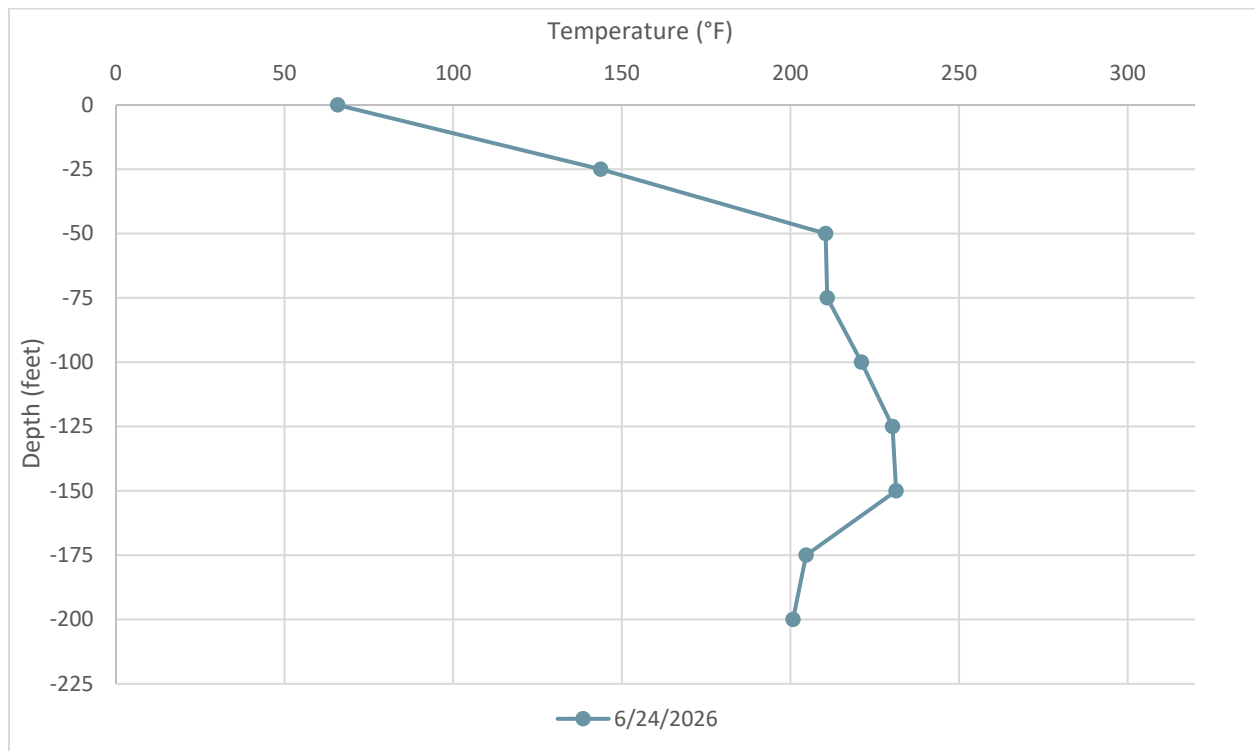


Figure B - 9 Average Temperatures Recorded by TP-6 on June 3, 2026

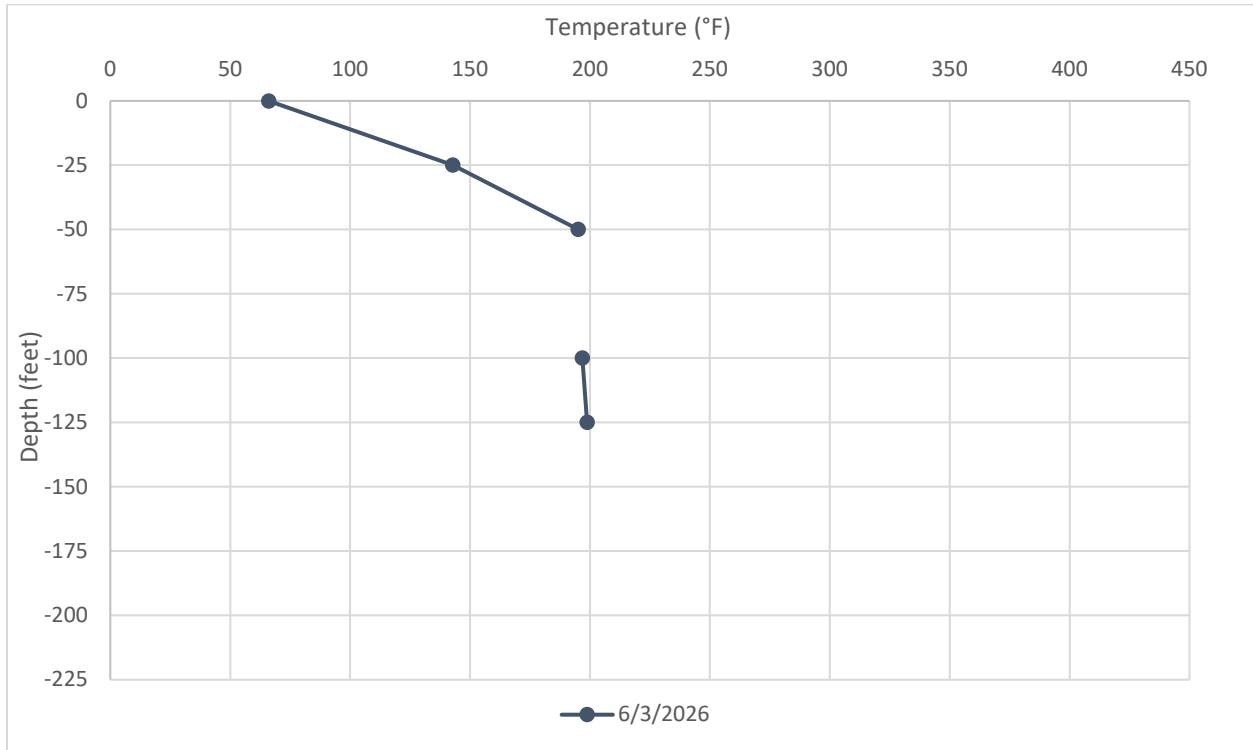


Figure B - 10 Average Temperatures Recorded by TP-6 on June 10, 2026

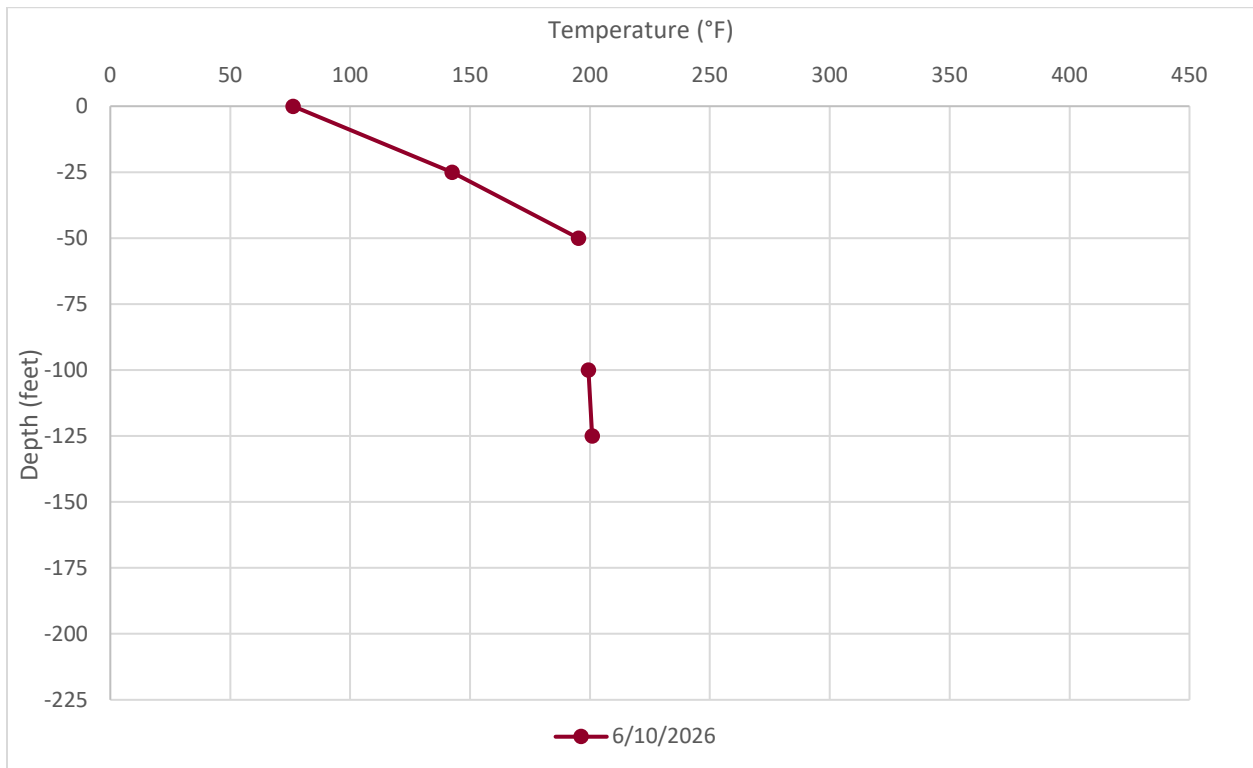


Figure B - 11 Average Temperatures Recorded by TP-6 on June 17, 2026

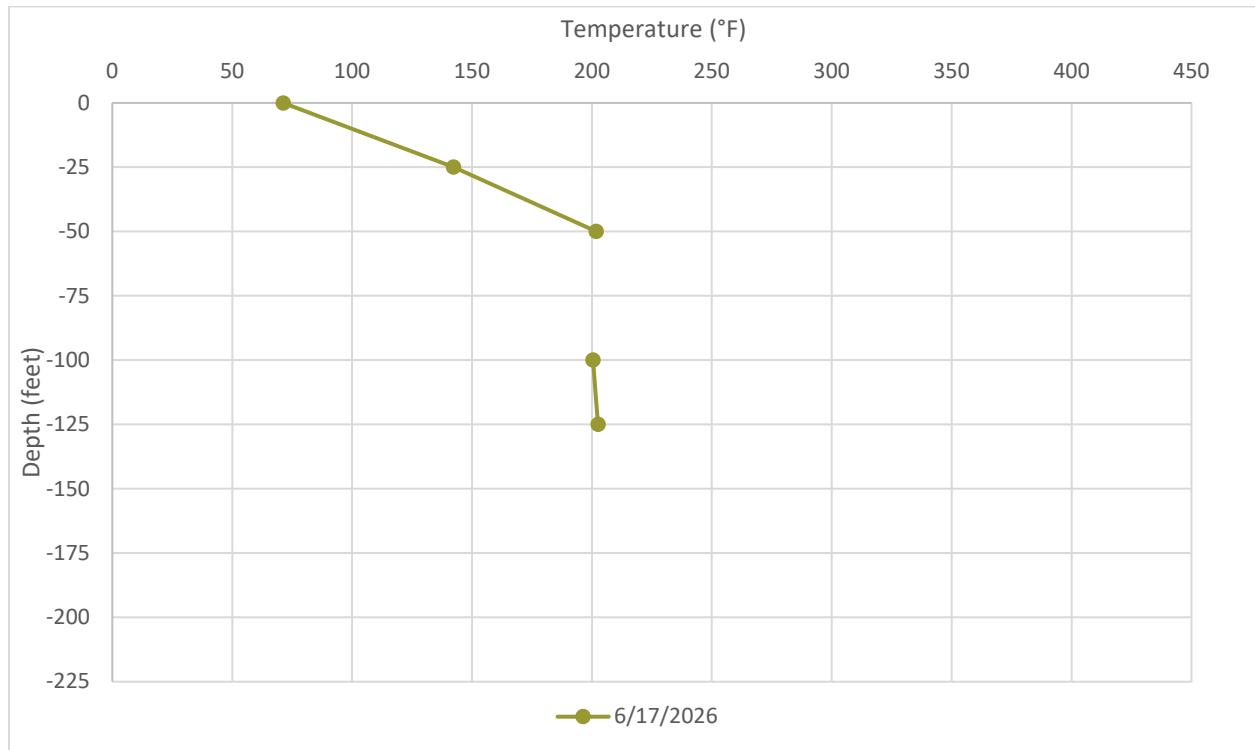


Figure B - 12 Average Temperatures Recorded by TP-6 on June 24, 2026

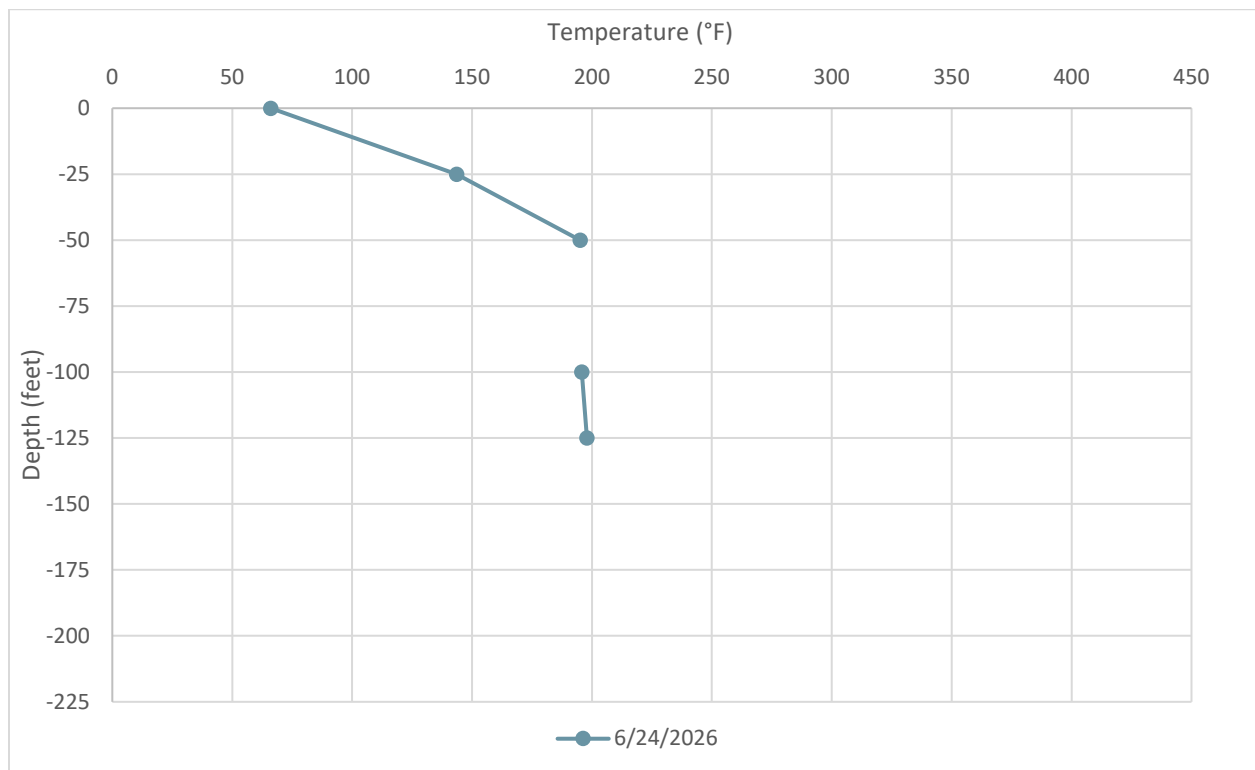


Figure B - 13 Average Temperatures Recorded by TP-8 on June 3, 2026

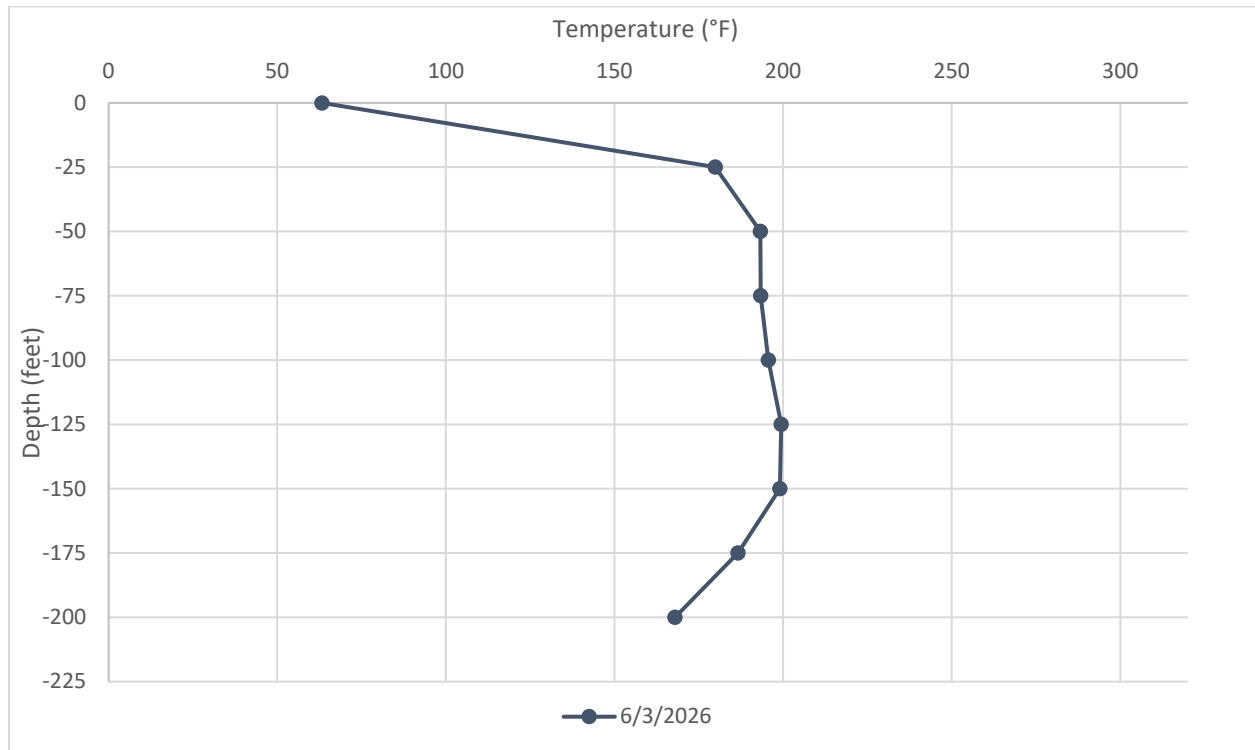


Figure B - 14 Average Temperatures Recorded by TP-8 on June 10, 2026

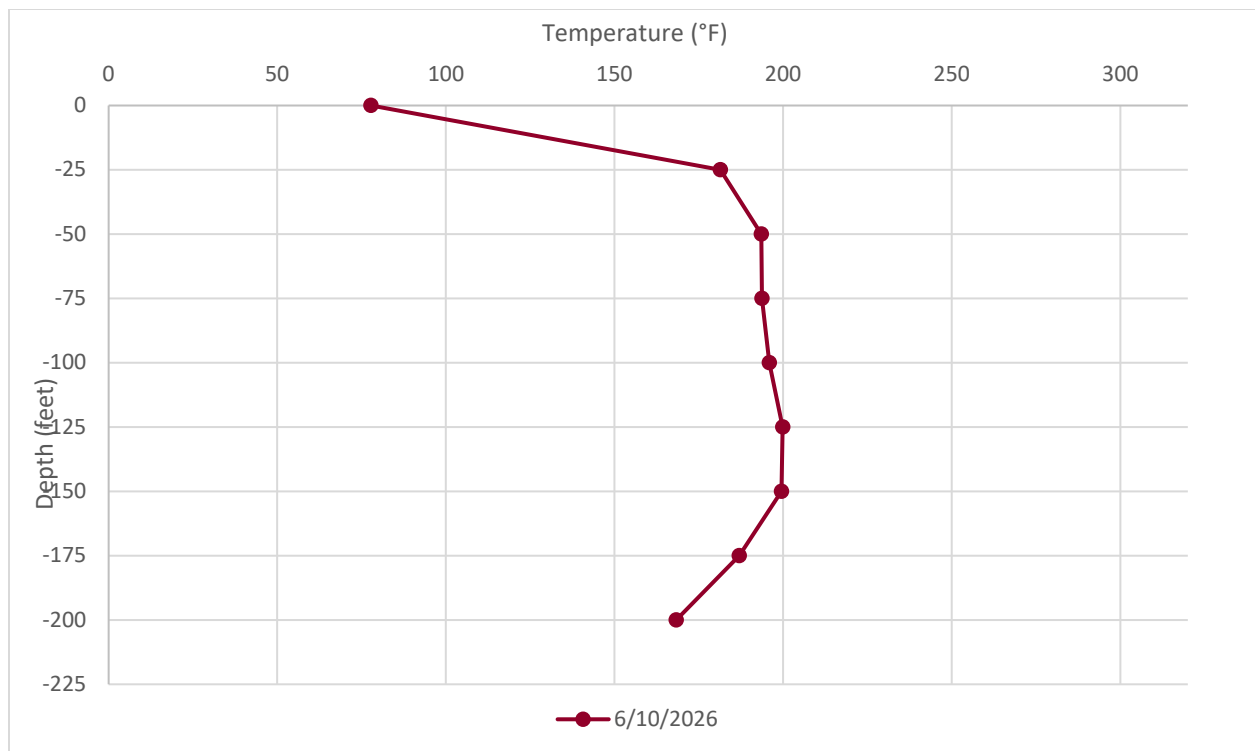


Figure B - 15 Average Temperatures Recorded by TP-8 on June 17, 2026

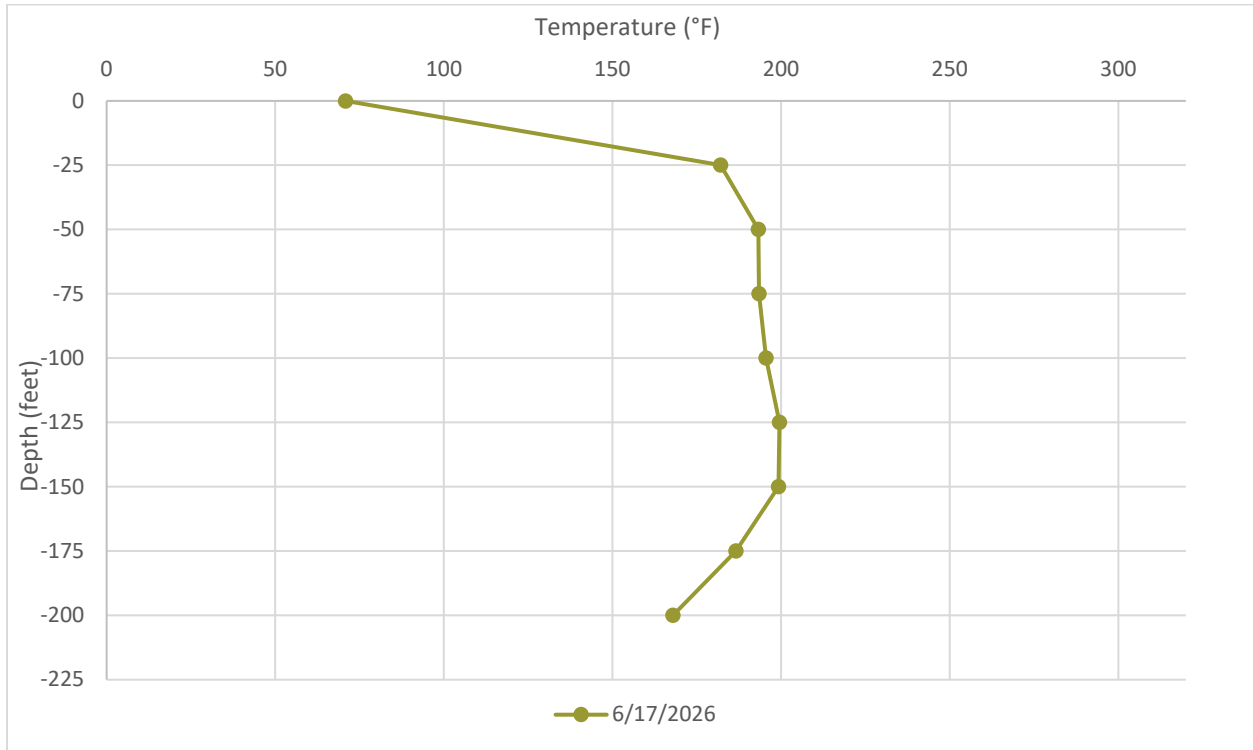


Figure B - 16 Average Temperatures Recorded by TP-8 on June 24, 2026

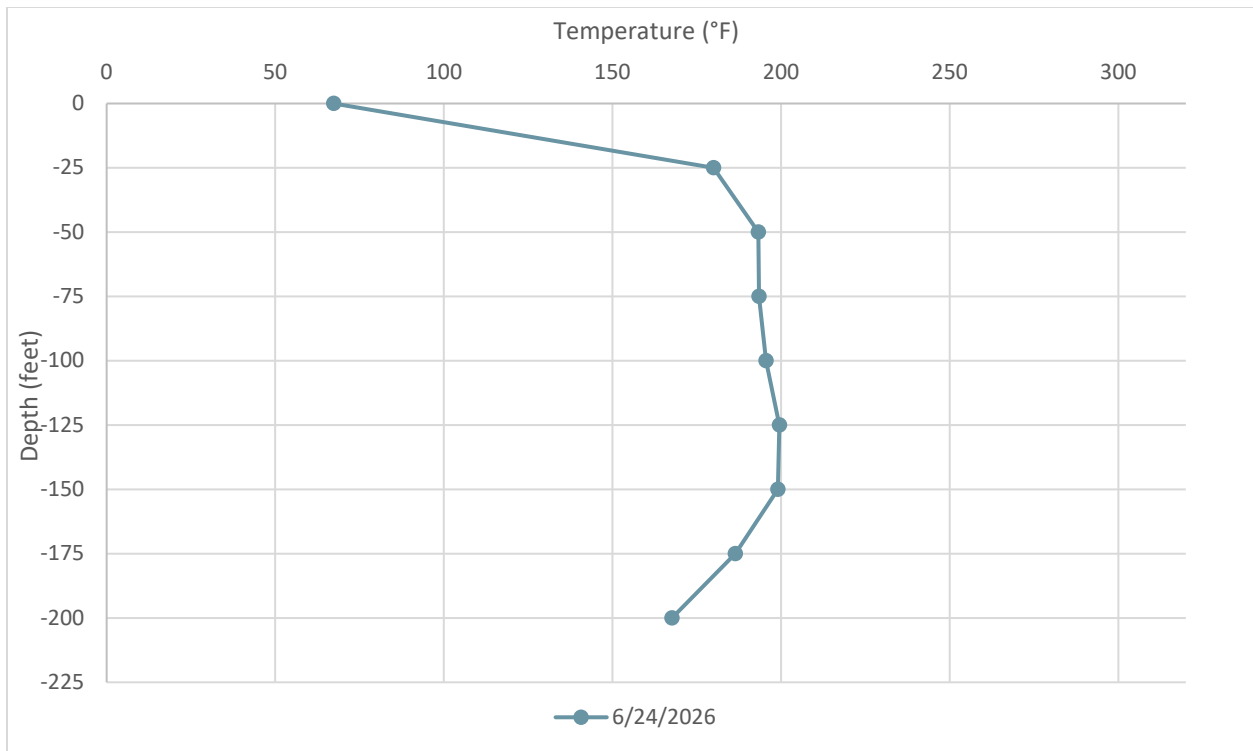


Figure B - 17 Average Temperatures Recorded by TP-9 on June 3, 2026

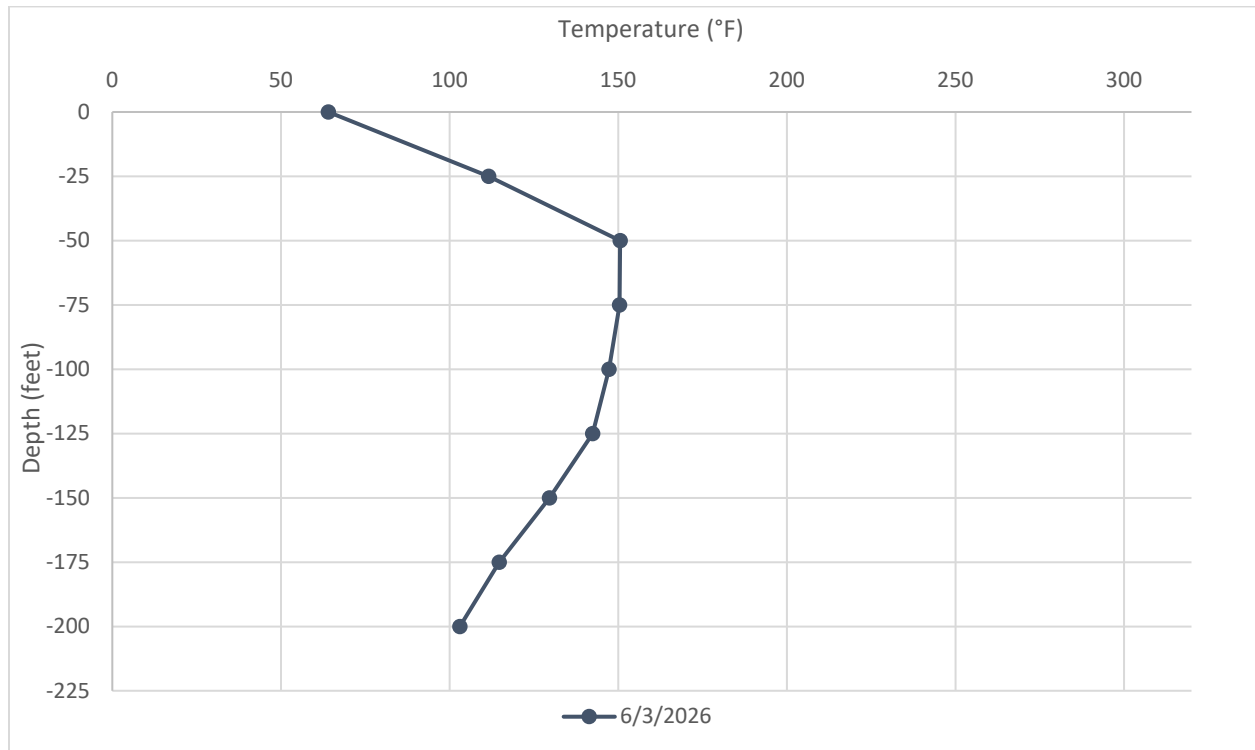


Figure B - 18 Average Temperatures Recorded by TP-9 on June 10, 2026

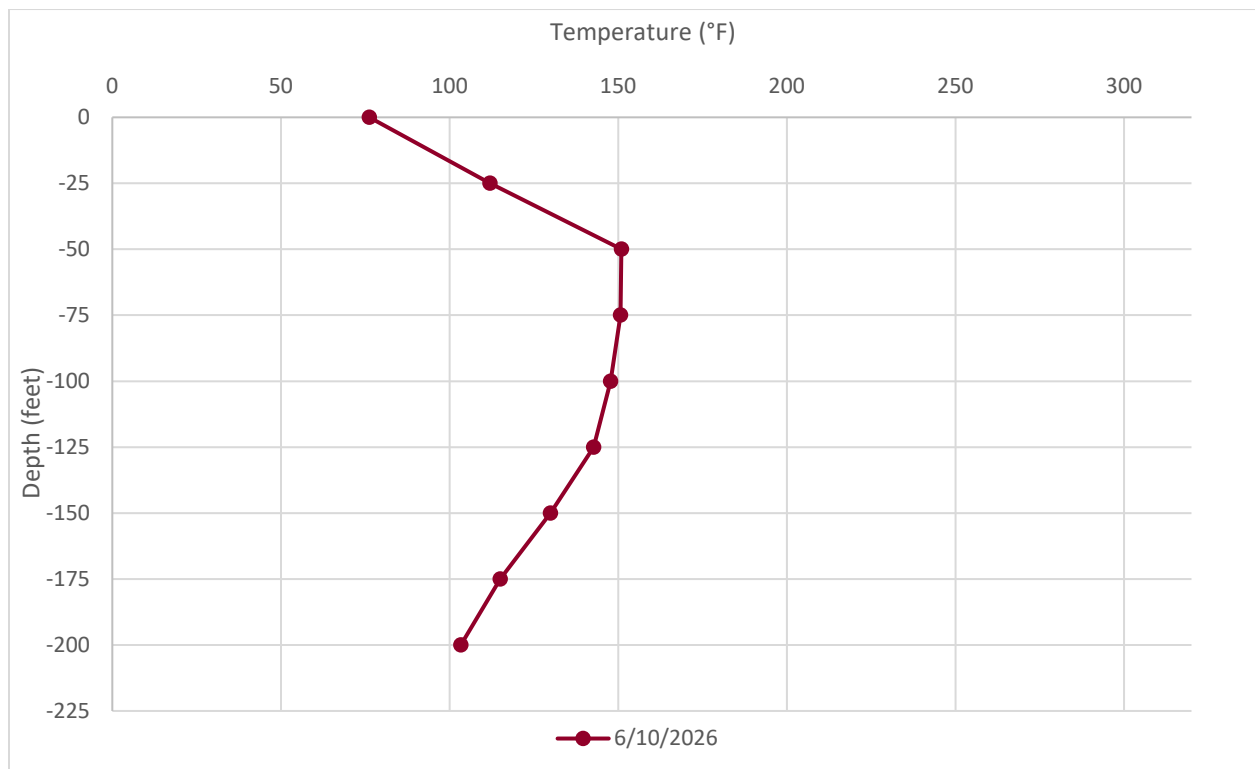


Figure B - 19 Average Temperatures Recorded by TP-9 on June 17, 2026

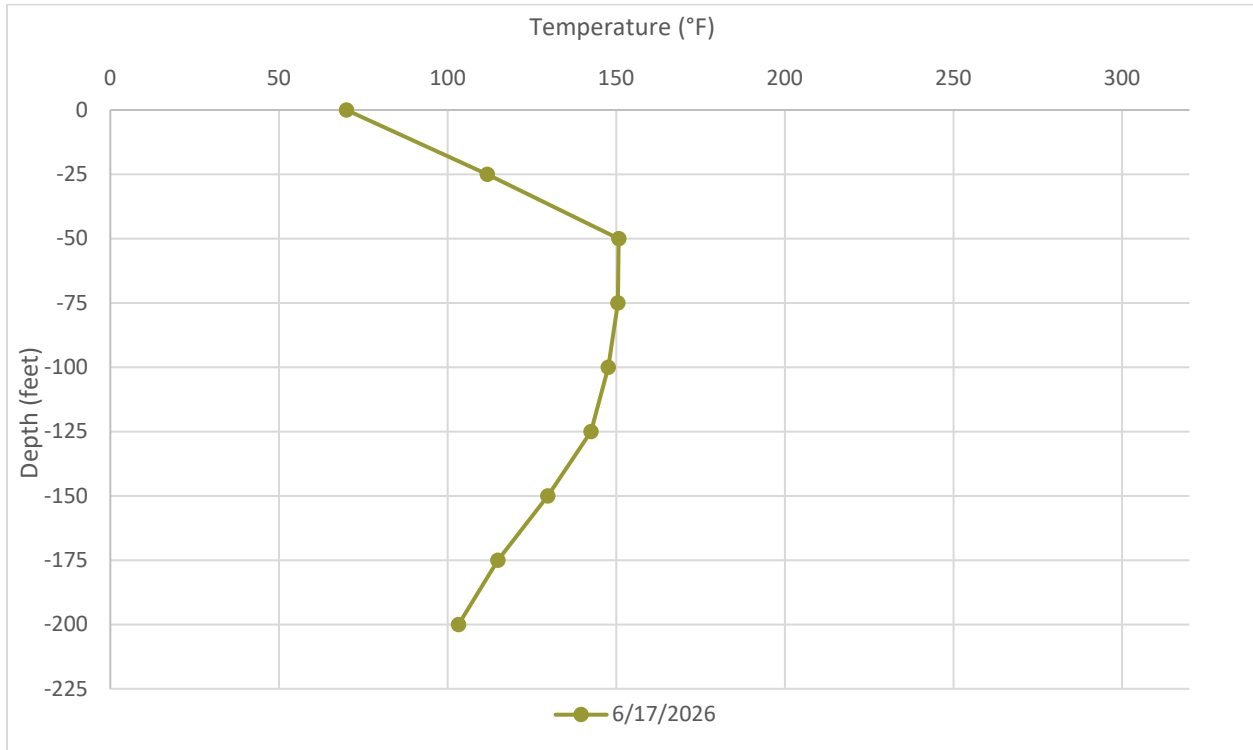
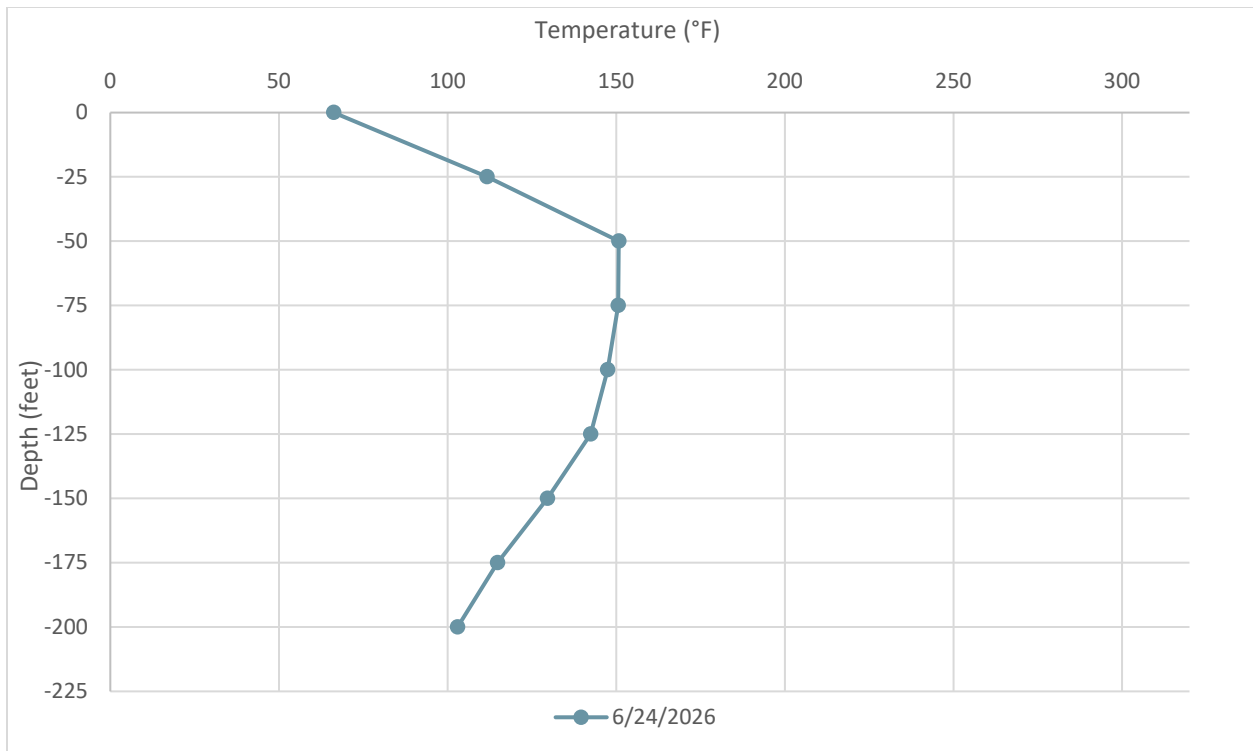


Figure B - 20 Average Temperatures Recorded by TP-9 on June 24, 2026





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 | July 7, 2026

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)
Jun 1	119.9	118.1	121.5
Jun 2	118.2	115.8	120.9
Jun 3	119.0	116.2	121.6
Jun 4	120.1	117.5	122.5
Jun 5	120.6	118.4	123.0
Jun 6	120.7	118.4	122.5
Jun 7	120.8	119.3	122.9
Jun 8	122.0	119.2	125.1
Jun 9	123.5	122.3	124.5
Jun 10	124.1	123.0	126.2
Jun 11	124.6	123.4	126.1
Jun 12	124.6	123.5	126.5
Jun 13	124.8	123.4	126.4
Jun 14	124.8	122.5	126.6
Jun 15	124.4	123.0	125.9
Jun 16	124.9	124.0	126.5
Jun 17	125.3	123.8	127.0
Jun 18	125.0	122.2	125.7
Jun 19	125.2	123.9	126.2
Jun 20	125.6	124.1	127.4
Jun 21	126.2	124.8	127.5
Jun 22	125.9	124.6	127.6
Jun 23	120.0	78.3	126.2
Jun 24	125.9	124.2	127.7
Jun 25	126.3	109.8	128.2
Jun 26	118.2	77.6	128.9
Jun 27	102.5	69.6	128.8
Jun 28	126.6	125.4	128.0
Jun 29	127.3	126.4	128.4
Summary	122.7	102.5	127.3

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 33B

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jun 1	76.8	64.5	92.9
Jun 2	68.4	56.9	85.5
Jun 3	71.0	50.8	90.9
Jun 4	75.9	53.2	99.8
Jun 5	77.0	56.4	97.8
Jun 6	77.8	59.7	98.5
Jun 7	79.3	61.9	98.9
Jun 8	80.8	63.2	103.2
Jun 9	76.8	70.0	93.5
Jun 10	81.5	69.8	101.4
Jun 11	84.5	69.3	104.4
Jun 12	83.7	69.4	103.2
Jun 13	83.9	67.5	102.8
Jun 14	77.6	66.2	99.5
Jun 15	73.6	58.2	90.9
Jun 16	71.8	58.5	90.2
Jun 17	77.1	57.3	97.7
Jun 18	75.7	68.5	86.8
Jun 19	76.8	66.0	89.7
Jun 20	77.2	57.7	97.4
Jun 21	80.7	60.6	101.2
Jun 22	76.5	66.9	94.8
Jun 23	72.2	63.0	84.3
Jun 24	72.8	54.3	91.6
Jun 25	78.5	58.8	99.2
Jun 26	81.2	63.4	102.0
Jun 27	76.4	68.1	90.9
Jun 28	76.1	68.5	93.5
Jun 29	81.9	67.9	99.9
Summary	77.4	68.4	84.5

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 36A

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jun 1	76.0	65.1	91.2
Jun 2	69.7	59.2	88.9
Jun 3	71.9	54.0	93.8
Jun 4	76.5	56.0	101.0
Jun 5	76.8	58.8	94.6
Jun 6	77.3	61.4	97.1
Jun 7	78.5	63.5	98.8
Jun 8	80.0	65.0	102.1
Jun 9	77.0	71.0	88.0
Jun 10	81.2	71.0	101.3
Jun 11	83.4	70.6	103.0
Jun 12	82.5	70.8	99.4
Jun 13	84.0	69.2	105.1
Jun 14	76.9	68.3	91.7
Jun 15	73.6	61.2	88.5
Jun 16	72.4	61.5	86.0
Jun 17	75.6	59.8	96.4
Jun 18	76.6	70.6	85.9
Jun 19	76.9	69.6	89.4
Jun 20	78.1	64.1	97.5
Jun 21	81.7	65.8	99.9
Jun 22	78.1	70.9	91.6
Jun 23	74.9	67.0	85.3
Jun 24	75.9	61.5	91.5
Jun 25	80.5	66.1	99.1
Jun 26	81.8	69.2	101.3
Jun 27	77.4	71.5	88.1
Jun 28	77.7	71.7	91.0
Jun 29	83.8	72.2	102.4
Summary	77.8	69.7	84.0

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 38

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jun 1	96.9	92.6	101.5
Jun 2	93.5	89.7	97.9
Jun 3	94.6	88.9	100.4
Jun 4	96.1	90.6	102.4
Jun 5	96.9	91.1	102.0
Jun 6	96.7	91.7	102.0
Jun 7	97.8	93.1	102.5
Jun 8	99.6	94.8	105.3
Jun 9	99.3	96.1	102.0
Jun 10	100.8	97.8	105.7
Jun 11	102.4	98.7	106.4
Jun 12	102.6	99.5	106.5
Jun 13	102.7	99.2	107.1
Jun 14	101.1	97.3	105.3
Jun 15	100.0	96.6	103.8
Jun 16	100.6	98.3	103.8
Jun 17	101.3	96.6	106.4
Jun 18	101.4	96.4	104.0
Jun 19	101.3	97.6	104.8
Jun 20	101.7	97.5	105.9
Jun 21	103.2	98.7	107.6
Jun 22	103.0	101.0	106.3
Jun 23	97.8	86.2	103.0
Jun 24	101.8	96.3	106.5
Jun 25	104.3	92.2	108.4
Jun 26	102.4	87.1	109.0
Jun 27	96.6	84.0	108.2
Jun 28	104.4	102.1	107.1
Jun 29	107.2	103.5	110.6
Summary	100.3	93.5	107.2

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 42

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jun 1	126.8	125.6	128.8
Jun 2	126.4	125.0	128.2
Jun 3	126.8	124.6	129.2
Jun 4	127.4	125.4	129.9
Jun 5	127.8	125.7	129.9
Jun 6	128.0	126.5	129.9
Jun 7	128.5	127.1	130.6
Jun 8	128.9	127.3	131.4
Jun 9	128.8	128.2	130.0
Jun 10	129.3	128.1	131.4
Jun 11	129.8	128.7	131.5
Jun 12	130.1	128.9	131.5
Jun 13	130.5	128.7	132.2
Jun 14	129.7	126.7	131.8
Jun 15	129.4	128.1	130.9
Jun 16	129.9	128.8	131.1
Jun 17	130.4	128.7	132.3
Jun 18	130.3	128.1	131.5
Jun 19	130.6	129.0	132.2
Jun 20	131.1	129.4	133.2
Jun 21	131.5	130.0	133.2
Jun 22	131.2	129.2	132.8
Jun 23	124.0	97.1	130.9
Jun 24	127.7	118.9	131.7
Jun 25	130.0	106.0	132.8
Jun 26	125.8	99.0	133.0
Jun 27	114.0	96.4	131.2
Jun 28	130.4	128.7	132.1
Jun 29	132.0	130.4	133.6
Summary	128.5	114.0	132.0

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 47

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jun 1	74.7	64.4	92.7
Jun 2	66.8	55.1	89.9
Jun 3	67.7	49.0	91.6
Jun 4	71.8	50.7	96.7
Jun 5	73.5	53.8	95.9
Jun 6	74.3	57.5	95.3
Jun 7	76.3	59.1	97.7
Jun 8	79.0	61.6	106.2
Jun 9	75.9	68.6	89.4
Jun 10	79.4	68.9	100.1
Jun 11	81.5	67.6	103.2
Jun 12	81.2	67.4	101.1
Jun 13	80.5	65.1	102.7
Jun 14	75.6	64.7	94.5
Jun 15	71.0	56.4	87.6
Jun 16	69.3	56.4	89.1
Jun 17	73.6	55.2	95.9
Jun 18	74.3	68.4	82.4
Jun 19	74.0	61.3	87.9
Jun 20	73.1	56.0	96.7
Jun 21	76.8	58.4	99.6
Jun 22	75.3	65.0	94.5
Jun 23	71.7	59.6	81.7
Jun 24	69.5	53.5	89.8
Jun 25	74.8	57.1	96.1
Jun 26	78.7	63.1	98.1
Jun 27	75.6	69.3	89.0
Jun 28	77.1	69.9	90.6
Jun 29	80.3	67.2	101.1
Summary	74.9	66.8	81.5

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 48

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jun 1	74.6	62.5	92.2
Jun 2	67.1	54.2	86.1
Jun 3	68.6	48.9	89.3
Jun 4	72.0	50.7	96.8
Jun 5	73.7	53.7	95.6
Jun 6	74.7	57.2	95.7
Jun 7	76.1	59.1	95.4
Jun 8	79.0	61.5	103.3
Jun 9	75.9	68.5	90.0
Jun 10	79.0	68.8	96.5
Jun 11	81.5	67.7	100.2
Jun 12	81.0	67.1	99.8
Jun 13	81.8	65.3	99.7
Jun 14	75.5	64.8	94.0
Jun 15	71.6	56.2	87.8
Jun 16	69.6	56.1	87.8
Jun 17	74.0	54.8	94.7
Jun 18	74.1	68.3	84.4
Jun 19	74.4	61.7	87.4
Jun 20	74.0	56.2	95.1
Jun 21	77.2	58.5	99.4
Jun 22	75.7	64.9	92.0
Jun 23	71.8	59.6	83.8
Jun 24	70.1	53.2	89.0
Jun 25	75.2	57.1	94.1
Jun 26	78.3	62.0	96.4
Jun 27	74.7	67.8	90.2
Jun 28	74.7	68.2	89.3
Jun 29	80.7	66.6	102.6
Summary	75.1	67.1	81.8

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 49

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jun 1	156.5	154.6	157.9
Jun 2	155.1	153.2	156.9
Jun 3	155.6	154.6	157.2
Jun 4	156.2	154.8	158.1
Jun 5	156.3	154.4	157.6
Jun 6	156.6	154.8	158.1
Jun 7	156.9	155.5	158.5
Jun 8	156.8	155.6	158.7
Jun 9	157.0	154.9	157.9
Jun 10	157.3	155.8	158.9
Jun 11	155.3	104.4	159.6
Jun 12	157.3	156.4	158.9
Jun 13	157.6	156.5	159.0
Jun 14	157.2	154.4	158.7
Jun 15	157.6	155.6	160.3
Jun 16	159.4	156.4	162.1
Jun 17	161.4	159.9	163.0
Jun 18	160.4	154.6	162.0
Jun 19	158.7	156.4	160.5
Jun 20	158.2	157.2	159.5
Jun 21	158.1	156.9	159.5
Jun 22	159.4	157.1	161.6
Jun 23	153.7	105.9	166.9
Jun 24	162.6	160.0	165.5
Jun 25	161.4	160.1	163.2
Jun 26	153.4	118.2	162.9
Jun 27	139.9	26.5	175.1
Jun 28	160.9	159.4	163.5
Jun 29	156.7	154.8	158.9
Summary	157.0	139.9	162.6

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 50

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jun 1	96.7	92.7	101.2
Jun 2	93.8	90.3	99.6
Jun 3	94.6	88.7	100.9
Jun 4	96.0	89.3	102.8
Jun 5	97.1	90.8	103.0
Jun 6	97.1	92.0	102.8
Jun 7	97.8	93.2	103.7
Jun 8	98.4	93.3	106.6
Jun 9	97.4	95.6	101.7
Jun 10	98.3	94.7	103.6
Jun 11	99.3	94.9	104.3
Jun 12	99.0	95.7	103.2
Jun 13	98.8	94.6	104.2
Jun 14	97.0	93.1	101.4
Jun 15	95.1	91.4	100.7
Jun 16	95.6	92.6	100.3
Jun 17	96.6	90.9	103.0
Jun 18	96.4	92.1	100.5
Jun 19	96.7	92.9	100.7
Jun 20	96.8	91.3	103.2
Jun 21	97.8	91.7	103.5
Jun 22	97.3	94.3	100.6
Jun 23	88.1	72.1	96.1
Jun 24	91.3	79.1	102.0
Jun 25	97.3	79.8	103.1
Jun 26	94.2	75.5	103.6
Jun 27	86.9	70.2	104.7
Jun 28	98.4	95.5	103.5
Jun 29	100.8	96.5	105.0
Summary	96.2	86.9	100.8

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 51

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jun 1	72.9	64.2	86.0
Jun 2	66.3	55.8	81.7
Jun 3	66.6	49.1	84.8
Jun 4	70.0	51.1	91.9
Jun 5	72.4	54.0	91.0
Jun 6	72.9	57.2	90.1
Jun 7	74.8	59.3	94.4
Jun 8	77.9	61.1	101.4
Jun 9	74.3	68.8	88.4
Jun 10	77.5	68.6	95.1
Jun 11	80.2	67.4	96.4
Jun 12	80.0	67.6	98.7
Jun 13	78.8	65.6	96.1
Jun 14	74.7	64.7	91.0
Jun 15	68.7	56.1	81.5
Jun 16	68.2	56.2	83.8
Jun 17	72.6	54.7	92.4
Jun 18	73.3	67.7	80.6
Jun 19	71.9	60.9	84.0
Jun 20	71.3	56.0	87.0
Jun 21	75.6	58.1	97.2
Jun 22	74.5	64.4	93.0
Jun 23	69.7	59.0	79.4
Jun 24	69.1	53.0	89.3
Jun 25	73.3	57.0	92.4
Jun 26	77.3	61.5	93.5
Jun 27	74.4	67.0	89.3
Jun 28	72.9	67.5	86.7
Jun 29	78.6	66.2	98.5
Summary	73.5	66.3	80.2

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 52

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jun 1	171.2	162.3	181.1
Jun 2	170.5	165.6	179.5
Jun 3	171.6	164.4	178.8
Jun 4	171.1	164.8	178.1
Jun 5	167.2	164.7	171.8
Jun 6	165.8	163.6	169.9
Jun 7	166.2	164.0	170.1
Jun 8	168.3	163.8	179.9
Jun 9	165.7	164.4	167.4
Jun 10	167.7	164.5	174.1
Jun 11	173.7	80.4	189.6
Jun 12	179.9	171.5	188.9
Jun 13	174.6	170.7	180.9
Jun 14	169.0	165.2	171.6
Jun 15	173.2	163.7	185.0
Jun 16	142.8	57.2	186.3
Jun 17	179.1	169.0	188.3
Jun 18	179.6	173.3	184.9
Jun 19	177.3	169.8	184.5
Jun 20	162.9	74.0	181.9
Jun 21	160.2	76.3	182.5
Jun 22	178.7	174.0	184.5
Jun 23	134.5	65.0	179.4
Jun 24	169.3	62.9	187.3
Jun 25	178.7	162.9	185.0
Jun 26	158.6	75.5	184.2
Jun 27	135.4	77.9	184.0
Jun 28	172.8	170.8	175.5
Jun 29	150.3	76.0	184.4
Summary	166.7	134.5	179.9

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 53

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jun 1	155.0	149.4	161.8
Jun 2	151.0	142.3	157.3
Jun 3	152.0	144.6	159.5
Jun 4	156.6	150.4	165.8
Jun 5	158.5	151.5	163.7
Jun 6	159.4	155.7	165.5
Jun 7	160.4	152.9	167.4
Jun 8	160.5	154.4	168.7
Jun 9	160.9	156.9	164.6
Jun 10	163.5	158.7	169.6
Jun 11	165.4	160.3	170.6
Jun 12	165.4	160.0	171.6
Jun 13	165.5	159.3	171.0
Jun 14	164.9	151.2	171.2
Jun 15	163.1	158.7	167.2
Jun 16	164.9	159.8	171.5
Jun 17	166.2	160.9	172.0
Jun 18	164.2	152.2	168.8
Jun 19	163.4	159.1	166.6
Jun 20	164.6	157.0	171.4
Jun 21	167.6	160.7	172.6
Jun 22	167.6	161.8	171.6
Jun 23	165.0	160.3	168.4
Jun 24	166.6	162.2	171.3
Jun 25	168.9	164.3	173.2
Jun 26	166.0	82.2	173.8
Jun 27	170.5	162.8	175.7
Jun 28	168.5	161.1	171.7
Jun 29	168.3	166.0	172.7
Summary	163.3	151.0	170.5

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 54

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jun 1	190.4	188.7	191.6
Jun 2	190.0	188.1	191.0
Jun 3	190.1	187.5	191.9
Jun 4	191.1	188.8	192.8
Jun 5	190.6	178.3	192.9
Jun 6	192.1	191.4	192.9
Jun 7	192.2	191.4	193.2
Jun 8	192.0	189.7	193.6
Jun 9	192.4	190.0	193.1
Jun 10	192.1	190.2	193.4
Jun 11	183.7	167.7	192.8
Jun 12	175.9	161.7	192.6
Jun 13	160.8	149.5	166.7
Jun 14	145.2	129.4	153.6
Jun 15	170.5	130.8	191.6
Jun 16	191.8	188.4	193.3
Jun 17	189.6	187.4	191.8
Jun 18	191.0	181.9	193.6
Jun 19	192.5	191.3	193.6
Jun 20	193.1	191.8	194.4
Jun 21	193.7	192.5	195.3
Jun 22	194.0	193.3	194.7
Jun 23	193.9	193.1	194.7
Jun 24	180.9	166.2	194.5
Jun 25	167.9	157.2	191.6
Jun 26	159.0	142.9	192.2
Jun 27	138.6	123.4	151.8
Jun 28	127.3	115.7	138.1
Jun 29	166.7	121.1	193.3
Summary	180.3	127.3	194.0

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 55

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jun 1	175.9	168.3	183.7
Jun 2	164.6	158.7	168.6
Jun 3	161.5	157.6	166.8
Jun 4	162.4	158.5	171.5
Jun 5	163.9	157.0	176.1
Jun 6	161.2	157.5	165.1
Jun 7	160.7	156.5	165.9
Jun 8	159.9	156.0	167.0
Jun 9	162.6	143.8	183.1
Jun 10	163.6	156.1	174.4
Jun 11	172.1	163.6	190.7
Jun 12	184.1	167.0	195.3
Jun 13	194.8	193.6	195.6
Jun 14	194.9	191.2	195.7
Jun 15	183.6	180.0	194.6
Jun 16	166.2	125.4	186.5
Jun 17	183.6	130.9	194.7
Jun 18	193.4	186.8	194.9
Jun 19	192.3	190.4	194.0
Jun 20	192.4	190.8	194.2
Jun 21	193.1	191.6	194.4
Jun 22	192.7	188.0	194.5
Jun 23	191.3	186.9	194.3
Jun 24	192.8	191.3	194.8
Jun 25	190.3	187.1	194.0
Jun 26	189.0	186.5	193.2
Jun 27	183.2	177.6	189.6
Jun 28	174.1	164.4	178.1
Jun 29	184.1	173.6	193.0
Summary	178.8	159.9	194.9

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 56

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jun 1	185.2	184.7	185.6
Jun 2	184.9	183.5	185.6
Jun 3	184.9	184.5	185.5
Jun 4	185.2	184.7	185.8
Jun 5	185.4	185.0	185.9
Jun 6	185.5	185.2	185.9
Jun 7	185.7	185.4	186.1
Jun 8	185.7	185.2	186.2
Jun 9	185.7	185.2	186.1
Jun 10	185.9	185.6	186.6
Jun 11	186.1	185.8	186.5
Jun 12	186.1	185.8	186.6
Jun 13	186.2	185.9	186.7
Jun 14	186.2	185.4	186.5
Jun 15	186.0	185.8	186.4
Jun 16	186.1	185.8	186.6
Jun 17	186.4	186.1	187.1
Jun 18	186.1	184.4	186.6
Jun 19	185.9	185.2	186.4
Jun 20	186.1	185.6	186.5
Jun 21	183.2	113.3	186.7
Jun 22	186.2	185.9	186.7
Jun 23	186.2	183.1	187.2
Jun 24	186.6	185.3	187.2
Jun 25	186.5	186.0	187.0
Jun 26	186.8	186.2	187.9
Jun 27	187.6	186.3	188.5
Jun 28	186.5	185.2	187.0
Jun 29	186.3	185.5	186.5
Summary	185.9	183.2	187.6

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 57

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jun 1	84.4	71.4	99.7
Jun 2	74.6	63.4	94.9
Jun 3	76.1	58.7	96.1
Jun 4	80.1	60.9	101.9
Jun 5	82.1	63.3	101.9
Jun 6	83.0	67.3	101.3
Jun 7	84.9	68.6	103.4
Jun 8	88.1	71.8	110.9
Jun 9	85.1	79.1	97.3
Jun 10	88.7	79.2	108.7
Jun 11	90.5	77.5	107.2
Jun 12	90.4	78.6	107.1
Jun 13	89.8	76.5	107.9
Jun 14	85.4	74.6	102.0
Jun 15	81.4	69.1	96.7
Jun 16	80.8	67.5	97.7
Jun 17	84.6	67.0	104.3
Jun 18	84.0	74.6	93.9
Jun 19	83.4	71.5	97.6
Jun 20	83.8	67.1	103.3
Jun 21	88.1	68.8	107.2
Jun 22	85.8	76.7	101.6
Jun 23	80.2	69.4	91.1
Jun 24	79.2	62.6	99.4
Jun 25	84.6	69.5	105.2
Jun 26	88.2	73.4	108.7
Jun 27	84.0	74.7	99.9
Jun 28	84.1	75.4	101.2
Jun 29	91.7	78.6	112.5
Summary	84.4	74.6	91.7

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 58

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jun 1	108.0	107.5	108.8
Jun 2	107.6	106.9	108.5
Jun 3	107.6	106.3	108.9
Jun 4	107.9	106.8	109.1
Jun 5	108.2	107.0	109.3
Jun 6	108.5	107.2	109.7
Jun 7	108.8	107.4	110.1
Jun 8	109.1	107.9	110.7
Jun 9	109.0	108.1	109.6
Jun 10	109.2	108.4	110.4
Jun 11	109.9	108.9	111.2
Jun 12	110.2	109.0	111.6
Jun 13	110.5	109.1	111.6
Jun 14	110.1	108.7	111.2
Jun 15	109.6	108.8	110.2
Jun 16	120.8	67.3	167.0
Jun 17	111.8	110.5	112.8
Jun 18	111.4	110.3	112.3
Jun 19	110.5	109.4	111.4
Jun 20	110.2	106.4	111.8
Jun 21	111.3	110.0	112.6
Jun 22	110.8	107.4	112.6
Jun 23	105.8	92.2	112.0
Jun 24	111.4	105.9	113.9
Jun 25	112.3	111.1	114.6
Jun 26	106.9	84.6	112.6
Jun 27	100.2	83.1	119.4
Jun 28	110.9	108.9	113.0
Jun 29	106.0	98.2	109.4
Summary	109.5	100.2	120.8

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 59

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jun 1	130.0	119.3	135.8
Jun 2	135.4	133.6	137.5
Jun 3	126.8	118.0	134.0
Jun 4	127.4	116.5	135.8
Jun 5	135.2	126.2	138.1
Jun 6	120.4	117.6	124.2
Jun 7	118.1	116.2	119.9
Jun 8	126.7	115.6	134.8
Jun 9	134.3	128.5	136.5
Jun 10	121.7	118.5	126.0
Jun 11	118.9	117.4	121.5
Jun 12	117.9	116.5	119.6
Jun 13	117.2	115.5	119.1
Jun 14	116.1	114.0	118.2
Jun 15	123.8	113.7	131.9
Jun 16	114.2	34.5	119.9
Jun 17	124.9	114.0	133.5
Jun 18	134.0	131.7	135.5
Jun 19	134.6	133.2	135.9
Jun 20	135.3	133.0	137.2
Jun 21	136.5	134.5	139.0
Jun 22	137.1	135.9	138.5
Jun 23	133.4	100.1	145.4
Jun 24	137.7	135.8	139.8
Jun 25	136.7	124.1	140.8
Jun 26	121.8	73.6	137.3
Jun 27	99.9	68.5	132.7
Jun 28	120.3	119.1	122.0
Jun 29	118.7	116.4	120.3
Summary	126.0	99.9	137.7

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 60

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jun 1	89.3	76.3	103.3
Jun 2	87.1	77.2	98.4
Jun 3	83.7	71.8	99.1
Jun 4	84.7	65.9	102.5
Jun 5	85.9	72.6	99.5
Jun 6	85.1	74.1	97.1
Jun 7	85.9	76.5	96.7
Jun 8	97.6	76.4	118.8
Jun 9	103.6	94.1	112.4
Jun 10	103.6	91.9	115.7
Jun 11	110.9	107.1	115.4
Jun 12	111.1	106.0	113.9
Jun 13	108.9	105.7	115.3
Jun 14	94.1	84.4	104.0
Jun 15	98.5	85.7	108.4
Jun 16	88.6	57.2	114.1
Jun 17	95.5	87.4	107.9
Jun 18	96.1	82.7	103.5
Jun 19	92.0	79.5	100.5
Jun 20	82.6	71.5	88.0
Jun 21	79.9	68.8	94.9
Jun 22	78.2	71.4	90.7
Jun 23	71.4	59.8	79.4
Jun 24	70.9	56.3	89.4
Jun 25	79.3	62.8	97.4
Jun 26	85.3	73.7	99.1
Jun 27	81.2	73.7	94.3
Jun 28	79.8	73.6	91.7
Jun 29	83.8	73.4	99.5
Summary	89.5	70.9	111.1

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 61

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jun 1	156.1	154.9	156.9
Jun 2	155.3	153.7	156.8
Jun 3	154.5	153.3	156.0
Jun 4	155.1	153.9	156.5
Jun 5	155.7	154.3	156.8
Jun 6	155.9	154.8	157.1
Jun 7	154.4	153.2	155.2
Jun 8	155.8	154.7	157.3
Jun 9	156.0	155.2	157.0
Jun 10	156.7	155.5	158.0
Jun 11	156.9	156.2	157.8
Jun 12	156.9	155.9	157.8
Jun 13	156.7	155.8	157.4
Jun 14	156.8	155.3	158.1
Jun 15	156.1	155.2	156.9
Jun 16	156.4	155.5	157.6
Jun 17	156.8	155.4	158.4
Jun 18	155.8	152.2	157.2
Jun 19	153.9	152.7	155.2
Jun 20	153.2	152.3	154.4
Jun 21	153.6	152.1	154.7
Jun 22	153.3	152.3	154.0
Jun 23	153.2	141.8	160.9
Jun 24	152.3	149.7	154.0
Jun 25	151.4	140.5	154.5
Jun 26	152.6	140.0	160.1
Jun 27	159.1	152.7	164.3
Jun 28	152.5	151.4	154.3
Jun 29	150.1	144.2	151.4
Summary	154.9	150.1	159.1

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 62

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jun 1	105.6	100.4	111.7
Jun 2	102.1	95.7	110.5
Jun 3	103.1	93.2	113.1
Jun 4	106.4	97.0	115.2
Jun 5	106.8	99.2	115.1
Jun 6	107.1	100.4	115.3
Jun 7	107.9	102.0	116.2
Jun 8	112.0	101.9	123.1
Jun 9	111.9	109.2	113.7
Jun 10	111.1	109.1	114.2
Jun 11	110.4	108.2	113.1
Jun 12	109.8	107.6	113.0
Jun 13	109.4	106.9	112.4
Jun 14	108.0	104.9	111.2
Jun 15	107.0	104.5	110.1
Jun 16	107.2	104.9	111.5
Jun 17	107.9	104.5	111.2
Jun 18	106.9	103.6	108.7
Jun 19	106.8	104.8	109.1
Jun 20	106.9	104.0	110.4
Jun 21	107.6	104.8	110.7
Jun 22	107.1	105.5	109.9
Jun 23	103.9	84.8	110.7
Jun 24	106.8	103.3	110.1
Jun 25	106.7	92.2	110.1
Jun 26	103.1	80.2	111.6
Jun 27	94.4	75.5	114.7
Jun 28	107.8	105.2	110.9
Jun 29	108.2	106.0	111.2
Summary	106.9	94.4	112.0

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 63

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jun 1	73.2	62.9	86.7
Jun 2	66.2	53.9	86.1
Jun 3	66.4	48.1	85.0
Jun 4	69.7	50.2	89.3
Jun 5	72.1	53.6	92.1
Jun 6	73.1	56.8	91.3
Jun 7	74.6	59.2	95.1
Jun 8	77.4	60.9	100.5
Jun 9	74.7	68.1	87.5
Jun 10	78.4	68.6	95.0
Jun 11	80.5	67.5	98.1
Jun 12	79.8	67.2	97.0
Jun 13	79.9	64.9	96.7
Jun 14	74.1	64.6	90.5
Jun 15	69.9	55.9	82.4
Jun 16	68.4	55.6	87.2
Jun 17	72.4	54.6	92.8
Jun 18	73.8	67.7	82.2
Jun 19	73.4	61.7	86.5
Jun 20	72.7	55.9	90.4
Jun 21	75.5	58.4	95.1
Jun 22	74.0	64.9	91.2
Jun 23	70.4	59.0	79.7
Jun 24	69.0	52.8	87.6
Jun 25	73.6	56.7	91.6
Jun 26	77.1	61.4	94.5
Jun 27	74.2	67.3	88.1
Jun 28	74.1	67.8	87.0
Jun 29	79.2	66.6	94.5
Summary	73.7	66.2	80.5

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 64

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jun 1	73.7	63.3	89.9
Jun 2	67.1	53.2	88.7
Jun 3	67.6	48.1	89.7
Jun 4	71.9	50.5	96.2
Jun 5	73.6	53.6	96.0
Jun 6	73.8	57.0	94.7
Jun 7	75.5	59.2	96.4
Jun 8	78.0	60.9	103.3
Jun 9	75.2	68.1	88.1
Jun 10	79.5	68.7	98.9
Jun 11	80.8	67.2	101.1
Jun 12	80.3	67.3	101.4
Jun 13	80.7	65.3	101.1
Jun 14	74.7	64.0	95.1
Jun 15	70.5	55.9	86.7
Jun 16	69.3	55.6	89.3
Jun 17	73.8	54.4	94.3
Jun 18	74.3	67.6	85.8
Jun 19	73.8	60.5	91.2
Jun 20	73.5	55.9	94.1
Jun 21	76.7	57.8	98.8
Jun 22	74.5	64.5	91.8
Jun 23	70.9	59.2	83.0
Jun 24	69.7	52.4	91.1
Jun 25	74.7	56.6	96.3
Jun 26	77.8	61.2	98.2
Jun 27	74.4	67.0	89.0
Jun 28	74.7	67.8	92.0
Jun 29	80.0	66.2	99.7
Summary	74.5	67.1	80.8

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 65

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jun 1	136.8	135.8	137.6
Jun 2	136.2	135.5	136.9
Jun 3	136.3	134.8	137.5
Jun 4	136.6	135.4	138.0
Jun 5	136.8	135.7	137.7
Jun 6	136.8	135.7	137.8
Jun 7	136.8	136.1	137.7
Jun 8	136.9	136.0	138.1
Jun 9	136.8	135.7	137.3
Jun 10	137.1	136.2	138.3
Jun 11	137.3	136.8	138.2
Jun 12	137.3	136.6	138.1
Jun 13	137.2	136.5	138.3
Jun 14	136.8	135.2	137.9
Jun 15	136.6	135.6	137.5
Jun 16	136.7	136.1	137.7
Jun 17	136.9	135.9	138.1
Jun 18	136.7	134.6	137.8
Jun 19	136.6	135.4	137.4
Jun 20	136.8	136.0	137.9
Jun 21	137.1	136.2	138.2
Jun 22	136.8	135.3	137.6
Jun 23	132.5	103.9	137.5
Jun 24	136.3	135.1	137.7
Jun 25	134.8	111.7	137.8
Jun 26	128.1	89.2	138.4
Jun 27	112.9	83.0	141.0
Jun 28	136.6	134.9	138.7
Jun 29	137.5	136.5	139.3
Summary	135.5	112.9	137.5

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 66

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jun 1	185.0	180.3	195.8
Jun 2	184.3	178.9	196.1
Jun 3	184.0	178.4	195.5
Jun 4	186.9	178.4	197.9
Jun 5	195.6	187.0	198.4
Jun 6	183.0	180.4	186.1
Jun 7	180.2	177.0	182.9
Jun 8	190.2	176.5	198.1
Jun 9	197.5	197.1	197.8
Jun 10	197.9	197.5	198.6
Jun 11	198.3	197.9	198.9
Jun 12	198.3	197.7	198.8
Jun 13	196.3	191.7	198.6
Jun 14	197.9	196.8	198.4
Jun 15	197.8	197.3	198.6
Jun 16	198.3	197.8	199.1
Jun 17	197.8	196.9	198.6
Jun 18	197.7	195.0	198.2
Jun 19	197.6	197.0	198.2
Jun 20	196.6	191.4	198.4
Jun 21	188.4	186.7	191.2
Jun 22	193.0	184.9	197.9
Jun 23	197.9	197.6	198.4
Jun 24	198.3	197.9	198.9
Jun 25	198.4	198.0	198.8
Jun 26	198.5	197.9	199.0
Jun 27	195.7	189.9	198.8
Jun 28	197.4	196.8	198.4
Jun 29	198.5	197.5	199.2
Summary	194.1	180.2	198.5

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 67

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jun 1	195.2	184.2	199.8
Jun 2	194.3	186.4	200.0
Jun 3	192.1	163.4	199.9
Jun 4	194.7	184.1	200.4
Jun 5	193.4	178.1	200.1
Jun 6	188.4	179.3	192.8
Jun 7	148.1	99.1	192.4
Jun 8	146.6	102.7	178.7
Jun 9	176.1	109.8	184.6
Jun 10	191.6	184.4	198.8
Jun 11	194.9	189.8	199.9
Jun 12	196.3	192.9	200.2
Jun 13	197.3	194.6	200.5
Jun 14	196.4	194.1	199.0
Jun 15	195.2	192.1	200.1
Jun 16	200.1	197.1	201.1
Jun 17	199.8	199.0	200.7
Jun 18	199.4	194.7	200.2
Jun 19	191.0	189.1	193.6
Jun 20	189.6	185.9	192.3
Jun 21	188.6	185.0	191.2
Jun 22	188.2	186.1	190.2
Jun 23	188.3	184.0	190.3
Jun 24	186.2	128.1	190.9
Jun 25	180.4	122.5	199.5
Jun 26	199.8	199.2	200.3
Jun 27	200.1	199.9	200.4
Jun 28	200.0	199.6	200.4
Jun 29	200.6	200.3	200.9
Summary	190.1	146.6	200.6

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 68

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jun 1	158.5	144.8	172.0
Jun 2	165.2	155.9	169.7
Jun 3	159.5	155.1	167.6
Jun 4	154.9	149.8	158.6
Jun 5	158.5	148.3	168.8
Jun 6	154.1	151.6	156.8
Jun 7	151.1	146.8	152.9
Jun 8	159.7	146.5	174.1
Jun 9	159.0	153.2	166.6
Jun 10	159.6	153.7	166.8
Jun 11	160.4	154.4	169.5
Jun 12	161.4	153.7	171.8
Jun 13	156.2	152.7	158.6
Jun 14	151.8	142.9	154.0
Jun 15	155.6	148.4	166.1
Jun 16	156.8	97.2	171.5
Jun 17	148.7	89.7	160.5
Jun 18	136.8	131.4	141.5
Jun 19	138.1	130.8	141.1
Jun 20	137.9	116.0	144.3
Jun 21	139.6	114.6	146.6
Jun 22	143.3	137.7	147.2
Jun 23	115.5	68.0	144.6
Jun 24	139.4	65.5	151.2
Jun 25	145.9	85.4	152.2
Jun 26	136.5	81.8	149.2
Jun 27	115.4	72.4	157.6
Jun 28	149.8	147.0	151.9
Jun 29	132.3	80.8	152.6
Summary	148.3	115.4	165.2

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 69

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jun 1	99.9	93.7	108.5
Jun 2	93.6	85.2	107.1
Jun 3	94.9	83.8	107.2
Jun 4	97.7	86.1	109.8
Jun 5	98.5	87.9	109.3
Jun 6	98.2	88.5	109.0
Jun 7	99.0	90.1	109.3
Jun 8	99.8	91.4	111.8
Jun 9	96.9	93.3	105.0
Jun 10	98.4	93.1	109.3
Jun 11	99.7	92.5	109.5
Jun 12	99.4	92.1	108.5
Jun 13	99.2	90.5	109.8
Jun 14	95.9	89.2	106.0
Jun 15	94.4	85.4	105.5
Jun 16	93.8	87.0	104.1
Jun 17	95.7	85.1	107.4
Jun 18	94.1	87.4	99.6
Jun 19	95.4	88.1	106.7
Jun 20	95.9	84.4	108.4
Jun 21	97.3	86.1	109.0
Jun 22	94.9	88.9	104.8
Jun 23	88.2	77.6	96.2
Jun 24	90.8	78.0	103.1
Jun 25	95.0	86.1	106.1
Jun 26	94.0	75.6	107.3
Jun 27	84.4	69.4	101.4
Jun 28	93.1	87.5	104.2
Jun 29	97.9	90.0	107.8
Summary	95.7	84.4	99.9

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 70

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jun 1	77.1	65.9	98.5
Jun 2	71.5	60.3	100.5
Jun 3	73.1	52.5	100.3
Jun 4	76.0	54.1	105.1
Jun 5	76.8	56.8	104.5
Jun 6	78.4	59.4	101.5
Jun 7	78.2	61.4	103.3
Jun 8	79.8	62.7	110.4
Jun 9	76.8	68.7	91.4
Jun 10	81.1	70.0	103.5
Jun 11	83.5	69.2	108.7
Jun 12	82.8	68.4	107.4
Jun 13	84.3	67.1	109.9
Jun 14	77.6	66.6	99.3
Jun 15	75.7	60.5	93.9
Jun 16	73.6	60.4	97.8
Jun 17	77.9	58.5	106.3
Jun 18	75.7	68.8	87.7
Jun 19	77.5	68.1	93.4
Jun 20	78.5	62.9	98.0
Jun 21	81.1	64.5	104.9
Jun 22	78.4	69.0	98.2
Jun 23	75.1	66.1	85.2
Jun 24	75.1	59.6	98.3
Jun 25	79.1	63.1	101.4
Jun 26	81.0	66.8	103.0
Jun 27	76.1	68.8	90.0
Jun 28	76.0	68.5	89.8
Jun 29	82.3	70.1	102.4
Summary	77.9	71.5	84.3

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 71

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jun 1	138.6	137.8	139.6
Jun 2	137.9	136.4	138.9
Jun 3	138.2	136.7	139.8
Jun 4	138.8	137.7	140.3
Jun 5	138.9	137.9	140.2
Jun 6	138.8	138.1	139.7
Jun 7	139.0	137.9	139.7
Jun 8	139.0	138.2	140.1
Jun 9	138.7	137.5	139.3
Jun 10	139.0	138.1	140.2
Jun 11	139.2	138.5	140.3
Jun 12	139.1	138.5	140.0
Jun 13	139.1	138.4	140.3
Jun 14	138.5	136.0	139.8
Jun 15	138.3	137.0	139.3
Jun 16	138.4	137.9	138.9
Jun 17	138.6	137.5	139.7
Jun 18	137.8	132.8	138.9
Jun 19	138.3	136.7	139.3
Jun 20	138.5	137.7	139.9
Jun 21	138.8	137.9	139.9
Jun 22	138.1	135.7	139.0
Jun 23	134.1	110.4	138.4
Jun 24	138.0	137.0	138.9
Jun 25	137.5	126.2	139.3
Jun 26	134.4	117.4	139.7
Jun 27	127.2	115.9	138.6
Jun 28	137.2	133.9	138.7
Jun 29	138.6	137.7	140.0
Summary	137.8	127.2	139.2

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 72

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jun 1	136.8	134.5	138.8
Jun 2	135.1	131.6	139.0
Jun 3	136.0	131.9	139.1
Jun 4	137.5	135.1	140.8
Jun 5	137.6	135.3	140.1
Jun 6	137.4	134.9	140.5
Jun 7	137.9	135.7	140.5
Jun 8	137.7	135.8	141.0
Jun 9	137.3	133.7	139.4
Jun 10	138.2	136.5	140.8
Jun 11	138.3	137.1	140.5
Jun 12	138.0	136.6	140.2
Jun 13	138.3	136.4	141.2
Jun 14	137.4	134.5	139.6
Jun 15	136.4	133.5	139.2
Jun 16	137.0	135.8	138.5
Jun 17	137.5	135.4	140.9
Jun 18	135.3	122.7	138.2
Jun 19	135.6	132.6	138.2
Jun 20	137.0	134.5	140.3
Jun 21	137.6	135.2	140.2
Jun 22	136.5	133.5	138.2
Jun 23	131.1	112.9	137.0
Jun 24	136.6	133.7	140.1
Jun 25	137.7	119.4	140.7
Jun 26	134.4	118.7	140.6
Jun 27	131.2	122.8	140.5
Jun 28	136.0	129.9	138.7
Jun 29	139.1	136.9	141.6
Summary	136.6	131.1	139.1

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 73

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jun 1	112.4	111.5	113.9
Jun 2	111.9	111.0	113.4
Jun 3	112.1	110.7	114.1
Jun 4	112.5	111.1	114.4
Jun 5	112.5	111.3	114.3
Jun 6	112.5	111.5	114.1
Jun 7	112.6	111.6	114.1
Jun 8	112.8	111.6	114.4
Jun 9	112.3	111.5	113.2
Jun 10	112.6	111.8	114.2
Jun 11	112.7	111.9	114.3
Jun 12	112.6	111.7	113.9
Jun 13	112.6	111.6	114.2
Jun 14	111.6	110.6	112.7
Jun 15	111.4	110.4	112.8
Jun 16	111.4	110.7	112.5
Jun 17	111.7	110.4	113.5
Jun 18	111.4	109.9	112.6
Jun 19	111.6	110.6	113.0
Jun 20	111.6	110.3	113.6
Jun 21	111.9	110.6	113.6
Jun 22	111.5	110.6	112.7
Jun 23	107.3	86.5	111.7
Jun 24	110.9	109.4	112.7
Jun 25	110.9	93.9	113.1
Jun 26	106.8	84.5	113.4
Jun 27	97.8	79.9	111.8
Jun 28	111.2	110.3	112.5
Jun 29	112.1	111.1	113.3
Summary	111.1	97.8	112.8

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 74

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jun 1	123.2	118.9	126.0
Jun 2	119.3	112.2	122.5
Jun 3	120.0	113.2	125.7
Jun 4	123.4	119.7	128.4
Jun 5	124.1	119.8	127.7
Jun 6	124.3	120.7	127.7
Jun 7	124.7	122.4	127.9
Jun 8	123.6	121.0	128.0
Jun 9	123.2	120.3	125.8
Jun 10	125.3	121.0	129.3
Jun 11	126.2	123.7	129.2
Jun 12	125.9	124.0	128.7
Jun 13	125.5	122.6	129.1
Jun 14	124.5	116.1	128.8
Jun 15	123.2	119.2	127.4
Jun 16	124.4	122.3	126.5
Jun 17	125.1	121.9	128.6
Jun 18	122.4	111.6	125.9
Jun 19	122.2	117.5	124.7
Jun 20	123.3	119.9	127.5
Jun 21	124.9	121.6	129.0
Jun 22	123.2	119.4	126.1
Jun 23	115.1	80.6	123.7
Jun 24	123.4	119.1	127.0
Jun 25	123.4	105.3	128.2
Jun 26	117.3	80.5	128.2
Jun 27	102.8	73.2	132.2
Jun 28	124.6	118.6	127.9
Jun 29	125.5	124.1	128.2
Summary	122.5	102.8	126.2

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 75

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jun 1	76.4	65.7	92.7
Jun 2	69.1	57.5	91.2
Jun 3	70.1	50.5	90.6
Jun 4	74.7	52.9	96.3
Jun 5	76.7	55.8	98.0
Jun 6	78.1	59.2	98.2
Jun 7	79.0	61.4	99.7
Jun 8	81.1	63.1	106.2
Jun 9	76.5	69.9	92.4
Jun 10	80.6	69.5	99.1
Jun 11	83.5	69.1	103.0
Jun 12	83.7	69.2	102.4
Jun 13	83.2	67.0	103.1
Jun 14	77.8	66.5	96.8
Jun 15	73.0	58.1	88.3
Jun 16	72.0	58.2	92.1
Jun 17	77.1	57.1	99.2
Jun 18	75.2	68.3	84.0
Jun 19	76.4	66.4	89.9
Jun 20	76.0	57.9	96.5
Jun 21	79.5	60.5	100.6
Jun 22	76.7	67.1	96.4
Jun 23	72.8	63.6	83.4
Jun 24	72.3	54.8	90.4
Jun 25	76.8	58.6	98.3
Jun 26	81.0	64.0	101.6
Jun 27	76.3	68.6	93.0
Jun 28	75.7	68.4	89.7
Jun 29	81.8	67.8	99.6
Summary	77.0	69.1	83.7

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 76

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jun 1	126.0	125.7	126.5
Jun 2	125.8	125.5	126.2
Jun 3	125.9	125.4	126.4
Jun 4	126.0	125.5	126.6
Jun 5	126.0	125.6	126.5
Jun 6	126.0	125.6	126.5
Jun 7	126.0	125.6	126.4
Jun 8	126.0	125.7	126.6
Jun 9	125.9	125.4	126.2
Jun 10	126.0	125.6	126.5
Jun 11	126.0	125.8	126.4
Jun 12	126.0	125.6	126.5
Jun 13	126.1	125.7	126.5
Jun 14	125.8	125.5	126.3
Jun 15	125.7	125.4	126.2
Jun 16	125.7	125.5	126.2
Jun 17	125.8	125.4	126.3
Jun 18	125.7	125.2	126.1
Jun 19	125.7	125.4	126.1
Jun 20	125.7	125.3	126.3
Jun 21	125.8	125.4	126.3
Jun 22	125.7	125.4	126.1
Jun 23	124.0	111.4	126.1
Jun 24	125.7	125.2	126.3
Jun 25	124.5	103.7	126.4
Jun 26	123.8	113.7	126.4
Jun 27	121.3	115.5	126.4
Jun 28	125.7	125.4	126.2
Jun 29	125.9	125.5	126.3
Summary	125.5	121.3	126.1

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 77

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jun 1	76.1	65.8	90.0
Jun 2	69.0	56.3	87.0
Jun 3	70.1	50.5	90.7
Jun 4	74.3	52.9	98.8
Jun 5	76.6	55.8	95.9
Jun 6	77.3	58.9	96.6
Jun 7	79.0	61.4	98.0
Jun 8	80.4	62.9	102.8
Jun 9	77.0	70.1	90.9
Jun 10	80.5	70.1	100.4
Jun 11	82.8	69.3	100.2
Jun 12	82.7	69.5	98.7
Jun 13	82.9	67.8	100.7
Jun 14	77.3	66.7	95.0
Jun 15	72.8	58.7	88.2
Jun 16	71.7	58.7	89.3
Jun 17	76.0	57.3	95.4
Jun 18	75.4	68.3	85.0
Jun 19	75.4	66.2	87.8
Jun 20	76.0	58.2	97.4
Jun 21	79.6	60.6	99.1
Jun 22	76.8	67.1	93.3
Jun 23	72.4	63.5	83.7
Jun 24	72.9	55.1	91.6
Jun 25	77.6	58.9	96.8
Jun 26	80.5	63.8	100.6
Jun 27	76.2	68.1	93.5
Jun 28	75.7	68.7	94.4
Jun 29	81.6	68.2	102.1
Summary	76.8	69.0	82.9

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 78

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jun 1	108.9	104.8	113.0
Jun 2	106.6	102.7	112.8
Jun 3	107.2	101.9	113.2
Jun 4	108.3	103.8	113.8
Jun 5	109.1	104.6	113.2
Jun 6	109.2	105.3	113.2
Jun 7	109.7	106.1	113.5
Jun 8	109.8	105.8	115.5
Jun 9	109.0	106.6	111.5
Jun 10	110.3	107.3	114.1
Jun 11	110.6	108.0	114.4
Jun 12	110.6	107.8	114.4
Jun 13	110.7	107.6	114.9
Jun 14	109.2	104.5	113.3
Jun 15	107.6	104.9	111.4
Jun 16	108.6	106.0	112.4
Jun 17	109.5	105.5	113.9
Jun 18	108.3	101.6	111.9
Jun 19	108.2	104.4	111.2
Jun 20	108.6	105.1	113.5
Jun 21	109.7	106.1	114.5
Jun 22	109.0	107.0	112.1
Jun 23	105.9	87.4	110.8
Jun 24	108.5	104.4	113.5
Jun 25	109.1	91.8	113.8
Jun 26	108.4	97.4	113.9
Jun 27	108.3	103.8	114.5
Jun 28	109.4	107.0	112.4
Jun 29	112.1	108.8	115.2
Summary	109.0	105.9	112.1

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 79

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jun 1	76.4	66.6	95.4
Jun 2	69.2	56.9	89.1
Jun 3	70.8	51.5	94.4
Jun 4	75.4	54.2	100.6
Jun 5	77.0	57.2	100.8
Jun 6	77.8	60.4	99.0
Jun 7	79.6	62.9	101.8
Jun 8	80.7	64.3	104.0
Jun 9	77.3	71.1	91.6
Jun 10	81.9	70.5	104.2
Jun 11	84.4	70.2	104.1
Jun 12	83.7	70.7	103.1
Jun 13	84.2	68.9	106.2
Jun 14	77.9	66.9	96.4
Jun 15	73.7	59.3	91.4
Jun 16	72.4	59.7	90.2
Jun 17	77.0	58.2	99.4
Jun 18	76.2	68.5	88.1
Jun 19	76.1	66.1	91.7
Jun 20	76.7	58.5	100.5
Jun 21	80.3	60.9	102.4
Jun 22	77.3	67.6	96.1
Jun 23	72.4	63.1	82.6
Jun 24	73.2	55.4	91.9
Jun 25	77.9	59.5	101.3
Jun 26	81.5	63.9	104.1
Jun 27	77.1	67.9	92.2
Jun 28	76.2	68.5	97.9
Jun 29	81.4	68.4	102.4
Summary	77.4	69.2	84.4

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 80

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jun 1	76.8	64.1	91.4
Jun 2	67.8	54.7	88.5
Jun 3	70.0	48.6	91.3
Jun 4	73.0	50.6	97.6
Jun 5	75.1	54.0	99.4
Jun 6	75.9	57.5	97.0
Jun 7	78.4	59.4	101.0
Jun 8	80.5	61.4	106.8
Jun 9	76.3	68.5	92.0
Jun 10	79.5	68.9	99.6
Jun 11	82.9	67.4	103.4
Jun 12	82.4	67.6	104.0
Jun 13	81.3	65.5	104.9
Jun 14	77.5	64.6	97.6
Jun 15	72.7	56.0	87.0
Jun 16	70.8	56.0	93.4
Jun 17	74.8	54.8	97.6
Jun 18	75.1	68.1	88.8
Jun 19	74.8	60.5	92.7
Jun 20	74.4	55.9	95.5
Jun 21	78.3	58.2	101.9
Jun 22	76.7	64.9	94.9
Jun 23	72.0	59.7	84.1
Jun 24	72.2	53.2	95.4
Jun 25	76.9	57.0	98.1
Jun 26	80.7	61.6	100.2
Jun 27	75.4	68.2	95.6
Jun 28	75.0	68.4	93.2
Jun 29	81.2	66.9	102.2
Summary	76.1	67.8	82.9

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 81

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jun 1	168.1	166.0	169.5
Jun 2	167.2	164.1	168.9
Jun 3	166.6	165.0	168.2
Jun 4	167.9	166.6	169.6
Jun 5	168.4	167.1	169.6
Jun 6	168.5	167.3	169.1
Jun 7	168.9	167.2	169.7
Jun 8	168.3	167.4	170.0
Jun 9	168.4	164.6	169.5
Jun 10	168.9	167.4	170.2
Jun 11	169.2	168.2	170.0
Jun 12	169.0	167.0	169.7
Jun 13	168.9	168.0	169.9
Jun 14	168.7	166.2	170.2
Jun 15	167.7	166.4	169.0
Jun 16	168.4	167.5	169.6
Jun 17	168.8	167.4	169.7
Jun 18	166.8	155.2	169.6
Jun 19	166.9	165.4	168.2
Jun 20	167.8	166.8	169.1
Jun 21	168.7	167.2	169.9
Jun 22	168.1	166.6	169.5
Jun 23	161.3	97.4	172.6
Jun 24	169.6	165.3	170.8
Jun 25	167.7	131.2	171.3
Jun 26	156.7	95.5	169.7
Jun 27	133.8	86.3	183.0
Jun 28	169.7	166.3	173.4
Jun 29	169.9	168.4	170.6
Summary	166.5	133.8	169.9

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 82

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jun 1	163.2	161.0	165.2
Jun 2	161.9	159.6	163.8
Jun 3	162.3	159.4	165.8
Jun 4	163.2	160.3	167.1
Jun 5	164.0	161.3	166.5
Jun 6	163.3	158.4	165.4
Jun 7	164.3	161.4	166.7
Jun 8	163.8	160.8	165.6
Jun 9	163.4	159.7	164.8
Jun 10	164.3	160.9	166.7
Jun 11	164.3	159.8	166.1
Jun 12	163.8	160.2	166.0
Jun 13	164.7	161.8	167.1
Jun 14	162.2	140.8	165.2
Jun 15	161.9	159.1	164.9
Jun 16	163.5	160.7	165.4
Jun 17	164.0	160.1	166.6
Jun 18	159.6	136.2	165.6
Jun 19	159.5	155.7	162.8
Jun 20	160.8	157.0	163.8
Jun 21	162.6	158.1	164.9
Jun 22	160.9	155.5	163.8
Jun 23	154.8	142.4	163.4
Jun 24	159.2	155.5	163.2
Jun 25	161.7	149.2	163.9
Jun 26	160.8	154.5	164.1
Jun 27	158.8	152.7	164.5
Jun 28	159.6	151.8	163.1
Jun 29	163.8	162.0	166.7
Summary	162.1	154.8	164.7

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 83

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jun 1	168.3	166.3	169.8
Jun 2	167.3	163.3	169.4
Jun 3	167.3	165.2	168.9
Jun 4	168.5	167.0	170.4
Jun 5	168.6	167.4	170.2
Jun 6	168.6	166.6	169.6
Jun 7	169.1	167.7	170.4
Jun 8	168.8	167.7	170.4
Jun 9	168.6	164.6	169.9
Jun 10	168.9	166.8	170.1
Jun 11	169.2	167.8	170.1
Jun 12	168.7	166.1	170.0
Jun 13	168.8	168.0	169.7
Jun 14	168.0	165.7	169.9
Jun 15	167.2	165.8	168.7
Jun 16	167.9	166.5	169.2
Jun 17	168.0	166.4	169.9
Jun 18	165.9	153.6	169.2
Jun 19	166.9	164.4	168.4
Jun 20	167.9	166.7	169.4
Jun 21	168.6	166.9	169.9
Jun 22	167.5	165.3	169.3
Jun 23	160.0	104.2	169.4
Jun 24	168.2	161.9	169.9
Jun 25	167.2	137.5	169.6
Jun 26	165.1	147.3	168.4
Jun 27	165.3	157.8	174.0
Jun 28	167.3	165.7	168.1
Jun 29	167.9	167.2	168.6
Summary	167.6	160.0	169.2

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 84

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jun 1	160.0	159.1	160.7
Jun 2	159.2	158.0	160.2
Jun 3	159.1	158.0	160.2
Jun 4	159.7	158.7	161.1
Jun 5	160.0	159.0	161.2
Jun 6	160.1	159.2	161.0
Jun 7	160.3	159.3	161.4
Jun 8	159.8	159.1	160.8
Jun 9	159.3	158.5	160.0
Jun 10	159.6	159.2	161.0
Jun 11	159.7	159.1	160.6
Jun 12	159.7	159.2	160.5
Jun 13	159.7	159.1	160.5
Jun 14	159.7	159.1	160.6
Jun 15	159.4	158.8	160.0
Jun 16	159.5	158.8	160.3
Jun 17	159.7	158.9	160.7
Jun 18	159.2	157.8	159.7
Jun 19	158.8	158.1	159.5
Jun 20	158.9	158.2	159.9
Jun 21	159.3	158.3	160.3
Jun 22	159.2	158.5	160.2
Jun 23	157.8	139.9	164.4
Jun 24	159.3	158.5	160.4
Jun 25	158.4	138.6	161.7
Jun 26	157.3	142.9	160.5
Jun 27	160.0	152.6	172.3
Jun 28	159.6	158.9	160.5
Jun 29	159.3	158.9	160.0
Summary	159.4	157.3	160.3

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 85

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jun 1	115.5	110.4	125.4
Jun 2	119.7	105.1	135.0
Jun 3	136.1	132.6	141.8
Jun 4	137.2	134.1	143.0
Jun 5	137.8	135.1	141.6
Jun 6	138.1	135.8	142.2
Jun 7	138.7	136.5	142.4
Jun 8	138.5	136.2	143.5
Jun 9	138.6	137.2	142.2
Jun 10	140.2	136.7	144.3
Jun 11	140.9	137.7	144.3
Jun 12	140.7	138.9	143.8
Jun 13	141.0	138.5	144.5
Jun 14	139.6	135.2	142.6
Jun 15	138.8	136.2	142.5
Jun 16	139.9	138.8	142.5
Jun 17	139.9	137.3	144.2
Jun 18	139.1	135.3	141.4
Jun 19	139.5	137.4	142.2
Jun 20	139.7	137.0	143.9
Jun 21	140.2	137.9	144.0
Jun 22	139.1	137.0	141.3
Jun 23	127.0	88.7	139.8
Jun 24	133.1	124.4	141.9
Jun 25	137.7	122.2	142.7
Jun 26	130.1	75.7	143.0
Jun 27	106.5	71.6	141.0
Jun 28	125.9	118.1	139.3
Jun 29	132.0	124.9	137.2
Summary	134.9	106.5	141.0

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 86

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jun 1	147.9	147.2	148.9
Jun 2	147.0	145.9	148.0
Jun 3	147.2	146.2	148.4
Jun 4	147.7	146.7	149.0
Jun 5	147.9	146.9	148.9
Jun 6	147.9	147.0	148.9
Jun 7	148.1	147.3	149.1
Jun 8	148.1	147.4	149.4
Jun 9	147.8	147.4	148.4
Jun 10	148.2	147.7	149.3
Jun 11	148.5	147.9	149.4
Jun 12	148.6	148.1	149.6
Jun 13	148.5	148.0	149.5
Jun 14	148.5	147.5	149.4
Jun 15	148.1	147.6	149.0
Jun 16	148.3	147.9	148.9
Jun 17	148.5	147.8	149.7
Jun 18	148.2	146.9	148.7
Jun 19	148.1	147.6	148.7
Jun 20	148.4	147.4	149.6
Jun 21	148.7	147.7	149.8
Jun 22	148.5	147.8	149.3
Jun 23	145.7	117.3	150.0
Jun 24	148.4	147.2	149.8
Jun 25	147.7	117.2	150.5
Jun 26	145.8	128.6	149.4
Jun 27	145.2	137.4	152.3
Jun 28	148.1	147.0	149.1
Jun 29	147.9	146.9	148.8
Summary	147.8	145.2	148.7

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 87

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jun 1	91.4	81.1	103.6
Jun 2	82.0	70.7	98.0
Jun 3	84.7	67.7	104.0
Jun 4	90.1	70.9	112.7
Jun 5	91.6	74.6	106.2
Jun 6	92.0	76.7	108.6
Jun 7	94.3	80.1	109.3
Jun 8	95.6	80.5	118.0
Jun 9	92.8	83.9	103.4
Jun 10	95.1	88.2	108.1
Jun 11	101.2	92.3	110.8
Jun 12	101.9	94.9	111.0
Jun 13	102.0	93.3	113.2
Jun 14	97.4	84.3	109.6
Jun 15	92.7	83.3	104.7
Jun 16	94.8	87.0	105.5
Jun 17	98.5	85.3	114.2
Jun 18	96.0	81.8	102.4
Jun 19	93.7	85.5	101.5
Jun 20	96.3	84.2	111.0
Jun 21	99.9	86.1	112.7
Jun 22	97.2	91.9	105.6
Jun 23	91.1	84.3	97.0
Jun 24	93.8	81.2	107.7
Jun 25	97.8	85.2	112.6
Jun 26	100.9	88.1	116.0
Jun 27	96.9	81.9	107.3
Jun 28	93.5	83.4	108.0
Jun 29	101.7	91.8	116.9
Summary	95.1	82.0	102.0

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 88

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jun 1	167.1	166.5	167.6
Jun 2	166.7	165.9	167.5
Jun 3	166.5	166.0	167.1
Jun 4	166.8	166.2	167.6
Jun 5	167.1	166.7	167.6
Jun 6	167.2	166.4	167.7
Jun 7	167.3	166.4	167.9
Jun 8	167.0	166.2	167.6
Jun 9	166.8	165.8	167.6
Jun 10	167.3	166.6	168.8
Jun 11	167.4	166.8	168.2
Jun 12	167.3	166.6	168.3
Jun 13	167.5	166.7	168.3
Jun 14	167.8	166.9	168.6
Jun 15	167.7	167.0	168.3
Jun 16	167.9	167.5	168.5
Jun 17	168.2	167.5	169.0
Jun 18	167.5	166.0	168.2
Jun 19	167.5	166.8	168.4
Jun 20	167.6	167.0	168.2
Jun 21	167.8	167.3	168.4
Jun 22	167.6	166.9	168.2
Jun 23	167.5	141.6	174.3
Jun 24	168.5	157.1	169.9
Jun 25	168.1	166.0	170.7
Jun 26	168.1	145.2	176.4
Jun 27	171.2	169.1	175.8
Jun 28	168.1	167.2	169.8
Jun 29	167.0	166.0	167.6
Summary	167.6	166.5	171.2

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 89

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jun 1	191.9	191.3	192.5
Jun 2	191.5	190.7	192.1
Jun 3	191.8	190.7	193.0
Jun 4	192.2	191.2	193.5
Jun 5	192.5	191.3	193.3
Jun 6	192.5	191.7	193.1
Jun 7	192.8	192.2	193.6
Jun 8	192.8	192.1	194.0
Jun 9	192.9	191.7	193.5
Jun 10	187.0	96.1	193.8
Jun 11	194.2	193.5	195.3
Jun 12	194.2	192.7	195.0
Jun 13	194.5	193.7	195.3
Jun 14	193.5	177.8	195.2
Jun 15	193.5	192.4	194.6
Jun 16	194.0	191.9	195.5
Jun 17	194.2	191.6	195.2
Jun 18	193.8	189.6	195.3
Jun 19	194.2	193.5	195.1
Jun 20	194.5	193.8	195.4
Jun 21	194.9	193.8	195.6
Jun 22	194.3	191.0	195.3
Jun 23	193.9	188.1	195.1
Jun 24	195.0	193.9	196.0
Jun 25	195.2	194.5	195.7
Jun 26	195.0	194.6	195.5
Jun 27	194.9	192.0	195.4
Jun 28	194.2	190.3	195.3
Jun 29	195.1	193.5	195.8
Summary	193.5	187.0	195.2

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 90

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jun 1	130.9	130.4	131.7
Jun 2	130.4	129.7	131.1
Jun 3	130.5	129.8	131.3
Jun 4	130.9	130.1	131.7
Jun 5	130.9	130.2	131.6
Jun 6	130.8	130.3	131.5
Jun 7	130.9	130.4	131.6
Jun 8	130.9	130.2	131.7
Jun 9	130.7	130.2	131.3
Jun 10	130.9	130.5	131.8
Jun 11	131.1	130.5	131.9
Jun 12	131.0	130.6	131.7
Jun 13	131.0	130.5	132.0
Jun 14	130.8	130.1	131.6
Jun 15	130.5	130.1	130.9
Jun 16	130.6	130.1	131.2
Jun 17	130.7	130.1	131.8
Jun 18	130.5	129.8	130.8
Jun 19	130.4	130.0	131.0
Jun 20	130.5	129.8	131.2
Jun 21	130.6	129.9	131.5
Jun 22	130.5	130.1	131.1
Jun 23	126.2	91.6	130.5
Jun 24	130.2	129.4	131.0
Jun 25	129.8	111.9	131.3
Jun 26	121.8	80.9	131.3
Jun 27	105.1	71.7	135.8
Jun 28	130.5	130.1	130.8
Jun 29	130.7	130.2	131.4
Summary	129.3	105.1	131.1

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 91

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jun 1	160.4	158.9	161.5
Jun 2	158.2	148.7	160.7
Jun 3	159.3	156.8	162.1
Jun 4	160.9	158.2	165.0
Jun 5	161.1	159.1	163.6
Jun 6	161.7	160.1	164.7
Jun 7	163.0	161.0	165.5
Jun 8	163.1	161.6	166.1
Jun 9	162.7	161.2	164.5
Jun 10	163.4	160.7	167.0
Jun 11	164.2	160.5	166.2
Jun 12	164.0	160.0	166.2
Jun 13	164.2	162.0	167.1
Jun 14	162.6	148.3	165.4
Jun 15	161.0	158.4	163.9
Jun 16	162.4	125.4	171.5
Jun 17	163.4	160.2	167.0
Jun 18	161.9	142.9	165.1
Jun 19	161.8	156.4	166.3
Jun 20	164.4	161.7	169.3
Jun 21	165.7	162.5	169.4
Jun 22	166.2	164.2	169.4
Jun 23	166.4	162.4	169.8
Jun 24	168.3	165.6	170.2
Jun 25	167.2	165.3	170.6
Jun 26	167.0	163.7	171.5
Jun 27	167.5	161.8	172.2
Jun 28	162.4	160.0	165.8
Jun 29	166.7	162.5	170.9
Summary	163.5	158.2	168.3

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 92

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jun 1	123.2	102.9	138.2
Jun 2	114.8	95.8	126.2
Jun 3	114.8	104.1	130.2
Jun 4	125.1	113.3	145.4
Jun 5	126.9	115.7	135.4
Jun 6	122.8	106.4	141.5
Jun 7	129.6	114.3	142.2
Jun 8	133.2	122.4	144.8
Jun 9	139.2	110.2	147.9
Jun 10	140.9	126.1	156.8
Jun 11	147.8	133.1	160.9
Jun 12	147.1	126.1	163.1
Jun 13	150.5	141.3	160.1
Jun 14	138.3	86.5	155.9
Jun 15	134.7	121.0	152.2
Jun 16	145.8	124.5	158.2
Jun 17	144.2	122.4	160.6
Jun 18	132.3	85.8	161.6
Jun 19	134.7	120.2	150.3
Jun 20	142.8	128.2	158.7
Jun 21	149.9	131.2	158.1
Jun 22	141.0	104.2	163.4
Jun 23	136.9	97.1	155.1
Jun 24	149.0	133.4	163.6
Jun 25	152.0	142.1	167.8
Jun 26	154.1	134.2	170.9
Jun 27	152.9	97.3	172.3
Jun 28	137.6	124.3	159.2
Jun 29	155.1	139.8	173.3
Summary	138.5	114.8	155.1

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 93

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jun 1	94.0	85.5	103.3
Jun 2	88.6	77.3	100.9
Jun 3	89.0	73.2	104.0
Jun 4	92.4	79.2	106.5
Jun 5	93.2	80.7	108.2
Jun 6	95.8	84.9	107.3
Jun 7	94.8	83.2	109.1
Jun 8	98.8	87.2	116.6
Jun 9	100.4	92.3	107.7
Jun 10	95.7	88.0	105.7
Jun 11	93.5	85.8	105.0
Jun 12	93.5	87.2	104.8
Jun 13	95.1	85.3	108.0
Jun 14	93.3	83.4	107.1
Jun 15	96.4	88.0	105.1
Jun 16	82.9	56.7	123.3
Jun 17	99.4	87.3	110.1
Jun 18	92.1	80.2	103.4
Jun 19	98.2	82.0	106.6
Jun 20	93.4	83.0	104.0
Jun 21	94.9	82.6	111.4
Jun 22	89.3	79.1	99.5
Jun 23	80.5	64.8	85.5
Jun 24	80.6	62.1	101.0
Jun 25	91.6	73.1	115.5
Jun 26	93.6	76.4	106.7
Jun 27	89.2	71.5	113.8
Jun 28	110.7	89.8	123.3
Jun 29	95.6	84.1	104.9
Summary	93.3	80.5	110.7

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 94

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jun 1	164.7	161.7	166.3
Jun 2	164.3	161.8	166.6
Jun 3	164.7	163.0	166.6
Jun 4	165.2	163.5	167.3
Jun 5	165.3	162.8	166.8
Jun 6	165.3	162.8	167.3
Jun 7	166.2	164.5	168.3
Jun 8	165.7	163.8	169.3
Jun 9	165.5	160.5	168.5
Jun 10	165.5	162.8	167.8
Jun 11	166.0	164.4	168.6
Jun 12	165.9	163.9	168.0
Jun 13	166.4	164.8	168.4
Jun 14	166.1	162.2	169.5
Jun 15	165.0	162.8	166.6
Jun 16	163.1	158.5	167.8
Jun 17	165.4	162.7	167.1
Jun 18	164.7	161.2	167.8
Jun 19	164.3	162.3	166.7
Jun 20	164.5	162.7	166.4
Jun 21	161.9	160.1	164.6
Jun 22	159.3	124.1	164.4
Jun 23	157.2	153.2	161.0
Jun 24	158.4	153.8	162.4
Jun 25	160.0	156.5	164.7
Jun 26	159.3	157.2	162.5
Jun 27	158.6	150.3	162.8
Jun 28	159.0	155.4	162.6
Jun 29	158.8	155.7	161.7
Summary	163.3	157.2	166.4

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 95

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jun 1	133.2	132.1	134.5
Jun 2	132.2	131.0	134.2
Jun 3	132.7	131.1	134.7
Jun 4	133.3	132.2	135.0
Jun 5	133.4	132.3	134.9
Jun 6	133.3	132.5	134.7
Jun 7	133.6	132.6	135.0
Jun 8	133.7	132.6	135.4
Jun 9	133.5	133.1	134.3
Jun 10	133.8	133.2	135.4
Jun 11	134.0	133.3	135.3
Jun 12	134.0	133.3	135.3
Jun 13	133.8	133.1	135.2
Jun 14	133.5	132.3	134.8
Jun 15	133.1	132.3	134.5
Jun 16	133.4	132.9	134.5
Jun 17	133.5	132.3	135.0
Jun 18	133.1	131.3	133.6
Jun 19	133.0	132.2	134.0
Jun 20	133.4	132.5	134.9
Jun 21	133.5	132.5	134.9
Jun 22	133.2	132.4	134.2
Jun 23	123.7	90.5	133.0
Jun 24	129.4	126.2	131.9
Jun 25	130.3	112.8	133.8
Jun 26	124.6	88.5	133.6
Jun 27	109.9	84.6	133.0
Jun 28	130.6	128.9	132.4
Jun 29	132.7	130.6	134.8
Summary	131.6	109.9	134.0

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 96

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jun 1	133.5	131.5	134.9
Jun 2	131.8	126.2	133.9
Jun 3	132.6	130.3	134.9
Jun 4	134.2	132.5	137.9
Jun 5	134.6	132.7	136.6
Jun 6	134.7	132.6	136.9
Jun 7	135.5	133.9	137.8
Jun 8	136.2	134.5	140.3
Jun 9	135.6	131.4	136.7
Jun 10	136.5	134.1	139.5
Jun 11	137.6	135.7	141.2
Jun 12	138.5	136.0	142.9
Jun 13	139.2	137.6	142.6
Jun 14	138.4	134.7	139.9
Jun 15	137.1	135.3	139.9
Jun 16	142.0	125.6	162.9
Jun 17	140.4	136.2	145.1
Jun 18	139.9	135.1	142.2
Jun 19	138.8	136.5	142.0
Jun 20	140.4	138.7	145.3
Jun 21	142.2	139.5	147.0
Jun 22	141.7	136.4	145.7
Jun 23	137.4	104.4	145.9
Jun 24	145.2	143.1	148.1
Jun 25	142.2	123.5	146.2
Jun 26	138.4	118.8	145.8
Jun 27	141.7	135.4	148.4
Jun 28	139.2	137.3	141.3
Jun 29	142.1	136.0	149.2
Summary	138.2	131.8	145.2

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 97

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jun 1	152.1	150.1	156.1
Jun 2	150.3	147.1	154.8
Jun 3	152.0	147.8	158.8
Jun 4	153.8	150.0	161.8
Jun 5	154.2	150.9	160.0
Jun 6	153.8	150.9	159.4
Jun 7	155.1	151.9	160.1
Jun 8	155.1	152.3	160.8
Jun 9	154.7	153.1	156.6
Jun 10	158.6	154.6	167.1
Jun 11	161.3	157.4	168.2
Jun 12	162.0	158.0	172.0
Jun 13	161.8	157.7	169.8
Jun 14	159.0	157.2	163.9
Jun 15	156.1	152.3	163.0
Jun 16	151.9	85.9	189.0
Jun 17	165.4	158.1	174.7
Jun 18	163.1	155.6	166.2
Jun 19	159.3	155.4	166.2
Jun 20	163.9	158.4	173.6
Jun 21	165.3	159.5	173.9
Jun 22	167.8	162.4	174.6
Jun 23	171.5	162.0	179.7
Jun 24	173.1	167.9	178.2
Jun 25	167.6	151.5	175.3
Jun 26	169.4	162.5	180.3
Jun 27	176.7	164.9	184.7
Jun 28	160.5	156.9	164.7
Jun 29	170.2	163.2	179.6
Summary	160.9	150.3	176.7

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 98

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jun 1	93.2	88.5	100.5
Jun 2	88.9	82.9	97.8
Jun 3	89.0	79.4	99.2
Jun 4	90.4	79.9	101.4
Jun 5	90.6	81.6	101.1
Jun 6	91.3	83.1	101.0
Jun 7	92.9	85.1	102.1
Jun 8	94.7	86.4	106.9
Jun 9	94.1	91.0	99.6
Jun 10	95.1	90.8	103.5
Jun 11	96.4	90.8	103.8
Jun 12	96.8	91.9	105.0
Jun 13	98.3	91.4	106.2
Jun 14	96.1	91.9	103.2
Jun 15	95.3	90.7	100.6
Jun 16	92.6	83.1	102.9
Jun 17	97.7	90.7	104.9
Jun 18	98.0	93.2	103.9
Jun 19	98.2	93.0	102.7
Jun 20	94.0	88.4	100.8
Jun 21	91.2	81.7	103.3
Jun 22	87.1	82.4	95.9
Jun 23	83.1	74.1	89.3
Jun 24	80.6	70.4	92.5
Jun 25	83.4	72.6	96.5
Jun 26	85.3	75.3	97.7
Jun 27	83.5	78.5	91.9
Jun 28	82.4	78.6	91.0
Jun 29	83.5	74.1	99.8
Summary	91.2	80.6	98.3

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 99

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jun 1	142.4	141.5	143.3
Jun 2	141.2	139.6	142.7
Jun 3	141.6	140.0	143.1
Jun 4	142.1	140.8	143.6
Jun 5	142.3	141.0	143.8
Jun 6	142.3	141.1	143.7
Jun 7	142.4	141.4	143.7
Jun 8	142.3	141.1	144.1
Jun 9	141.9	141.1	143.1
Jun 10	142.4	141.6	144.4
Jun 11	142.6	141.7	144.0
Jun 12	142.6	141.6	144.2
Jun 13	142.3	141.0	143.8
Jun 14	141.9	139.9	143.3
Jun 15	141.3	140.1	142.9
Jun 16	141.4	140.8	142.6
Jun 17	141.9	140.3	143.6
Jun 18	141.2	139.7	141.9
Jun 19	141.4	140.2	142.8
Jun 20	141.9	140.6	143.5
Jun 21	142.7	141.2	144.4
Jun 22	142.7	141.8	144.1
Jun 23	136.2	104.2	142.5
Jun 24	142.1	140.0	143.8
Jun 25	143.4	139.7	145.1
Jun 26	134.7	90.2	145.1
Jun 27	119.0	87.6	146.6
Jun 28	142.9	141.9	143.8
Jun 29	144.5	143.1	146.0
Summary	141.0	119.0	144.5

Solid Waste Permit 588 Daily Wellhead Temperature

Averages for Well 100

Bristol, Virginia

Date	Average (°F)	Minimum (°F)	Maximum (°F)
Jun 1	159.6	159.1	160.2
Jun 2	165.2	155.9	169.7
Jun 3	159.3	158.7	160.0
Jun 4	154.9	149.8	158.6
Jun 5	160.0	159.4	160.5
Jun 6	154.1	151.6	156.8
Jun 7	160.3	159.8	160.8
Jun 8	159.7	146.5	174.1
Jun 9	160.4	159.8	160.7
Jun 10	159.6	153.7	166.8
Jun 11	160.8	160.4	161.3
Jun 12	161.4	153.7	171.8
Jun 13	160.9	160.5	161.4
Jun 14	151.8	142.9	154.0
Jun 15	160.8	160.4	161.3
Jun 16	156.8	97.2	171.5
Jun 17	161.3	160.5	161.9
Jun 18	136.8	131.4	141.5
Jun 19	161.2	160.7	161.5
Jun 20	137.9	116.0	144.3
Jun 21	161.5	161.0	162.0
Jun 22	143.3	137.7	147.2
Jun 23	160.8	150.9	164.5
Jun 24	139.4	65.5	151.2
Jun 25	161.1	152.0	162.4
Jun 26	136.5	81.8	149.2
Jun 27	162.3	160.6	166.2
Jun 28	149.8	147.0	151.9
Jun 29	161.1	160.6	161.4
Summary	160.8	159.2	162.3

Appendix D

Solid Waste Permit 588 Daily Borehole Temperature Averages

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Solid Waste Permit 588 Daily Borehole Temperature Averages for Borehole 1

Date	Depth from Surface					
	25 ft	50 ft	75 ft	100 ft	125 ft	150 ft
1-May	157.4	223.7	224.2	237.6	251.3	261.0
2-May	157.2	223.4	224.1	237.5	251.2	260.9
3-May	157.2	222.9	223.9	237.8	251.1	260.8
4-May	157.3	223.4	224.1	237.7	251.1	260.9
5-May	157.7	223.5	224.5	238.2	251.5	261.3
6-May	157.5	223.3	224.3	238.4	251.5	261.2
7-May	157.3	222.6	224.1	238.6	251.2	260.9
8-May	157.5	223.0	224.4	238.6	251.3	261.1
9-May	157.6	224.2	224.5	237.7	251.6	261.2
10-May	157.8	224.4	224.6	237.8	251.9	261.2
11-May	157.5	224.6	224.3	237.1	251.5	260.6
12-May	157.7	225.3	224.6	236.9	251.6	260.4
13-May	157.7	224.8	224.5	237.4	251.6	260.6
14-May	157.5	224.4	224.4	237.2	251.3	260.6
15-May	157.5	224.7	224.3	237.2	251.3	260.7
16-May	158.0	224.8	224.7	238.1	251.8	261.2
17-May	158.3	224.4	224.9	239.0	252.1	261.4
18-May	158.4	224.4	225.3	238.1	251.9	261.7
19-May	158.5	224.0	225.6	236.8	251.3	261.9
20-May	158.5	224.0	225.6	236.3	251.1	261.8
21-May	158.2	224.1	225.3	235.6	250.7	261.4
22-May	158.3	224.0	225.4	236.0	250.8	261.5
23-May	158.2	223.6	225.2	235.7	250.6	261.4
24-May	158.4	223.0	225.3	235.5	250.6	261.4
25-May	158.2	223.2	225.2	235.7	250.6	261.3
26-May	158.5	223.6	225.2	236.0	250.7	261.4
27-May	158.5	223.5	225.1	236.9	251.0	261.4
28-May	158.5	223.5	225.0	237.6	251.3	261.3
29-May	158.6	223.3	224.9	238.5	251.7	261.3
30-May	158.5	223.3	224.8	238.9	251.8	261.3
31-May	158.5	223.3	224.8	239.2	251.8	261.3
Average	157.9	223.8	224.7	237.4	251.3	261.2

Solid Waste Permit 588 Daily Borehole Temperature Averages for Borehole 5

Date	Depth from Surface							
	25 ft	50 ft	75 ft	100 ft	125 ft	150 ft	175 ft	200 ft
1-May	142.1	211.6	211.8	221.9	231.0	232.7	204.2	201.5
2-May	141.9	211.5	211.8	221.8	230.9	232.6	204.1	201.5
3-May	142.0	211.3	211.7	221.9	230.8	232.6	204.0	201.4
4-May	142.0	211.4	211.7	222.0	231.0	232.7	204.2	201.5
5-May	142.1	211.5	211.9	222.1	231.2	232.8	204.3	201.6
6-May	142.2	211.4	211.8	222.0	231.1	232.6	204.2	201.5
7-May	142.1	211.2	211.5	221.9	230.9	232.4	204.0	201.3
8-May	142.2	211.2	211.6	221.9	231.0	232.5	204.1	201.4
9-May	142.4	211.3	211.6	221.9	231.0	232.6	204.1	201.4
10-May	142.3	211.2	211.6	222.0	231.1	232.7	204.2	201.5
11-May	142.3	211.0	211.4	221.8	230.9	232.4	203.9	201.3
12-May	142.7	211.1	211.5	222.0	231.1	232.5	204.1	201.4
13-May	142.7	211.1	211.5	222.1	231.0	232.6	204.1	201.4
14-May	142.6	210.9	211.3	221.8	230.7	232.3	203.8	201.2
15-May	142.9	211.0	211.4	222.0	230.8	232.4	204.0	201.3
16-May	142.8	211.3	211.7	222.1	231.0	232.8	204.3	201.6
17-May	143.4	211.5	211.9	222.2	231.2	232.8	204.3	201.8
18-May	143.4	211.6	211.9	222.3	231.1	232.9	204.3	201.7
19-May	143.4	211.6	211.9	222.3	231.2	233.0	204.5	201.8
20-May	143.5	211.6	211.9	222.3	231.1	232.8	204.4	201.8
21-May	143.4	211.3	211.8	222.1	231.0	232.6	204.2	201.6
22-May	143.4	211.4	211.7	222.2	231.0	232.6	204.2	201.6
23-May	143.2	211.2	211.6	222.0	230.7	232.4	204.0	201.3
24-May	143.3	211.5	211.8	222.2	231.0	232.7	204.2	201.7
25-May	143.1	211.2	211.6	222.0	230.8	232.5	204.1	201.5
26-May	143.2	211.2	211.6	222.0	230.8	232.5	204.2	201.5
27-May	143.3	211.2	211.7	222.1	230.8	232.7	204.3	201.6
28-May	143.2	211.2	211.6	222.2	230.7	232.5	204.2	201.5
29-May	143.2	211.2	211.6	222.1	230.6	232.5	204.2	201.4
30-May	143.2	211.2	211.6	222.2	230.2	232.6	204.2	201.5
31-May	143.3	211.2	211.5	221.9	230.0	232.5	204.2	201.4
Average	142.8	211.3	211.7	222.0	230.9	232.6	204.2	201.5

Solid Waste Permit 588 Daily Borehole Temperature Averages for Borehole 6

Date	Depth from Surface				
	25 ft	50 ft	75 ft	100 ft	125 ft
1-May	141.9	193.5	*	197.3	195.6
2-May	141.8	193.9	*	197.6	195.8
3-May	141.9	192.7	*	195.8	194.4
4-May	142.0	194.4	*	197.5	196.3
5-May	142.1	196.7	*	200.3	198.5
6-May	141.9	193.2	*	196.1	195.1
7-May	141.7	191.8	*	194.6	193.9
8-May	142.1	192.8	*	195.7	194.8
9-May	142.0	193.8	*	197.0	195.8
10-May	142.2	194.2	*	197.3	196.1
11-May	142.4	193.9	*	196.6	195.8
12-May	142.5	194.3	*	196.9	196.0
13-May	142.2	198.2	*	200.9	200.1
14-May	141.8	196.5	*	199.2	198.6
15-May	142.2	196.6	*	199.2	198.4
16-May	142.5	196.2	*	198.7	198.0
17-May	142.8	194.4	*	196.9	196.2
18-May	143.0	194.5	*	197.1	196.2
19-May	143.0	198.3	*	200.9	199.7
20-May	142.9	199.5	*	201.9	200.6
21-May	142.5	198.4	*	200.6	199.3
22-May	142.5	196.1	*	198.2	197.0
23-May	142.5	194.1	*	196.2	195.1
24-May	142.6	194.1	*	196.2	195.1
25-May	142.7	193.1	*	195.4	194.3
26-May	142.4	193.3	*	195.9	194.2
27-May	143.4	191.4	*	194.9	192.3
28-May	143.8	191.2	*	194.5	191.8
29-May	143.0	191.9	*	195.7	192.9
30-May	142.7	193.2	*	196.7	194.8
31-May	142.4	195.3	*	199.4	197.2
Average	142.4	194.6	*	197.5	196.1

* Indicates sensor reading issues

Solid Waste Permit 588 Daily Borehole Temperature Averages for Borehole 8

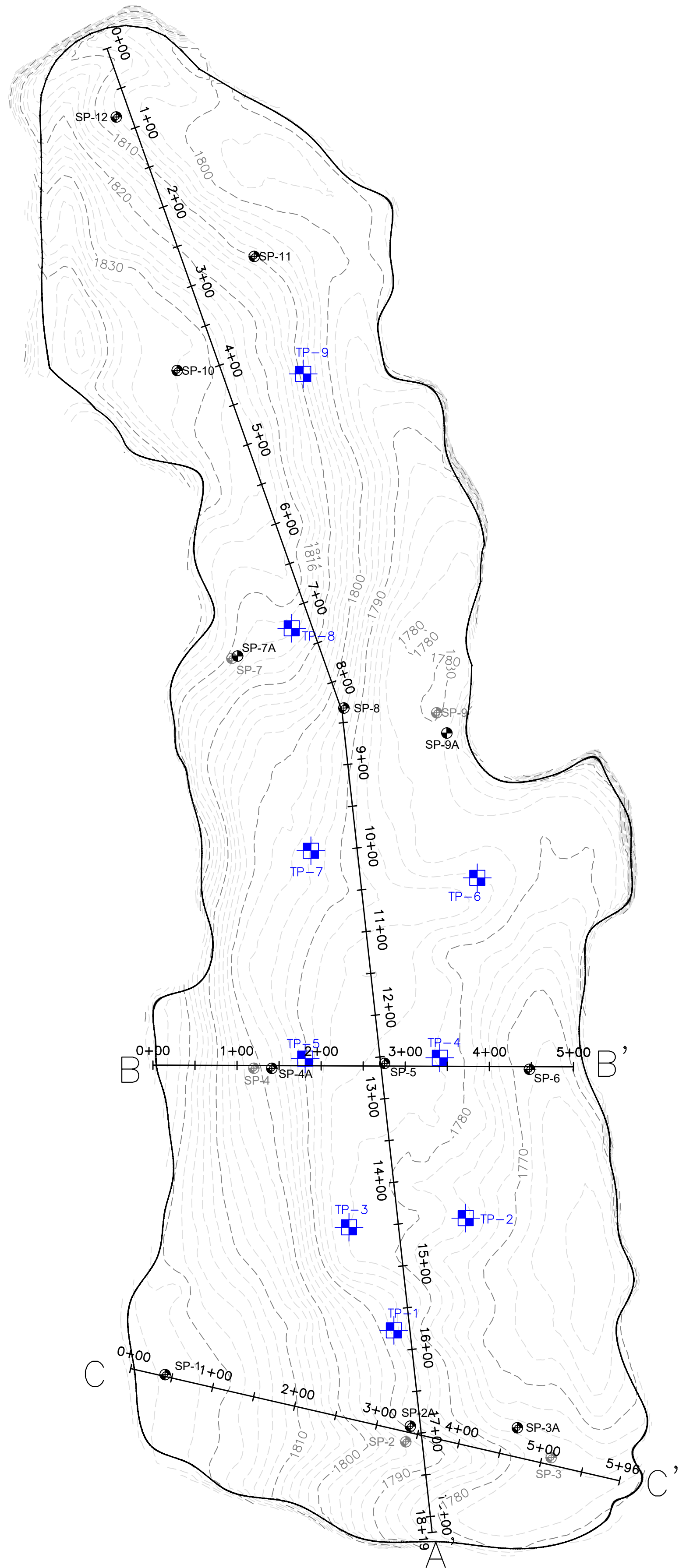
Date	Depth from Surface							
	25 ft	50 ft	75 ft	100 ft	125 ft	150 ft	175 ft	200 ft
1-May	180.8	192.9	193.2	195.3	199.1	198.8	186.8	168.1
2-May	180.6	192.9	193.1	195.2	199.0	198.7	186.7	168.0
3-May	180.1	192.8	193.0	195.2	199.0	198.7	186.7	168.0
4-May	180.5	193.0	193.2	195.4	199.2	198.9	186.8	168.2
5-May	180.6	193.2	193.4	195.6	199.4	199.1	186.9	168.4
6-May	180.6	193.2	193.3	195.5	199.3	199.0	186.8	168.2
7-May	180.0	192.9	193.0	195.2	199.0	198.7	186.5	167.9
8-May	179.8	193.0	193.2	195.4	199.2	199.0	186.7	168.1
9-May	180.2	193.1	193.3	195.4	199.3	199.0	186.8	168.2
10-May	179.7	193.1	193.3	195.5	199.3	199.0	186.8	168.2
11-May	179.4	193.1	193.3	195.5	199.3	199.0	186.8	168.2
12-May	179.3	193.0	193.2	195.5	199.3	199.0	186.8	168.1
13-May	180.2	193.1	193.3	195.4	199.3	199.0	186.8	168.1
14-May	179.8	192.8	193.0	195.2	199.0	198.7	186.5	167.7
15-May	179.7	192.9	193.2	195.4	199.2	198.9	186.7	168.0
16-May	180.0	193.2	193.4	195.7	199.5	199.1	186.9	168.3
17-May	180.1	193.5	193.7	195.9	199.7	199.4	187.1	168.4
18-May	180.2	193.6	193.8	196.0	199.8	199.5	187.2	168.6
19-May	180.3	193.5	193.7	195.9	199.7	199.4	187.1	168.5
20-May	180.8	193.6	193.8	196.0	199.9	199.5	187.3	168.6
21-May	181.0	193.5	193.6	195.8	199.6	199.3	187.0	168.3
22-May	181.1	193.4	193.6	195.8	199.6	199.2	187.0	168.3
23-May	180.8	193.3	193.5	195.7	199.5	199.2	186.9	168.2
24-May	180.7	193.4	193.5	195.7	199.6	199.3	186.9	168.2
25-May	180.3	193.4	193.6	195.7	199.6	199.2	186.5	168.2
26-May	180.1	193.4	193.6	195.7	199.7	199.3	186.7	168.3
27-May	179.5	193.4	193.6	195.7	199.6	199.3	186.7	168.3
28-May	179.6	193.4	193.6	195.7	199.6	199.3	186.7	168.3
29-May	180.0	193.3	193.6	195.7	199.6	199.3	186.8	168.3
30-May	180.3	193.3	193.6	195.7	199.6	199.3	186.8	168.3
31-May	180.5	193.3	193.5	195.6	199.5	199.2	186.7	168.1
Average	180.2	193.2	193.4	195.6	199.4	199.1	186.8	168.2

Solid Waste Permit 588 Daily Borehole Temperature Averages for Borehole 9

Date	Depth from Surface							
	25 ft	50 ft	75 ft	100 ft	125 ft	150 ft	175 ft	200 ft
1-May	111.0	149.9	149.6	147.1	142.5	129.6	114.5	102.3
2-May	110.9	149.8	149.5	147.0	142.4	129.5	114.4	102.3
3-May	110.7	149.6	149.4	146.8	142.2	129.3	114.3	102.1
4-May	110.9	149.8	149.5	147.0	142.3	129.5	114.4	102.3
5-May	111.2	150.1	149.8	147.4	142.6	129.9	114.7	102.6
6-May	111.1	150.0	149.7	147.4	142.6	129.7	114.6	102.5
7-May	110.8	149.7	149.4	147.1	142.3	129.4	114.4	102.3
8-May	111.0	149.9	149.6	147.1	142.4	129.5	114.4	102.4
9-May	111.1	149.9	149.6	147.2	142.4	129.6	114.5	102.5
10-May	111.4	150.3	150.0	147.3	142.7	129.8	114.7	102.8
11-May	111.0	150.0	149.8	147.0	142.4	129.5	114.5	102.5
12-May	111.1	150.1	149.9	147.1	142.4	129.5	114.5	102.6
13-May	111.2	150.1	149.9	147.4	142.5	129.7	114.6	102.7
14-May	110.9	149.9	149.6	147.2	142.3	129.4	114.4	102.4
15-May	111.0	150.0	149.8	147.2	142.3	129.5	114.4	102.5
16-May	111.4	150.4	150.1	147.6	142.6	129.7	114.7	102.8
17-May	111.7	150.8	150.5	147.9	143.0	130.1	115.1	103.3
18-May	112.0	150.9	150.7	148.0	143.0	130.2	115.2	103.4
19-May	112.0	150.9	150.7	147.9	143.0	130.2	115.2	103.4
20-May	111.9	150.9	150.7	148.0	143.0	130.2	115.2	103.4
21-May	111.7	150.6	150.4	147.8	142.7	130.0	115.0	103.2
22-May	111.7	150.7	150.5	147.8	142.7	130.0	115.0	103.2
23-May	111.6	150.6	150.4	147.6	142.7	129.9	114.9	103.1
24-May	111.8	150.8	150.5	147.7	142.8	130.0	115.0	103.4
25-May	111.7	150.7	150.4	147.6	142.7	129.9	114.9	103.2
26-May	111.8	150.8	150.6	147.7	142.8	130.0	115.1	103.4
27-May	111.9	150.9	150.6	147.7	142.8	130.0	115.1	103.4
28-May	111.9	150.9	150.7	147.8	142.9	130.1	115.2	103.5
29-May	111.8	150.8	150.5	147.7	142.8	130.0	115.1	103.4
30-May	111.8	150.7	150.5	147.7	142.7	130.0	115.0	103.3
31-May	111.6	150.6	150.5	147.6	142.6	129.8	114.9	103.1
Average	111.4	150.4	150.1	147.5	142.6	129.8	114.8	102.9

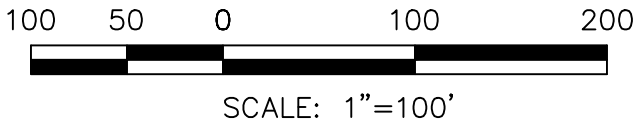
Appendix E

Monthly Topography Analysis

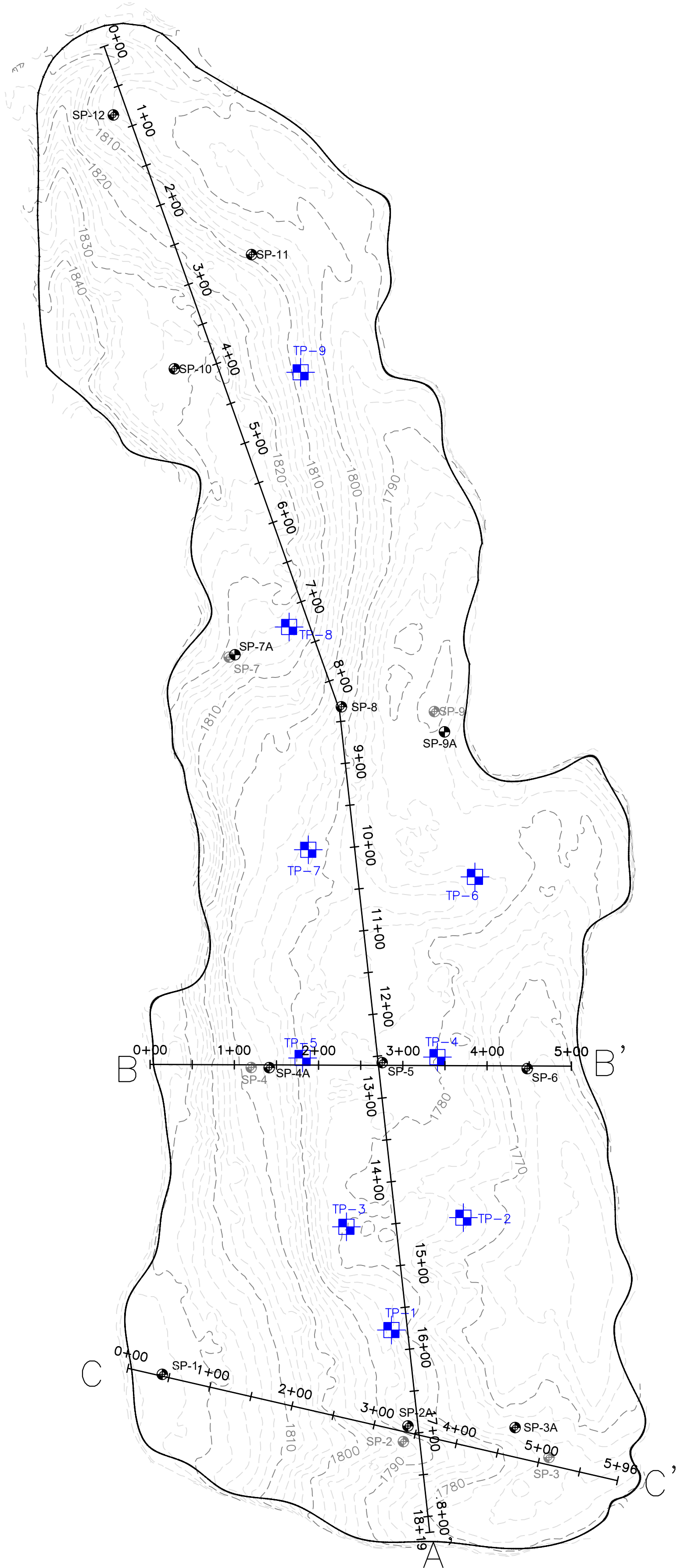


- LEGEND
- MAJOR CONTOURS (EVERY 10')
 - MINOR CONTOURS (EVERY 2')
 - APPROXIMATE SIDEWALL LOCATION
 - SP-8 SETTLEMENT PLATE
 - SP-9 DECOMMISSIONED SETTLEMENT PLATE
 - TP-3 TEMPERATURE MONITORING PROBE

- NOTES:
- GRADES SHOWN AS CONTOUR LINES ONLY WITHIN THE PERMIT 588 BOUNDARY REPRESENT THE TOPOGRAPHY CAPTURED ON JUNE 12, 2025 BY SCS ENGINEERS.
 - 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.
 - THE HORIZONTAL DATUM IS STATE PLANE VIRGINIA SOUTH ZONE NAD-83 (2011).
 - THE VERTICAL DATUM IS BASED UPON NAVD-88.

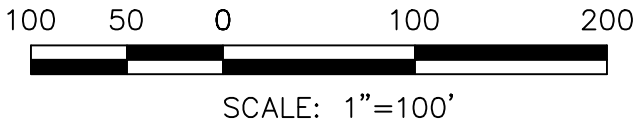


SCS ENGINEERS STEARNS, CONRAD AND SCHMIDT CONSULTING ENGINEERS, INC. 1827 W. 10TH STREET, SUITE 100 BRISTOL, VA 24201 PH. (804) 378-7440 FAX. (804) 378-7433		CITY OF BRISTOL INTEGRATED SOLID WASTE MANAGEMENT FACILITY		CITY OF BRISTOL INTEGRATED SOLID WASTE MANAGEMENT FACILITY		CITY OF BRISTOL INTEGRATED SOLID WASTE MANAGEMENT FACILITY	
		2655 VALLEY DRIVE BRISTOL, VIRGINIA 24201		JUNE 2025		JUNE 2025	
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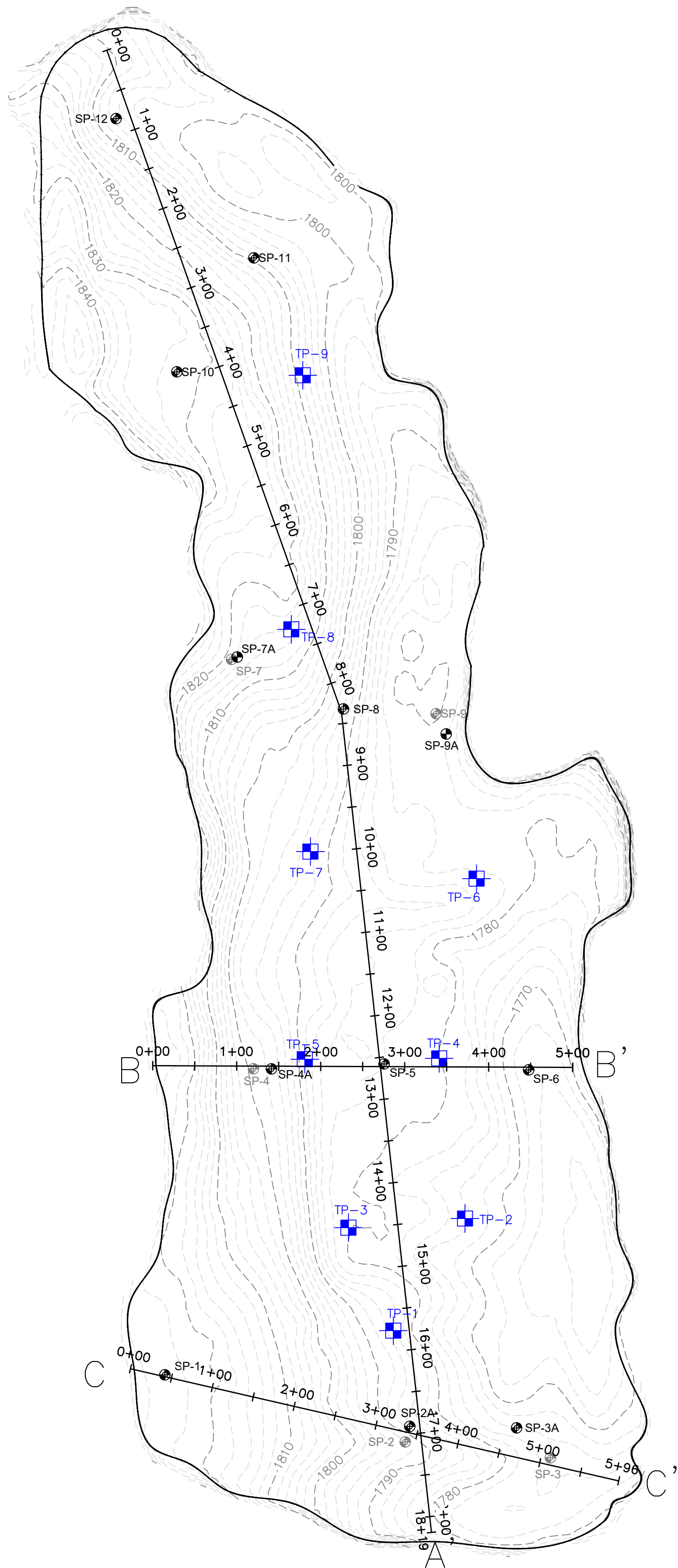


- LEGEND
- MAJOR CONTOURS (EVERY 10')
 - MINOR CONTOURS (EVERY 2')
 - APPROXIMATE SIDEWALL LOCATION
 - SP-8 SETTLEMENT PLATE
 - SP-9 DECOMMISSIONED SETTLEMENT PLATE
 - TP-3 TEMPERATURE MONITORING PROBE

- NOTES:
- GRADES SHOWN AS CONTOUR LINES ONLY WITHIN THE PERMIT 588 BOUNDARY REPRESENT THE TOPOGRAPHY CAPTURED ON MARCH 24, 2026 BY SCS ENGINEERS.
 - 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.
 - THE HORIZONTAL DATUM IS STATE PLANE VIRGINIA SOUTH ZONE NAD-83 (2011).
 - THE VERTICAL DATUM IS BASED UPON NAVD-88.

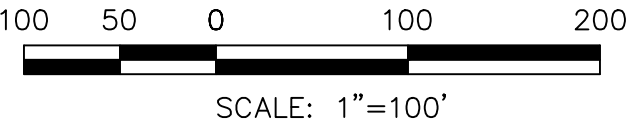


SCS ENGINEERS		CITY OF BRISTOL INTEGRATED SOLID WASTE MANAGEMENT FACILITY		MARCH 2026		NO.	REVISION	DATE
STEARN, CONRAD AND SCHMIDT CONSULTING ENGINEERS, INC.		WASTE MANAGEMENT FACILITY		LANDFILL TOPOGRAPHY				
1827 HUNTER LANE, SUITE 100, BRISTOL, VA 24201 PH. (804) 378-7440 FAX. (804) 378-7433		2655 VALLEY DRIVE BRISTOL, VIRGINIA 24201						
CADD FILE: SURF1		COMP		MONTHLY TOPOGRAPHY ANALYSIS		SOLID WASTE PERMIT #588		
DATE: 7/1/2026		SCALE:						
DRAWING NO. 2								
PROJECT NO. 02218208.05		DWG. BY: C.J.W.		O/A R/W BY: C.J.W.				
ISSN. BY: C.J.W.		CHK. BY: C.J.W.		APP. BY: C.J.W.				
SRB		CJW		CJW				

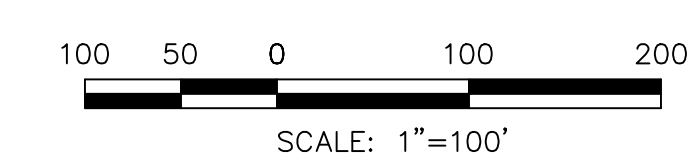


- LEGEND
- MAJOR CONTOURS (EVERY 10')
 - MINOR CONTOURS (EVERY 2')
 - APPROXIMATE SIDEWALL LOCATION
 - SP-8 SETTLEMENT PLATE
 - SP-9 DECOMMISSIONED SETTLEMENT PLATE
 - TP-3 TEMPERATURE MONITORING PROBE

- NOTES:
- GRADES SHOWN AS CONTOUR LINES ONLY WITHIN THE PERMIT 588 BOUNDARY REPRESENT THE TOPOGRAPHY CAPTURED ON MAY 12, 2026 BY SCS ENGINEERS.
 - 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.
 - THE HORIZONTAL DATUM IS STATE PLANE VIRGINIA SOUTH ZONE NAD-83 (2011).
 - THE VERTICAL DATUM IS BASED UPON NAVD-88.



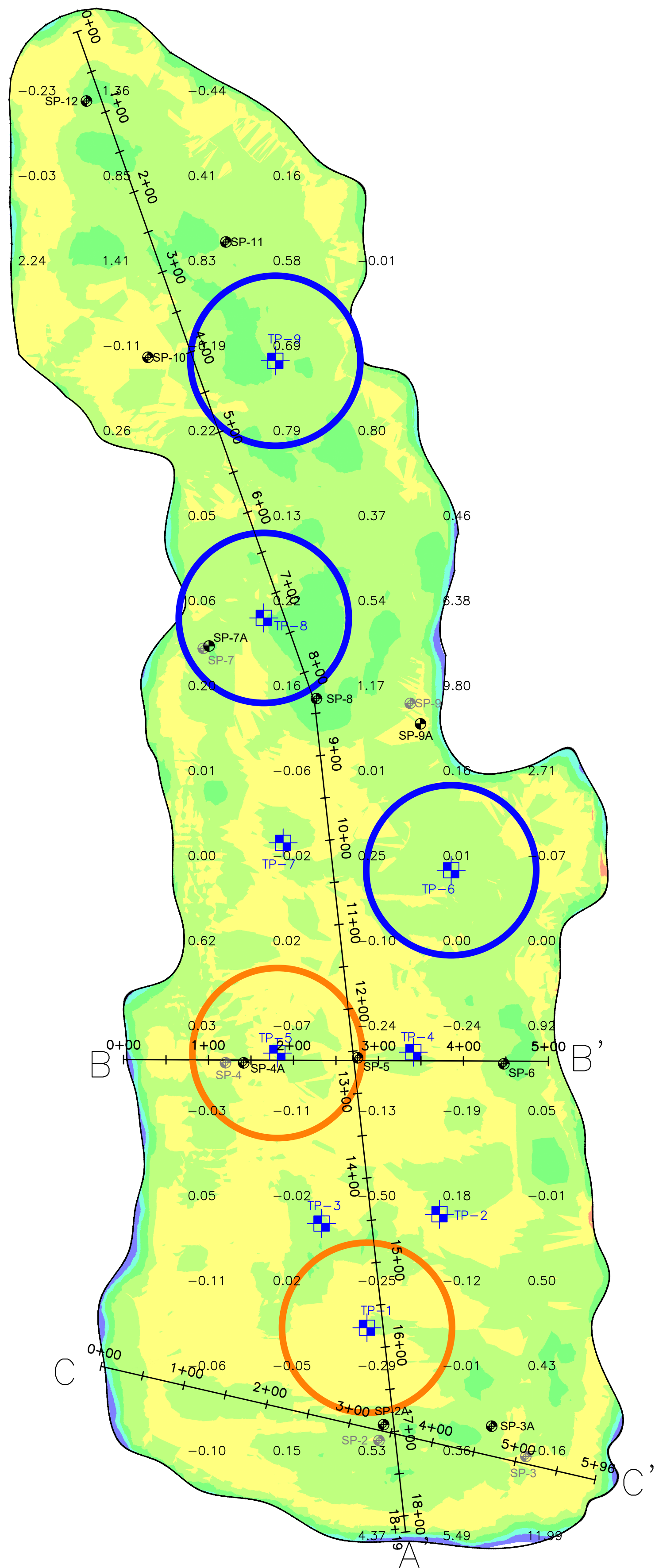
SCS ENGINEERS STEARNS, CONRAD AND SCHMIDT CONSULTING ENGINEERS, INC. 15521 MIDLOTHIAN TPK - MIDLOTHIAN, VA 23113 PH. (804) 378-7440 FAX. (804) 378-7433		CADD FILE: SURF COMP		DATE: 7/1/2026		SCALE:		DRAWING NO. 3			
		DATE: 02/21/2026 05									
DRAWN BY: C.J.W.	CHECKED BY: C.J.W.	DATE: 02/21/2026 05	APPROVED BY: C.J.W.								
CLIENT CITY OF BRISTOL INTEGRATED SOLID WASTE MANAGEMENT FACILITY 2655 VALLEY DRIVE BRISTOL, VIRGINIA 24201				SHEET TITLE MAY 2026 LANDFILL TOPOGRAPHY		NO.		REVISION		DATE	
				PROJECT TITLE MONTHLY TOPOGRAPHY ANALYSIS SOLID WASTE PERMIT #588		△					
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- NOTES:

1. GRADES SHOWN AS CONTOUR LINES ONLY WITHIN THE PERMIT 588 BOUNDARY REPRESENT THE TOPOGRAPHY CAPTURED ON JUNE 17, 2026 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.

SCS ENGINEERS STEARNS, CONRAD AND SCHMIDT CONSULTING ENGINEERS, INC. 15521 MIDLOTHIAN TPK. - MIDLOTHIAN, VA 23113 PH. (804) 378-7440 FAX. (804) 378-7433	CLIENT CITY OF BRISTOL INTEGRATED SOLID WASTE MANAGEMENT FACILITY 2655 VALLEY DRIVE BRISTOL, VIRGINIA 24201		SHEET TITLE JUNE 2026 LANDFILL TOPOGRAPHY	NO.	REVISION	DATE
	PROJECT TITLE MONTHLY TOPOGRAPHY ANALYSIS SOLID WASTE PERMIT #588					
CADD FILE: SURF COMP	DATE: 6/1/2026	SCALE:	DRAWING NO. 4			
DESK. NO. 02218208.05 DESK. BY:	DWN. BY: VMH CHK. BY: CJW	C/A SWH BY: CJW APP. BY: CJW	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

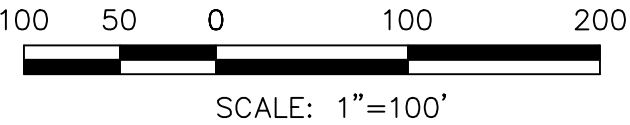
Volume

Base Surface	TOPO - May 12, 2026
Comparison Surface	TOPO - June 17, 2026

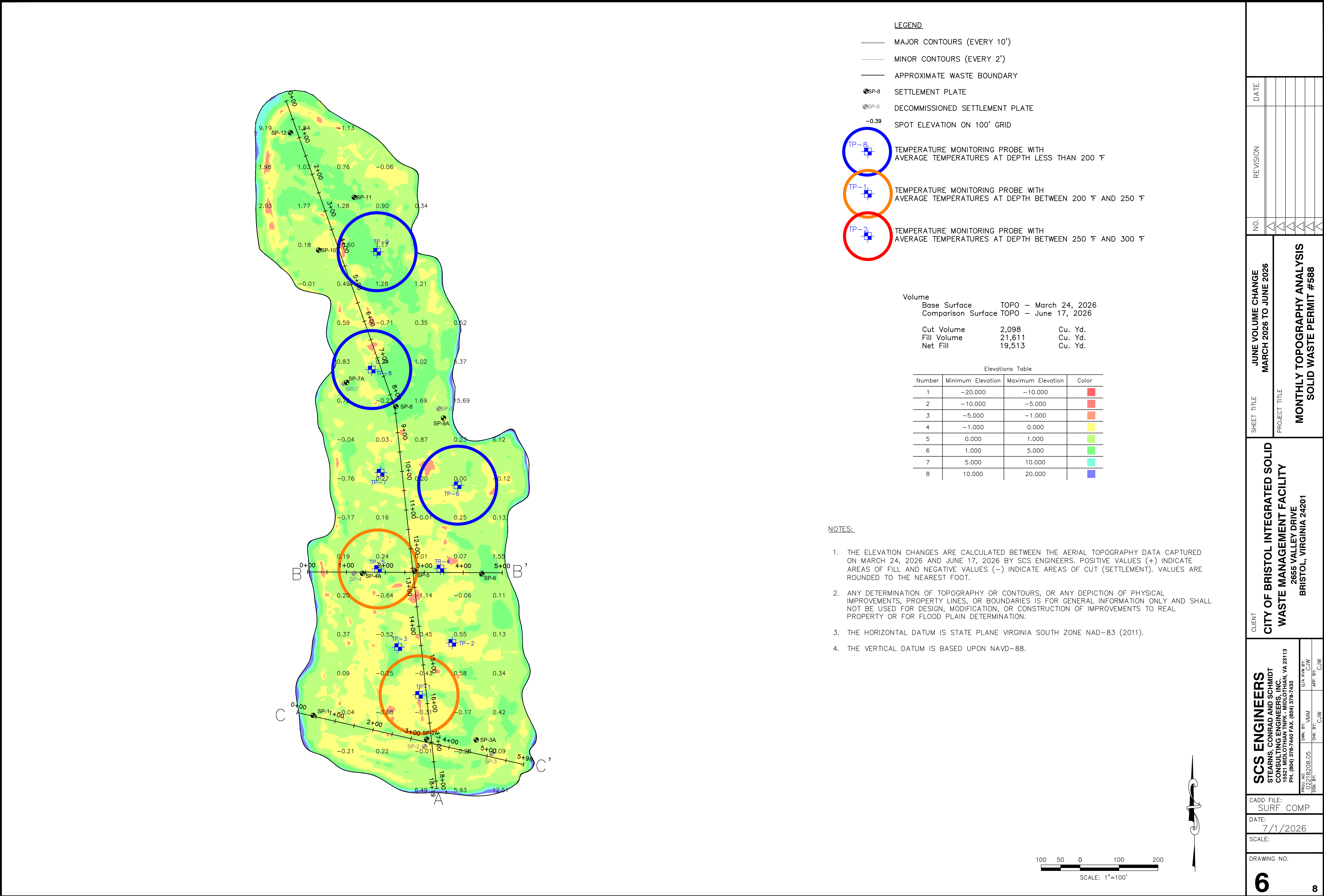
Cut Volume	1,348	Cu. Yd.
Fill Volume	13,373	Cu. Yd.
Net Fill	12,025	Cu. Yd.

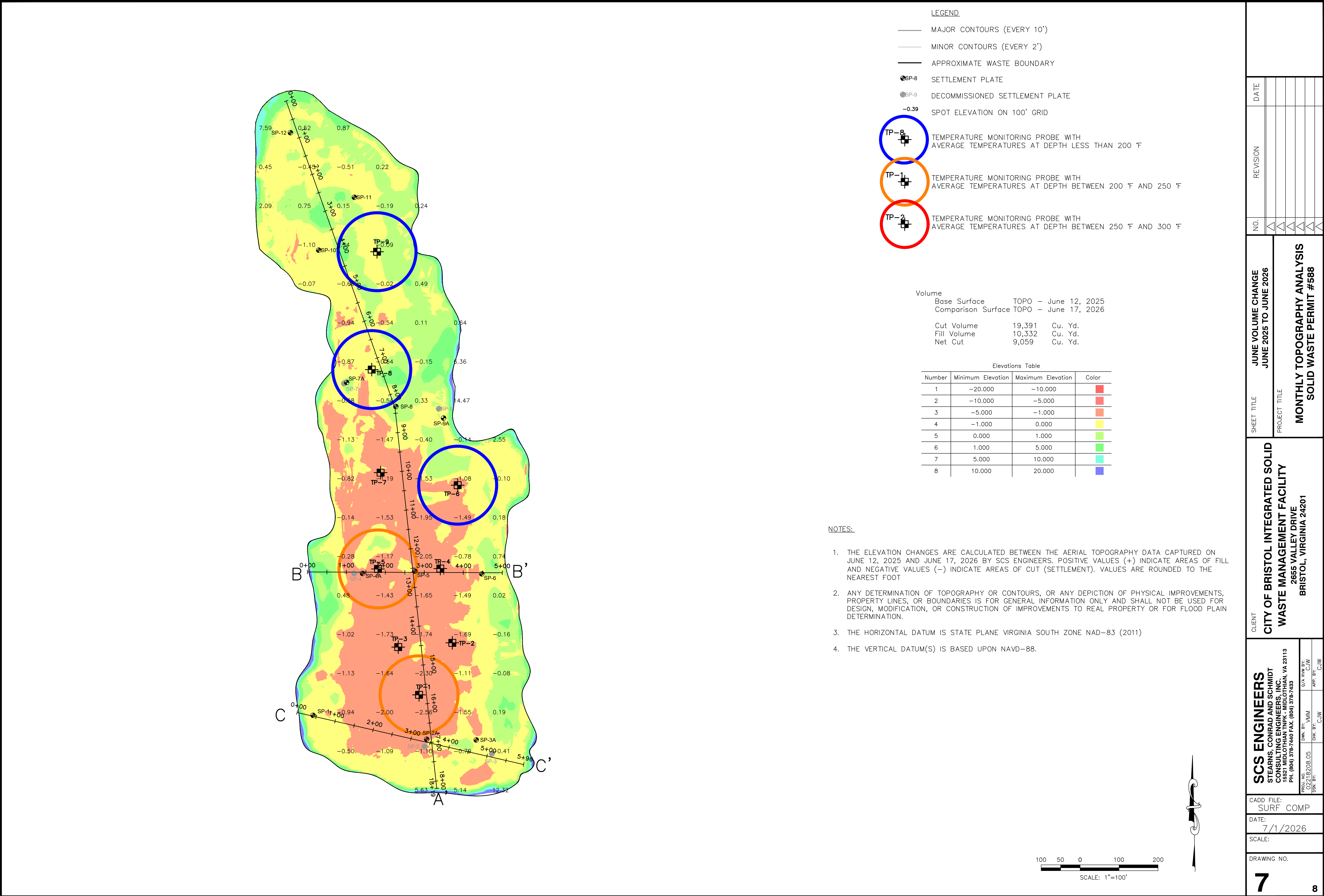
Elevations Table			
Number	Minimum Elevation	Maximum Elevation	Color
1	-20.000	-10.000	
2	-10.000	-5.000	
3	-5.000	-1.000	
4	-1.000	0.000	
5	0.000	1.000	
6	1.000	5.000	
7	5.000	10.000	
8	10.000	20.000	

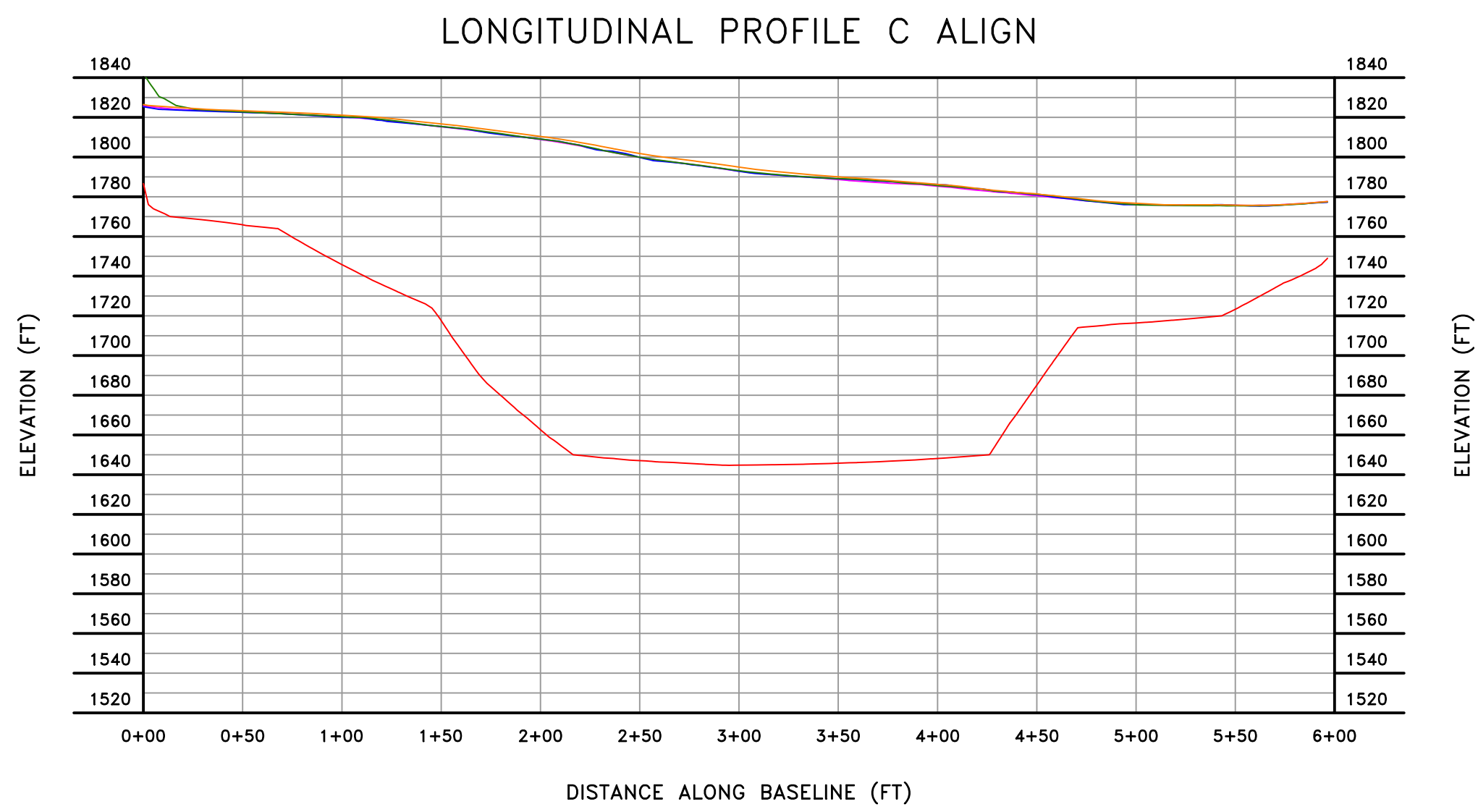
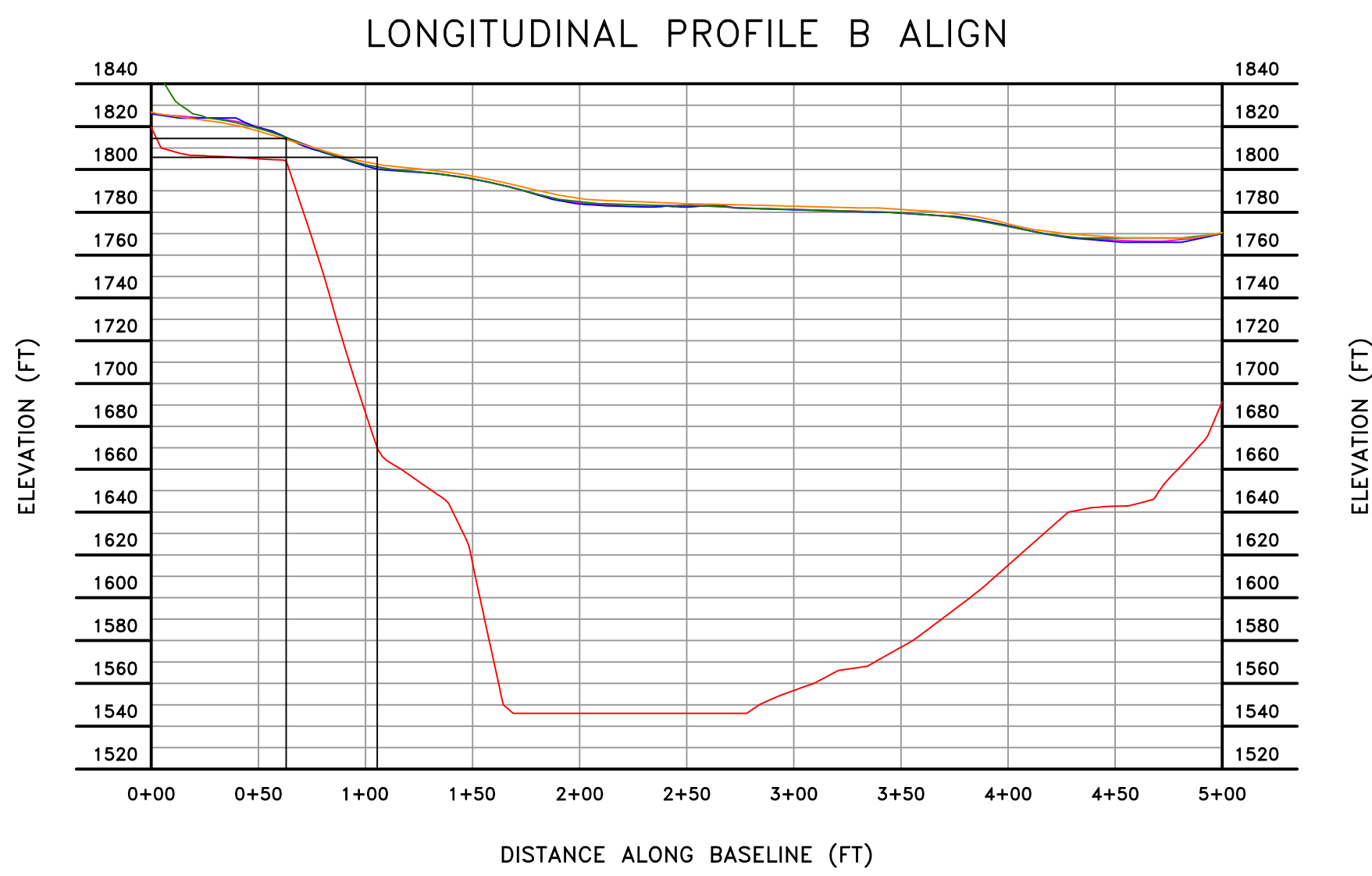
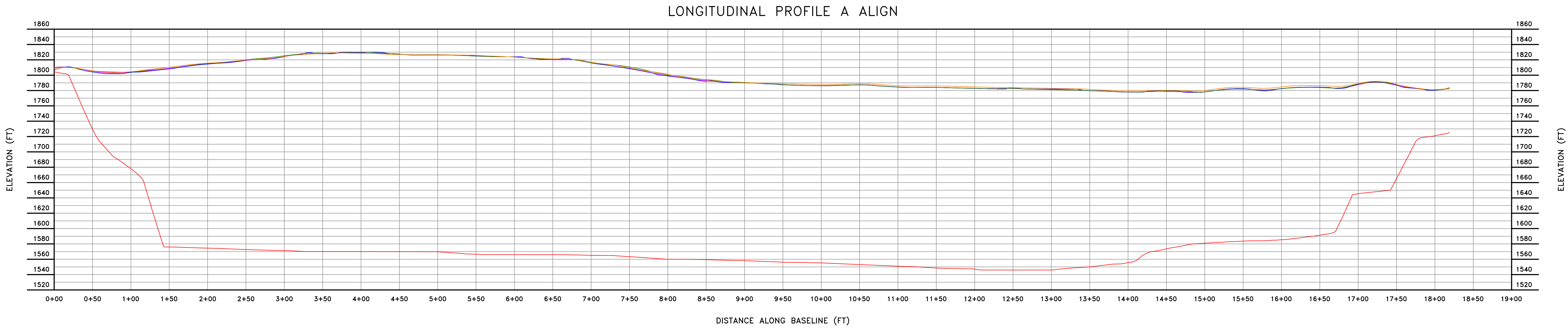
- NOTES:**
- THE ELEVATION CHANGES ARE CALCULATED BETWEEN THE AERIAL TOPOGRAPHY DATA CAPTURED ON MAY 12, 2026 AND JUNE 17, 2026 BY SCS ENGINEERS. POSITIVE VALUES (+) INDICATE AREAS OF FILL AND NEGATIVE VALUES (-) INDICATE AREAS OF CUT (SETTLEMENT). VALUES ARE ROUNDED TO THE NEAREST FOOT.
 - ANY DETERMINATION 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.
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 - THE VERTICAL DATUM IS BASED UPON NAVD-88.



CLIENT	CITY OF BRISTOL INTEGRATED SOLID WASTE MANAGEMENT FACILITY 2655 VALLEY DRIVE BRISTOL, VIRGINIA 24201	SHEET TITLE JUNE VOLUME CHANGE MAY 2026 TO JUNE 2026	PROJECT TITLE MONTHLY TOPOGRAPHY ANALYSIS SOLID WASTE PERMIT #588	DATE		
				REVISION		
				NO.		
SCS ENGINEERS STEARNS, CONRAD AND SCHMIDT CONSULTING ENGINEERS, INC. 15521 MIDLOTHIAN TPK - MIDLOTHIAN, VA 23113 PH: (804) 378-7440 FAX: (804) 378-7433	DWN: BY: JAW CHK: BY: C.JW APP: BY: C.JW	CADD FILE: SURF COMP	DATE: 7/1/2026	SCALE:	DRAWING NO. 5	
					8	







- LEGEND**
- BOTTOM LINER ELEVATION
 - JUNE 2025 TOPO
 - MARCH 2026 TOPO
 - MAY 2026 TOPO
 - JUNE 2026 TOPO

SCS ENGINEERS STEARNS, CONRAD AND SCHMIDT CONSULTING ENGINEERS, INC. 15521 MIDLOTHIAN TWP. - MIDLOTHIAN, VA 23113 PH: (804) 378-7440 FAX: (804) 378-7433		CLIENT		CITY OF BRISTOL INTEGRATED SOLID WASTE MANAGEMENT FACILITY 2655 VALLEY DRIVE BRISTOL, VIRGINIA 24201		SHEET TITLE		NO.	REVISION	DATE
		PROJECT TITLE								
CADD FILE: SURF COMP DATE: 7/1/2026 SCALE:		PROJ. NO. 2208.05 DATE: 7/1/2026 DWN. BY: JMW CHK. BY: C.JW O/A RW BY: C.JW APP. BY: C.JW		MONTHLY TOPOGRAPHY ANALYSIS		SOLID WASTE PERMIT #588		△		
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Appendix F

LFG Dewatering Pump Stroke Counter Data Analysis

Stroke Counter Data Analysis

During the monthly liquid depth measurement event and during LFG monitoring, SCS collected stroke counter data from the pumps installed in the GCCS extraction wells. These stroke counts were collected from 21 wells from June 1, to July 1, 2026. The recorded stroke count data from each well during March is included in **Table F-1**.

Based on the number of strokes in each well, SCS can estimate the number of gallons of liquid pumped from each well to assess pump performance. SCS assumed that each stroke from a float-style pneumatic pump correlates to approximately 0.3 gallons of liquid removed from the well. Blackhawk piston-style pumps remove approximately 0.11 gallons per stroke.

Table F-1 Summary of Dual Extraction Well Pump Stroke Counter Data

Well	6/1/2026	7/1/2026	# of strokes between measurements	Estimated liquid removed (gallons)
EW36A			-	0
EW49	161659	168676	7,017	2,105
EW50	1733480	1736534	3,054	916
EW52	116326	170746	54,420	16,326
EW53			-	0
EW54	935932	10391	74,459	22,338
EW55	190122	243240	53,118	15,935
EW59	4083348	4124297	40,949	12,285
EW60	456363	464867	8,504	2,551
EW61	337348	348635	11,287	3,268
EW62	262260	262743	483	145
EW65	256177	256270	93	28
EW66	1088907	1260502	171,595	51,479
EW67	305492	568201	262,709	78,813
EW68	2743896	2762411	18,515	5,555
EW76			-	0
EW78	525537	558559	33,022	9,907
EW82			-	0
EW85	394200	397294	3,094	928
EW87	340749	340749	-	0
EW88	490470	490472	2	1
EW93	1409957	1409957	-	0
EW94	2013255	2022921	9,666	2,900
EW98	3280632	3346349	65,717	19,715
TP-4	27743	27752	9	3
Total Estimated Liquid Removal				245,314