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DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL CLEANUP AND BROWNFIELDS

Southeast Regional Office
Hazardous Sites Cleanup Program
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SAMPLING EVALUATION REPORT

Alliance 51st Street/Bartram's Mile Trail
City of Philadelphia
Pennsylvania

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1.0 INTRODUCTION

1.1 Objective

The Pennsylvania Department of Environmental Protection (DEP), Hazardous Sites Cleanup Program (HSCA) conducted soil and surface water sampling along Bartram's Mile Trail immediately east of the Alliance 51st Street Site on July 22, 2024 and August 13, 2024. The purpose of these sampling efforts was to evaluate the presence or absence of hexavalent chromium (Cr(VI)) and other potential contaminants of concern in an area of the trail that receives stormwater runoff from the Alliance 51st Street property. Sampling activities were conducted in accordance with the DEP Sampling and Analysis Plans dated July 19, 2024 and August 12, 2024 (***Appendix A***).

1.2 Executive Summary

The Alliance 51st Street property (Site) is an industrial parcel owned by Alliance 51st Street, LLC (Alliance) and located at 1630 - 1646 S 51st Street in Philadelphia. The Site is bordered by a railroad to the south and the Schuylkill Banks/Bartram's Mile Trail to the east. Bartram's Garden is south of the Site. Parcels north of the Site are owned by the Philadelphia Authority for Industrial Development. The Schuylkill River is immediately east of the Site.

On April 5, 2024, an incident was reported to the National Response Center. The caller reported that "strange looking water is leaching from a former refinery… The material looks greenish." On May 30, 2024, Arcadis U.S., Inc. (Arcadis) on behalf of Alliance collected groundwater samples from monitoring wells on the Site and the results revealed the presence of total and dissolved chromium and Cr(VI) in the groundwater. On June 10, 2024, Arcadis reported these results to DEP.

On July 22, 2024, DEP collected soil samples from eleven (11) locations along Bartram's Mile Trail, and surface water samples from four (4) locations in the Schuylkill River. Sample locations were focused to the area of the trail that receives surface water runoff from the Alliance 51st Street property. Soil samples exceeded the published Act 2 Residential Medium Specific Concentration (MSC) of 37 milligrams per kilogram (mg/kg) for Cr(VI) in four locations, ranging from 38mg/kg to 77mg/kg. Cr(VI) was not detected in surface water samples above laboratory detection limits.

On August 1, 2024, Arcadis notified DEP that cleanup efforts had been completed at locations which exceeded Cr(VI) MSCs as a result of the July 22, 2024 sampling.

On August 13, 2024, DEP collected soil samples from ten (10) locations along Bartram's Mile Trail, including locations which exceeded Act 2 MSCs on July 22, 2024, and additional locations from the surrounding area. Soil samples exceeded the Act 2 Residential MSC of 37mg/kg for Cr(VI) in two locations, with detections of 57mg/kg and 62mg/kg, respectively. In addition, DEP collected surface water samples from two (2) locations of ponded water on the Alliance 51st

Street property. Both surface water samples exceeded the Chapter 93 Human Health Criteria for Cr(VI) of 11 micrograms per liter (µg/L), with detections of 20,000µg/L and 29,000µg/L, respectively. No surface water was observed on or migrating toward the Bartram's Mile Trail.

2.0 THE SITE

2.1 Location

The Alliance 51st Street property (Site) is an industrial parcel located at 1630 - 1646 S 51st Street in Philadelphia. The Site is bordered by a railroad to the south and the Schuylkill Banks/Bartram's Mile Trail to the east. Bartram's Garden is south of the Site. Parcels north of the Site are owned by the Philadelphia Authority for Industrial Development. The Schuylkill River is immediately east of the Site (***Figure 1***).

2.2 History

The Site appears to have been used for the storage of lumber as early as 1923. Between 1923 and 1945, the Site was used to manufacture cardboard containers. Between 1951 and 2021, the Site was used as a fuel oil terminal, by Allied Oil Inc, Hess Oil and Chemical Corporation, Plains Product Terminals, LLC and PBF Logistics. Alliance 51st Street LLC (Alliance) purchased the property in December 2021.

2.3 Storage Tank Case

In 2021, twelve regulated Aboveground Storage Tanks (ASTs), which stored petroleum products, were demolished and removed from the property. The facility ID number for the Site was 51-10420. On December 15, 2021, an AST closure report was submitted to the DEP by Stantec Consulting Services, Inc. on behalf of PBF Logistics Products Terminals LLC. On February 2, 2023, the November 2022 Site Characterization Report (SCR) submitted by Arcadis was disapproved. On June 27, 2023, a Revised SCR (RSCR) was submitted to the DEP by Arcadis and was approved on September 27, 2023. On November 27, 2023, a Remedial Action Plan was submitted by Arcadis and received by DEP. The plan stated that soil which exceeds applicable Act 2 MSCs would be addressed with engineering and institutional controls. Soil would be graded and moved beneath the proposed building and/or surrounding paved areas to prevent direct contact and mitigate leaching of contaminants to groundwater. Compounds investigated included those listed in the unleaded gasoline, diesel, and No. 2 fuel oil DEP shortlists. There would be a soil management plan created for any intrusive work at the site to protect the workers. Lead in soil and groundwater would be addressed concurrently through the Act 2 program.

2.4 Act 2 Case

On February 14, 2022, DEP received a Notice of Intent to Remediate (NIR) to address releases of contamination that are not regulated by the Storage Tank and Spill Prevention Act through the Land Recycling (Act 2) program. These contaminants include lead, volatile organic compounds (VOCs), and semi-volatile organic compounds. Historic fill and non-regulated features including a loading rack located outside of containment, may be contributing to exceeding concentrations of regulated DEP petroleum shortlist parameters in soil and groundwater. According to the NIR, soil borings in the former AST and piping area identified exceedances of the Non-Residential Direct Contact and/or Soil to Groundwater (GW) MSCs for petroleum hydrocarbons (incl. benzene, 1,2,4-trimethylbenzene), polycyclic aromatic hydrocarbons (incl. benzo(a)pyrene), and lead. Additionally, 1,2,4-trimethylbenzene in the soil exceeded the non-residential vapor intrusion screening values. Groundwater samples from temporary wells had exceedances of the Non-Residential Used Aquifer GW MSCs for benzene, 1,2,4-trimethylbenzene, and lead.

On July 30, 2024, a revised NIR was provided by Alliance and received by DEP. The revised NIR added chromium and Cr(VI) to the list of compounds that will be addressed.

3.0 INVESTIGATION OF RELEASE OR THREAT OF RELEASE

3.1 Field Observations and Initial Response

On April 5, 2024, an incident was reported to the National Response Center. The caller reported that "strange looking water is leaching from a former refinery… The material looks greenish."

On April 12, 2024, DEP inspected the Site. The inspection report described a drainage ditch located between the former tank containment area and the rail line. The report noted that "Discoloration was present on the soil at the bottom of the ditch, but flow in the ditch was clear and at a rate of app(sic) 5gpm. Flow in the ditch re-infiltrated into the soil before reaching the eastern fence line, but the discoloration extended past the fence and on to the edge of the adjacent River Trail." and that "the discoloration seems to be a chronic issue since a 5/10/23 Google Earth view of the site shows the phenomenon."

During a May 2, 2024 inspection, DEP personnel noted that soil berms had been constructed in the ditch to prevent surface flow from leaving the property.

On June 10, 2024, Arcadis, consultants working on behalf of Alliance, reported that soil berms had been constructed "across the low-lying area on the eastern portion of the site to prevent any discolored water from leaving the site." Results from monitoring well sampling conducted by Arcadis on May 30, 2024, revealed the presence of chromium[1] in the groundwater in exceedance of the Non-Residential Used Aquifer MSC. Tests pits installed by Arcadis identified yellow-green stained soil. Analysis of the stained soil confirmed the presence of trivalent and

[1] Total and Dissolved Metals by 6020B, and Cr(VI) by 7196A (unfiltered and filtered) analyses were performed.

hexavalent chromium (Cr(III)) and Cr(VI). The soil concentrations were below the Non-Residential Direct Contact MSCs[2] but were above the Used Aquifer Non-Residential Soil to Groundwater MSCs.

On July 11, 2024, Arcadis indicated that five additional test pits were installed on the southern property boundary on July 3rd. The stained soil layer was encountered a few feet below grade and varied in thickness in each test pit.

On July 17, 2024, DEP personnel visited the Site to inspect the area of previously observed off-site discharge and determine DEP sampling locations. No active discharge was observed coming from the Site.

During a July 18, 2024 DEP inspection, DEP evaluated perimeter controls and berms within the Site and found several Chapter 102 violations including the failure to implement and/or maintain Erosion and Sedimentation Best Management Practices. A July 29, 2024 DEP follow up inspection found that many of the concerns identified on July 18 had been addressed and recommended that the large soil pile on Site be stabilized if there were no plans to disturb it within the following four (4) days.

The information in Section 3.1 of this report is included for reference only. Additional information regarding DEP inspection observations and violations can be found in the respective and subsequent inspection reports.

3.2 July 2024 Sampling Activity

DEP received formal consent to access Bartram's Mile Trail to sample in the area indicated in ***Figure 1***.

3.2.1 July 2024 Soil Sampling

On July 22, 2024, DEP collected soil samples from eleven (11) locations along Bartram's Mile Trail. Sampling activities were conducted in accordance with the July 19, 2024 Sampling and Analysis Plan (***Appendix A***). Soil sample locations were focused to the area of the trail that receives surface water runoff from the Alliance 51st Street property (***Figure 2***). Descriptions of each location can be found in the July 22, 2024 Narrative Report included in ***Appendix B***. A duplicate sample was collected at the S6 location for quality control purposes. Immediately after DEP collected the samples, Arcadis also collected samples from each location.

3.2.1.1 DEP Soil Sample Results – July 2024

[2] Non-Residential Direct Contact MSC for Subsurface Soil, 2-15ft.

DEP soil samples were analyzed by Eurofins Lancaster Laboratories Environmental for VOCs by 8260D, Total Metals TAL List by 6020B, Cr(VI) by 7196A, Cr(III) by Lab Calculation[3], and Mercury by 7471B. DEP soil sample results are summarized in ***Table 1*** below. The laboratory data package is included in ***Appendix C***[4].

Soil sample results were compared to the Act 2 Residential MSCs for regulated substances in soil that were published at the time of the sampling activity. The Residential MSCs are applicable because the trail is a recreational area accessible by the public. Either the Direct Contact[5] or the Soil to Groundwater standard was used, whichever was more stringent.

Sample locations S1, S2, S3, S6[6], S7, S8, and S10 had detections of Cr(VI). Of the detections, locations S3, S7, S8, and S10 exceeded the Act 2 Residential MSC of 37mg/kg for Cr(VI) (***Figure 3***). Exceedances ranged from 38 mg/kg at S3 to 77 mg/kg at S7. Photos and descriptions of the sample locations which exceeded the Act 2 Residential MSC for Cr(VI) are available in the July 22, 2024 Narrative Report and in the ***Photo A*** section of this report. The S3 location is located near the Alliance 51st Street property fence line where the previously observed discharge would have exited the property. The S7 and S10 locations were collected from the asphalt trail side of the concrete barrier along the east side of the trail. Prior to sample collection, accumulations of sediment had been removed from the asphalt trail, and sediment socks had been placed on the trail in front of all drain ports. Sample locations S7 and S10 were collected from any remaining sediment on the asphalt trail or in the drainage ports in the concrete barrier. Sample location S8 was collected from the river side of the concrete barrier.

Sample location S6[6] and S10 exceeded the Act 2 Residential MSC of 12mg/kg for arsenic, with detections of 13mg/kg and 14mg/kg, respectively. Sample location S5 exceeded the Act 2 Residential MSC of 450mg/kg for lead, with a detection of 460mg/kg (***Figure 4***).

Note: The sample collected at the S6 location which exceeded the Act 2 MSCs for Cr(VI) and arsenic was the duplicate sample collected at that location. The S6 sample did not exceed the Act 2 MSCs. The duplicate sample was collected prior to the S6 sample, so it is hypothesized that the S6 sample was collected from a depth below the duplicate sample. As a conservative measure, the duplicate sample results were used to evaluate risk exposure.

Due to laboratory dilution, the laboratory reporting limit for 1,2-Dibromo-3-Chloropropane and 1,2-Dibromoethane in Samples S6 (duplicate) and S7 exceeded their respective Act 2 Residential MSCs.

3.2.1.2 Arcadis Soil Sample Results – July 2024

[3] Cr(III) is the calculated difference of Total Chromium and Cr(VI).
[4] Eurofins issued a revised laboratory data package to correct the Cr(III) lab calculation method reference. The revision did not affect sample results.
[5] Residential Direct Contact MSC, 0-15ft.
[6] Sample location S6 is a duplicate sample.

Arcadis soil samples were analyzed by Alpha Analytical for VOCs by EPA 8260D, Total Metals by 6010D, Cr(VI) by 7196A, Cr(III) by Lab Calculation, and Mercury by 7471B. Arcadis soil sample results are summarized in ***Appendix D***. The laboratory data package can be found in ***Appendix E***.

Arcadis compared their soil sample results to the Act 2 Residential Direct Contact MSCs published at the time of sampling, as indicated in ***Appendix D***. DEP has reviewed Arcadis' results in comparison to the Direct Contact or the Soil to Groundwater MSCs, whichever was more stringent.

Sample locations S1, S2, and S7 had detections of Cr(VI), none of which exceeded the Act 2 Residential MSC of 37mg/kg for Cr(VI).

Sample location S6 S8, and S10 exceeded the Act 2 Residential MSC of 12mg/kg for arsenic, with detections of 12.9mg/kg, 13.9mg/kg, and 13.8mg/kg, respectively. A duplicate sample collected at the S6 location also exceeded the arsenic MSC with a detection of 16.9mg/kg. Sample locations S5, S8, and S9 exceeded the Act 2 Residential MSC of 450mg/kg for lead, with detections of 2330mg/kg, 474mg/kg, and 1120mg/kg, respectively.

Note: Arcadis samples were collected from the same locations as the DEP samples, after DEP collected the samples. It is therefore hypothesized that the Arcadis samples were collected from a depth below the DEP samples. If this is the case, it is possible that DEP removed the detectable levels of Cr(VI) in soil from the sample locations before Arcadis' collection.

3.2.2 July 2024 Surface Water Sampling

On July 22, 2024, DEP collected surface water samples from four (4) locations in the Schuylkill River (***Figure 5***). Sampling activities were conducted in accordance with the July 19, 2024 Sampling and Analysis Plan (***Appendix A***). No surface water was present on or around Bartram's Mile Trail. Two surface water locations are near the area that would receive surface water runoff from the Alliance 51st Street property. One surface water location is down gradient, from the Bartram's Garden fishing dock, and one surface water location is up gradient from the next available fishing dock along the Bartram's Mile Trail. DEP collected a second sample at the W1 location to act as a duplicate for quality control purposes. After DEP collected the samples, Arcadis also collected samples from each location.

3.2.2.1 DEP Surface Water Sample Results – July 2024

DEP surface water samples were analyzed by Eurofins Lancaster Laboratories Environmental for VOCs by 8260D, Dissolved Metals TAL List by 6020B, Dissolved Mercury by 7470A, Dissolved

Cr(VI) by 7196A, and Cr(III) by Lab Calculation. DEP surface water sample results are summarized in ***Table 2*** below. The laboratory data package is included in ***Appendix C***[7].

Surface Water sample results were compared to DEP's Chapter 93 Water Quality Criteria for Toxic Substances. It is important to note that Chapter 93 Water Quality Criteria do not apply in the Delaware Estuary and the tidal portions of its tributaries. DEP defers to the Delaware River Basin Commission (DRBC) Stream Quality Objectives in these areas. The Site is located in Zone 4 of the Delaware Estuary. Sample results are compared to both the Chapter 93 Water Quality Criteria and the DRBC Stream Quality Objectives in ***Table 2***. The Chapter 93 Human Health Criteria and the most stringent of the applicable DRBC Stream Quality Objectives were used as a conservative measure.

There were no detections of Cr(VI) in surface water. Surface Water samples did not exceed their respective Water Quality Criteria or Stream Quality Objectives. It is important to note that the published Chapter 93 Water Quality Criteria consider a "duration of exposure" to be protective of aquatic life and human health. The samples collected from the Schuylkill River on July 22, 2024 were grab samples and did not account for duration of exposure. A single grab sample is not enough to characterize Water Quality under Chapter 93.

Water Quality Criteria and Stream Quality Objectives for several metals include a consideration of hardness. For the data comparison purpose in this report, a hardness of 128mg/L calcium carbonate was used to calculate the respective Water Quality Criteria and Stream Quality Objectives. This hardness value is an average of hardness data collected over the past year at the Water Quality Network (WQN) stations immediately upstream and immediately downstream from the Site (WQN 110 Schuylkill at Fairmount and WQN 182 Delaware Estuary at PA/DE border). It is an estimation of conditions in the Site area.

3.2.2.2 Arcadis Surface Water Sample Results – July 2024

Arcadis surface water samples were analyzed by Alpha Analytical for VOCs by EPA 8260D, Total Metals by 6020B, Cr(VI) by 7196A, Cr(III) by Lab Calculation, and Mercury by 7470A. Arcadis surface water sample results are summarized in ***Appendix D***. The laboratory data package can be found in ***Appendix E***. There were no detections of Cr(VI) in surface water. Sample locations W1, W2, and W3 exceeded the Chapter 93 Human Health Criterion of 0.05µg/L for mercury, with detections ranging from 0.092µg/L to 0.249µg/L. There were no other exceedances of Chapter 93 Water Quality Criteria.

Note: At each July 22, 2024 surface water sample location, DEP collected a surface water sample, then Arcadis collected a surface water sample from the same location.

[7] Eurofins issued a revised laboratory data package to correct the Cr(III) chromium lab calculation method reference. The revision did not affect sample results.

3.3 August 2024 Sampling Activity

On August 1, 2024, Arcadis notified DEP that cleanup efforts had been completed at locations which exceeded Cr(VI) MSCs as a result of the July 22, 2024 sampling. On August 6, 2024, Arcadis collected confirmatory samples, which indicated no detections of Cr(VI). Arcadis soil sample results from August 6, 2024 are summarized in ***Appendix D***. The laboratory data package can be found in ***Appendix E***.

3.3.1 August 2024 Soil Sampling

On August 13, 2024, DEP collected confirmatory soil samples in the locations which exceeded Act 2 MSCs on July 22, 2024, and additional soil samples from the surrounding area. Sampling activities were conducted in accordance with the August 12, 2024 Sampling and Analysis Plan (***Appendix A***). DEP collected soil samples from ten (10) locations along Bartram's Mile Trail (***Figure 6***). Descriptions of each location can be found in the August 13, 2024 Narrative Report included in ***Appendix B***. Duplicate samples were collected at the S6 and S12 locations for quality control purposes. Arcadis collected split samples from each location.

3.3.1.1 DEP Soil Sample Results – August 2024

DEP soil samples were analyzed by Eurofins Lancaster Laboratories Environmental for Total Metals TAL List by 6020B, Cr(VI) by 7196A, Cr(III) by Lab Calculation, and Mercury by 7471B. DEP soil sample results are summarized in ***Table 3*** below. The laboratory data package is included in ***Appendix C***.

Soil sample results were compared to the Act 2 Residential MSCs for regulated substances in soil that were published at the time of the sampling activity. Either the Direct Contact or the Soil to Groundwater standard was used, whichever was more stringent.

Sample locations S3, S5, S6, and S8A had detections of Cr(VI). Of the detections, locations S3 and S5 exceeded the Act 2 Residential MSC of 37mg/kg for Cr(VI) with detections of 57mg/kg and 62mg/kg, respectively (***Figure 7***). Photos and descriptions of the sample locations which had detections of Cr(VI) are available in the August 13, 2024 Narrative Report and in the ***Photo B*** section of this report.

The S3 soil sample was collected immediately next to the stone that was placed outside of the Alliance property fence. The S8A soil sample was collected from the closest accumulation of soil to the July 22, 2024 S8 sample location. It is likely that not all the contaminated soil was removed from these areas during the cleanup effort in early August. DEP's July 22, 2024 sample results at S5 and S6 were non-detect, so no cleanup effort was completed in this area.

Sample locations S5 and S6 exceeded the Act 2 Residential MSC of 450mg/kg for lead, with detections of 610mg/kg and 670mg/kg, respectively (***Figure 8***). Sample location S8A exceeded the Act 2 Residential MSC of 7200mg/kg for copper, with a detection of 9900 mg/kg. However,

additional sampling is recommended to verify the accuracy of this copper detection, as it exceeded the range of copper detections in other samples by several orders of magnitude.

Note: Prior to the collection of each duplicate and split sample on August 13, 2024, surface soil was removed from the respective sample location, placed on plastic, and mixed. The DEP sample, duplicate (where applicable), and the Arcadis split sample were then collected from the soil mixture. This collection practice was an attempt to minimize the difference of soil sample depth that may have occurred during the July 22, 2024 soil sample collection, as described in Section 3.2.1.1 and 3.2.1.2 of this report. This practice would not eliminate soil heterogeneity.

3.3.1.2 Arcadis Soil Sample Results – August 2024

Arcadis soil samples were analyzed by Alpha Analytical for Total Metals TAL List by 6010D, Cr(VI) by 7196A, Cr(III) by Lab Calculation, and Mercury by 7471B. Arcadis soil sample results are summarized in ***Appendix D***. The laboratory data package can be found in ***Appendix E***.

Arcadis compared their soil sample results to the Act 2 Residential Direct Contact Soil MSCs published at the time of sampling, as indicated in Appendix D. DEP has reviewed Arcadis' results in comparison to the Direct Contact or the Soil to Groundwater MSCs, whichever was more stringent.

Sample locations S3, S5, S6, S7, S8A, S13, and S14 had detections of Cr(VI), none of which exceeded the Act 2 Residential MSC of 37mg/kg for Cr(VI).

Sample locations S6 and S13 exceeded the Act 2 Residential MSC of 450mg/kg for lead, with detections of 1060mg/kg and 1290mg/kg, respectively.

3.3.2 August 2024 Surface Water Sampling

On August 13, 2024, DEP collected surface water samples from the two (2) locations of ponded water on the Alliance 51st Street property (***Figure 9***). Descriptions of each location can be found in the August 13, 2024 Narrative Report included in ***Appendix B***. Arcadis collected split samples from each location.

No surface water was present on or around Bartram's Mile Trail.

3.3.2.1 DEP Surface Water Sample Results – August 2024

DEP surface water samples were analyzed by Eurofins Lancaster Laboratories Environmental for Total Metals TAL List by 6020B, Cr(VI) by 7196A, Cr(III) by Lab Calculation, and Mercury (CVAA) by 7471B. DEP surface water sample results are summarized in ***Table 4*** below. The laboratory data package is included in ***Appendix C***.

Surface water sample results were compared to DEP's Chapter 93 Water Quality Criteria for Toxic Substances. The most stringent Chapter 93 Human Health Criteria were used. Both sample locations exceeded the Chapter 93 Criterion of 11µg/L for Cr(VI) with detections of 20,000µg/L at the W5 location and 29,000 µg/L at the W6 location. There were no other exceedances of Chapter 93 Water Quality Criteria.

3.3.2.2 Arcadis Surface Water Sample Results – August 2024

Arcadis surface water samples were analyzed by Alpha Analytical for Total Metals by EPA 6020B, Cr(VI) by 7196A, Cr(III) by Lab Calculation, and Mercury by EPA 7470A. Arcadis surface water sample results are summarized in ***Appendix D***. The laboratory data package can be found in ***Appendix E***.

Both sample locations exceeded the Ch. 93 Criterion of 11µg/L for Cr(VI) with detections of 19,600µg/L at the W5 location and 28,000µg/L at the W6 location. Sample location W5 exceeded the Ch. 93 Human Health Criterion of 0.24µg/L for thallium, with a detection of 1.018µg/L. There were no other exceedances of Chapter 93 Water Quality Criteria.

Note: DEP and Arcadis August 13, 2024 surface water sample containers were filled concurrently.

4.0 RECOMMENDATIONS FOR FURTHER INVESTIGATION

The July 22, 2024 soil samples exceeded the Act 2 Residential MSC of 37mg/kg for Cr(VI) in four locations, ranging from 38mg/kg to 77mg/kg. The August 13, 2024 soil samples exceeded the Act 2 Residential MSC for Cr(VI) in two locations, with detections of 57mg/kg and 62mg/kg. Based on these results, it is apparent that cleanup efforts completed on August 1, 2024 did not effectively remove all contaminated soil from the area of Bartram's Mile Trail that received surface water runoff from the Alliance 51st Street property. DEP recommends that additional soil be removed from the areas shown in ***Photo B***. Due to the varying nature of Cr(VI) detections in soil in this area, DEP recommends that soil be removed in all areas which had Cr(VI) detections, not just those which exceed Act 2 Residential MSCs. Following additional soil removal efforts, subsequent sampling should be completed to ensure that all contaminated soil has been removed from areas that may be accessed by trial users. Best Management Practices should be maintained to prevent future surface water runoff from leaving the Alliance 51st Street property.

5.0 REFERENCES

1. City of Philadelphia Office of Property Assessment Property Search App, July 2024
2. Administration of the Land Recycling Program, Chapter 250, 25 Pa. Code §250.1 *et seq*.
3. Water Quality Standards, Chapter 93, 25 Pa Code §93.1 *et seq*.
4. Erosion and Sediment Control, Chapter 102, 25 Pa Code §102.1 *et seq.*
5. Delaware River Basin Commission, Administrative Manual, Part III, Water Quality Regulations, 18 CFR Part 410.
6. December 15, 2021, AST Closure Report, submitted by Stantec Consulting Services, Inc. on behalf of PBF Logistics Products Terminals LLC
7. February 14, 2022, Notice of Intent to Remediate, submitted by Arcadis US, Inc. on behalf of Alliance 51Street LLC
8. June 27, 2023, Revised Site Characterization Report, submitted by Arcadis US, Inc. on behalf of Alliance 51Street LLC
9. November 27, 2023, Remedial Action Plan submitted by Arcadis US, Inc. on behalf of Alliance 51Street LLC
10. April 12, 2024, DEP General Inspection Report (Non-NPDES)
11. May 2, 2024, DEP General Inspection Report (Non-NPDES)
12. June 10, 2024 email to DEP from Arcadis
13. July 11, 2024 email to DEP from Arcadis
14. July 17, 2024, DEP Environmental Cleanup and Brownfields Narrative Report
15. July 18, 2024, DEP Chapter 102 Inspection Report
16. July 29, 2024, DEP Chapter 102 Inspection Report
17. July 30, 2024, Notice of Intent to Remediate, submitted by Arcadis US, Inc. on behalf of Alliance 51Street LLC
18. August 1, 2024 email to DEP from Arcadis

Tables

Table 1. July 22, 2024 DEP Soil Sample Results

2024.07.22 DEP Soil Sample Results - Bartram's Mile Trail, Philadelphia, PA			Result in mg/kg											
Analyte	CAS	DEP Act 2 Residential MSC (mg/kg)	DEP51-S1	DEP51-S2	DEP51-S3	DEP51-S4	DEP51-S5	DEP51-S6	DUP-S	DEP51-S7	DEP51-S8	DEP51-S9	DEP51-S10	DEP51-S11
Metals														
Mercury	7439-97-6	10	0.062	0.053	0.13	0.098	ND	0.25	0.27	0.11	0.15	0.12	0.24	0.16
Cr (III)	16065-83-1	190000	620	750	1400	810	330	250	350	980	820	820	880	100
Cr (VI)	18540-29-9	37	15	10	38	ND	ND	ND	28	77	54	ND	53	ND
Aluminum	7429-90-5	190000	8200	9500	17000	14000	9200	7400	9100	13000	12000	15000	21000	13000
Antimony	7440-36-0	27	0.31	0.34	0.53	0.65	0.49	1.9	2.5	0.79	0.92	0.65	0.81	0.82
Arsenic	7440-38-2	12	4.4	5.7	9.8	8.2	5	12	13	10	9.9	8.6	14	7
Barium	7440-39-3	8200	86	97	160	140	110	130	160	120	130	150	150	110
Beryllium	7440-41-7	320	0.37	0.44	0.76	0.63	0.42	0.49	0.59	0.66	0.64	0.82	1.4	0.75
Cadmium	7440-43-9	38	0.19	0.23	0.41	0.41	0.28	0.59	0.66	0.45	0.43	0.61	0.52	0.47
Calcium	7440-70-2	NS	38000	28000	49000	29000	10000	13000	15000	26000	23000	22000	43000	7200
Chromium	7440-47-3	NS	640	760	1400	810	330	250	380	1100	870	820	940	100
Cobalt	7440-48-4	45	9.5	11	18	14	9.7	11	11	14	14	16	19	10
Copper	7440-50-8	7200	16	21	41	42	26	88	110	45	62	48	61	46
Iron	7439-89-6	150000	16000	17000	30000	29000	19000	58000	44000	28000	25000	28000	36000	23000
Lead	7439-92-1	450	44	66	110	230	460	270	330	200	200	380	170	170
Magnesium	7439-95-4	NS	5700	6100	9600	9100	6200	3500	4200	7700	6900	8200	24000	5400
Manganese	7439-96-5	2000	300	310	530	500	340	480	450	460	560	620	850	420
Nickel	7440-02-0	650	34	42	66	49	28	33	37	60	48	53	62	21
Potassium	7440-09-7	NS	3200	3700	6800	4500	4600	2100	2500	4000	3800	4100	5100	2500
Selenium	7782-49-2	26	0.13	0.14	0.33	0.3	0.17	0.53	0.68	0.32	0.46	0.46	0.56	0.5
Silver	7440-22-4	84	0.035	0.11	0.11	0.12	0.056	0.16	0.18	0.13	0.12	0.18	0.19	0.26
Sodium	7440-23-5	NS	95	120	170	210	220	140	170	230	240	200	1600	160
Thallium	7440-28-0	2.2	0.17	0.21	0.37	0.29	0.23	0.19	0.23	0.25	0.27	0.29	0.4	0.25
Vanadium	7440-62-2	1100	32	35	62	44	30	27	33	49	46	47	86	42
Zinc	7440-66-6	12000	140	200	310	310	280	210	290	360	290	430	340	250
1,1,1-Trichloroethane	71-55-6	20	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	79-34-5	0.084	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	79-00-5	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	75-34-3	3.1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	75-35-4	0.7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	120-82-1	27	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-Chloropropane	96-12-8	0.02	ND	ND	ND	ND	ND	ND	(<0.1)	(<0.099)	ND	ND	ND	ND
1,2-Dibromoethane (Ethylene Dibromide)	106-93-4	0.005	ND	ND	ND	ND	ND	ND	(<0.062)	(<0.059)	ND	ND	ND	ND
1,2-Dichlorobenzene	95-50-1	60	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	107-06-2	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	78-87-5	0.12	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,3-Dichlorobenzene	541-73-1	0.65	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dichlorobenzene	106-46-7	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone (Methyl Ethyl Ketone)	78-93-3	400	ND	0.0045	ND	0.025	0.032	0.0097	ND	ND	ND	0.011	0.02	0.021
2-Hexanone (Methyl N-Butyl Ketone)	591-78-6	6.3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
4-Methyl-2-pentanone (Methyl Isobutyl Ketone)	108-10-1	280	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Acetone	67-64-1	3100	ND	0.061	ND	0.27	0.44	0.1	ND	ND	0.04	0.095	0.21	0.21

2024.07.22 DEP Soil Sample Results - Bartram's Mile Trail, Philadelphia, PA			Result in mg/kg											
	Analyte	CAS	DEP Act 2 Residential MSC (mg/kg)	DEP51-S1	DEP51-S2	DEP51-S3	DEP51-S4	DEP51-S5	DEP51-S6	DUP-S	DEP51-S7	DEP51-S8	DEP51-S9	DEP51-S10	DEP51-S11
Volatile Organic Compounds	Benzene	71-43-2	0.5	ND	ND	ND	ND	ND	0.003	ND	ND	ND	0.0015	ND	0.0031
	Bromodichloromethane	75-27-4	8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Bromoform	75-25-2	8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Bromomethane	74-83-9	1	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Carbon disulfide	75-15-0	150	ND	ND	ND	0.0022	ND	0.0034	ND	ND	0.0013	0.0029	0.0019	ND
	Carbon tetrachloride	56-23-5	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Chlorobenzene	108-90-7	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Chloroethane	75-00-3	2100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Chloroform	67-66-3	8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Chloromethane (Methyl Chloride)	74-87-3	3	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	cis-1,2-Dichloroethene	156-59-2	7	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	cis-1,3-Dichloropropene*	10061-01-5	0.65	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Cyclohexane	110-82-7	1700	ND	ND	ND	ND	ND	ND	0.18	ND	ND	ND	ND	ND
	Dibromochloromethane	124-48-1	8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Dichlorodifluoromethane (Freon 12)	75-71-8	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Ethylbenzene	100-41-4	70	ND	ND	ND	ND	ND	ND	0.047	ND	ND	ND	ND	ND
	Freon 113 (1,1,2-Trichloro-1,2,2-Trifluoroethane)	76-13-1	3400	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Isopropylbenzene (Cumene)	98-82-8	600	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Methyl acetate	79-20-9	3500	ND	0.0016	ND	ND	ND	ND	0.12	0.21	0.014	ND	ND	ND
	Methyl tertiary butyl ether (MTBE)	1634-04-4	2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Methylcyclohexane	108-87-2	NS	ND	ND	ND	ND	ND	ND	0.46	ND	ND	ND	ND	ND
	Methylene Chloride	75-09-2	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Styrene	100-42-5	24	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Tetrachloroethene (PCE)	127-18-4	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Toluene	108-88-3	100	ND	ND	ND	0.0024	0.0028	0.0027	0.13	ND	ND	0.0025	ND	0.012
	trans-1,2-Dichloroethene	156-60-5	10	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	trans-1,3-Dichloropropene*	10061-02-6	0.65	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Trichloroethene (TCE)	79-01-6	0.5	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Trichlorofluoromethane (Freon 11)	75-69-4	200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Vinyl chloride	75-01-4	0.2	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	Xylenes, Total	1330-20-7	1000	ND	ND	ND	ND	ND	ND	0.39	ND	ND	ND	ND	ND

KEY	
1 mg/kg = 1 ppm	
Medium Specific Concentration	MSC
No Standard	NS
Exceeds Published Act 2 Residential MSC	
Act 2 Residential MSC uses Direct Contact or Soil to Groundwater Standard published at the time of sampling, whichever is more stringent.	

KEY	
Not Detected above the Laboratory Minimum Detection Limit (MDL)	ND
All detections above the MDL are shown. MDL does not exceed the MSC unless indicated.	
(<value) indicates sample was not detected above the MDL, but the MDL exceeds the MSC.	

Table 2. July 22, 2024 DEP Surface Water Sample Results

2024.07.22 DEP Surface Water Sample Results Schuylkill River, Bartram's Mile Trail, Philadelphia, PA				Result in µg/L						
Analyte	CAS	DEP Chapter 93 Water Quality Criteria (Most Stringent)	DRBC Stream Quality Objectives (Most Stringent)	DEP51-W1	DUP-W	DEP51-W2	DEP51-W3	DEP51-W4	Trip Blank 1	Trip Blank 2
Metals										
Mercury	7439-97-6	0.05	0.05	ND	ND	ND	ND	ND		
Cr (III)	16065-83-1	91*	29*	ND	ND	ND	ND	ND		
Cr (VI)	18540-29-9	11	11	ND	ND	ND	ND	ND		
Aluminum	7429-90-5	750	87	ND	ND	ND	ND	ND		
Antimony	7440-36-0	5.6	5.6	0.52	0.55	0.47	0.5	0.42		
Arsenic	7440-38-2	10	150	1.1	1.2	1	0.96	1		
Barium	7440-39-3	2400	NS	44	44	43	45	44		
Beryllium	7440-41-7	NS	420	ND	ND	ND	ND	ND		
Cadmium	7440-43-9	0.29*	0.21*	ND	ND	ND	ND	ND		
Calcium	7440-70-2	NS	NS	32000	32000	33000	32000	32000		
Chromium	7440-47-3	NS	NS	ND	ND	ND	ND	ND		
Cobalt	7440-48-4	95	NS	0.24	0.43	ND	ND	ND		
Copper	7440-50-8	11.06*	10.46*	2.2	3.3	2	1.9	2.1		
Iron	7439-89-6	300	NS	36	33	ND	ND	22		
Lead	7439-92-1	3.29*	5.4*	ND	0.35	ND	ND	ND		
Magnesium	7439-95-4	NS	NS	12000	12000	13000	13000	12000		
Manganese	7439-96-5	1000	NS	6.3	6.5	5.6	5.7	5.3		
Nickel	7440-02-0	64.1*	54.4*	1.4	1.5	0.92	1.3	1.4		
Potassium	7440-09-7	NS	NS	4000	4000	4100	4000	4000		
Selenium	7782-49-2	4.6	5	ND	0.29	ND	0.31	ND		
Silver	7440-22-4	5.27*	4.9*	ND	ND	ND	ND	ND		
Sodium	7440-23-5	NS	NS	29000	29000	30000	29000	30000		
Thallium	7440-28-0	0.24	0.24	ND	ND	ND	ND	ND		
Vanadium	7440-62-2	100	NS	1.3	1.3	1.1	1.1	1.1		
Zinc	7440-66-6	144.4*	140.3*	ND	8	4.5	ND	4.3		
1,1,1-Trichloroethane	71-55-6	610	NS	ND	ND	ND	ND	ND	ND	ND
1,1,2,2-Tetrachloroethane	79-34-5	0.2	0.17	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	79-00-5	0.55	0.59	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	75-34-3	NS	NS	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	75-35-4	NS	NS	ND	ND	ND	ND	ND	ND	ND
1,2,4-Trichlorobenzene	120-82-1	0.07	NS	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromo-3-Chloropropane	96-12-8	NS	NS	ND	ND	ND	ND	ND	ND	ND
1,2-Dibromoethane	106-93-4	NS	NS	ND	ND	ND	ND	ND	ND	ND
1,2-Dichlorobenzene	95-50-1	160	NS	ND	ND	ND	ND	ND	ND	ND

Schuylkill River, Bartram's Mile Trail, Philadelphia, PA					Result in µg/L						
	Analyte	CAS	DEP Chapter 93 Water Quality Criteria (Most Stringent)	DRBC Stream Quality Objectives (Most Stringent)	DEP51-W1	DUP-W	DEP51-W2	DEP51-W3	DEP51-W4	Trip Blank 1	Trip Blank 2
Volatile Organic Compounds	1,2-Dichloroethane	107-06-2	9.9	0.38	ND	ND	ND	ND	ND	ND	ND
	1,2-Dichloropropane	78-87-5	0.9	0.5	ND	ND	ND	ND	ND	ND	ND
	1,3-Dichlorobenzene	541-73-1	7	NS	ND	ND	ND	ND	ND	ND	ND
	1,4-Dichlorobenzene	106-46-7	150	NS	ND	ND	ND	ND	ND	ND	ND
	2-Butanone	78-93-3	NS	NS	ND	ND	ND	ND	ND	ND	ND
	2-Hexanone	591-78-6	4300	NS	ND	ND	ND	ND	ND	ND	ND
	4-Methyl-2-pentanone	108-10-1	NS	NS	ND	ND	ND	ND	ND	ND	ND
	Acetone	67-64-1	3500	NS	ND	ND	ND	ND	ND	ND	ND
	Benzene	71-43-2	0.58	0.61	ND	ND	ND	ND	ND	ND	ND
	Bromodichloromethane	75-27-4	0.95	0.55	ND	ND	ND	ND	ND	ND	ND
	Bromoform	75-25-2	7	4.3	ND	ND	ND	ND	ND	ND	ND
	Bromomethane	74-83-9	NS	NS	ND	ND	ND	ND	ND	ND	ND
	Carbon disulfide	75-15-0	NS	NS	ND	ND	1.5	ND	ND	ND	ND
	Carbon tetrachloride	56-23-5	0.4	0.23	ND	ND	ND	ND	ND	ND	ND
	Chlorobenzene	108-90-7	100	20	ND	ND	ND	ND	ND	ND	ND
	Chloroethane	75-00-3	NS	NS	ND	ND	ND	ND	ND	ND	ND
	Chloroform	67-66-3	5.7	5.7	ND	ND	ND	ND	ND	ND	ND
	Chloromethane	74-87-3	NS	NS	ND	ND	ND	ND	ND	ND	ND
	cis-1,2-Dichloroethene	156-59-2	12	NS	ND	ND	ND	ND	ND	ND	ND
	cis-1,3-Dichloropropene	10061-01-5	0.27	0.34	ND	ND	ND	ND	ND	ND	ND
	Cyclohexane	110-82-7	NS	NS	ND	ND	ND	ND	ND	ND	ND
	Dibromochloromethane	124-48-1	0.8	0.4	ND	ND	ND	ND	ND	ND	ND
	Dichlorodifluoromethane	75-71-8	NS	NS	ND	ND	ND	ND	ND	ND	ND
	Ethylbenzene	100-41-4	68	NS	ND	ND	ND	ND	ND	ND	ND
	Freon 113	76-13-1	NS	NS	ND	ND	ND	ND	ND	ND	ND
	Isopropylbenzene	98-82-8	NS	NS	ND	ND	ND	ND	ND	ND	ND
	Methyl acetate	79-20-9	NS	NS	ND	ND	ND	ND	ND	ND	ND
	Methyl tertiary butyl ether	1634-04-4	NS	NS	ND	ND	ND	ND	ND	ND	ND
	Methylcyclohexane	108-87-2	NS	NS	ND	ND	ND	ND	ND	ND	ND
	Methylene Chloride	75-09-2	20	590	ND	ND	ND	ND	ND	ND	ND
	Styrene	100-42-5	NS	NS	ND	ND	ND	ND	ND	ND	ND
	Tetrachloroethene	127-18-4	10	0.69	ND	ND	ND	ND	ND	ND	ND
	Toluene	108-88-3	57	NS	ND	ND	ND	ND	ND	ND	ND
	trans-1,2-Dichloroethene	156-60-5	100	NS	ND	ND	ND	ND	ND	ND	ND
	trans-1,3-Dichloropropene	10061-02-6	0.27	NS	ND	ND	ND	ND	ND	ND	ND
	Trichloroethene	79-01-6	0.6	0.56	ND	ND	ND	ND	ND	ND	ND

Schuylkill River, Bartram's Mile Trail, Philadelphia, PA				Result in µg/L						
Analyte	CAS	DEP Chapter 93 Water Quality Criteria (Most Stringent)	DRBC Stream Quality Objectives (Most Stringent)	DEP51-W1	DUP-W	DEP51-W2	DEP51-W3	DEP51-W4	Trip Blank 1	Trip Blank 2
Trichlorofluoromethane	75-69-4	NS	NS	ND	ND	ND	ND	ND	ND	ND
Vinyl chloride	75-01-4	0.02	0.025	ND	ND	ND	ND	ND	ND	ND
Xylenes, Total	1330-20-7	210	NS	ND	ND	ND	ND	ND	ND	ND

KEY	
Microgram per Liter	µg/L
No Standard	NS
Not Detected above the Laboratory Minimum Detection Limit (MDL)	ND
All detections above the MDL are shown. DEP Ch. 93 Water Quality Criteria and DRBC Stream Quality Objectives are listed for reference only. See Report Section 3.2.2.1.	
*denotes hardness based value, hardness used was 128mg/L	

Table 3. August 13, 2024 DEP Soil Sample Results

2024.08.13 DEP Soil Sample Results - Bartram's Mile Trail, Philadelphia, PA				Result in mg/kg											
Analyte	CAS	DEP Act 2 Residential MSC (mg/kg)	DEP51-S3	DEP51-S5	DEP51-S6	DUP-SB	DEP51-S7	DEP51-S8A	DEP51-S10A	DEP51-S12	DUP-SA	DEP51-S13	DEP51-S14	DEP51-S15
Metals															
Mercury	7439-97-6	10	0.097	0.038	0.042	0.058	0.091	0.074	0.12	0.23	0.12	0.067	0.21	0.21
Cr (III)	16065-83-1	190000	1200	350	450	500	1000	280	720	1000	1100	450	640	86
Cr (VI)	18540-29-9	37	57	62	8.3	33	ND	35	ND	ND	ND	ND	ND	ND
Aluminum	7429-90-5	190000	15000	9600	6700	6800	14000	7000	14000	17000	16000	12000	16000	14000
Antimony	7440-36-0	27	0.74	0.77	4.8	5.8	1.2	1	1.2	1.1	0.97	1.2	2.3	0.97
Arsenic	7440-38-2	12	7.5	4.9	11	10	12	4.1	11	14	13	6.6	7.9	4.4
Barium	7440-39-3	8200	130	100	77	77	130	68	130	180	180	130	460	100
Beryllium	7440-41-7	320	0.63	0.57	0.38	0.49	0.68	0.36	0.78	0.91	0.82	0.58	0.72	0.48
Cadmium	7440-43-9	38	0.34	0.31	0.35	0.32	0.49	0.15	0.53	0.67	0.63	0.37	0.48	0.5
Calcium	7440-70-2	NS	38000	13000	13000	14000	18000	20000	43000	27000	28000	42000	20000	19000
Chromium	7440-47-3	NS	1300	410	460	530	1000	320	720	1000	1100	450	640	86
Cobalt	7440-48-4	45	16	10	14	12	16	6.8	15	19	18	12	17	9.7
Copper	7440-50-8	7200	35	33	72	81	53	9900*	61	70	64	36	88	54
Iron	7439-89-6	150000	25000	21000	110000	70000	29000	20000	25000	31000	31000	27000	28000	21000
Lead	7439-92-1	450	78	610	670	310	400	110	210	230	220	260	260	190
Magnesium	7439-95-4	NS	8900	5600	4600	4200	7700	6100	20000	8100	7400	8800	7500	12000
Manganese	7439-96-5	2000	430	430	720	560	560	310	580	610	590	460	460	380
Nickel	7440-02-0	650	62	31	46	52	58	22	48	68	60	34	50	21
Potassium	7440-09-7	NS	6000	3800	2200	2200	4500	2700	3700	5300	5000	4600	4500	3400
Selenium	7782-49-2	26	0.22	0.23	0.18	0.2	0.39	0.14	0.42	0.57	0.5	0.18	0.42	0.38
Silver	7440-22-4	84	0.071	0.09	0.062	0.063	0.14	0.11	0.28	0.37	0.34	0.098	0.96	0.14
Sodium	7440-23-5	NS	130	200	230	110	180	270	200	190	190	290	130	140
Thallium	7440-28-0	2.2	0.34	0.2	0.14	0.15	0.29	0.16	0.28	0.37	0.32	0.26	0.27	0.24
Vanadium	7440-62-2	1100	57	29	30	30	57	26	54	68	61	41	50	45
Zinc	7440-66-6	12000	240	390	300	440	420	130	370	420	410	270	800	180

KEY	
1 mg/kg = 1 ppm	
Medium Specific Concentration	MSC
No Standard	NS
Exceeds Published Act 2 Residential MSC	
Act 2 Residential MSC uses Direct Contact or Soil to Groundwater Standard published at the time of sampling, whichever is more stringent.	
*Additional sampling is recommended to verify the accuracy of this detection.	

KEY	
Not Detected above the Laboratory Minimum Detection Limit (MDL)	ND
All detections above the MDL are shown. MDL does not exceed the MSC unless indicated.	
(<value) indicates sample was not detected above the MDL, but the MDL exceeds the MSC.	

Table 4. August 13, 2024 DEP Surface Water Sample Results

2024.08.13 DEP Surface Water Sample Results Schuylkill River, Bartram's Mile Trail, Philadelphia, PA			Result in µg/L	
Analyte	CAS	DEP Chapter 93 Water Quality Criteria (Most Stringent) µg/L	DEP51-W5	DEP51-W6
Metals				
Mercury	7439-97-6	0.05	ND	ND
Cr (III)	16065-83-1	91*	ND	ND
Cr (VI)	18540-29-9	11	20000	29000
Aluminum	7429-90-5	750	ND	220
Antimony	7440-36-0	5.6	1.2	1
Arsenic	7440-38-2	10	0.86	3.9
Barium	7440-39-3	2400	65	54
Beryllium	7440-41-7	NS	ND	ND
Cadmium	7440-43-9	0.29*	ND	ND
Calcium	7440-70-2	NS	89000	190000
Chromium	7440-47-3	NS	19000	27000
Cobalt	7440-48-4	95	0.94	1.1
Copper	7440-50-8	11.06*	2.4	9.3
Iron	7439-89-6	300	ND	ND
Lead	7439-92-1	3.29*	ND	ND
Magnesium	7439-95-4	NS	8000	4100
Manganese	7439-96-5	1000	ND	ND
Nickel	7440-02-0	64.1*	0.97	2.6
Potassium	7440-09-7	NS	13000	14000
Selenium	7782-49-2	4.6	1	2.1
Silver	7440-22-4	5.27*	ND	ND
Sodium	7440-23-5	NS	47000	62000
Thallium	7440-28-0	0.24	ND	ND
Vanadium	7440-62-2	100	5	14
Zinc	7440-66-6	144.4*	ND	ND

KEY	
Microgram per Liter	µg/L
No Standard	NS
Exceeds DEP Ch. 93 Water Quality Criteria	
Not Detected above the Laboratory Minimum Detection Limit (MDL)	ND
All detections above the MDL are shown. DEP Ch. 93 Water Quality Criteria are listed for reference only.	
*denotes hardness based value, hardness used was 128mg/L	

Figures

Figure 1. General Site Location

Figure 2. July 22, 2024 DEP Soil Sample Locations

Figure 3. July 22, 2024 DEP Soil Sample Cr(VI) Detections

Figure 4. July 22, 2024 DEP Soil Sample Cr(VI), Arsenic, Lead Summary

Figure 5. July 22, 2024 DEP Surface Water Sample Locations

Figure 6. August 13, 2024 DEP Soil Sample Locations

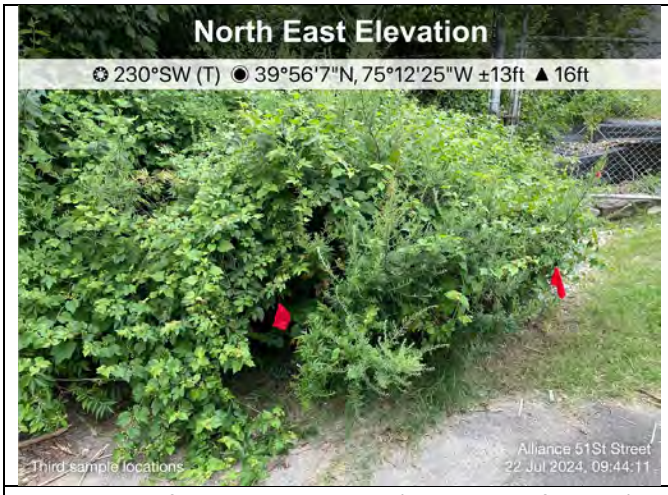
Figure 7. August 13, 2024 DEP Soil Sample Cr(VI) Detections

Figure 8. August 13, 2024 DEP Soil Sample Cr(VI) and Lead Summary

Figure 9. August 13, 2024 DEP Surface Water Sample Locations

Photographs

Photo A. July 22, 2024 Soil Sample Locations with Cr(VI) Act 2 MSC Exceedances



Location of Sample DEP51-S2 (right side of photo) and DEP51-S3 (center of photo).

Location of Sample DEP51-S7 along trail/drainage port.

Location of Sample DEP51-S8 behind concrete barrier.

Location of Sample DEP51-10 along trail/drainage port.

Photo B. August 13, 2024 Soil Sample Locations with Cr(VI) Act 2 MSC Detections

View of DEP51-S3. Sampled from surface soil adjacent stone.

View of DEP51-S5 and DEP51-S6/DUP-SB

View of DEP51-S5 and DEP51-S6/DUP-SB

Location of sample DEP51-S8A; sample collected from accumulated soil as close as possible to original location.

Appendix A

DEP Sampling and Analysis Plan dated July 19, 2024

Pennsylvania
Department of Environmental Protection

Alliance 51st Street
City of Philadelphia

SAMPLING AND ANALYSIS PLAN
July 19, 2024

Prepared by
Christine McCarthy, Project Officer, HSCA

I. Introduction

The Alliance 51st Street property (Site) is an industrial parcel located at 1630 - 1646 S 51st Street in Philadelphia. The Site is bordered by a railroad to the south and the Schuylkill Banks/Bartram's Mile Trail to the east. Bartram's Gardens are south of the Site. Parcels north of the Site are owned by the Philadelphia Authority for Industrial Development. The Schuylkill River is immediately east of the Site (Figure 1).

II. Site History

The Site was used for the storage of lumber as early as 1923. Between 1923 and 1945, the Site was used to manufacture cardboard containers. Between 1951 and 2021, the Site was used as a fuel oil terminal, by Allied Oil Inc, Hess Oil and Chemical Corporation, Plains Product Terminals, LLC and PBF Logistics. Alliance 51st St LLC purchased the property in December 2021.

In 2021, twelve regulated Aboveground Storage Tanks (ASTs) were demolished and removed from the property. The facility Id number for the Site was 51-10420. On December 15, 2021, an AST closure report was submitted to the DEP. On February 2, 2023, the November 2022 Site Characterization Report (SCR) was disapproved. On June 27, 2023, a Revised SCR (RSCR) was submitted to the DEP and was approved on September 27, 2023. On November 27, 2023, a Remedial Action Plan was received. The plan for the soil, near an exceedance of benzene was to grade it and move it to where the foundation of the new building would be constructed. The other two benzene exceedances in the soil currently are located under the proposed building. The foundation for the new building will serve as a cap to eliminate the open pathway. There will be a soil management plan created for any intrusive work at the site to protect the workers. Lead in soil and groundwater would be addressed concurrently in the Act 2 program.

On February 14, 2022, DEP received a Notice of Intent to Remediate (NIR) to address nonregulated releases through the Act 2 program for lead, Volatile Organic Compounds (VOCs), and Semi volatile Organic Compounds (SVOCs). Non-regulated features such as a loading rack outside of containment and historic fill may be contributing to concentrations of regulated shortlist parameters in soil and groundwater. According to the NIR, soil borings in the former AST and piping area identified exceedances of the non-residential (NR) direct contact and/or soil to groundwater (GW) Medium Specific Concentrations (MSCs) for petroleum hydrocarbons (incl. benzene, 1,2,4-trimethylbenzene), polycyclic aromatic hydrocarbons (PAHs) (incl. benzo(a)pyrene), and lead. 1,2,4-trimethylbenzene in the soil exceeded NR vapor intrusion screening levels. Groundwater samples from temporary wells had exceedances of the NR used aquifer GW MSCs for benzene, 1,2,4-trimethylbenzene, and lead.

III. 2024 Discharge and Response

On April 5, 2024, an incident was reported to the National Response Center. The caller reported that "strange looking water is leaching from a former refinery… The material looks greenish."

An April 12, 2024, DEP Site Inspection noted that "Discoloration was present on the soil at the bottom of the ditch, but flow in the ditch was clear and at a rate of app 5gpm. Flow in the ditch re-infiltrated into the soil before reaching the eastern fence line, but the discoloration extended past the fence and on to the edge of the adjacent River Trail." and that "the discoloration seems to be a chronic issue since a 5/10/23 Google Earth view of the site shows the phenomenon."

On June 10, 2024, Arcadis U.S., Inc. (Arcadis), consultants working on behalf of Alliance reported that soil berms had been constructed "across the low-lying area on the eastern portion of the site to prevent any discolored water from leaving the site." Results from monitoring well sampling conducted on May 30, 2024, revealed the presence of chromium (trivalent and hexavalent) in the groundwater. Total Chromium concentrations were above the non-residential used aquifer MSCs. Tests pits performed identified yellow-green stained soil. Analysis of the stained soil confirmed the presence of trivalent and hexavalent chromium. The concentrations were below the non-residential direct contact MSCs and non-residential used aquifer soil to groundwater MSCs.

On July 11, 2024, Arcadis indicated that five test pits were installed on the southern property boundary on July 3rd. The stained soil layer was encountered a few feet below grade and varied in thickness in each test pit.

IV. Objective

DEP will collect soil and surface water samples from multiple locations along the previously observed discharge flow path in public areas to evaluate the presence or absence of hexavalent chromium and other potential contaminants of concern.

V. Sampling Plan

This Sampling and Analysis Plan is intended to document the procedures to be used by DEP field staff, and to ensure that this evaluation provides useful and reproducible information.

VI. Sampling Locations

Proposed sampling locations are shown in Figure 2. Soil sampling locations are focused where the discharge has exited the Alliance 51st Street property and along the adjacent bike path. Surface water samples will be collected from any active discharge (if present), standing surface water in the discharge area (if present) and from the Schuylkill River adjacent to the discharge area. All proposed sampling locations are approximate and are subject to change based on field observations during the sampling event. A description of each proposed sampling location is as follows (Table 1). Additional photos showing proposed sample locations are available in Figures 3-6.

Table 1. Proposed Sample Locations

Proposed Sample ID	Matrix	Proposed Sample Location
DEP51-S#	Soil	Discharge area
		W side of bike path, up gradient from discharge area
		Rail slope, if accessible (covered by heavy brush)
		E side of bike path, across from discharge area
		E side of bike path, up gradient from discharge area

Proposed Sample ID	Matrix	Proposed Sample Location
		Sediment on bike path (if present)
		Sediment on outlet side of bike path drainage ports
		Sediment between bike path and river
DEP51-W#	Surface Water	River at discharge area
		River down gradient from discharge area
		River up gradient from discharge area
		Bartram Gardens Fishing access
		Bartram Gardens Boat dock

VII. Sampling Analyses

Samples will be sent to Eurofins Lancaster Laboratories Environment Testing, LLC (Eurofins) for the analyses identified in Table 2. Samples will be preserved in accordance with the laboratory's analytical method requirements. Reporting limits should be low enough to compare results to MSC standards and all required laboratory accreditation confirmed. A Level 2 data package will be requested for all analyses submitted.

Table 2. Sampling Analyses

Matrix	Method	Test Description	Preservative	Container	Volume required	Holding times
Soil	8260D	TCL VOCs 4.3	Methanol	1-MeOH, 2-SB	varies	14-days
Soil	6020B	Total Metals TAL List	None	Soil jar 4oz - clear glass	15g	180-days
Soil	7196A	Hexavalent Chromium (Cr^{6+})	None	Soil jar 4oz - clear glass	30g	30-days
Soil	7199 CR3	Trivalent Chromium (Calculation) (Cr^{3+})	None	No container	NA	NA
Soil	Moisture	Percent Moisture	None	Soil jar 4oz - clear glass	10g	NA
Water	8260D	TCL VOCs 4.3	Hydrochloric Acid	VOC amber vial 40ml	120 ml	14-days
Water	6020B	Dissolved Metals TAL List	Nitric Acid	Plastic 250ml - w/nitric acid	100 ml	180-days
Water	7196A	Chromium, Hexavalent	None	Plastic 250ml –unpreserved	150 ml	**24-Hours**
Water	7199 CR3	Trivalent Chromium (Calculation)	None	No container	NA	NA

VIII. QA/QC

The following QA/QC samples will be collected:

1. Two trip blanks (water) for the VOC samples to ensure there is no cross-contamination resulting from handling and storage. Provided by the lab, it consists of VOC vials filled with deionized (DI) water, preserved with HCL. One trip blank per cooler.
2. One Field Blank to ensure there is no cross-contamination introduced during sample collection. An aliquot of DI will be poured into a separate VOC vial while in the field and submitted as a sample.
3. One duplicate of an in-field soil sample will be collected to allow for the determination of sampling precision.

IX. Sampling Procedures

Health and Safety
Prior to commencing any sampling activities, DEP personnel should review the Site-Specific Health and Safety Plan provided in **Appendix A**.

Equipment Preparation and Staging
A full list of the equipment needed for this sampling event is available in Table 3. Street parking is available on S 51st Street near the corner with Botanic Ave and Bartram's Mile Trail. Equipment will be staged along the closed section of Bartram's Mile Trail near the discharge area for this sampling event.

Table 3. Equipment and Supplies

Item	Notes
Sampling Plan	
Health and Safety Plan	
Employee ID	
Business Cards	
Mobile Phone	
Ultrafine Sharpie and Black ball-point pens	*Use pens on COC
Field Notebook	
Clip Board	
MultiRae	Last calibrated: 6/27/2024
Nitrile Gloves	
Paper Towels	
Trash Bags	
Scissors	
DI Water squirt bottle	
Alconox squirt bottle	
Organic free water	
Bucket for equipment	
Bucket for decontamination	
Tape measure	
Flag markers	
Bailers	
String	
Extra 500mL plastic bottles for bailing/sample transfer	
Disposable Scoops	
Long Handled Scoop	
Auger/Shovel	
0.45 µm field filters	
Syringes	
Chain of Custody/sample labels	From lab kit
Bottleware (in lab kit)	Obtained from laboratory 7/19/2024
Terracore sampler (MeOH kits for VOA soils)	Obtained from laboratory 7/19/2024
Cooler(s)	
Ice	

General Sample Collection Procedures
The field sampling is scheduled to take one day (Monday 7/22/2024).

A MultiRae will be used to screen each sample. Prior to sampling, a Fresh Air Test will be performed. Any readings detected by the MultiRae will be recorded for each sample.

Samples collected should be labeled according to laboratory instructions, with the following information at a minimum:

- the requested analysis
- the sampling location
- the date and time of collection
- name of preservative and sample matrix
- project name and organization (PA DEP)

Samples collected will promptly be placed on ice in a cooler.

The sampling team shall take due care to leave the sampling area in the same condition as it was prior to sample collection, and to clean up any spill that occurs as well as diluting and cleaning any spills that may involve sample preservatives.

All samples will be kept cold at < 6˚C. The sample coolers will be picked by the Eurofins Courier the same afternoon prior to 3pm.

All used disposable items like PPE, sampling equipment, and Terra Core kits will be placed in a trash bag and disposed after return to the office.

Collection of Soil Samples
Soil samples will be collected in accordance with laboratory instructions. Where soil/sediment is exposed, a shallow soil sample will be collected using a disposable scoop and Terracore sampler for each unique sample.

Each soil sample for VOCs will be collected according to the directions on the Terra Core Kit. Sampling instructions are provided as Appendix B. Terracore Kit contains:

- soil collection plunger
- (1) 40mL clear vial, methanol preserved
- (2) 40mL clear vial, sodium bisulfate preserved
- (1) clear glass jar, unpreserved – for % moisture analysis

A shovel or auger may be used to access soil in desired sampling locations. Any reusable equipment will be decontaminated as necessary between samples using Alconox and DI water.

Collection of Surface Water Samples
Aqueous samples will be collected in accordance with laboratory instructions. For unpreserved samples, surface water will be collected directly into the sample bottle. For preserved samples, surface water will be collected with a bailer or with an unused 500 mL plastic sample bottle and then transferred into the sample bottle. Transfer bailers or bottles will be dedicated to each sample to prevent the need for equipment decontamination.

Aqueous metals and Cr^{6+} samples will be field filtered using 0.45 µm filters with 30 mL or 60 mL plastic syringes (filters must fit syringes tightly). Draw sample from transfer bottle, pass through filter into sample bottle. Repeat until desired volume collected. Filter may be removed to refill syringe. Multiple filters may be needed.

Record Keeping
Observations and details of each sample collected will be recorded in the field notes. They will include, sample depth, and sample location (including latitude and longitude and/or measurements taken from fixed reference points on Site). A picture of each sample location will also be taken.

Samples collected will be listed on an analytical lab chain of custody (COC) form. COCs shall be filled completely with appropriate per Eurofins guidelines with information including but not limited to:

- sample collection times and dates
- preservation (HCl, MeOH, etc)
- laboratory methods and test parameters
- sample matrix (drinking water, surface water, soil)
- number of containers, type of samples (grab or composite)
- collector's name and signature, and any items required by the lab

Also list any comments that would inform the lab including but not limited to strong odors, sample color, or high PID response.

Field notes will be memorialized in a Field Activity Report following the sampling event. Chain of custody forms will be copied and placed in the site file and scanned into the site folder on the server. Photos and map will also be saved into the site folder.

X. Reporting

Upon receipt of analytical results, DEP personnel will prepare a summary of the results in tabular format. The sample locations will be mapped using GIS Software. The requested laboratory turnaround time is a 3-day rush. Results and findings will be reported in a technical memorandum for the site file. The technical memorandum will be used as a reference in future DEP decision documents concerning possible further action at the Site.

XI. References

1. EPA. 2006. "Method 8260D (SW-846): Volatile Organic Compounds by Gas Chromatography/Mass Spectrometry (GC/MS)," Revision 3.
2. EPA Method 5035A (SW-846): Closed-System Purge-and-Trap and Extraction for Volatile Organics in Soil and Waste Samples
3. EPA Method 5030C (SW-846): Purge-and-Trap for Aqueous Samples
4. Method 6020B: Inductively Coupled Plasma - Mass Spectrometry, part of Test Methods for Evaluating Solid Waste, Physical/Chemical Methods (epa.gov)
5. Method 3005A: Acid Digestion of Waters for Total Recoverable or Dissolved Metals for Analysis by FLAA or ICP Spectroscopy, part of Test Methods for Evaluating Solid Waste, Physical/Chemical Methods (epa.gov)
6. Method 7196A: Chromium, Hexavalent (Colorimetric), part of Test Methods for Evaluating Solid Waste, Physical/Chemical Methods (epa.gov)
7. Method 3060A: Alkaline Digestion for Hexavalent Chromium, part of Test Methods for Evaluating Solid Waste, Physical/Chemical Methods (epa.gov)

XII. Figures

Figure 1. Site Map. Top of map is north.

Figure 2. Proposed sampling locations. All locations are approximate. Soil sampling locations shown in yellow. Surface water sampling locations shown in blue.

Figure 3. View of discharge area on 7/17/24. Facing west toward Site.

Figure 4. View of bike path on 7/17/24. Facing south. Thick brush on right side of photo is railroad slope.

Figure 5. Drainage port in bike path barrier. Facing east. There are at least three ports in this area of the bike path.

Figure 6. View of bike path and Schuylkill River. Drainage port outlets drain directly to River.

APPENDIX A: Site Specific Health and Safety Plan

HEALTH AND SAFETY PLAN

Alliance 51st Street
City of Philadelphia

A. SITE DESCRIPTION

The Alliance 51st Street property (Site) is an industrial parcel located at 1630 - 1646 S 51st Street in Philadelphia. The Site is bordered by a railroad to the south and the Schuylkill Banks/Bartram's Mile Trail to the east. Bartram's Gardens are south of the Site. Parcels north of the Site are owned by the Philadelphia Authority for Industrial Development. The Schuylkill River is immediately east of the Site.

SCOPE OF WORK

General Sampling

These areas are defined as open-air, non-enclosed locations where access is not restricted and the likelihood of encountering vapors, and their subsequent accumulation, is low. This would include locations as surface water drainage areas, surface soils and the Schuylkill River. DEP personnel conducting the training have received at a minimum the Hazwoper -24-hour Moderate Risk training for 29 CFR 1910.120 certification.

All work performed in these areas will be in Level "D" and will include: protective gloves,

C. ON-SITE ORGANIZATION AND COORDINATION

The following personnel are designated to carry out the stated job functions on site. (Note: One person may carry out more than one job function.)

Point of Contact	
Project Officer (PO) & Site Health & Safety Officer	Christine McCarthy
Alternate Contact & Geologist (PG)	Matthew Sabetta, P.G

Bonnie McClennen (HSCA Environmental Group Manager) will be available in the Southeast Regional Office as necessary 484-250-5917

D. ON-SITE CONTROL AND SECURITY

1. DEP personnel will access public areas along the trail. On July 19, 2024, a Consent for Access and Right Of Entry to Property form was signed by Robert Allen the Director of Property and Concessions Management Department of Parks and Recreation on behalf of the City of Philadelphia, Bartram Gardens to grant DEP access for the purpose of collecting the samples.

2. All DEP personnel will display identification when working on site.

E. HAZARD EVALUATION

Site Hazards: Chemical

Hexavalent chromium is the primary contaminant of concern, other potential contaminants may include lead and volatile organic compounds from fuel oil #2 (Benzene and 1,2,4-trimethylbenzene). The Site Safety Officer will be available to make determinations and take appropriate actions to ensure personnel safety.

During completion of all site activities, personnel should attempt to minimize contact with contaminated materials. This involves a conscientious effort to keep "clean" during site activities. All personnel should minimize kneeling, splash generation, and other physical contact with contamination. This may ultimately minimize the degree of decontamination required and the generation of waste materials from site operations.

On July 17, 2024 - the Fire Department inspected the site with what appears to be a PID. They found no issues. A MultiRae will be used to monitor contaminant levels in the ambient air.

The following substance(s) are known or suspected to be on site. The primary hazards of each substance are identified.

Primary Anticipated Substance(s) Involved

Substance	Concentration (If Known)	Primary Hazards	Primary Control
Chromium (VI) CAS # 7440-47-3	Unknown	Inhalation, absorbed through skin, occupationally insignificant at site exposure levels. OSHA TWA 100 ppm in air	Avoid prolonged or repeated skin contact. Ventilate contained areas where raw water may be present.

Material Safety Data Sheets for contaminants of concern and sample preservatives are attached in Section L

Site Hazards: Physical

Physical hazards will be identified and secured, where possible.

Extreme heat and humidity may be a factor. Take frequent breaks and drink plenty of fluids to prevent heat exhaustion and heat stroke. If site conditions warrant, the Site Safety Officer may adjust the work hours to avoid the mid-day heat.

Sunblock will be worn by staff members to avoid sunburn.

When working outdoors, biting and stinging insects, poison ivy and oak, and snakes may all be present; therefore, use caution when inspecting confined areas and wear protective clothing.

Slip, trip and fall hazards may all be present. Personal should maintain a orderly work area to eliminate trip hazards from tools. Care should be exercised when wet surfaces are present. Water hazards may be present during sampling of surface water.

F. PERSONAL PROTECTIVE EQUIPMENT

Based upon evaluation of the potential hazards, the following personal protection has been designated for the applicable work areas or tasks:

Steel toe boots
Safety vests will be worn
Nitrile protective gloves for sampling

G. COMMUNICATION EQUIPMENT & PROCEDURES

A cell phone will be present at the site for offsite communication.

H. DECONTAMINATION PROCEDURES AND WASTE HANDLING

No personnel decontamination procedures are necessary.

Sampling equipment will be decontaminated as necessary using Alconox, as described in the Sampling and Analysis plan.

Disposable equipment/supplies will be used where available.

At the conclusion of the sampling event, all materials, including nitrile gloves and all disposable sampling supplies, and general litter will be removed for proper disposal.

J. EMERGENCY PROCEDURES

Injury to DEP Personnel

All injuries, including those requiring first aid only, are to be reported to the Project Manager as soon as possible. Work-related injuries to DEP personnel will be reported to their supervisor or other available supervisory personnel immediately.

A first aid kit will be maintained in all vehicles.

The Project Manager and the Manager in the office shall be notified of any of the emergencies listed here.

Emergency Phone Numbers

On-site cell phone(s): Christine's cell phone will be used.

Ambulance: 911
Fire: 911
Police: 911
State Police: 911
County EMS: 911

K. DIRECTIONS TO THE HOSPITAL

bing maps

A 4901 Botanic Ave, Philadelphia, PA 19143, United States

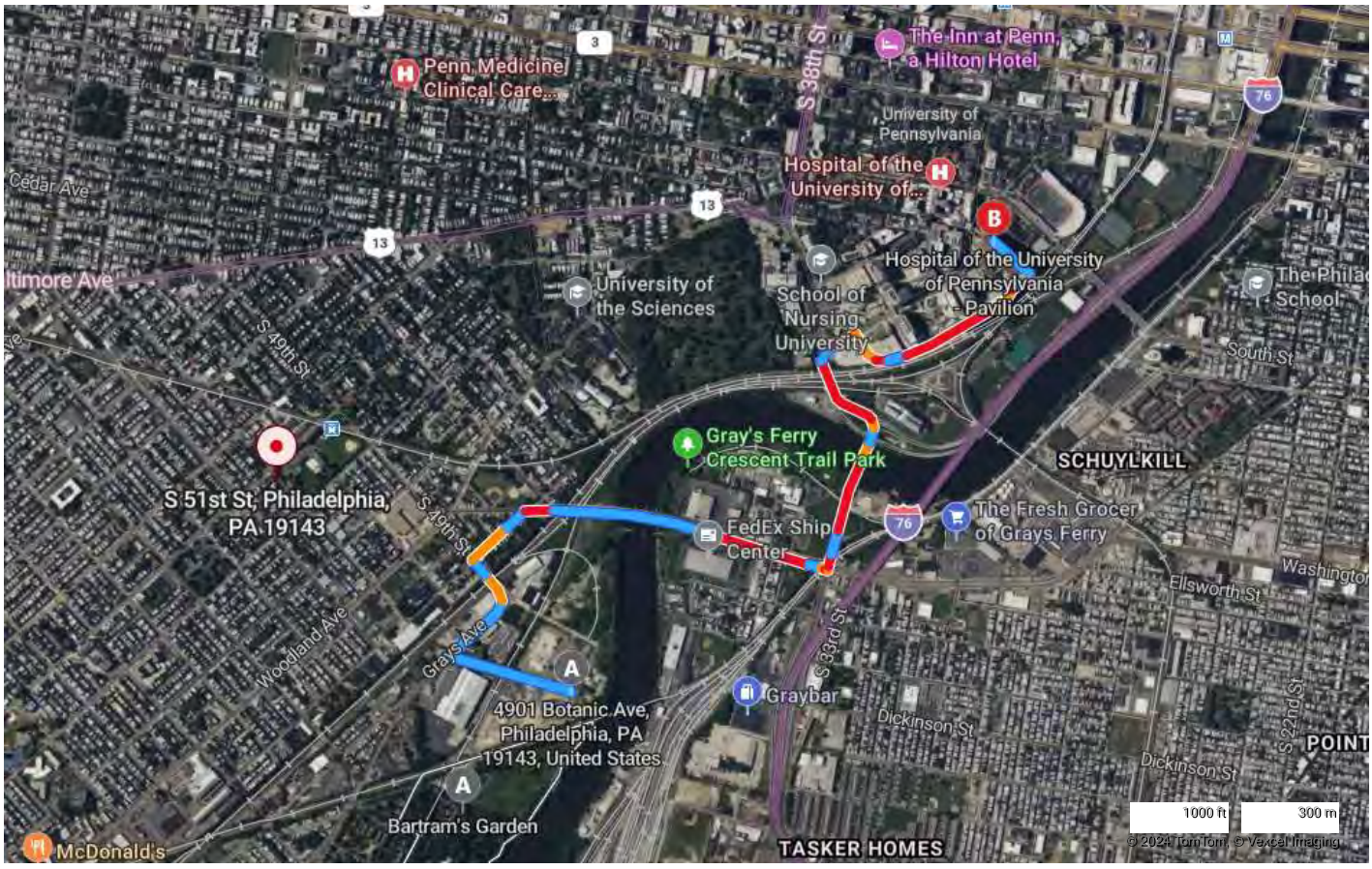
B Hospital of the University of Pennsylvania - Pavilion, 1 Convention Avenue, Philadelphia, PA 19104

12 min , 2.4 miles
Moderate traffic
Via Grays Ferry Ave, Health Sciences Dr
· Local roads

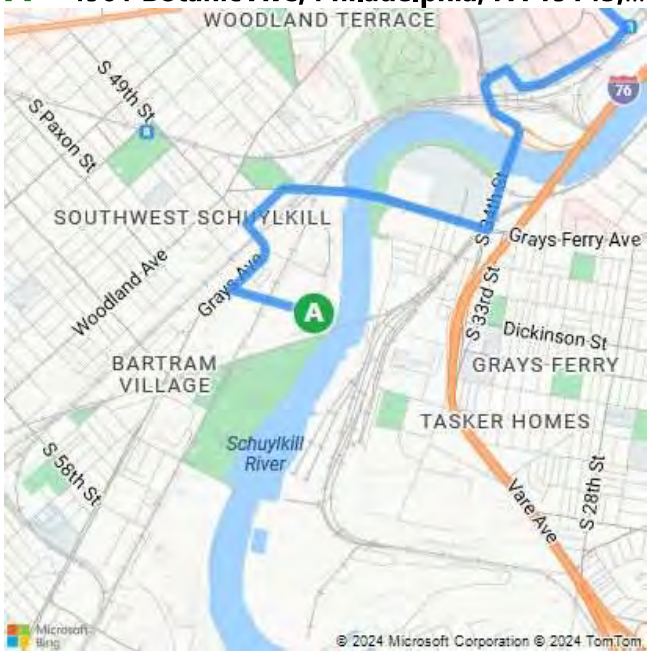
A 4901 Botanic Ave, Philadelphia, PA 19143, United States

↑	1.	Head **west** on **S 51st St** toward Grays Ave	0.3 mi
↱	2.	Turn **right** onto **Grays Ave**	0.2 mi
↑	3.	Keep **straight** to get onto **S 49th St**	0.1 mi
↱	4.	Turn **right** onto **Paschall Ave**	0.1 mi
↗	5.	Bear **right** onto **Grays Ferry Ave**	0.6 mi
↰	6.	Turn **left** onto **S 34th St** Exxon on the corner • *Roadwork on THIRTYFOURTH ST / THIRTYEIGHTH ST / TWENTYSIXTH ST / UNIVERSITY AV northbound between GRAYS FERRY AV and 1 miles NORTH of Exit: I-76 WEST - SCHUYLKILL EXPRESSWAY. There is a traffic disruption.*	0.3 mi
↑	7.	Road name changes to **University Ave**	0.2 mi
↱	8.	Turn **right** onto **Civic Center Blvd**	482 ft
↱	9.	Turn **right** onto **Health Sciences Dr**	0.3 mi
↑	10.	Continue on **Convention Ave**	459 ft
↰	11.	Turn **left**	495 ft
	12.	Arrive at your destination on the left The last intersection before your destination is Convention Ave	

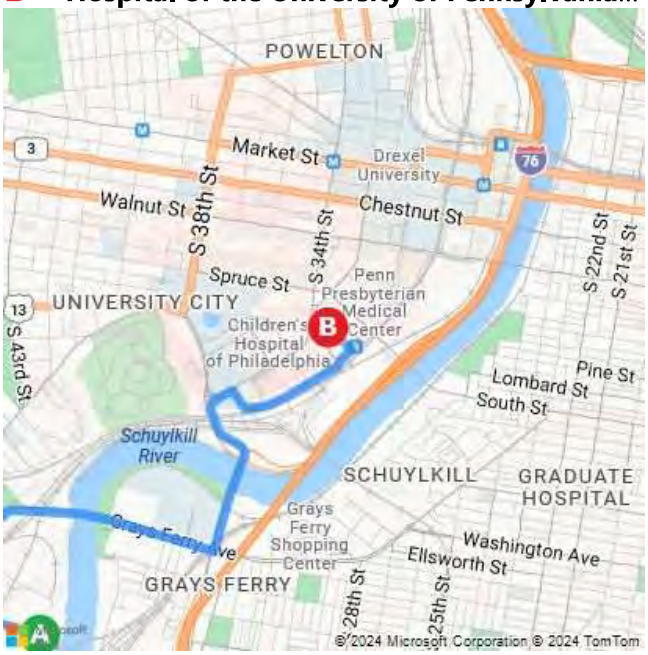
B Hospital of the University of Pennsylvania - Pavilion



A 4901 Botanic Ave, Philadelphia, PA 19143,...



B Hospital of the University of Pennsylvania...



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L. SAFETY DATA SHETS (SDS)

Preservatives: Methanol, Hydrochloric acid, Sodium bisulfate and Nitric Acid

Contaminants of Concern: Hexavalent Chromium, Trivalent Chromium, Lead & Fuel Oil #2

Safety Data Sheet

Material Name: Fuel Oil No. 2

SDS No. 0088
US GHS

Synonyms: #2 Heating Oil; 2 Oil; Off-road Diesel Fuel

* * * Section 1 - Product and Company Identification * * *

Manufacturer Information

Hess Corporation
1 Hess Plaza
Woodbridge, NJ 07095-0961

Phone: 732-750-6000 Corporate EHS
Emergency # 800-424-9300 CHEMTREC
www.hess.com (Environment, Health, Safety Internet Website)

* * * Section 2 - Hazards Identification * * *

GHS Classification:

Flammable Liquids - Category 3
Acute Toxicity, Inhalation - Category 4
Skin Corrosion/Irritation – Category 2
Eye Damage/Irritation – Category 2B
Carcinogenicity - Category 2
Specific Target Organ Toxicity (Single Exposure) – Category 3 (respiratory irritation, narcosis)
Aspiration Hazard – Category 1
Hazardous to the Aquatic Environment, Acute Hazard – Category 3

GHS LABEL ELEMENTS

Symbol(s)

Signal Word

DANGER

Hazard Statements

Flammable liquid and vapor.
Harmful if inhaled.
Causes skin irritation.
Causes eye irritation.
Suspected of causing cancer.
Suspected of causing genetic defects.
May cause respiratory irritation.
May cause drowsiness or dizziness.
May be fatal if swallowed and enters airways.
Harmful to aquatic life.

Precautionary Statements

Prevention

Keep away from heat/sparks/open flames/hot surfaces. No smoking

Keep container tightly closed.
Ground/bond container and receiving equipment.
Use explosion-proof electrical/ventilating/lighting/equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Wear protective gloves/protective clothing/eye protection/face protection.
Avoid breathing fume/mist/vapors/spray.
Use only outdoors or in a well-ventilated area.
Wash hands and forearms thoroughly after handling.
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Avoid release to the environment.

Response
In case of fire: Use water spray, fog or foam.
If on skin (or hair): Wash with plenty of soap and water. Take off immediately all contaminated clothing and wash it before reuse. If skin irritation occurs, get medical advice/attention.
If inhaled: Remove person to fresh air and keep comfortable for breathing. Call a poison center or doctor if you feel unwell.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
If exposed or concerned: Get medical advice/attention.
If swallowed: Immediately all a poison center or doctor/physician if you feel unwell. Do NOT induce vomiting.

Storage
Store in a well-ventilated place.
Keep cool. Store locked up.
Keep container tightly closed.

Disposal
Dispose of contents/container in accordance with local/regional/national/international regulations.

* * * Section 3 - Composition / Information on Ingredients * * *

CAS #	Component	Percent
68476-30-2	Fuel oil No. 2	100
91-20-3	Naphthalene	<0.1

A complex combination of hydrocarbons with carbon numbers in the range C9 and higher produced from the distillation of petroleum crude oil.

* * * Section 4 - First Aid Measures * * *

First Aid: Eyes
In case of contact with eyes, immediately flush with clean, low-pressure water for at least 15 min. Hold eyelids open to ensure adequate flushing. Seek medical attention.

First Aid: Skin

Remove contaminated clothing. Wash contaminated areas thoroughly with soap and water or with waterless hand cleanser. Obtain medical attention if irritation or redness develops.

First Aid: Ingestion

DO NOT INDUCE VOMITING. Do not give liquids. Obtain immediate medical attention. If spontaneous vomiting occurs, lean victim forward to reduce the risk of aspiration. Monitor for breathing difficulties. Small amounts of material which enter the mouth should be rinsed out until the taste is dissipated.

First Aid: Inhalation

Remove person to fresh air. If person is not breathing, provide artificial respiration. If necessary, provide additional oxygen once breathing is restored if trained to do so. Seek medical attention immediately.

* * * Section 5 - Fire Fighting Measures * * *

General Fire Hazards

See Section 9 for Flammability Properties.

Vapors may be ignited rapidly when exposed to heat, spark, open flame or other source of ignition. When mixed with air and exposed to an ignition source, flammable vapors can burn in the open or explode in confined spaces. Being heavier than air, vapors may travel long distances to an ignition source and flash back. Runoff to sewer may cause fire or explosion hazard.

Hazardous Combustion Products

Carbon monoxide, carbon dioxide and non-combusted hydrocarbons (smoke).

Extinguishing Media

SMALL FIRES: Any extinguisher suitable for Class B fires, dry chemical, CO2, water spray, fire fighting foam, or gaseous extinguishing agent.

LARGE FIRES: Water spray, fog or fire fighting foam. Water may be ineffective for fighting the fire, but may be used to cool fire-exposed containers.

Unsuitable Extinguishing Media

None

Fire Fighting Equipment/Instructions

Small fires in the incipient (beginning) stage may typically be extinguished using handheld portable fire extinguishers and other fire fighting equipment. Firefighting activities that may result in potential exposure to high heat, smoke or toxic by-products of combustion should require NIOSH/MSHA- approved pressure-demand self-contained breathing apparatus with full facepiece and full protective clothing. Isolate area around container involved in fire. Cool tanks, shells, and containers exposed to fire and excessive heat with water. For massive fires the use of unmanned hose holders or monitor nozzles may be advantageous to further minimize personnel exposure. Major fires may require withdrawal, allowing the tank to burn. Large storage tank fires typically require specially trained personnel and equipment to extinguish the fire, often including the need for properly applied fire fighting foam.

* * * Section 6 - Accidental Release Measures * * *

Recovery and Neutralization

Carefully contain and stop the source of the spill, if safe to do so.

Materials and Methods for Clean-Up

Take up with sand or other oil absorbing materials. Carefully shovel, scoop or sweep up into a waste container for reclamation or disposal.

Emergency Measures

Evacuate nonessential personnel and remove or secure all ignition sources. Consider wind direction; stay upwind and uphill, if possible. Evaluate the direction of product travel, diking, sewers, etc. to confirm spill areas. Spills may infiltrate subsurface soil and groundwater; professional assistance may be necessary to determine the extent of subsurface impact.

Personal Precautions and Protective Equipment

Response and clean-up crews must be properly trained and must utilize proper protective equipment (see Section 8).

Environmental Precautions

Protect bodies of water by diking, absorbents, or absorbent boom, if possible. Do not flush down sewer or drainage systems, unless system is designed and permitted to handle such material. The use of fire fighting foam may be useful in certain situations to reduce vapors. The proper use of water spray may effectively disperse product vapors or the liquid itself, preventing contact with ignition sources or areas/equipment that require protection.

Prevention of Secondary Hazards

None

* * * Section 7 - Handling and Storage * * *

Handling Procedures

Handle as a combustible liquid. Keep away from heat, sparks, excessive temperatures and open flame! No smoking or open flame in storage, use or handling areas. Bond and ground containers during product transfer to reduce the possibility of static-initiated fire or explosion.

Special slow load procedures for "switch loading" must be followed to avoid the static ignition hazard that can exist when this product is loaded into tanks previously containing low flash point products (such as gasoline) - see API Publication 2003, "Protection Against Ignitions Arising Out Of Static, Lightning and Stray Currents."

Storage Procedures

Keep containers closed and clearly labeled. Use approved vented storage containers. Empty product containers or vessels may contain explosive vapors. Do not pressurize, cut, heat, weld or expose such containers to sources of ignition.

Store in a well-ventilated area. This storage area should comply with NFPA 30 "Flammable and Combustible Liquid Code". Avoid storage near incompatible materials. The cleaning of tanks previously containing this product should follow API Recommended Practice (RP) 2013 "Cleaning Mobile Tanks In Flammable and Combustible Liquid Service" and API RP 2015 "Cleaning Petroleum Storage Tanks."

Incompatibilities

Keep away from strong oxidizers; Fluorel ®

* * * Section 8 - Exposure Controls / Personal Protection * * *

Component Exposure Limits

Fuel oil No. 2 (68476-30-2)

ACGIH: 0.2 mg/m3 TWA (inhalable fraction and vapor, as total hydrocarbons, listed under Diesel fuel)
Skin - potential significant contribution to overall exposure by the cutaneous route (listed under Diesel fuel)

Naphthalene (91-20-3)

ACGIH:	10 ppm TWA
	15 ppm STEL
	Skin - potential significant contribution to overall exposure by the cutaneous route
OSHA:	10 ppm TWA; 50 mg/m3 TWA
NIOSH:	10 ppm TWA; 50 mg/m3 TWA
	15 ppm STEL; 75 mg/m3 STEL

Engineering Measures

Use adequate ventilation to keep vapor concentrations of this product below occupational exposure and flammability limits, particularly in confined spaces.

Personal Protective Equipment: Respiratory

A NIOSH/MSHA-approved air-purifying respirator with organic vapor cartridges or canister may be permissible under certain circumstances where airborne concentrations are or may be expected to exceed exposure limits or for odor or irritation. Protection provided by air-purifying respirators is limited.

Use a positive pressure, air-supplied respirator if there is a potential for uncontrolled release, exposure levels are not known, in oxygen-deficient atmospheres, or any other circumstance where an air-purifying respirator may not provide adequate protection.

Personal Protective Equipment: Hands

Gloves constructed of nitrile, neoprene, or PVC are recommended.

Personal Protective Equipment: Eyes

Safety glasses or goggles are recommended where there is a possibility of splashing or spraying.

Personal Protective Equipment: Skin and Body

Chemical protective clothing such as of E.I. DuPont TyChem®, Saranex® or equivalent recommended based on degree of exposure. Note: The resistance of specific material may vary from product to product as well as with degree of exposure. Consult manufacturer specifications for further information.

* * * Section 9 - Physical & Chemical Properties * * *

Appearance:	Red or reddish/orange colored (dyed)	**Odor:**	Mild, petroleum distillate odor
Physical State:	Liquid	**pH:**	ND
Vapor Pressure:	0.009 psia @ 70 °F (21 °C)	**Vapor Density:**	>1.0
Boiling Point:	340 to 700 °F (171 to 371 °C)	**Melting Point:**	ND
Solubility (H2O):	Negligible	**Specific Gravity:**	AP 0.823-0871
Evaporation Rate:	Slow; varies with conditions	**VOC:**	ND
Octanol/H2O Coeff.:	ND	**Flash Point:**	100 °F (38 °C) minimum
Flash Point Method:	PMCC	**Upper Flammability Limit (UFL):**	7.5
Lower Flammability Limit (LFL):	0.6	**Burning Rate:**	ND
Auto Ignition:	494°F (257°C)		

* * * Section 10 - Chemical Stability & Reactivity Information * * *

Chemical Stability

This is a stable material.

Hazardous Reaction Potential

Will not occur.

Conditions to Avoid

Avoid high temperatures, open flames, sparks, welding, smoking and other ignition sources.

Incompatible Products

Keep away from strong oxidizers; Fluorel ®

Hazardous Decomposition Products

Carbon monoxide, carbon dioxide and non-combusted hydrocarbons (smoke).

* * * Section 11 - Toxicological Information * * *

Acute Toxicity

A: General Product Information

Harmful if swallowed.

B: Component Analysis - LD50/LC50

Fuel oil No. 2 (68476-30-2)

Oral LD50 Rat 12 g/kg; Dermal LD50 Rabbit 4720 µL/kg; Dermal LD50 Rabbit >2000 mg/kg; Inhalation LC50 Rat 4.6 mg/L 4 h

Naphthalene (91-20-3)

Inhalation LC50 Rat >340 mg/m3 1 h; Oral LD50 Rat 490 mg/kg; Dermal LD50 Rat >2500 mg/kg; Dermal LD50 Rabbit >20 g/kg

Product Mixture

Oral LD50 Rat 14.5 ml/kg; Dermal LD50 Rabbit >5 mL/kg; Guinea Pig Sensitization: negative; Primary dermal irritation: moderately irritating (Draize mean irritation score - 3.98 rabbits); Draize eye irritation: mildly irritating (Draize score, 48 hours, unwashed - 2.0 rabbits)

Potential Health Effects: Skin Corrosion Property/Stimulativeness

Practically non-toxic if absorbed following acute (single) exposure. May cause skin irritation with prolonged or repeated contact. Liquid may be absorbed through the skin in toxic amounts if large areas of skin are repeatedly exposed.

Potential Health Effects: Eye Critical Damage/ Stimulativeness

Contact with eyes may cause mild irritation.

Potential Health Effects: Ingestion

Ingestion may cause gastrointestinal disturbances, including irritation, nausea, vomiting and diarrhea, and central nervous system (brain) effects similar to alcohol intoxication. In severe cases, tremors, convulsions, loss of consciousness, coma, respiratory arrest, and death may occur.

Potential Health Effects: Inhalation

Excessive exposure may cause irritations to the nose, throat, lungs and respiratory tract. Central nervous system (brain) effects may include headache, dizziness, loss of balance and coordination, unconsciousness, coma, respiratory failure, and death.

WARNING: the burning of any hydrocarbon as a fuel in an area without adequate ventilation may result in hazardous levels of combustion products, including carbon monoxide, and inadequate oxygen levels, which may cause unconsciousness, suffocation, and death.

Respiratory Organs Sensitization/Skin Sensitization

This product is not reported to have any skin sensitization effects.

Generative Cell Mutagenicity

This product is not reported to have any mutagenic effects. Material of similar composition has been positive in a mutagenicity study.

Carcinogenicity

A: General Product Information

Suspected of causing cancer.

Dermal carcinogenicity: positive - mice
Studies have shown that similar products produce skin tumors in laboratory animals following repeated applications without washing or removal. The significance of this finding to human exposure has not been determined. Other studies with active skin carcinogens have shown that washing the animal's skin with soap and water between applications reduced tumor formation.

This product is similar to Diesel Fuel. IARC classifies whole diesel fuel exhaust particulates as probably carcinogenic to humans (Group 2A) and NIOSH regards it as a potential cause of occupational lung cancer based on animal studies and limited evidence in humans.

B: Component Carcinogenicity

Fuel oil No. 2 (68476-30-2)

ACGIH: A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans (listed under Diesel fuel)

Naphthalene (91-20-3)

ACGIH: A4 - Not Classifiable as a Human Carcinogen
NTP: Reasonably Anticipated To Be A Human Carcinogen (Possible Select Carcinogen)
IARC: Monograph 82 [2002] (Group 2B (possibly carcinogenic to humans))

Reproductive Toxicity

This product is not reported to have any reproductive toxicity effects.

Specified Target Organ General Toxicity: Single Exposure

This product is not reported to have any specific target organ general toxicity single exposure effects.

Specified Target Organ General Toxicity: Repeated Exposure

This product is not reported to have any specific target organ general toxicity repeat exposure effects.

Aspiration Respiratory Organs Hazard

The major health threat of ingestion occurs from the danger of aspiration (breathing) of liquid drops into the lungs, particularly from vomiting. Aspiration may result in chemical pneumonia (fluid in the lungs), severe lung damage, respiratory failure and even death.

* * * Section 12 - Ecological Information * * *

Ecotoxicity

A: General Product Information

Very toxic to aquatic life with long lasting effects. Keep out of sewers, drainage areas and waterways. Report spills and releases, as applicable, under Federal and State regulations.

B: Component Analysis - Ecotoxicity - Aquatic Toxicity

Fuel oil No. 2 (68476-30-2)

Test & Species		Conditions
96 Hr LC50 Pimephales promelas	35 mg/L [flow-through]	

Naphthalene (91-20-3)

Test & Species		Conditions
96 Hr LC50 Pimephales promelas	5.74-6.44 mg/L [flow-through]	
96 Hr LC50 Oncorhynchus mykiss	1.6 mg/L [flow-through]	
96 Hr LC50 Oncorhynchus mykiss	0.91-2.82 mg/L [static]	
96 Hr LC50 Pimephales promelas	1.99 mg/L [static]	
96 Hr LC50 Lepomis macrochirus	31.0265 mg/L [static]	
72 Hr EC50 Skeletonema costatum	0.4 mg/L	
48 Hr LC50 Daphnia magna	2.16 mg/L	
48 Hr EC50 Daphnia magna	1.96 mg/L [Flow through]	
48 Hr EC50 Daphnia magna	1.09 - 3.4 mg/L [Static]	

Persistence/Degradability

No information available.

Bioaccumulation

No information available.

Mobility in Soil

No information available.

* * * Section 13 - Disposal Considerations * * *

Waste Disposal Instructions

See Section 7 for Handling Procedures. See Section 8 for Personal Protective Equipment recommendations.

Disposal of Contaminated Containers or Packaging

Dispose of contents/container in accordance with local/regional/national/international regulations.

* * * Section 14 - Transportation Information * * *

DOT Information

Shipping Name: Fuel Oil, No. 2

UN #: 1202 **Hazard Class:** 3 **Packing Group:** III

Placard:

* * * Section 15 - Regulatory Information * * *

Regulatory Information

Component Analysis

This material contains one or more of the following chemicals required to be identified under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65) and/or CERCLA (40 CFR 302.4).

Naphthalene (91-20-3)

SARA 313: 0.1 % de minimis concentration
CERCLA: 100 lb final RQ; 45.4 kg final RQ

SARA Section 311/312 – Hazard Classes

Acute Health	Chronic Health	Fire	Sudden Release of Pressure	Reactive
X	X	X	--	--

SARA SECTION 313 - SUPPLIER NOTIFICATION

This product may contain listed chemicals below the de minimis levels which therefore are not subject to the supplier notification requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act (EPCRA) of 1986 and of 40 CFR 372. If you may be required to report releases of chemicals listed in 40 CFR 372.28, you may contact Hess Corporate Safety if you require additional information regarding this product.

State Regulations

Component Analysis - State

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS	CA	MA	MN	NJ	PA	RI
Naphthalene	91-20-3	Yes	Yes	Yes	Yes	Yes	No

The following statement(s) are provided under the California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65):

WARNING! This product contains a chemical known to the state of California to cause cancer.

Component Analysis - WHMIS IDL

No components are listed in the WHMIS IDL.

Additional Regulatory Information

Component Analysis - Inventory

Component	CAS #	TSCA	CAN	EEC
Fuel oil No. 2	68476-30-2	Yes	DSL	EINECS
Naphthalene	91-20-3	Yes	DSL	EINECS

* * * Section 16 - Other Information * * *

NFPA® Hazard Rating

Health	1
Fire	2
Reactivity	0

HMIS® Hazard Rating

Health	1*	Slight
Fire	2	Moderate
Physical	0	Minimal
		*Chronic

Abbreviations:

AP = Approximately; < = Less than > = Greater than; N/A = Not Applicable; N/D = Not Determined; ppm = parts per million

Key/Legend

EPA = Environmental Protection Agency; TSCA = Toxic Substance Control Act; ACGIH = American Conference of Governmental Industrial Hygienists; API = American Petroleum Institute (202) 682-8000; IARC = International Agency for Research on Cancer; MSHA = Mine Safety and Health Administration; NIOSH = National Institute for Occupational Safety and Health; NTP = National Toxicology Program; OSHA = Occupational Safety and Health Administration., NJTSR = New Jersey Trade Secret Registry.

Literature References

None

Other Information

Information presented herein has been compiled from sources considered to be dependable, and is accurate and reliable to the best of our knowledge and belief, but is not guaranteed to be so. Since conditions of use are beyond our control, we make no warranties, expressed or implied, except those that may be contained in our written contract of sale or acknowledgment.

Vendor assumes no responsibility for injury to vendee or third persons proximately caused by the material if reasonable safety procedures are not adhered to as stipulated in the data sheet. Additionally, vendor assumes no responsibility for injury to vendee or third persons proximately caused by abnormal use of the material, even if reasonable safety procedures are followed. Furthermore, vendee assumes the risk in their use of the material.

End of Sheet

SAFETY DATA SHEET

Creation Date 24-Aug-2009 **Revision Date** 13-Oct-2023 **Revision Number** 8

1. Identification

Product Name **Hydrochloric acid**

Cat No. : **A481-212; A481-212LC; S71942SC; S71943; S71943ND; S80036; S80038; SA49**

CAS No 7647-01-0
Synonyms Muriatic acid; Hydrogen chloride; HCl (Technical/Certified ACS Plus/Optima/NF/FCC)

Recommended Use Laboratory chemicals.
Uses advised against Food, drug, pesticide or biocidal product use.

Details of the supplier of the safety data sheet

Company
Fisher Scientific Company
One Reagent Lane
Fair Lawn, NJ 07410
Tel: (201) 796-7100

Emergency Telephone Number
CHEMTREC®, Inside the USA: 800-424-9300
CHEMTREC®, Outside the USA: 001-703-527-3887

2. Hazard(s) identification

Classification
This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Corrosive to metals	Category 1
Skin Corrosion/Irritation	Category 1 B
Serious Eye Damage/Eye Irritation	Category 1
Specific target organ toxicity (single exposure)	Category 3
Target Organs - Respiratory system.	

Label Elements

Signal Word
Danger

Hazard Statements
May be corrosive to metals

Causes severe skin burns and eye damage
May cause respiratory irritation

Precautionary Statements
Prevention
Do not breathe dust/fume/gas/mist/vapors/spray
Wash face, hands and any exposed skin thoroughly after handling
Wear protective gloves/protective clothing/eye protection/face protection
Use only outdoors or in a well-ventilated area
Keep only in original container
Response
Immediately call a POISON CENTER or doctor/physician
Inhalation
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
Skin
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
Wash contaminated clothing before reuse
Eyes
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
Ingestion
IF SWALLOWED: Rinse mouth. DO NOT induce vomiting
Spills
Absorb spillage to prevent material damage
Storage
Store locked up
Store in a well-ventilated place. Keep container tightly closed
Store in corrosive resistant polypropylene container with a resistant inliner
Store in a dry place
Disposal
Dispose of contents/container to an approved waste disposal plant
Hazards not otherwise classified (HNOC)
None identified

3. Composition/Information on Ingredients

Component	CAS No	Weight %
Water	7732-18-5	62-65
Hydrochloric acid	7647-01-0	35-38

4. First-aid measures

Eye Contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required.

Skin Contact Wash off immediately with plenty of water for at least 15 minutes. Immediate medical attention is required.

Inhalation Remove to fresh air. If breathing is difficult, give oxygen. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a

	pocket mask equipped with a one-way valve or other proper respiratory medical device. Immediate medical attention is required.
Ingestion	Do NOT induce vomiting. Call a physician or poison control center immediately.
Most important symptoms and effects	Causes burns by all exposure routes. Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated: Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation
Notes to Physician	Treat symptomatically

5. Fire-fighting measures

Suitable Extinguishing Media	Substance is nonflammable; use agent most appropriate to extinguish surrounding fire.
Unsuitable Extinguishing Media	No information available
Flash Point	No information available
Method -	No information available
Autoignition Temperature	No information available
Explosion Limits	
Upper	No data available
Lower	No data available
Sensitivity to Mechanical Impact	No information available
Sensitivity to Static Discharge	No information available

Specific Hazards Arising from the Chemical
Corrosive material. Causes burns by all exposure routes. Thermal decomposition can lead to release of irritating gases and vapors.

Hazardous Combustion Products
Hydrogen chloride gas.
Protective Equipment and Precautions for Firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA

Health	Flammability	Instability	Physical hazards
3	0	0	N/A

6. Accidental release measures

Personal Precautions	Use personal protective equipment as required. Ensure adequate ventilation. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Do not get in eyes, on skin, or on clothing.
Environmental Precautions	Should not be released into the environment. See Section 12 for additional Ecological Information.
Methods for Containment and Clean Up	Soak up with inert absorbent material. Keep in suitable, closed containers for disposal.

7. Handling and storage

Handling	Wear personal protective equipment/face protection. Do not breathe mist/vapors/spray. Do not get in eyes, on skin, or on clothing. Do not ingest. If swallowed then seek immediate medical assistance.
Storage.	Keep containers tightly closed in a dry, cool and well-ventilated place. Corrosives area. Incompatible Materials. Metals. Strong oxidizing agents. Bases. sodium hypochlorite. Amines. Fluorine. Cyanides. Alkaline.

8. Exposure controls / personal protection

Exposure Guidelines

Component	ACGIH TLV	OSHA PEL	NIOSH	Mexico OEL (TWA)
Hydrochloric acid	Ceiling: 2 ppm	Ceiling: 5 ppm Ceiling: 7 mg/m^3 (Vacated) Ceiling: 5 ppm (Vacated) Ceiling: 7 mg/m^3	IDLH: 50 ppm Ceiling: 5 ppm Ceiling: 7 mg/m^3	Ceiling: 2 ppm

Legend

ACGIH - American Conference of Governmental Industrial Hygienists
OSHA - Occupational Safety and Health Administration
NIOSH: NIOSH - National Institute for Occupational Safety and Health

Engineering Measures Ensure that eyewash stations and safety showers are close to the workstation location.

Personal Protective Equipment

Eye/face Protection Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin and body protection Wear appropriate protective gloves and clothing to prevent skin exposure.

Respiratory Protection Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Recommended Filter type: Particulates filter conforming to EN 143. or. Acid gases filter: Type E, Yellow.

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties

Physical State	Liquid
Appearance	Colorless
Odor	pungent
Odor Threshold	No information available
pH	< 1
Melting Point/Range	-35 °C / -31 °F
Boiling Point/Range	57 °C / 135 °F @ 760 mmHg
Flash Point	No information available
Evaporation Rate	No information available
Flammability (solid,gas)	Not applicable
Flammability or explosive limits	
Upper	No data available
Lower	No data available
Vapor Pressure	125 mbar @ 20 °C
Vapor Density	1.27
Specific Gravity	1.18
Solubility	Soluble in water
Partition coefficient; n-octanol/water	No data available
Autoignition Temperature	No information available
Decomposition Temperature	No information available
Viscosity	1.8 mPa.s @ 15°C
Molecular Formula	HCl

Molecular Weight 55.55

10. Stability and reactivity

Reactive Hazard None known, based on information available

Stability Stable under normal conditions.

Conditions to Avoid Incompatible products. Excess heat.

Incompatible Materials Metals, Strong oxidizing agents, Bases, sodium hypochlorite, Amines, Fluorine, Cyanides, Alkaline

Hazardous Decomposition Products Hydrogen chloride gas

Hazardous Polymerization Hazardous polymerization does not occur.

Hazardous Reactions Contact with metals may evolve flammable hydrogen gas.

11. Toxicological information

Acute Toxicity

Product Information

Oral LD50 Based on ATE data, the classification criteria are not met. ATE > 2000 mg/kg.

Dermal LD50 Based on ATE data, the classification criteria are not met. ATE > 2000 mg/kg.

Vapor LC50 Based on ATE data, the classification criteria are not met. ATE > 20 mg/l.

Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Water	-	-	-
Hydrochloric acid	238 - 277 mg/kg (Rat)	> 5010 mg/kg (Rabbit)	1.68 mg/L (Rat) 1 h

Toxicologically Synergistic Products No information available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Irritation Causes burns by all exposure routes

Sensitization No information available

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Component	CAS No	IARC	NTP	ACGIH	OSHA	Mexico
Water	7732-18-5	Not listed	Not listed	Not listed	Not listed	Not listed
Hydrochloric acid	7647-01-0	Not listed	Not listed	Not listed	Not listed	Not listed

IARC (International Agency for Research on Cancer)

IARC (International Agency for Research on Cancer)
Group 1 - Carcinogenic to Humans
Group 2A - Probably Carcinogenic to Humans
Group 2B - Possibly Carcinogenic to Humans

Mutagenic Effects No information available

Reproductive Effects No information available.

Developmental Effects No information available.

Teratogenicity No information available.

STOT - single exposure Respiratory system

STOT - repeated exposure None known

Aspiration hazard No information available

Symptoms / effects,both acute and delayed Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated: Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation

Endocrine Disruptor Information No information available

Other Adverse Effects The toxicological properties have not been fully investigated.

12. Ecological information

Ecotoxicity

Do not empty into drains. Large amounts will affect pH and harm aquatic organisms.

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Hydrochloric acid	-	282 mg/L LC50 96 h Gambusia affinis mg/L LC50 48 h Leucscus idus	-	56mg/L EC50 72h Daphnia

Persistence and Degradability Persistence is unlikely based on information available.

Bioaccumulation/ Accumulation No information available.

Mobility Will likely be mobile in the environment due to its water solubility.

13. Disposal considerations

Waste Disposal Methods Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

14. Transport information

DOT

UN-No UN1789
Proper Shipping Name HYDROCHLORIC ACID
Hazard Class 8
Packing Group II

TDG

UN-No UN1789
Proper Shipping Name HYDROCHLORIC ACID
Hazard Class 8
Packing Group II

IATA

UN-No UN1789
Proper Shipping Name Hydrochloric acid
Hazard Class 8
Packing Group II

IMDG/IMO

UN-No UN1789
Proper Shipping Name Hydrochloric acid
Hazard Class 8
Packing Group II

15. Regulatory information

United States of America Inventory

Component	CAS No	TSCA	TSCA Inventory notification - Active-Inactive	TSCA - EPA Regulatory Flags
Water	7732-18-5	X	ACTIVE	-
Hydrochloric acid	7647-01-0	X	ACTIVE	-

Legend:
TSCA US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)
X - Listed
'-' - Not Listed

TSCA - Per 40 CFR 751, Regulation of Certain Chemical Substances & Mixtures, Under TSCA Section 6(h) (PBT) Not applicable

TSCA 12(b) - Notices of Export Not applicable

International Inventories
Canada (DSL/NDSL), Europe (EINECS/ELINCS/NLP), Philippines (PICCS), Japan (ENCS), Japan (ISHL), Australia (AICS), China (IECSC), Korea (KECL).

Component	CAS No	DSL	NDSL	EINECS	PICCS	ENCS	ISHL	AICS	IECSC	KECL
Water	7732-18-5	X	-	231-791-2	X	X		X	X	KE-35400
Hydrochloric acid	7647-01-0	X	-	231-595-7	X	X	X	X	X	KE-20189

KECL - NIER number or KE number (http://ncis.nier.go.kr/en/main.do)

U.S. Federal Regulations

SARA 313

Component	CAS No	Weight %	SARA 313 - Threshold Values %
Hydrochloric acid	7647-01-0	35-38	1.0

SARA 311/312 Hazard Categories See section 2 for more information

CWA (Clean Water Act)

Component	CWA - Hazardous Substances	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants
Hydrochloric acid	X	5000 lb	-	-

Clean Air Act

Component	HAPS Data	Class 1 Ozone Depletors	Class 2 Ozone Depletors
Hydrochloric acid	X		-

OSHA - Occupational Safety and Health Administration Not applicable

Component	Specifically Regulated Chemicals	Highly Hazardous Chemicals
Hydrochloric acid	-	TQ: 5000 lb

CERCLA This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Component	Hazardous Substances RQs	CERCLA EHS RQs
Hydrochloric acid	5000 lb	5000 lb

California Proposition 65 This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Water	-	-	X	-	-
Hydrochloric acid	X	X	X	X	X

U.S. Department of Transportation

Reportable Quantity (RQ):	Y
DOT Marine Pollutant	N
DOT Severe Marine Pollutant	N

U.S. Department of Homeland Security This product contains the following DHS chemicals:
Legend - STQs = Screening Threshold Quantities, APA = A placarded amount

Component	DHS Chemical Facility Anti-Terrorism Standard
Hydrochloric acid	Release STQs - 15000lb (concentration >=37%) Release STQs - 5000lb (anhydrous) Theft STQs - 500lb (anhydrous)

Other International Regulations

Mexico - Grade No information available

Authorisation/Restrictions according to EU REACH

Component	CAS No	REACH (1907/2006) - Annex XIV - Substances Subject to Authorization	REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances	REACH Regulation (EC 1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC)
Water	7732-18-5	-	-	-
Hydrochloric acid	7647-01-0	-	Use restricted. See item 75. (see link for restriction details)	-

REACH links
https://echa.europa.eu/substances-restricted-under-reach

Safety, health and environmental regulations/legislation specific for the substance or mixture

Component	CAS No	OECD HPV	Persistent Organic Pollutant	Ozone Depletion Potential	Restriction of Hazardous Substances (RoHS)
Water	7732-18-5	Listed	Not applicable	Not applicable	Not applicable
Hydrochloric acid	7647-01-0	Listed	Not applicable	Not applicable	Not applicable

Contains component(s) that meet a 'definition' of per & poly fluoroalkyl substance (PFAS)?
Not applicable

Other International Regulations

Component	CAS No	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements	Rotterdam Convention (PIC)	Basel Convention (Hazardous Waste)
Water	7732-18-5	Not applicable	Not applicable	Not applicable	Not applicable
Hydrochloric acid	7647-01-0	25 tonne	250 tonne	Not applicable	Annex I - Y34

16. Other information

Prepared By Regulatory Affairs

Thermo Fisher Scientific
Email: EMSDS.RA@thermofisher.com

Creation Date	24-Aug-2009
Revision Date	13-Oct-2023
Print Date	13-Oct-2023
Revision Summary	SDS sections updated. 2. 3. 11.

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of SDS

SAFETY DATA SHEET

Revision Date 01-Apr-2024 **Revision Number** 3

1. Identification

Product Name **Hexavalent Chromium, standard solution, Specpure®, Cr(+6) 1000µg/ml**

Cat No. : **42234**

Synonyms No information available

Recommended Use Laboratory chemicals.
Uses advised against Food, drug, pesticide or biocidal product use.

Details of the supplier of the safety data sheet

Company
Thermo Fisher Scientific Chemicals, Inc.
30 Bond Street
Ward Hill, MA 01835-8099
Tel: 800-343-0660
Fax: 800-322-4757

Emergency Telephone Number
For information **US** call: 001-800-227-6701 / **Europe** call: +32 14 57 52 11
Emergency Number **US:**001-201-796-7100 / **Europe:** +32 14 57 52 99
CHEMTREC Tel. No. **US:**001-800-424-9300 / **Europe:**001-703-527-3887

2. Hazard(s) identification

Classification
This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Germ Cell Mutagenicity	Category 1B
Carcinogenicity	Category 1A
Reproductive Toxicity	Category 1B

Label Elements

Signal Word
Danger

Hazard Statements
May cause genetic defects
May cause cancer
May damage fertility or the unborn child

Precautionary Statements
Prevention
Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Use personal protective equipment as required
Response
IF exposed or concerned: Get medical attention/advice
Storage
Store locked up
Disposal
Dispose of contents/container to an approved waste disposal plant
Hazards not otherwise classified (HNOC)
None identified
WARNING. Cancer and Reproductive Harm - https://www.p65warnings.ca.gov/.

3. Composition/Information on Ingredients

Component	CAS No	Weight %
Water	7732-18-5	99.76
Ammonium bichromate	7789-09-5	0.24

4. First-aid measures

General Advice If symptoms persist, call a physician.

Eye Contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.

Skin Contact Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists, call a physician.

Inhalation Remove to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms occur.

Ingestion Clean mouth with water and drink afterwards plenty of water.

Most important symptoms and effects None reasonably foreseeable.

Notes to Physician Treat symptomatically

5. Fire-fighting measures

Suitable Extinguishing Media Not combustible.

Unsuitable Extinguishing Media No information available

Flash Point No information available

Method -	No information available
Autoignition Temperature	No information available
Explosion Limits	
Upper	No data available
Lower	No data available
Sensitivity to Mechanical Impact	No information available
Sensitivity to Static Discharge	No information available

Specific Hazards Arising from the Chemical
None reasonably foreseeable.

Hazardous Combustion Products
Nitrogen oxides (NOx). Ammonia. Chromium oxide.
Protective Equipment and Precautions for Firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA

Health	Flammability	Instability	Physical hazards
0	0	0	-

6. Accidental release measures

Personal Precautions	Ensure adequate ventilation. Use personal protective equipment as required.
Environmental Precautions	Should not be released into the environment. See Section 12 for additional Ecological Information. Do not allow material to contaminate ground water system. Do not flush into surface water or sanitary sewer system.
Methods for Containment and Clean Up	Soak up with inert absorbent material. Keep in suitable, closed containers for disposal.

7. Handling and storage

Handling	Wear personal protective equipment/face protection. Ensure adequate ventilation. Do not get in eyes, on skin, or on clothing. Avoid ingestion and inhalation.
Storage.	Keep containers tightly closed in a dry, cool and well-ventilated place.

8. Exposure controls / personal protection

Exposure Guidelines

Component	ACGIH TLV	OSHA PEL	NIOSH	Mexico OEL (TWA)
Ammonium bichromate	TWA: 0.0002 mg/m³ STEL: 0.0005 mg/m³ Skin	(Vacated) Ceiling: 0.1 mg/m³ Ceiling: 0.1 mg/m³	IDLH: 15 mg/m³ TWA: 0.0002 mg/m³	TWA: 0.05 mg/m³

Legend

ACGIH - American Conference of Governmental Industrial Hygienists
OSHA - Occupational Safety and Health Administration
NIOSH: NIOSH - National Institute for Occupational Safety and Health

Engineering Measures	Ensure adequate ventilation, especially in confined areas.

Personal Protective Equipment

Eye/face Protection	Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard

EN166.

Skin and body protection Wear appropriate protective gloves and clothing to prevent skin exposure.

Respiratory Protection Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Recommended Filter type: Organic gases and vapours filter. Particulates filter conforming to EN 143.

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties

Physical State	Liquid
Appearance	Yellow
Odor	Odorless
Odor Threshold	No information available
pH	4 (1%)
Melting Point/Range	No data available
Boiling Point/Range	No information available
Flash Point	No information available
Evaporation Rate	No information available
Flammability (solid,gas)	Not applicable
Flammability or explosive limits	
Upper	No data available
Lower	No data available
Vapor Pressure	23 hPa @ 20 °C
Vapor Density	No information available
Specific Gravity	No information available
Solubility	No information available
Partition coefficient; n-octanol/water	No data available
Autoignition Temperature	No information available
Decomposition Temperature	No information available
Viscosity	No information available
Molecular Formula	(NH4)2 Cr2 O7 in H2 O

10. Stability and reactivity

Reactive Hazard None known, based on information available

Stability Stable under normal conditions.

Conditions to Avoid Incompatible products.

Incompatible Materials Strong oxidizing agents

Hazardous Decomposition Products Nitrogen oxides (NOx), Ammonia, Chromium oxide

Hazardous Polymerization Hazardous polymerization does not occur.

Hazardous Reactions None under normal processing.

11. Toxicological information

Acute Toxicity

Product Information

Oral LD50	Based on ATE data, the classification criteria are not met. ATE > 2000 mg/kg.
Dermal LD50	Based on ATE data, the classification criteria are not met. ATE > 2000 mg/kg.

Vapor LC50 Based on ATE data, the classification criteria are not met. ATE > 20 mg/l.

Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Water	-	-	-
Ammonium bichromate	LD50 = 48 mg/kg (Rat)	LD50 = 1860 mg/kg (Rabbit)	LC50 = 0.2 mg/L (Rat) 4 h

Toxicologically Synergistic Products No information available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Irritation No information available

Sensitization No information available

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Component	CAS No	IARC	NTP	ACGIH	OSHA	Mexico
Water	7732-18-5	Not listed	Not listed	Not listed	Not listed	Not listed
Ammonium bichromate	7789-09-5	Group 1	Known	A1	X	A1

IARC (International Agency for Research on Cancer)

IARC (International Agency for Research on Cancer)
Group 1 - Carcinogenic to Humans
Group 2A - Probably Carcinogenic to Humans
Group 2B - Possibly Carcinogenic to Humans

NTP: (National Toxicity Program)

NTP: (National Toxicity Program)
Known - Known Carcinogen
Reasonably Anticipated - Reasonably Anticipated to be a Human Carcinogen

ACGIH: (American Conference of Governmental Industrial Hygienists)

A1 - Known Human Carcinogen
A2 - Suspected Human Carcinogen
A3 - Animal Carcinogen
ACGIH: (American Conference of Governmental Industrial Hygienists)

Mexico - Occupational Exposure Limits - Carcinogens

Mexico - Occupational Exposure Limits - Carcinogens
A1 - Confirmed Human Carcinogen
A2 - Suspected Human Carcinogen
A3 - Confirmed Animal Carcinogen
A4 - Not Classifiable as a Human Carcinogen
A5 - Not Suspected as a Human Carcinogen

Mutagenic Effects No information available

Reproductive Effects California Proposition 65. Reproductive toxicity.

Developmental Effects No information available.

Teratogenicity No information available.

STOT - single exposure None known

STOT - repeated exposure None known

Aspiration hazard No information available

Symptoms / effects,both acute and delayed No information available

Endocrine Disruptor Information No information available

Other Adverse Effects The toxicological properties have not been fully investigated.

12. Ecological information

Ecotoxicity

May cause long-term adverse effects in the environment. Do not allow material to contaminate ground water system.

Persistence and Degradability based on information available. May persist

Bioaccumulation/ Accumulation No information available.

Mobility Will likely be mobile in the environment due to its water solubility.

13. Disposal considerations

Waste Disposal Methods Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

14. Transport information

DOT Not regulated
TDG Not regulated
IATA Not regulated
IMDG/IMO Not regulated

15. Regulatory information

United States of America Inventory

Component	CAS No	TSCA	TSCA Inventory notification - Active-Inactive	TSCA - EPA Regulatory Flags
Water	7732-18-5	X	ACTIVE	-
Ammonium bichromate	7789-09-5	X	ACTIVE	-

Legend:
TSCA US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)
X - Listed
'-' - Not Listed

TSCA - Per 40 CFR 751, Regulation of Certain Chemical Substances & Mixtures, Under TSCA Section 6(h) (PBT) Not applicable

TSCA 12(b) - Notices of Export

Component	CAS No	**TSCA 12(b)** - Notices of Export
Ammonium bichromate	7789-09-5	Section 6

International Inventories
Canada (DSL/NDSL), Europe (EINECS/ELINCS/NLP), Philippines (PICCS), Japan (ENCS), Japan (ISHL), Australia (AICS), China (IECSC), Korea (KECL).

Component	CAS No	DSL	NDSL	EINECS	PICCS	ENCS	ISHL	AICS	IECSC	KECL
Water	7732-18-5	X	-	231-791-2	X	X		X	X	KE-35400
Ammonium bichromate	7789-09-5	X	-	232-143-1	X	X	X	X	X	KE-01653

KECL - NIER number or KE number (http://ncis.nier.go.kr/en/main.do)

U.S. Federal Regulations

SARA 313
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

Component	CAS No	Weight %	SARA 313 - Threshold Values %	SARA 313 - Reporting threasholds
Ammonium bichromate	7789-09-5	0.24	0.1 % 1.0 %	-

SARA 311/312 Hazard Categories
Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

CWA (Clean Water Act)

Component	CWA - Hazardous Substances	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants
Ammonium bichromate	X	10 lb	X	-

Clean Air Act

Component	HAPS Data	Class 1 Ozone Depletors	Class 2 Ozone Depletors
Ammonium bichromate	X		-

OSHA - Occupational Safety and Health Administration — Not applicable

Component	Specifically Regulated Chemicals	Highly Hazardous Chemicals
Ammonium bichromate	5 µg/m³ TWA 2.5 µg/m³ Action Level	-

CERCLA
This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355).

Component	Hazardous Substances RQs	CERCLA Extremely Hazardous Substances RQs	SARA Reportable Quantity (RQ)
Ammonium bichromate	10 lb	-	10 lb 4.54 kg

California Proposition 65 — This product contains the following Proposition 65 chemicals.

Component	CAS No	California Prop. 65	Prop 65 NSRL	Category
Ammonium bichromate	7789-09-5	Carcinogen Developmental Female Reproductive Male Reproductive	-	Developmental Carcinogen

U.S. State Right-to-Know Regulations

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Water	-	-	X	-	-
Ammonium bichromate	X	X	X	X	X

U.S. Department of Transportation

Reportable Quantity (RQ):	Y
DOT Marine Pollutant	N
DOT Severe Marine Pollutant	N

U.S. Department of Homeland Security — This product does not contain any DHS chemicals.

Other International Regulations

Mexico - Grade — No information available

Authorisation/Restrictions according to EU REACH

Component	CAS No	REACH (1907/2006) - Annex XIV - Substances Subject to Authorization	REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances	REACH Regulation (EC 1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC)
Water	7732-18-5	-	-	-
Ammonium bichromate	7789-09-5	Carcinogenic Category 1B, Mutagenic Category 1B, Toxic for reproduction Category 1B Article 57 Application date: March 21, 2016 Sunset date: September 21, 2017 Exemption - None	Use restricted. See item 72. (see link for restriction details) Use restricted. See item 28. (see link for restriction details) Use restricted. See item 30. (see link for restriction details) Use restricted. See item 29. (see link for restriction details) Use restricted. See item 75. (see link for restriction details) Use restricted. See item 47. (see link for restriction details) Use restricted. See item 65. (see link for restriction details)	SVHC Candidate list - 232-143-1 - Carcinogenic, Article 57a;Mutagenic, Article 57b;Toxic for reproduction, Article 57c

After the sunset date the use of this substance requires either an authorization or can only be used for exempted uses, e.g. use in scientific research and development which includes routine analytics or use as intermediate.

REACH links
https://echa.europa.eu/authorisation-list
https://echa.europa.eu/substances-restricted-under-reach
https://echa.europa.eu/candidate-list-table

Safety, health and environmental regulations/legislation specific for the substance or mixture

Component	CAS No	OECD HPV	Persistent Organic Pollutant	Ozone Depletion Potential	Restriction of Hazardous Substances (RoHS)
Water	7732-18-5	Listed	Not applicable	Not applicable	Not applicable
Ammonium bichromate	7789-09-5	Listed	Not applicable	Not applicable	Not applicable

Contains component(s) that meet a 'definition' of per & poly fluoroalkyl substance (PFAS)?
Not applicable

Other International Regulations

Component	CAS No	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements	Rotterdam Convention (PIC)	Basel Convention (Hazardous Waste)

Water	7732-18-5	Not applicable	Not applicable	Not applicable	Not applicable
Ammonium bichromate	7789-09-5	Not applicable	Not applicable	Not applicable	Annex I - Y21

16. Other information

Prepared By
Health, Safety and Environmental Department
Email: chem.techinfo@thermofisher.com
www.thermofisher.com

Revision Date 01-Apr-2024
Print Date 01-Apr-2024
Revision Summary New emergency telephone response service provider.

Disclaimer
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End of SDS

Lead Metal
Safety Data Sheet

Section 1: Identification

Product Name: Lead Metal
CAS No.: 7439-92-1
Chemical Formula: Pb
Other Names: Lead, Lead Block, Lead Wire, Lead Ingot, Pb, Plumbum, Pure Lead, Refined Lead, Sheet Lead, Soft Lead, Lead rod
Intended Use / Restrictions on Use:
For professional/industrial use only.

Contact Information:
Chemical Store Inc.
1059 Main Avenue,
Clifton, NJ 07011
Phone: 973-405-6248

Emergency Contact:
Chemical Store: 973-420-4972

Section 2: Hazard Identification

Classification:
Carcinogen 1B - H350

Label Elements:
Hazard Pictograms:

Signal Word: Danger
Hazard Statements: H350 – May cause cancer. H302 – Harmful if swallowed.
Precautionary Statements: P201 – Obtain special instructions before use. P202 Do not handle until all safety precautions have been read and understood. P260 – Do not breathe dust/fume/gas/mist/vapors/spray. P264 – Wash skin thoroughly after handling. P273 – Avoid release to the environment. P280 - Wear eye protection, protective clothing, protective gloves. P308 +P313 – If exposed or concerned: Get medical advice/attention. P405 – Store locked up. P501 – Dispose of contents/container in accordance with local, regional, national and international regulations.
Other Hazards: Prevent particles from becoming airborne. Can cause thermal burns when molten.

Unknown Acute Toxicity Statement:
Not Applicable

Section 3: Composition / Information on Ingredients

Name: Lead Metal

Synonyms: Lead, Lead Block, Lead wire, Lead Ingot, Pb, Plumbum, Pure Lead, Refined Lead, Sheet Lead, Soft Lead

Chemical Name	CAS Number	% by Weight
Lead (Pb)	7439-92-1	>99

Mixture:

Not applicable

Section 4: First-Aid Measures

Required Treatment:

After inhalation, move to fresh air and rest in a position comfortable for breathing.
After skin contact, wash skin thoroughly. If contact with molten metal, cool skin rapidly and seek medical assistance.
After eye contact, remove contact lenses if applicable and flush eyes with water for at least 15 minutes.
After ingestion, do not induce vomiting. Call poison control center or doctor.

Important Symptoms & Effects, Acute & Delayed:

Lead poisoning can occur through acute or chronic doses. Symptoms include headaches, abdominal pain, memory loss, kidney failure, anemia, change in skin tone, reproductive problems, weakness, pain, or tingling.

Indication of Medical Attention:

If any acute or chronic symptoms arise or if feeling unwell after exposure, seek medical advice.

Section 5: Fire Fighting Measures

Extinguishing Techniques/Equipment:

Use extinguishing media appropriate for surrounding media. Do not use water if metal is hot as it may increase fire intensity.

Chemical Hazards from Fire:

Lead Metal is not flammable or explosive. May react violently with water in molten state.

Special Equipment and Precautions for Firefighters:

Exercise caution. Under fire conditions, fumes will be present. If entering fire area, wear proper protective equipment including respiratory protection.

Section 6: Accidental Release Measures

Emergency Procedures/Personal Protection:

Avoid all contact with skin, eyes, or clothing. Avoid breathing fumes and dust.
Evacuate all unnecessary personnel.

Protective Equipment:

Use appropriate personal protection equipment (PPE), as listed in section 8.

Methods of Containment & Cleanup:

Allow metal to cool and solidify if molten. Collect solid metal and clean up spill site, disposing of waste properly.

Section 7: Handling and Storage

Precautions for Safe Handling:
When molten, use safe furnace practices. When solid, practice good industrial hygiene and safety procedures. Wash exposed areas with soap and water.

Precautions for Safe Storage:
Store in cool, dry and well ventilated location. Seal containers. Keep away from incompatible materials such as strong acids, strong bases, and strong oxidizers. If molten, keep away from water.

Section 8: Exposure Controls / Personal Protection

Control Parameters:

USA ACGIH	ACGIH TWA (mg/m^3)	0.05 mg/m^3
USA NIOSH	NIOSH REL (TWA) (mg/m^3)	0.050 mg/m^3
USA IDLH	US IDLH (mg/m^3)	100 mg/m^3
USA OSHA	OSHA PEL (TWA) (mg/m^3)	50 $\mu g/m^3$

Engineering Controls:
Ensure adequate ventilation. Emergency eye wash stations and safety showers should be nearby any potential exposure. Ensure national/local regulations are observed.

Personal Protective Equipment:
Protective goggles, gloves and clothing. If insufficient ventilation, wear respiratory protection.
Materials for Protective Clothing: Wear chemically resistant materials and fabrics.
Hand Protection: Wear chemically resistant gloves. If working with molten or hot material, wear thermally resistant gloves.
Eye Protection: Chemical googles or safety glasses should be worn at all times. For furnace work, wear a face shield or safety glasses.
Respiratory Protection: If exposure limits are exceeded or irritation is experienced, NIOSH approved respiratory protection should be worn.
Thermal Hazard Protection: For furnace work, fire retardant clothing, gloves, and safety shoes should be worn.
Consumer Exposure Controls: Do not eat, drink, or smoke during use.

Section 9: Physical and Chemical Properties

Physical State: Solid (Metal)	**Evaporation Rate:** N/A
Color: Blueish-grey. Silvery	**Flammability:** N/A
Taste: N/A	**Upper/Lower Flammability Limits:** N/A
Molecular Weight: 207.21 g/mol	**Vapor Pressure:** 1 mm Hg @ 973°C (1783°F)
Odor: N/A	**Vapor Density:** N/A
Odor Threshold: N/A	**Specific Gravity (Relative Density):** 11.3
pH: N/A	**Solubility:** Insoluble in water
Melting Point: 327.43°C (621.4°F)	**Partition Coefficient:** N/A
Boiling Point: 1740 °C (3164°F)	**Auto-ignition Temperature:** N/A
Boiling Range: N/A	**Decomposition Temperature:** N/A
Flash Point: N/A	**Viscosity:** N/A

Section 10: Stability and Reactivity

Reactivity: May react violently with water in molten form.
Stability: Stable under proper handling and storage conditions.
Hazardous Reactions: Thermal reactions generate lead fumes.
Conditions to Avoid: Avoid incompatible materials. Avoid Moisture in molten form.
Incompatible Materials: Strong acids, strong bases, and strong oxidizers. If molten, water. **Hazardous Decomposition Products:** Melting produces lead fumes.

Section 11: Toxicological Information

Routes of Exposure
Inhalation of dust, fumes. Skin contact through physical contact. Eye contact through physical contact or dust and fumes. Ingestion through contamination of skin/surfaces.

Chronic and Acute Related Symptoms/Effects:
Inhalation of fumes or dust can cause respiratory irritation. Skin contact with molten metal can cause burns. Dust or fumes can cause eye irritation. Ingestion can cause harmful effects. Acute symptoms can include headaches, abdominal pain, memory loss, kidney failure, anemia, change in skin tone, reproductive problems, weakness, pain, or tingling. Chronic exposure may cause cancer or lead poisoning.

Measures of Toxicology:
Acute Toxicity: Not Classified
Skin Corrosion/Irritation: Not Classified
Serious Eye Damage/ Irritation: Not Classified
Respiratory or Skin Sensitization: Not Classified **Germ Cell Mutagenicity:** Not Classified **Reproductive Toxicity:** Not Classified **Carcinogenic Information:**
May cause cancer.
IARC Group: 2A
National Toxicology Program (NTP) Status: Reasonably anticipated to be a human carcinogen.

Section 12: Ecological Information

Ecotoxicity: Toxic to aquatic life and terrestrial environments
Persistence and Degradability: N/A
Bioaccumulative Potential: Bioaccumulates in animals and plants
Mobility in Soil: Accumulates in Soil but not particularly mobile
Other Adverse Effects:
Prevent entry to sewers and public waterways. Avoid release to the environment. Ensure accordance with national and local regulations.

Section 13: Disposal Considerations

Dispose of waste in accordance with all local, regional, national, and international regulations.

Section 14: Transportation Information

UN Number: 3077
UN Proper Shipping Name: Environmentally hazardous substance, solid, n.o.s. (Lead)
Class: 9
Packing Group: III
Environmental Hazards: Do not release to waterways.
Transportation in Bulk: N/A
Special Precautions: Wash skin after contact

Section 15: Regulatory Information

US Federal Regulations:
SARA Section 311/312 Hazard Classes – Delayed (chronic) Health Hazard
SARA Section 313 Emissions Reporting – 0.1%

US State Regulations:
California – Prop. 65 – Carcinogens List California –
Prop. 65 – Developmental Toxicity
California – Prop. 65 – Reproductive Toxicity Male/Female
Massachusetts – Right To Know List
Pennsylvania – Right To Know List (Environmental Hazard)
Pennsylvania – Right To Know List
New Jersey – Right To Know List (Hazardous Substance)

Section 16: Other Information

Date of Preparation: 05/20/15
Date of Revision: 05/07/18
Prepared in accordance with OSHA HCS 29 CFR 1910.1200.

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SAFETY DATA SHEET

Creation Date 27-Apr-2009 **Revision Date** 26-Dec-2021 **Revision Number** 9

1. Identification

Product Name **Methanol**

Cat No. : **AC423950000; AC423950010; AC423950025; AC423950040; AC423950200; AC423950250; AC423955000**

CAS No 67-56-1
Synonyms Methyl alcohol

Recommended Use Laboratory chemicals.
Uses advised against .

Details of the supplier of the safety data sheet

Company
Fisher Scientific Company
One Reagent Lane
Fair Lawn, NJ 07410
Tel: (201) 796-7100

Acros Organics
One Reagent Lane
Fair Lawn, NJ 07410

Emergency Telephone Number For information **US** call: 001-800-ACROS-01 / **Europe** call: +32 14 57 52 11
Emergency Number **US:**001-201-796-7100 / **Europe:** +32 14 57 52 99
CHEMTREC Tel. No.**US:**001-800-424-9300 / **Europe:**001-703-527-3887

2. Hazard(s) identification

Classification
This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Flammable liquids	Category 2
Acute oral toxicity	Category 3
Acute dermal toxicity	Category 3
Acute Inhalation Toxicity - Vapors	Category 3
Specific target organ toxicity (single exposure)	Category 1
Target Organs - Optic nerve, Central nervous system (CNS).	
Specific target organ toxicity - (repeated exposure)	Category 1
Target Organs - Kidney, Liver, spleen, Blood.	

Label Elements

Signal Word
Danger

Hazard Statements
Highly flammable liquid and vapor
Causes damage to organs
Causes damage to organs through prolonged or repeated exposure
Toxic if swallowed, in contact with skin or if inhaled

Precautionary Statements
Prevention
Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product
Wear protective gloves/protective clothing/eye protection/face protection
Use only outdoors or in a well-ventilated area
Do not breathe dust/fume/gas/mist/vapors/spray
Keep away from heat/sparks/open flames/hot surfaces. - No smoking
Keep container tightly closed
Ground/bond container and receiving equipment
Use explosion-proof electrical/ventilating/lighting equipment
Use only non-sparking tools
Take precautionary measures against static discharge
Keep cool
Response
IF exposed: Call a POISON CENTER or doctor/physician
Inhalation
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
Call a POISON CENTER or doctor/physician
Skin
Call a POISON CENTER or doctor/physician if you feel unwell
Wash contaminated clothing before reuse
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
Ingestion
IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
Rinse mouth
Fire
In case of fire: Use CO2, dry chemical, or foam for extinction
Storage
Store locked up
Store in a well-ventilated place. Keep container tightly closed
Disposal
Dispose of contents/container to an approved waste disposal plant
Hazards not otherwise classified (HNOC)

Other hazards
Poison, may be fatal or cause blindness if swallowed. Vapor harmful. CANNOT BE MADE NON-POISONOUS.
WARNING. Reproductive Harm - https://www.p65warnings.ca.gov/.

3. Composition/Information on Ingredients

Component	CAS No	Weight %
Methyl alcohol	67-56-1	>95

4. First-aid measures

General Advice Immediate medical attention is required. Show this safety data sheet to the doctor in attendance.

Eye Contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required.

Skin Contact Wash off immediately with plenty of water for at least 15 minutes. Immediate medical attention is required.

Inhalation Remove to fresh air. If breathing is difficult, give oxygen. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Immediate medical attention is required.

Ingestion Do NOT induce vomiting. Call a physician or poison control center immediately.

Most important symptoms and effects Difficulty in breathing. May cause blindness: Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting

Notes to Physician Treat symptomatically

5. Fire-fighting measures

Suitable Extinguishing Media Water spray, carbon dioxide (CO2), dry chemical, alcohol-resistant foam. Water mist may be used to cool closed containers.

Unsuitable Extinguishing Media Water may be ineffective

Flash Point 9.7 °C / 49.5 °F

Method - No information available

Autoignition Temperature 455 °C / 851 °F

Explosion Limits

Upper	31.00 vol %
Lower	6.0 vol %
Sensitivity to Mechanical Impact	No information available
Sensitivity to Static Discharge	No information available

Specific Hazards Arising from the Chemical
Flammable. Risk of ignition. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back. Containers may explode when heated. Vapors may form explosive mixtures with air.

Hazardous Combustion Products
Carbon monoxide (CO). Formaldehyde.
Protective Equipment and Precautions for Firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Thermal decomposition can lead to release of irritating gases and vapors.

NFPA

Health	Flammability	Instability	Physical hazards
1	3	0	N/A

6. Accidental release measures

Personal Precautions Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Use

	personal protective equipment as required. Ensure adequate ventilation. Remove all sources of ignition. Take precautionary measures against static discharges.
Environmental Precautions	Should not be released into the environment. See Section 12 for additional Ecological Information.
Methods for Containment and Clean Up	Soak up with inert absorbent material. Keep in suitable, closed containers for disposal. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment.

7. Handling and storage

Handling

Wear personal protective equipment/face protection. Do not breathe mist/vapors/spray. Do not get in eyes, on skin, or on clothing. Use only under a chemical fume hood. Do not ingest. If swallowed then seek immediate medical assistance. Keep away from open flames, hot surfaces and sources of ignition. Use only non-sparking tools. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded. Take precautionary measures against static discharges.

Storage.

Keep container tightly closed in a dry and well-ventilated place. Keep away from open flames, hot surfaces and sources of ignition. Flammables area. Incompatible Materials. Strong oxidizing agents. Strong acids. Acid anhydrides. Acid chlorides. Strong bases. Metals. Peroxides.

8. Exposure controls / personal protection

Exposure Guidelines

Component	ACGIH TLV	OSHA PEL	NIOSH IDLH	Mexico OEL (TWA)
Methyl alcohol	TWA: 200 ppm STEL: 250 ppm Skin	(Vacated) TWA: 200 ppm (Vacated) TWA: 260 mg/m^3 (Vacated) STEL: 250 ppm (Vacated) STEL: 325 mg/m^3 Skin TWA: 200 ppm TWA: 260 mg/m^3	IDLH: 6000 ppm TWA: 200 ppm TWA: 260 mg/m^3 STEL: 250 ppm STEL: 325 mg/m^3	TWA: 200 ppm STEL: 250 ppm

Legend

ACGIH - American Conference of Governmental Industrial Hygienists
OSHA - Occupational Safety and Health Administration
NIOSH IDLH: NIOSH - National Institute for Occupational Safety and Health

Engineering Measures

Use only under a chemical fume hood. Use explosion-proof electrical/ventilating/lighting equipment. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal Protective Equipment

Eye/face Protection

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin and body protection

Wear appropriate protective gloves and clothing to prevent skin exposure.

Respiratory Protection

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Hygiene Measures

When using do not eat, drink or smoke. Provide regular cleaning of equipment, work area and clothing.

9. Physical and chemical properties

Physical State	Liquid
Appearance	Colorless
Odor	Alcohol-like
Odor Threshold	No information available
pH	Not applicable
Melting Point/Range	-98 °C / -144.4 °F
Boiling Point/Range	64.7 °C / 148.5 °F @ 760 mmHg
Flash Point	9.7 °C / 49.5 °F
Evaporation Rate	5.2 (ether = 1)
Flammability (solid,gas)	Not applicable
Flammability or explosive limits	
Upper	31.00 vol %
Lower	6.0 vol %
Vapor Pressure	128 hPa @ 20 °C
Vapor Density	1.11
Specific Gravity	0.791
Solubility	Miscible with water
Partition coefficient; n-octanol/water	No data available
Autoignition Temperature	455 °C / 851 °F
Decomposition Temperature	No information available
Viscosity	0.55 cP at 20 °C
Molecular Formula	C H4 O
Molecular Weight	32.04
VOC Content(%)	100
Surface tension	0.02255 N/m @ 20°C

10. Stability and reactivity

Reactive Hazard None known, based on information available

Stability Stable under normal conditions.

Conditions to Avoid Incompatible products. Heat, flames and sparks. Keep away from open flames, hot surfaces and sources of ignition.

Incompatible Materials Strong oxidizing agents, Strong acids, Acid anhydrides, Acid chlorides, Strong bases, Metals, Peroxides

Hazardous Decomposition Products Carbon monoxide (CO), Formaldehyde

Hazardous Polymerization Hazardous polymerization does not occur.

Hazardous Reactions None under normal processing.

11. Toxicological information

Acute Toxicity

Product Information

Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Methyl alcohol	LD50 = 1187 – 2769 mg/kg (Rat)	LD50 = 17100 mg/kg (Rabbit)	LC50 = 128.2 mg/L (Rat) 4 h

Toxicologically Synergistic Products Carbon tetrachloride

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Irritation May cause skin and eye irritation

Sensitization No information available

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Component	CAS No	IARC	NTP	ACGIH	OSHA	Mexico
Methyl alcohol	67-56-1	Not listed	Not listed	Not listed	Not listed	Not listed

Mutagenic Effects No information available

Reproductive Effects No information available.

Developmental Effects Component substance is listed on California Proposition 65 as a developmental hazard.

Teratogenicity No information available.

STOT - single exposure Optic nerve Central nervous system (CNS)
STOT - repeated exposure Kidney Liver spleen Blood

Aspiration hazard No information available

Symptoms / effects,both acute and delayed May cause blindness: Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting

Endocrine Disruptor Information No information available

Other Adverse Effects The toxicological properties have not been fully investigated.

12. Ecological information

Ecotoxicity

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Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Methyl alcohol	Not listed	Pimephales promelas: LC50 > 10000 mg/L 96h	EC50 = 39000 mg/L 25 min EC50 = 40000 mg/L 15 min EC50 = 43000 mg/L 5 min	EC50 > 10000 mg/L 24h

Persistence and Degradability Persistence is unlikely based on information available.

Bioaccumulation/ Accumulation No information available.

Mobility Will likely be mobile in the environment due to its volatility.

Component	log Pow
Methyl alcohol	-0.74

13. Disposal considerations

Waste Disposal Methods Should not be released into the environment.

Component	RCRA - U Series Wastes	RCRA - P Series Wastes
Methyl alcohol - 67-56-1	U154	-

14. Transport information

DOT

UN-No UN1230
Proper Shipping Name METHANOL
Hazard Class 3
Packing Group II

TDG

UN-No UN1230
Proper Shipping Name METHANOL
Hazard Class 3
Subsidiary Hazard Class 6.1

Packing Group II

IATA

UN-No	UN1230
Proper Shipping Name	METHANOL
Hazard Class	3
Subsidiary Hazard Class	6.1
Packing Group	II

IMDG/IMO

UN-No	UN1230
Proper Shipping Name	METHANOL
Hazard Class	3
Subsidiary Hazard Class	6.1
Packing Group	II

15. Regulatory information

United States of America Inventory

Component	CAS No	TSCA	TSCA Inventory notification - Active-Inactive	TSCA - EPA Regulatory Flags
Methyl alcohol	67-56-1	X	ACTIVE	-

Legend:
TSCA US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)
X - Listed
'-' - Not Listed

TSCA 12(b) - Notices of Export Not applicable

International Inventories
Canada (DSL/NDSL), Europe (EINECS/ELINCS/NLP), Philippines (PICCS), Japan (ENCS), Japan (ISHL), Australia (AICS), China (IECSC), Korea (KECL).

Component	CAS No	DSL	NDSL	EINECS	PICCS	ENCS	ISHL	AICS	IECSC	KECL
Methyl alcohol	67-56-1	X	-	200-659-6	X	X	X	X	X	KE-23193

KECL - NIER number or KE number (http://ncis.nier.go.kr/en/main.do)

U.S. Federal Regulations

SARA 313

Component	CAS No	Weight %	SARA 313 - Threshold Values %
Methyl alcohol	67-56-1	>95	1.0

SARA 311/312 Hazard Categories See section 2 for more information

CWA (Clean Water Act) Not applicable

Clean Air Act

Component	HAPS Data	Class 1 Ozone Depletors	Class 2 Ozone Depletors
Methyl alcohol	X		-

OSHA - Occupational Safety and Health Administration Not applicable

CERCLA This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Component	Hazardous Substances RQs	CERCLA EHS RQs
Methyl alcohol	5000 lb	-

California Proposition 65 This product contains the following Proposition 65 chemicals.

Component	CAS No	California Prop. 65	Prop 65 NSRL	Category
Methyl alcohol	67-56-1	Developmental	-	Developmental

U.S. State Right-to-Know Regulations

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Methyl alcohol	X	X	X	X	X

U.S. Department of Transportation
Reportable Quantity (RQ): Y
DOT Marine Pollutant N
DOT Severe Marine Pollutant N

U.S. Department of Homeland Security This product does not contain any DHS chemicals.

Other International Regulations

Mexico - Grade Serious risk, Grade 3

Authorisation/Restrictions according to EU REACH

Component	REACH (1907/2006) - Annex XIV - Substances Subject to Authorization	REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances	REACH Regulation (EC 1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC)
Methyl alcohol	-	Use restricted. See item 69. (see link for restriction details)	-

https://echa.europa.eu/substances-restricted-under-reach

Safety, health and environmental regulations/legislation specific for the substance or mixture

Component	CAS No	OECD HPV	Persistent Organic Pollutant	Ozone Depletion Potential	Restriction of Hazardous Substances (RoHS)
Methyl alcohol	67-56-1	Listed	Not applicable	Not applicable	Not applicable

Component	CAS No	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements	Rotterdam Convention (PIC)	Basel Convention (Hazardous Waste)
Methyl alcohol	67-56-1	500 tonne	5000 tonne	Not applicable	Not applicable

16. Other information

Prepared By
Regulatory Affairs
Thermo Fisher Scientific
Email: EMSDS.RA@thermofisher.com

Creation Date 27-Apr-2009
Revision Date 26-Dec-2021
Print Date 26-Dec-2021
Revision Summary This document has been updated to comply with the US OSHA HazCom 2012 Standard replacing the current legislation under 29 CFR 1910.1200 to align with the Globally

Harmonized System of Classification and Labeling of Chemicals (GHS).

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of SDS

SAFETY DATA SHEET

Creation Date 12-Mar-2009 **Revision Date** 24-Dec-2021 **Revision Number** 9

1. Identification

Product Name **Nitric acid (67 - 70%)**

Cat No. : **A467-1, A467-2, A467-250, A467-500**

CAS No 7697-37-2
Synonyms Azotic acid; Engraver's acid; Aqua fortis

Recommended Use Laboratory chemicals.
Uses advised against Food, drug, pesticide or biocidal product use.

Details of the supplier of the safety data sheet

Company
Fisher Scientific Company
One Reagent Lane
Fair Lawn, NJ 07410
Tel: (201) 796-7100

Emergency Telephone Number Chemtrec US: (800) 424-9300
Chemtrec EU: 001-703-527-3887

2. Hazard(s) identification

Classification
This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Oxidizing liquids	Category 3
Corrosive to metals	Category 1
Acute Inhalation Toxicity - Vapors	Category 3
Skin Corrosion/Irritation	Category 1 A
Serious Eye Damage/Eye Irritation	Category 1

Label Elements

Signal Word
Danger

Hazard Statements
May intensify fire; oxidizer
May be corrosive to metals
Causes severe skin burns and eye damage

Toxic if inhaled
Corrosive to the respiratory tract

Precautionary Statements
Prevention
Do not breathe dust/fume/gas/mist/vapors/spray
Wash face, hands and any exposed skin thoroughly after handling
Wear protective gloves/protective clothing/eye protection/face protection
Use only outdoors or in a well-ventilated area
Keep away from heat/sparks/open flames/hot surfaces. - No smoking
Keep/Store away from clothing/ other combustible materials
Take any precaution to avoid mixing with combustibles
Keep only in original container
Wear respiratory protection
Response
Immediately call a POISON CENTER or doctor/physician
Inhalation
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
Immediately call a POISON CENTER or doctor/physician
Skin
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
Wash contaminated clothing before reuse
Eyes
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
Ingestion
IF SWALLOWED: Rinse mouth. DO NOT induce vomiting
Fire
In case of fire: Use CO2, dry chemical, or foam for extinction
Spills
Absorb spillage to prevent material damage
Storage
Store locked up
Store in a well-ventilated place. Keep container tightly closed
Store in a dry place
Disposal
Dispose of contents/container to an approved waste disposal plant
Hazards not otherwise classified (HNOC)
Corrosive to the respiratory tract

3. Composition/Information on Ingredients

Component	CAS No	Weight %
Nitric acid …% [C ≤ 70 %]	7697-37-2	65 - 70
Water	7732-18-5	30 - 35

4. First-aid measures

General Advice Immediate medical attention is required. Show this safety data sheet to the doctor in

attendance.

Eye Contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required.

Skin Contact Wash off immediately with plenty of water for at least 15 minutes. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Call a physician immediately.

Inhalation If breathing is difficult, give oxygen. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Remove from exposure, lie down. Call a physician immediately.

Ingestion Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Clean mouth with water. Call a physician immediately.

Most important symptoms and effects Causes burns by all exposure routes. Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation: Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated

Notes to Physician Treat symptomatically

5. Fire-fighting measures

Suitable Extinguishing Media CO_2, dry chemical, dry sand, alcohol-resistant foam.

Unsuitable Extinguishing Media No information available

Flash Point Not applicable
Method - No information available

Autoignition Temperature No information available
Explosion Limits
Upper No data available
Lower No data available
Oxidizing Properties Oxidizer

Sensitivity to Mechanical Impact No information available
Sensitivity to Static Discharge No information available

Specific Hazards Arising from the Chemical
Thermal decomposition can lead to release of irritating gases and vapors. The product causes burns of eyes, skin and mucous membranes. Oxidizer: Contact with combustible/organic material may cause fire. May ignite combustibles (wood paper, oil, clothing, etc.).

Hazardous Combustion Products
Nitrogen oxides (NOx). Thermal decomposition can lead to release of irritating gases and vapors.
Protective Equipment and Precautions for Firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Thermal decomposition can lead to release of irritating gases and vapors.

NFPA

Health	Flammability	Instability	Physical hazards
4	0	0	OX

6. Accidental release measures

Personal Precautions Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Ensure adequate ventilation. Use personal protective equipment as required.

Environmental Precautions Should not be released into the environment. Do not flush into surface water or sanitary sewer system. See Section 12 for additional Ecological Information.

Methods for Containment and Clean Up Soak up with inert absorbent material. Keep in suitable, closed containers for disposal. Sweep up and shovel into suitable containers for disposal. Wear self-contained breathing apparatus and protective suit.

7. Handling and storage

Handling Use only under a chemical fume hood. Wear personal protective equipment/face protection. Do not get in eyes, on skin, or on clothing. Do not ingest. If swallowed then seek immediate medical assistance. Do not breathe mist/vapors/spray. Keep away from clothing and other combustible materials.

Storage. Keep containers tightly closed in a dry, cool and well-ventilated place. Do not store near combustible materials. Do not store in metal containers. Keep in properly labeled containers. Corrosives area. Incompatible Materials. Combustible material. Strong bases. Reducing Agent. Metals. Finely powdered metals. Organic materials. Aldehydes. Alcohols. Cyanides. Ammonia. Strong reducing agents.

8. Exposure controls / personal protection

Exposure Guidelines

Component	ACGIH TLV	OSHA PEL	NIOSH IDLH	Mexico OEL (TWA)
Nitric acid …% [C ≤ 70 %]	TWA: 2 ppm STEL: 4 ppm	(Vacated) TWA: 2 ppm (Vacated) TWA: 5 mg/m³ (Vacated) STEL: 4 ppm (Vacated) STEL: 10 mg/m³ TWA: 2 ppm TWA: 5 mg/m³	IDLH: 25 ppm TWA: 2 ppm TWA: 5 mg/m³ STEL: 4 ppm STEL: 10 mg/m³	TWA: 2 ppm STEL: 4 ppm

Legend

ACGIH - American Conference of Governmental Industrial Hygienists
OSHA - Occupational Safety and Health Administration
NIOSH IDLH: NIOSH - National Institute for Occupational Safety and Health

Engineering Measures Use only under a chemical fume hood. Ensure that eyewash stations and safety showers are close to the workstation location. Ensure adequate ventilation, especially in confined areas.

Personal Protective Equipment

Eye/face Protection Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166. Tight sealing safety goggles. Face protection shield.

Skin and body protection Wear appropriate protective gloves and clothing to prevent skin exposure.

Respiratory Protection Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Hygiene Measures Keep away from food, drink and animal feeding stuffs. When using do not eat, drink or smoke. Contaminated work clothing should not be allowed out of the workplace. Provide regular cleaning of equipment, work area and clothing. Avoid contact with skin, eyes or clothing. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wear suitable gloves and eye/face protection.

9. Physical and chemical properties

Physical State	Liquid
Appearance	Clear Colorless, Light yellow
Odor	Strong Acrid
Odor Threshold	No information available
pH	< 1.0 (0.1M)
Melting Point/Range	-41 °C / -41.8 °F
Boiling Point/Range	Not applicable
Flash Point	Not applicable
Evaporation Rate	No information available
Flammability (solid,gas)	Not applicable
Flammability or explosive limits	
Upper	No data available
Lower	No data available
Vapor Pressure	0.94 kPa (20°C)
Vapor Density	No information available
Specific Gravity	1.40
Solubility	miscible
Partition coefficient; n-octanol/water	No data available
Autoignition Temperature	No information available
Decomposition Temperature	No information available
Viscosity	No information available
Molecular Formula	HNO3
Molecular Weight	63.01

10. Stability and reactivity

Reactive Hazard Yes

Stability Oxidizer: Contact with combustible/organic material may cause fire.

Conditions to Avoid Incompatible products. Combustible material. Excess heat. Exposure to air or moisture over prolonged periods.

Incompatible Materials Combustible material, Strong bases, Reducing Agent, Metals, Finely powdered metals, Organic materials, Aldehydes, Alcohols, Cyanides, Ammonia, Strong reducing agents

Hazardous Decomposition Products Nitrogen oxides (NOx), Thermal decomposition can lead to release of irritating gases and vapors

Hazardous Polymerization Hazardous polymerization does not occur.

Hazardous Reactions None under normal processing.

11. Toxicological information

Acute Toxicity

Product Information

Oral LD50	Based on ATE data, the classification criteria are not met. ATE > 2000 mg/kg.
Dermal LD50	Based on ATE data, the classification criteria are not met. ATE > 2000 mg/kg.
Mist LC50	Category 3. ATE = 1 - 5 mg/l. Category 4.
Vapor LC50	Based on ATE data, the classification criteria are not met. ATE > 20 mg/l.

Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Nitric acid …% [C ≤ 70 %]	Not listed	Not listed	LC50 = 2500 ppm. (Rat) 1h
Water	-	-	-

Toxicologically Synergistic Products No information available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Irritation Causes severe burns by all exposure routes

Sensitization No information available

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Component	CAS No	IARC	NTP	ACGIH	OSHA	Mexico
Nitric acid …% [C ≤ 70 %]	7697-37-2	Not listed	Not listed	Not listed	Not listed	Not listed
Water	7732-18-5	Not listed	Not listed	Not listed	Not listed	Not listed

Mutagenic Effects No information available

Reproductive Effects No information available.

Developmental Effects No information available.

Teratogenicity No information available.

STOT - single exposure None known
STOT - repeated exposure None known

Aspiration hazard No information available

Symptoms / effects,both acute and delayed Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation: Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated

Endocrine Disruptor Information No information available

Other Adverse Effects The toxicological properties have not been fully investigated.

12. Ecological information

Ecotoxicity
Do not empty into drains. Large amounts will affect pH and harm aquatic organisms.

Persistence and Degradability Miscible with water Persistence is unlikely based on information available.

Bioaccumulation/ Accumulation No information available.

Mobility Will likely be mobile in the environment due to its water solubility.

Component	log Pow
Nitric acid …% [C ≤ 70 %]	-2.3

13. Disposal considerations

Waste Disposal Methods Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

14. Transport information

DOT
UN-No UN2031
Proper Shipping Name NITRIC ACID
Hazard Class 8
Subsidiary Hazard Class 5.1
Packing Group II

TDG
UN-No UN2031

Proper Shipping Name	NITRIC ACID
Hazard Class	8
Subsidiary Hazard Class	5.1
Packing Group	II

IATA

UN-No	UN2031
Proper Shipping Name	NITRIC ACID
Hazard Class	8
Subsidiary Hazard Class	5.1
Packing Group	II

IMDG/IMO

UN-No	UN2031
Proper Shipping Name	NITRIC ACID
Hazard Class	8
Subsidiary Hazard Class	5.1
Packing Group	II

15. Regulatory information

United States of America Inventory

Component	CAS No	TSCA	TSCA Inventory notification - Active-Inactive	TSCA - EPA Regulatory Flags
Nitric acid …% [C ≤ 70 %]	7697-37-2	X	ACTIVE	-
Water	7732-18-5	X	ACTIVE	-

Legend:
TSCA US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)
X - Listed
'-' - Not Listed

TSCA 12(b) - Notices of Export Not applicable

International Inventories
Canada (DSL/NDSL), Europe (EINECS/ELINCS/NLP), Philippines (PICCS), Japan (ENCS), Japan (ISHL), Australia (AICS), China (IECSC), Korea (KECL).

Component	CAS No	DSL	NDSL	EINECS	PICCS	ENCS	ISHL	AICS	IECSC	KECL
Nitric acid …% [C ≤ 70 %]	7697-37-2	X	-	231-714-2	X	X	X	X	X	KE-25911
Water	7732-18-5	X	-	231-791-2	X	X		X	X	KE-35400

KECL - NIER number or KE number (http://ncis.nier.go.kr/en/main.do)

U.S. Federal Regulations

SARA 313

Component	CAS No	Weight %	SARA 313 - Threshold Values %
Nitric acid …% [C ≤ 70 %]	7697-37-2	65 - 70	1.0

SARA 311/312 Hazard Categories See section 2 for more information

CWA (Clean Water Act)

Component	CWA - Hazardous Substances	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants
Nitric acid …% [C ≤ 70 %]	X	1000 lb	-	-

Clean Air Act Not applicable

OSHA - Occupational Safety and Health Administration

Component	Specifically Regulated Chemicals	Highly Hazardous Chemicals
Nitric acid …% [C ≤ 70 %]	-	TQ: 500 lb

CERCLA This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Component	Hazardous Substances RQs	CERCLA EHS RQs
Nitric acid …% [C ≤ 70 %]	1000 lb	1000 lb

California Proposition 65 This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Nitric acid …% [C ≤ 70 %]	X	X	X	X	X
Water	-	-	X	-	-

U.S. Department of Transportation

Reportable Quantity (RQ): Y
DOT Marine Pollutant N
DOT Severe Marine Pollutant N

U.S. Department of Homeland Security This product contains the following DHS chemicals:
Legend - STQs = Screening Threshold Quantities, APA = A placarded amount

Component	DHS Chemical Facility Anti-Terrorism Standard
Nitric acid …% [C ≤ 70 %]	Release STQs - 15000lb Theft STQs - 400lb

Other International Regulations

Mexico - Grade No information available

Authorisation/Restrictions according to EU REACH

Component	REACH (1907/2006) - Annex XIV - Substances Subject to Authorization	REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances	REACH Regulation (EC 1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC)
Nitric acid …% [C ≤ 70 %]	-	Use restricted. See item 75. (see link for restriction details)	-

https://echa.europa.eu/substances-restricted-under-reach

Safety, health and environmental regulations/legislation specific for the substance or mixture

Component	CAS No	OECD HPV	Persistent Organic Pollutant	Ozone Depletion Potential	Restriction of Hazardous Substances (RoHS)
Nitric acid …% [C ≤ 70 %]	7697-37-2	Listed	Not applicable	Not applicable	Not applicable
Water	7732-18-5	Listed	Not applicable	Not applicable	Not applicable

Component	CAS No	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements	Rotterdam Convention (PIC)	Basel Convention (Hazardous Waste)
Nitric acid …% [C ≤ 70 %]	7697-37-2	Not applicable	Not applicable	Not applicable	Annex I - Y34
Water	7732-18-5	Not applicable	Not applicable	Not applicable	Not applicable

16. Other information

Prepared By	Regulatory Affairs Thermo Fisher Scientific Email: EMSDS.RA@thermofisher.com
Creation Date	12-Mar-2009
Revision Date	24-Dec-2021
Print Date	24-Dec-2021
Revision Summary	SDS sections updated. 2. 11.

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of SDS

SAFETY DATA SHEET

Creation Date 03-Nov-2010 **Revision Date** 24-Dec-2021 **Revision Number** 4

1. Identification

Product Name **Sodium Bisulfate Monohydrate (Certified)**

Cat No. : **S240-3, S240-3LC, S240-500**

CAS No 10034-88-5
Synonyms Sodium hydrogen sulfate

Recommended Use Laboratory chemicals.
Uses advised against Food, drug, pesticide or biocidal product use.

Details of the supplier of the safety data sheet

Company

Fisher Scientific Company
One Reagent Lane
Fair Lawn, NJ 07410
Tel: (201) 796-7100

Acros Organics
One Reagent Lane
Fair Lawn, NJ 07410

Emergency Telephone Number For information **US** call: 001-800-ACROS-01 / **Europe** call: +32 14 57 52 11
Emergency Number **US:**001-201-796-7100 / **Europe:** +32 14 57 52 99
CHEMTREC Tel. No.**US:**001-800-424-9300 / **Europe:**001-703-527-3887

2. Hazard(s) identification

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Serious Eye Damage/Eye Irritation	Category 1

Label Elements

Signal Word
Danger

Hazard Statements
Causes serious eye damage

Precautionary Statements
Prevention
Wear protective gloves/protective clothing/eye protection/face protection
Avoid breathing dust/fume/gas/mist/vapors/spray
Use only outdoors or in a well-ventilated area
Eyes
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
Immediately call a POISON CENTER or doctor/physician
Storage
Store in a well-ventilated place. Keep container tightly closed
Store locked up
Disposal
Dispose of contents/container to an approved waste disposal plant
Hazards not otherwise classified (HNOC)
None identified

3. Composition/Information on Ingredients

Component	CAS No	Weight %
Sodium hydrogen sulfate, monohydrate	10034-88-5	>95
Sodium bisulfate	7681-38-1	-

4. First-aid measures

General Advice If symptoms persist, call a physician.

Eye Contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.

Skin Contact Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists, call a physician.

Inhalation Remove to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms occur.

Ingestion Clean mouth with water and drink afterwards plenty of water. Get medical attention if symptoms occur.

Most important symptoms and effects None reasonably foreseeable. Causes severe eye damage.

Notes to Physician Treat symptomatically

5. Fire-fighting measures

Suitable Extinguishing Media Water spray, carbon dioxide (CO2), dry chemical, alcohol-resistant foam.

Unsuitable Extinguishing Media No information available

Flash Point	No information available
Method -	No information available
Autoignition Temperature	No information available
Explosion Limits	
Upper	No data available
Lower	No data available
Sensitivity to Mechanical Impact	No information available
Sensitivity to Static Discharge	No information available

Specific Hazards Arising from the Chemical
Non-combustible, substance itself does not burn but may decompose upon heating to produce corrosive and/or toxic fumes.

Hazardous Combustion Products
Sulfur oxides.
Protective Equipment and Precautions for Firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA

Health	Flammability	Instability	Physical hazards
3	0	1	N/A

6. Accidental release measures

Personal Precautions	Use personal protective equipment as required. Ensure adequate ventilation. Avoid dust formation.
Environmental Precautions	Should not be released into the environment.
Methods for Containment and Clean Up	Sweep up and shovel into suitable containers for disposal. Keep in suitable, closed containers for disposal.

7. Handling and storage

Handling	Wear personal protective equipment/face protection. Ensure adequate ventilation. Do not get in eyes, on skin, or on clothing. Avoid ingestion and inhalation. Avoid dust formation.
Storage.	Keep containers tightly closed in a dry, cool and well-ventilated place. Incompatible Materials. Strong oxidizing agents. Strong bases.

8. Exposure controls / personal protection

Exposure Guidelines	This product does not contain any hazardous materials with occupational exposure limitsestablished by the region specific regulatory bodies.
Engineering Measures	Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal Protective Equipment

Eye/face Protection	Tight sealing safety goggles.
Skin and body protection	Wear appropriate protective gloves and clothing to prevent skin exposure.
Respiratory Protection	Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.
Hygiene Measures	Handle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties

Physical State	Solid
Appearance	White
Odor	No information available
Odor Threshold	No information available
pH	~ 1 (@ 20) 5% aq. sol
Melting Point/Range	58 °C / 136.4 °F
Boiling Point/Range	No information available
Flash Point	No information available
Evaporation Rate	Not applicable
Flammability (solid,gas)	No information available
Flammability or explosive limits	
Upper	No data available
Lower	No data available
Vapor Pressure	No information available
Vapor Density	Not applicable
Specific Gravity	2.12
Solubility	No information available
Partition coefficient; n-octanol/water	No data available
Autoignition Temperature	No information available
Decomposition Temperature	No information available
Viscosity	Not applicable
Molecular Formula	H Na O4 S . H2 O
Molecular Weight	138.08

10. Stability and reactivity

Reactive Hazard None known, based on information available

Stability Moisture sensitive.

Conditions to Avoid Avoid dust formation. Incompatible products. Excess heat. Exposure to moist air or water.

Incompatible Materials Strong oxidizing agents, Strong bases

Hazardous Decomposition Products Sulfur oxides

Hazardous Polymerization Hazardous polymerization does not occur.

Hazardous Reactions None under normal processing.

11. Toxicological information

Acute Toxicity

Product Information

Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Sodium bisulfate	LD50 = 2490 mg/kg (Rat)	>2000 mg/kg (rabbit)	Not listed

Toxicologically Synergistic Products No information available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Irritation Risk of serious damage to eyes

Sensitization No information available

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Component	CAS No	IARC	NTP	ACGIH	OSHA	Mexico
Sodium hydrogen sulfate, monohydrate	10034-88-5	Not listed	Not listed	Not listed	Not listed	Not listed
Sodium bisulfate	7681-38-1	Not listed	Not listed	Not listed	Not listed	Not listed

Mutagenic Effects No information available

Reproductive Effects No information available.

Developmental Effects No information available.

Teratogenicity No information available.

STOT - single exposure None known
STOT - repeated exposure None known

Aspiration hazard No information available

Symptoms / effects,both acute and delayed No information available

Endocrine Disruptor Information No information available

Other Adverse Effects The toxicological properties have not been fully investigated.

12. Ecological information

Ecotoxicity
Do not empty into drains.

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Sodium bisulfate	Not listed	Not listed	EC10 >1000 mg/l (Pseudomonas putida) (16h)	EC50: = 190 mg/L, 48h (Daphnia magna)

Persistence and Degradability Soluble in water Persistence is unlikely based on information available.

Bioaccumulation/ Accumulation No information available.

Mobility Will likely be mobile in the environment due to its water solubility.

13. Disposal considerations

Waste Disposal Methods Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

14. Transport information

DOT Not regulated
TDG Not regulated
IATA Not regulated
IMDG/IMO Not regulated

15. Regulatory information

United States of America Inventory

Component	CAS No	TSCA	TSCA Inventory notification - Active-Inactive	TSCA - EPA Regulatory Flags
Sodium hydrogen sulfate, monohydrate	10034-88-5	-	-	-
Sodium bisulfate	7681-38-1	X	ACTIVE	-

Legend:
TSCA US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)
X - Listed
'-' - Not Listed

TSCA 12(b) - Notices of Export Not applicable

International Inventories
Canada (DSL/NDSL), Europe (EINECS/ELINCS/NLP), Philippines (PICCS), Japan (ENCS), Japan (ISHL), Australia (AICS), China (IECSC), Korea (KECL).

Component	CAS No	DSL	NDSL	EINECS	PICCS	ENCS	ISHL	AICS	IECSC	KECL
Sodium hydrogen sulfate, monohydrate	10034-88-5	-	-	-	X	-		X	X	-
Sodium bisulfate	7681-38-1	X	-	231-665-7	X	X	X	X	X	KE-31481

KECL - NIER number or KE number (http://ncis.nier.go.kr/en/main.do)

U.S. Federal Regulations

SARA 313 Not applicable

SARA 311/312 Hazard Categories See section 2 for more information

CWA (Clean Water Act) Not applicable

Clean Air Act Not applicable

OSHA - Occupational Safety and Health Administration Not applicable

CERCLA Not applicable

California Proposition 65 This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations Not applicable

U.S. Department of Transportation
Reportable Quantity (RQ): N
DOT Marine Pollutant N
DOT Severe Marine Pollutant N

U.S. Department of Homeland Security This product does not contain any DHS chemicals.

Other International Regulations

Mexico - Grade No information available

Authorisation/Restrictions according to EU REACH

Component	REACH (1907/2006) - Annex XIV - Substances Subject to Authorization	REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances	REACH Regulation (EC 1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC)
Sodium bisulfate	-	Use restricted. See item 75. (see link for restriction details)	-

https://echa.europa.eu/substances-restricted-under-reach

Safety, health and environmental regulations/legislation specific for the substance or mixture

Component	CAS No	OECD HPV	Persistent Organic Pollutant	Ozone Depletion Potential	Restriction of Hazardous Substances (RoHS)
Sodium hydrogen sulfate, monohydrate	10034-88-5	Not applicable	Not applicable	Not applicable	Not applicable
Sodium bisulfate	7681-38-1	Listed	Not applicable	Not applicable	Not applicable

Component	CAS No	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements	Rotterdam Convention (PIC)	Basel Convention (Hazardous Waste)
Sodium hydrogen sulfate, monohydrate	10034-88-5	Not applicable	Not applicable	Not applicable	Not applicable
Sodium bisulfate	7681-38-1	Not applicable	Not applicable	Not applicable	Not applicable

16. Other information

Prepared By
Regulatory Affairs
Thermo Fisher Scientific
Email: EMSDS.RA@thermofisher.com

Creation Date 03-Nov-2010
Revision Date 24-Dec-2021
Print Date 24-Dec-2021
Revision Summary This document has been updated to comply with the US OSHA HazCom 2012 Standard replacing the current legislation under 29 CFR 1910.1200 to align with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

Disclaimer
The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of SDS

SAFETY DATA SHEET
CHROMIUM HARD,TRIVALENT

1. Identification

Product identifier

Product name CHROMIUM HARD,TRIVALENT

Product number 2403

Recommended use of the chemical and restrictions on use

Application Industrial Use

Details of the supplier of the safety data sheet

Supplier

SIFCO Applied Surface Concepts
5708 E. Schaaf Road
Independence, Ohio 44131
U.S.A.
Tel.: +1 216-524-0099
Fax: +1 216-524-6331
E-Mail: info@sifcoasc.com

Emergency telephone number

Emergency telephone CHEMTREC (United States) (800) 424-9300; CHEMTREC (International) +1 703-527-3887

2. Hazard(s) identification

Classification of the substance or mixture

Physical hazards Not Classified

Health hazards Skin Corr. 1B - H314 Eye Dam. 1 - H318 STOT SE 3 - H335

Environmental hazards Aquatic Acute 3 - H402

Label elements

Pictogram

Signal word Danger

Hazard statements

H314 Causes severe skin burns and eye damage.
H335 May cause respiratory irritation.
H402 Harmful to aquatic life.

CHROMIUM HARD,TRIVALENT

Precautionary statements

P260 Do not breathe vapor/ spray.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
P304+P340 If inhaled: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P363 Wash contaminated clothing before reuse.
P403+P233 Store in a well-ventilated place. Keep container tightly closed.
P501 Dispose of contents/ container in accordance with national regulations.
P264 Wash skin thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P284 [In case of inadequate ventilation] wear respiratory protection.
P301+P310 If swallowed: Immediately call a poison center/ doctor.
P302+P352 If on skin: Wash with plenty of water.

Contains AMMONIUM FORMATE, CHROMIUM (III) SULPHATE, AMMONIA ...%

Other hazards

This product does not contain any substances classified as PBT or vPvB.

3. Composition/information on ingredients

Mixtures

AMMONIUM FORMATE **25-30%**

CAS number: 540-69-2

Classification
Skin Irrit. 2 - H315
Eye Irrit. 2 - H319
STOT SE 3 - H335

AMMONIUM CHLORIDE **5-10%**

CAS number: 12125-02-9

Classification
Acute Tox. 4 - H302
Eye Irrit. 2 - H319

CHROMIUM (III) SULPHATE **5-10%**

CAS number: 10101-53-8

Classification
Acute Tox. 4 - H302
Acute Tox. 4 - H312
Acute Tox. 4 - H332
Skin Corr. 1B - H314
Eye Dam. 1 - H318
STOT SE 3 - H335

CHROMIUM HARD,TRIVALENT

Potassium Sulfate	**1-5%**
CAS number: 7778-80-5	
Classification Not Classified	
AMMONIA ...%	**1-5%**
CAS number: 1336-21-6 M factor (Acute) = 1	
Classification Skin Corr. 1B - H314 Eye Dam. 1 - H318 STOT SE 3 - H335 Aquatic Acute 1 - H400	
SODIUM BROMIDE	**<1%**
CAS number: 7647-15-6	
Classification Acute Tox. 4 - H312	

The full text for all hazard statements is displayed in Section 16.

4. First-aid measures

Description of first aid measures

Inhalation Move affected person to fresh air at once. Get medical attention.

Ingestion Get medical attention immediately. Do not induce vomiting.

Skin Contact Remove contaminated clothing immediately and wash skin with soap and water. Continue to rinse for at least 15 minutes and get medical attention.

Eye contact Remove affected person from source of contamination. Rinse immediately with plenty of water. Continue to rinse for at least 15 minutes and get medical attention.

Most important symptoms and effects, both acute and delayed

Inhalation Coughing, chest tightness, feeling of chest pressure.

Ingestion May cause chemical burns in mouth and throat. May cause stomach pain or vomiting.

Skin contact May cause serious chemical burns to the skin.

Eye contact Causes severe burns. May cause serious eye damage.

Indication of immediate medical attention and special treatment needed

Notes for the doctor No specific recommendations.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media The product is not flammable. Use fire-extinguishing media suitable for the surrounding fire.

Special hazards arising from the substance or mixture

CHROMIUM HARD,TRIVALENT

Specific hazards Corrosive gases or vapors.

Advice for firefighters

Protective actions during firefighting Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

Special protective equipment for firefighters Use protective equipment appropriate for surrounding materials.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions Follow precautions for safe handling described in this safety data sheet. Avoid inhalation of vapors. Provide adequate general and local exhaust ventilation.

Environmental precautions

Environmental precautions Do not discharge into drains or watercourses or onto the ground. Inform the relevant authorities if environmental pollution occurs (sewers, waterways, soil or air).

Methods and material for containment and cleaning up

Methods for cleaning up Wear suitable protective equipment, including gloves, goggles/face shield, respirator, boots, clothing or apron, as appropriate. Flush contaminated area with plenty of water. Avoid the spillage or runoff entering drains, sewers or watercourses. Collect and dispose of spillage as indicated in Section 13. Wash thoroughly after dealing with a spillage.

Reference to other sections Wear protective clothing as described in Section 8 of this safety data sheet. See Section 11 for additional information on health hazards. See Section 12 for additional information on ecological hazards. For waste disposal, see Section 13.

7. Handling and storage

Precautions for safe handling

Usage precautions Avoid spilling. Avoid contact with skin and eyes. Avoid inhalation of vapors and spray/mists. Provide adequate general and local exhaust ventilation.

Conditions for safe storage, including any incompatibilities

Storage precautions Store in tightly-closed, original container in a dry, cool and well-ventilated place. Protect from freezing and direct sunlight.

Storage class Corrosive storage.

Specific end uses(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.

8. Exposure controls/Personal protection

Exposure controls

Protective equipment

Appropriate engineering controls As this product contains ingredients with exposure limits, process enclosures, local exhaust ventilation or other engineering controls should be used to keep worker exposure below any statutory or recommended limits, if use generates dust, fumes, gas, vapor or mist.

Eye/face protection Tight-fitting safety glasses.

CHROMIUM HARD,TRIVALENT

Hand protection	It is recommended that chemical-resistant, impervious gloves are worn. Considering the data specified by the glove manufacturer, check during use that the gloves are retaining their protective properties and change them as soon as any deterioration is detected. It is recommended that gloves are made of the following material: Nitrile rubber.
Other skin and body protection	Appropriate footwear and additional protective clothing complying with an approved standard should be worn if a risk assessment indicates skin contamination is possible.
Hygiene measures	Do not eat, drink or smoke when using this product. Wash at the end of each work shift and before eating, smoking and using the toilet.
Respiratory protection	If ventilation is inadequate, suitable respiratory protection must be worn. Respiratory protection must be used if the airborne contamination exceeds the recommended occupational exposure limit.

9. Physical and chemical properties

Information on basic physical and chemical properties

Appearance	Liquid.
Color	Dark. Blue.
Odor	Acidic.
pH	pH (concentrated solution): 6.0-7.0
Initial boiling point and range	100°C/212°F @
Relative density	1.150-1.180
Other information	Not available.

10. Stability and reactivity

Reactivity	There are no known reactivity hazards associated with this product.
Stability	Stable at normal ambient temperatures and when used as recommended.
Possibility of hazardous reactions	Under normal conditions of storage and use, no hazardous reactions will occur.
Conditions to avoid	Avoid excessive heat for prolonged periods of time.
Materials to avoid	None known.
Hazardous decomposition products	None at ambient temperatures.

11. Toxicological information

Information on toxicological effects

Acute toxicity - oral

ATE oral (mg/kg)	4,284.49

Acute toxicity - dermal

ATE dermal (mg/kg)	19,400.35

Acute toxicity - inhalation

ATE inhalation (vapours mg/l)	194.0

CHROMIUM HARD,TRIVALENT

Inhalation	Vapors irritate the respiratory system.
Ingestion	Causes severe burns. May cause chemical burns in mouth, esophagus and stomach.
Skin Contact	May cause serious chemical burns to the skin.
Eye contact	Causes serious eye damage. Immediate first aid is imperative.
Acute and chronic health hazards	May cause burns in mucous membranes, throat, esophagus and stomach.
Route of exposure	Ingestion Inhalation Skin and/or eye contact

Toxicological information on ingredients.

AMMONIUM FORMATE

Acute toxicity - oral	
Acute toxicity oral (LD_{50} mg/kg)	2,250.0
Species	Mouse
ATE oral (mg/kg)	2,250.0

CHROMIUM (III) SULPHATE

Acute toxicity - oral	
ATE oral (mg/kg)	500.0
Acute toxicity - dermal	
ATE dermal (mg/kg)	1,100.0
Acute toxicity - inhalation	
ATE inhalation (vapours mg/l)	11.0

Potassium Sulfate

Acute toxicity - oral	
Acute toxicity oral (LD_{50} mg/kg)	6,600.0
Species	Rat
ATE oral (mg/kg)	6,600.0

AMMONIA ...%

Acute toxicity - oral	
Acute toxicity oral (LD_{50} mg/kg)	350.0
Species	Rat

SODIUM BROMIDE

Acute toxicity - oral

CHROMIUM HARD,TRIVALENT

Acute toxicity oral (LD_{50} mg/kg)	3,500.0
Species	Rat
ATE oral (mg/kg)	3,500.0

Acute toxicity - dermal

Acute toxicity dermal (LD_{50} mg/kg)	2,000.0
Species	Rabbit
ATE dermal (mg/kg)	2,000.0

12. Ecological information

Ecotoxicity The product contains a substance which may have hazardous effects on the environment.

Toxicity No data available.

Ecological information on ingredients.

Potassium Sulfate

Acute aquatic toxicity

Acute toxicity - fish LC_{50}, 96 hour: 680 mg/l, Pimephales promelas (Fat-head Minnow)

AMMONIA ...%

Acute aquatic toxicity

$LE(C)_{50}$	0.1 < L(E)C50 ≤ 1
M factor (Acute)	1
Acute toxicity - fish	LC_{50}, 96 hours: 0.53 mg/l, Freshwater fish LC_{50}, 96 hours: 0.75 -3.4 mg/l, Freshwater fish LC_{50}, 96 hours: 8.2 mg/l, Freshwater fish
Acute toxicity - aquatic invertebrates	EC_{50}, 48 hours: 0.66 mg/l, Daphnia magna

SODIUM BROMIDE

Acute aquatic toxicity

Acute toxicity - fish	NOEC, 96 hour: 7800 mg/l, Oryzias latipes (Red killifish) LC_{50}, 96 hour: 160,000 mg/l, Poecilia reticulata (Guppy)
Acute toxicity - aquatic invertebrates	NOEC, 48 hour: 7800 mg/l, Daphnia magna EC_{50}, 48 hours: 5800 mg/l, Daphnia magna

Persistence and degradability

Persistence and degradability No data available.

Bioaccumulative potential

Bio-Accumulative Potential The product does not contain any substances expected to be bioaccumulating.

Mobility in soil

Mobility The product is soluble in water.

CHROMIUM HARD,TRIVALENT

Other adverse effects

Other adverse effects Not determined.

13. Disposal considerations

Waste treatment methods

General information Disposal of this product, process solutions, residues and by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any local authority requirements.

Disposal methods Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

14. Transport information

General The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, DOT).

UN Number

UN No. (International) Not applicable.

UN proper shipping name

Proper shipping name (International) Not applicable.

Proper shipping name (DOT) NOT RESTRICTED LIQUID

Transport hazard class(es)

Transport Labels (International) No transport warning sign required.

Packing group

Packing group (International) Not applicable.

Environmental hazards

Environmentally Hazardous Substance
No.

Special precautions for user

Not applicable.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

15. Regulatory information

National regulations The customer is advised to check if there are specific local or national regulations specifically applicable to the chemicals contained in the product. The hazards statement for this product is in accordance with international regulations, always observing the most stringent requirements.

US Federal Regulations

SARA Section 302 Extremely Hazardous Substances Tier II Threshold Planning Quantities
Exempt.

CHROMIUM HARD,TRIVALENT

CERCLA/Superfund, Hazardous Substances/Reportable Quantities (EPA)

Ammonium Chloride
Final CERCLA RQ: 5,000 lbs
Chromium Sulphate
Final CERCLA RQ: 1,000 lbs

SARA Extremely Hazardous Substances EPCRA Reportable Quantities

Exempt.

SARA 313 Emission Reporting

Chromium Sulphate

CAA Accidental Release Prevention

HAP
Chromium Sulphate

SARA (311/312) Hazard Categories

Acute
Chronic

OSHA Highly Hazardous Chemicals

Exempt.

US State Regulations

California Proposition 65 Carcinogens and Reproductive Toxins

Chromium Sulphate

California Directors List of Hazardous Substances

Ammonium Chloride
Chromium Sulphate

Inventories

US - TSCA

All ingredients are present.

16. Other information

Classification abbreviations and acronyms	Acute Tox. = Acute toxicity Carc. = Carcinogenicity Eye Dam. = Serious eye damage Eye Irrit. = Eye irritation Flam. Liq. = Flammable liquid Muta. = Germ cell mutagenicity Resp. Sens. = Respiratory sensitisation Skin Corr. = Skin corrosion Skin Irrit. = Skin irritation Skin Sens. = Skin sensitisation STOT RE = Specific target organ toxicity-repeated exposure STOT SE = Specific target organ toxicity-single exposure
Revision date	8/10/2018
Revision	3

CHROMIUM HARD,TRIVALENT

Hazard statements in full	H302 Harmful if swallowed. H312 Harmful in contact with skin. H314 Causes severe skin burns and eye damage. H315 Causes skin irritation. H318 Causes serious eye damage. H319 Causes serious eye irritation. H332 Harmful if inhaled. H335 May cause respiratory irritation. H400 Very toxic to aquatic life. H402 Harmful to aquatic life.
NFPA - health hazard	Extremely hazardous, serious injury. (3)
NFPA - flammability hazard	Will not burn. (0)
NFPA - instability hazard	Normally stable. (0)

The Information in this data sheet is believed to be correct but neither we nor our employees or agents give any warranty or make any representation to the accuracy thereof and accept no liability for any loss, injury or damage which may result in it's use. The sole purpose of this data sheet is to provide guidance on the safe handling and use of the products to which it relates. It does not form part of any product specification nor part of any contract. It is not practical for the guidance and information in this data sheet to cover every conceivable application of a product and as we may not be aware of the use to which the products covered by this data sheet are to be put it remains the responsibility of the user to conduct it's own tests and to satisy itself as to the suitability of the product.

M. REFERENCES

HSCA Health and Safety Plan 2014

APPENDIX B: Terra Core Sampling Instructions

Key Tips

- Holding time: 48 Hours holding time to freeze at the laboratory
- Standard 14 day holding time after samples are frozen
- Sample should weigh ± 0.5 grams
- Make sure to tighten all caps!
- DO NOT label pre-weighed vials
- Collected moisture in the separate container provided

www.EurofinsUS.com/LancLabsEnv

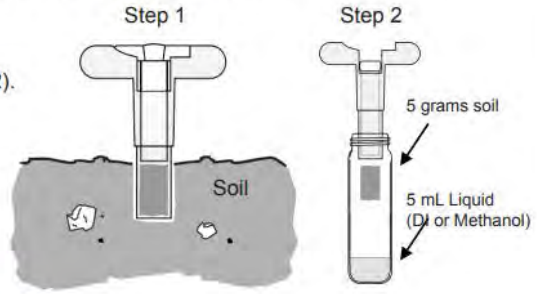
eurofins | Lancaster Laboratories Environmental

Sampling Kit

1. 2 x 40mL vials with 5mL DI water and a stir bar
2. 1 x 40mL vial with 5mL methanol (Blue cap)
3. 1 Terracore 5 g sampling device
4. One moisture container

Sampling Instructions

1. Uncap each vial – one at a time to ensure you recap the correct vial.
2. With the Terra Core sampler, collect 5 grams of soil (see Step 1).
   a. Push the sampler into the soil with the center section (the plunger) flush with the top of the sampler.
   b. Pull the sampler out of the soil
   c. Turn the plunger at a 90 degree angle
   d. Slowly and at a slight angle to avoid splashing: Extrude the soil from the sampler into the vial by pushing the plunger down (see Step 2).
3. Place the cap on the vial making sure that there is a good seal Replace the vial into the foam container
4. Note the identification number on the vial. This ID number must be written on the chain of custody.
5. Record the vial identification number for the vial(s) and the sampling information (location, sampling time, and specific analyses) for each sample on the chain of custody. Please fill out the chain of custody completely.



www.EurofinsUS.com/LancLabsEnv

DEP Sampling and Analysis Plan dated August 12, 2024

Pennsylvania
Department of Environmental Protection

Alliance 51st Street
City of Philadelphia

SAMPLING AND ANALYSIS PLAN
August 12, 2024

Prepared by
Christine McCarthy, Project Officer, HSCA

I. Introduction

The Alliance 51st Street property (Site) is an industrial parcel located at 1630 - 1646 S 51st Street in Philadelphia. The Site is bordered by a railroad to the south and the Schuylkill Banks/Bartram's Mile Trail to the east. Bartram's Gardens are south of the Site. Parcels north of the Site are owned by the Philadelphia Authority for Industrial Development. The Schuylkill River is immediately east of the Site (Figure 1).

II. Site History

The Site was used for the storage of lumber as early as 1923. Between 1923 and 1945, the Site was used to manufacture cardboard containers. Between 1951 and 2021, the Site was used as a fuel oil terminal, by Allied Oil Inc, Hess Oil and Chemical Corporation, Plains Product Terminals, LLC and PBF Logistics. Alliance 51st St LLC purchased the property in December 2021.

In 2021, twelve regulated Aboveground Storage Tanks (ASTs) were demolished and removed from the property. The facility Id number for the Site was 51-10420. On December 15, 2021, an AST closure report was submitted to the DEP. On February 2, 2023, the November 2022 Site Characterization Report (SCR) was disapproved. On June 27, 2023, a Revised SCR (RSCR) was submitted to the DEP and was approved on September 27, 2023. On November 27, 2023, a Remedial Action Plan was received. The plan for the soil, near an exceedance of benzene was to grade it and move it to where the foundation of the new building would be constructed. The other two benzene exceedances in the soil currently are located under the proposed building. The foundation for the new building will serve as a cap to eliminate the open pathway. There will be a soil management plan created for any intrusive work at the site to protect the workers. Lead in soil and groundwater would be addressed concurrently in the Act 2 program.

On February 14, 2022, DEP received a Notice of Intent to Remediate (NIR) to address nonregulated releases through the Act 2 program for lead, Volatile Organic Compounds (VOCs), and Semi volatile Organic Compounds (SVOCs). Non-regulated features such as a loading rack outside of containment and historic fill may be contributing to concentrations of regulated shortlist parameters in soil and groundwater. According to the NIR, soil borings in the former AST and piping area identified exceedances of the non-residential (NR) direct contact and/or soil to groundwater (GW) Medium Specific Concentrations (MSCs) for petroleum hydrocarbons (incl. benzene, 1,2,4-trimethylbenzene), polycyclic aromatic hydrocarbons (PAHs) (incl. benzo(a)pyrene), and lead. 1,2,4-trimethylbenzene in the soil exceeded NR vapor intrusion screening levels. Groundwater samples from temporary wells had exceedances of the NR used aquifer GW MSCs for benzene, 1,2,4-trimethylbenzene, and lead.

III. Previous Investigations

On April 5, 2024, an incident was reported to the National Response Center. The caller reported that "strange looking water is leaching from a former refinery… The material looks greenish."

An April 12, 2024 DEP Site Inspection noted that "Discoloration was present on the soil at the bottom of the ditch, but flow in the ditch was clear and at a rate of app. 5gpm. Flow in the ditch re-infiltrated into the soil before reaching the eastern fence line, but the discoloration extended past the fence and on to the edge of the adjacent River Trail." and that "the discoloration seems to be a chronic issue since a 5/10/23 Google Earth view of the site shows the phenomenon."

A May 2, 2024 DEP Site Inspection noted that the ditch had been bermed to prevent flow from leaving the property.

On June 10, 2024, Arcadis U.S., Inc. (Arcadis), consultants working on behalf of Alliance reported that soil berms had been constructed "across the low-lying area on the eastern portion of the site to prevent any discolored water from leaving the site." Results from monitoring well sampling conducted on May 30, 2024, revealed the presence of chromium (trivalent and hexavalent) in the groundwater. Total Chromium concentrations were above the non-residential used aquifer MSCs. Tests pits performed identified yellow-green stained soil. Analysis of the stained soil confirmed the presence of trivalent and hexavalent chromium. The concentrations were below the non-residential direct contact MSCs and non-residential used aquifer soil to groundwater MSCs.

On July 11, 2024, Arcadis indicated that five test pits were installed on the southern property boundary on July 3rd. The stained soil layer was encountered a few feet below grade and varied in thickness in each test pit.

A July 18, 2024 DEP Site Inspection evaluated perimeter controls and berms within the Site and found several Ch. 102 violations including the failure to implement and/or maintain Erosion and Sedimentation Best Management Practices. A July 29, 2024 DEP Follow Up Inspection found that many of the concerns identified on July 18 had been addressed and recommended that the large soil pile on Site be stabilized if there were no plans to disturb it within the following 4 days.

The information in this section is for reference only. Additional information regarding DEP inspection observations and violations can be found in the respective inspection reports.

IV. July 2024 Sampling Activity

On July 17, 2024, DEP ECB Personnel visited the Site to inspect the area of previously observed off site discharge and determine DEP sampling locations. No active discharge was observed coming from the Site. Additional information can be found in the July 17, 2024 Narrative Report.

On July 22, 2024, DEP ECB Personnel returned to the Site to collect soil and surface water samples along Bartram's Mile Trail. Sediment that had been observed on the asphalt trail during the July 17, 2024 inspection had been removed prior to the July 22, 2024 Site visit, and sediment socks had been placed on the trail in front of all drain ports. DEP collected soil samples from eleven (11) locations along Bartram's Mile Trail. Soil sample locations were focused to the area of the trail that receives surface water runoff from the Alliance 51st Street property (Figure 2).

Sample locations S1, S2, S3, S6 (duplicate), S7, S8, and S10 had detections of Cr(VI). Of the detections, locations S3, S7, S8, and S10 exceeded the Act 2 Residential MSC of 37mg/kg for Cr(VI). Exceedances ranged from 38 mg/kg at S3 to 77 mg/kg at S7. Sample location S6 and S10 exceeded the Act 2

Residential MSC of 12mg/kg for arsenic, with detections of 13mg/kg and 14mg/kg, respectively. Sample location S5 exceeded the Act 2 Residential MSC of 450mg/kg for lead, with a detection of 460mg/kg.

DEP collected surface water samples from four (4) locations in the Schuylkill River. No surface water was present on or around Bartram's Mile Trail. There were no detections of Cr(VI) in surface water. Surface Water samples did not exceed their respective Ch. 93 Water Quality Criteria or DRBC Stream Quality Objectives.

V. Objective

On August 1, 2024 and August 8, 2024, Arcadis notified DEP via email that additional soil in the S3, S7, S8, and S10 locations had been removed from the trail. Under this sampling effort, DEP will collect soil samples from the July 22, 2024 sample locations which had Cr(VI) detections or Act 2 MSC exceedances, as well as from additional locations along the previously observed discharge flow path in public areas to evaluate the presence or absence of hexavalent chromium and other potential contaminants of concern. This sampling effort will act as a confirmatory measure to verify the effectiveness of Arcadis' August 1 and 8, 2024 soil removal efforts. In addition, surface water samples will be collected from standing water on or near the trail, if feasible, to determine the presence or absence of potential contaminants of concern in surface runoff coming from the Alliance 51st St property.

VI. Sampling Plan

This Sampling and Analysis Plan is intended to document the procedures to be used by DEP field staff, and to ensure that this evaluation provides useful and reproducible information.

VII. Sampling Locations

Soil samples will be collected from the same locations as those collected on July 22, 2024 which had Cr(VI) detections or Act 2 MSC exceedances, where feasible. If no soil remains in those locations, a sample will be collected from the next closest accumulation of soil. Locations which were non-detect for Cr(VI) and other potential contaminants of concern on July 22, 2024 will not be resampled. Additional soil sample locations may be chosen based on field observations to determine the presence or absence of potential contaminants of concern. Soil sampling locations are focused where the discharge has exited the Alliance 51st Street property and along the adjacent bike path. Surface water samples will be collected from any active discharge (if present) or standing surface water in the discharge area (if present). All proposed sampling locations are approximate and are subject to change based on field observations during the sampling event. Photos showing July 22, 2024 sample locations with Cr(VI) Act 2 exceedances are available in Figures 3-6.

VIII. Sampling Analyses

Samples will be sent to Eurofins Lancaster Laboratories Environment Testing, LLC (Eurofins) for the analyses identified in Table 1. Samples will be preserved in accordance with the laboratory's analytical method requirements. Reporting limits should be low enough to compare results to MSC standards and all required laboratory accreditation confirmed. A Level 2 data package will be requested for all analyses submitted.

Table 1. Sampling Analyses

Matrix	Method	Test Description	Preservative	Container	Volume required	Holding times
Soil	6020B	Total Metals TAL List	None	Soil jar 4oz - clear glass	15g	180-days
Soil	7196A	Hexavalent Chromium (Cr^{6+})	None	Soil jar 4oz - clear glass	30g	30-days

Matrix	Method	Test Description	Preservative	Container	Volume required	Holding times
Soil	7196A	Trivalent Chromium (Calculation) (Cr^{3+})	None	No container	NA	NA
Water	6020B	Dissolved Metals TAL List	Nitric Acid	Plastic 250ml - w/nitric acid	100 ml	180-days
Water	7196A	Chromium, Hexavalent	None	Plastic 250ml –unpreserved	150 ml	24-Hours
Water	7196A	Trivalent Chromium (Calculation)	None	No container	NA	NA

QA/QC
Duplicates of two in-field soil samples will be collected to allow for the determination of sampling precision. See Collection of Soil Samples for sampling procedure.

IX. Sampling Procedures

Health and Safety
Prior to commencing any sampling activities, DEP personnel should review the Site-Specific Health and Safety Plan provided in **Appendix A**.

Equipment Preparation and Staging
A full list of the equipment needed for this sampling event is available in Table 2. Street parking is available on S 51st Street near the corner with Botanic Ave and Bartram's Mile Trail. Equipment will be staged along the closed section of Bartram's Mile Trail near the discharge area for this sampling event.

Table 2. Equipment and Supplies

Item	Notes
Sampling and Analysis Plan	
Health and Safety Plan	
Employee ID	
Business Cards	
Mobile Phone	
Ultrafine Sharpie and Black ball-point pens	*Use pen on COC
Field Notebook	
Clip Board	
Nitrile Gloves	
Paper Towels	
Trash Bags	
Scissors	
DI Water squirt bottle	
Alconox squirt bottle	
Extra DI water (glass bottle)	
Bucket/Container for equipment	
Bucket for decontamination	
Tape measure	
Flag markers	
Extra 500mL plastic bottles for sample transfer	

Item	Notes
Disposable Scoops	
0.45 µm field filters	
Syringes	
Chain of Custody/sample labels	From lab kit
Bottleware (in lab kit)	Received from laboratory 8/9/2024
Cooler(s)	
Ice	

General Sample Collection Procedures
The field sampling is scheduled to take one day (Tuesday 8/13/2024).

Samples collected should be labeled according to laboratory instructions, with the following information at a minimum. The Sample ID Scheme presented in Table 3 will be used.

- the requested analysis
- the sampling location
- the date and time of collection
- name of preservative and sample matrix
- project name and organization (PA DEP)

Table 3. Proposed Sample ID Scheme

Proposed Sample ID	Matrix	Comments
DEP51-S#-YearMonthDay	Soil	Numbered locations (1-11) used on July 22, 2024 will be retained. Additional locations will be assigned a numbered ID beginning with S12. Date will be indicated via two-digit year, two-digit month, two-digit day.
DEP51-W#-YearMonthDay	Surface Water	Numbered locations (1-4) used on Jule 22, 2024 will not be resampled but IDs will be retained. Samples will be assigned a numbered ID beginning with S5. Date will be indicated via two-digit year, two-digit month, two-digit day.

Samples collected will promptly be placed on ice in a cooler.

The sampling team shall take due care to leave the sampling area in the same condition as it was prior to sample collection, and to clean up any spill that occurs as well as diluting and cleaning any spills that may involve sample preservatives.

All samples will be kept cold at < 6˚C. The sample coolers will be picked by the Eurofins Courier the same afternoon prior to 3pm. Note that sample are expected to arrive at the lab within 2 hours of pick-up time and may arrive at temperatures > 6˚C. The lab may make a note on the final report indicating a temperature above specification because samples have just begun the process of cooling. This will have no impact on samples.

All used disposable items like PPE and sampling equipment will be placed in a trash bag and disposed after return to the office.

Collection of Soil Samples

Soil samples will be collected in accordance with laboratory instructions. Where soil/sediment is exposed, a shallow soil sample will be collected using a disposable scoop for each unique sample. For each sample, the scoop will be used to disturb enough surface soil to fill all sample containers. The soil will be homogenized with the scoop before the sample containers are filled. For duplicate samples, enough soil must be homogenized to fill both the sample and the duplicate sample bottleware to ensure precision.

A shovel or auger may be used to access soil in desired sampling locations. Any reusable equipment will be decontaminated as necessary between samples using Alconox and DI water.

Collection of Surface Water Samples
Aqueous samples will be collected in accordance with laboratory instructions. Surface water will be collected with a syringe or with an unused 500 mL plastic sample bottle and then transferred into the preserved sample bottle. Transfer syringes or bottles will be dedicated to each sample to prevent the need for equipment decontamination.

Aqueous metals and Cr^{6+} samples will be field filtered using 0.45 µm filters with 30 mL or 60 mL plastic syringes (filters must fit syringes tightly). Draw sample from transfer bottle, pass through filter into sample bottle. Repeat until desired volume collected. Filter may be removed to refill syringe. Multiple filters may be needed.

Record Keeping
Observations and details of each sample collected will be recorded in the field notes. They will include, sample depth, and sample location (including latitude and longitude and/or measurements taken from fixed reference points on Site). A picture of each sample location will also be taken.

Samples collected will be listed on an analytical lab chain of custody (COC) form. COCs shall be filled completely with appropriate per Eurofins guidelines with information including but not limited to:

- sample collection times and dates
- preservation (Nitric Acid, etc)
- laboratory methods and test parameters
- sample matrix (drinking water, surface water, soil)
- number of containers, type of samples (grab or composite)
- collector's name and signature, and any items required by the lab

Also list any comments that would inform the lab including but not limited to strong odors or sample color.

Field notes will be memorialized in a Field Activity Report following the sampling event. Chain of custody forms will be copied and placed in the site file and scanned into the site folder on the server. Photos and map will also be saved into the site folder.

X. Reporting

Upon receipt of analytical results, DEP personnel will prepare a summary of the results in tabular format. The sample locations will be mapped using GIS Software. The requested laboratory turnaround time is a 3-day rush. Results and findings will be reported in a technical memorandum for the site file. The technical memorandum will be used as a reference in future DEP decision documents concerning possible further action at the Site.

XI. References

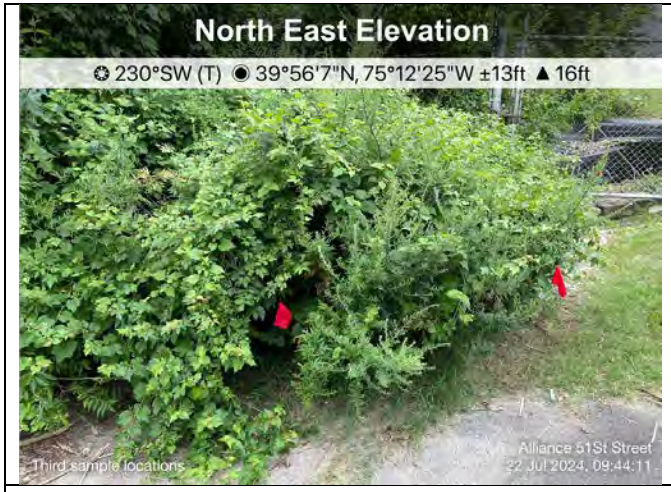
1. Method 6020B: Inductively Coupled Plasma - Mass Spectrometry, part of Test Methods for Evaluating Solid Waste, Physical/Chemical Methods (epa.gov)
2. Method 3005A: Acid Digestion of Waters for Total Recoverable or Dissolved Metals for Analysis by FLAA or ICP Spectroscopy, part of Test Methods for Evaluating Solid Waste, Physical/Chemical Methods (epa.gov)
3. Method 7196A: Chromium, Hexavalent (Colorimetric), part of Test Methods for Evaluating Solid Waste, Physical/Chemical Methods (epa.gov)
4. Method 3060A: Alkaline Digestion for Hexavalent Chromium, part of Test Methods for Evaluating Solid Waste, Physical/Chemical Methods (epa.gov)

XII. Figures

Figure 1. General Site Location

Figure 2. July 2024 DEP Soil Sample Locations

Figures 3, 4, 5, 6: July 22, 2024 Soil Sample Locations with Cr(VI) Act 2 MSC Exceedances



1. Location of Sample DEP51-S2 (right side of photo) and DEP51-S3 (center of photo).

2. Location of Sample DEP51-S7 along trail/drainage port.

3. Location of Sample DEP51-S8 behind concrete barrier.

4. Location of Sample DEP51-10 along trail/drainage port.

APPENDIX A: Site Specific Health and Safety Plan

HEALTH AND SAFETY PLAN

Alliance 51st Street
City of Philadelphia

A. SITE DESCRIPTION

The Alliance 51st Street property (Site) is an industrial parcel located at 1630 - 1646 S 51st Street in Philadelphia. The Site is bordered by a railroad to the south and the Schuylkill Banks/Bartram's Mile Trail to the east. Bartram's Gardens are south of the Site. Parcels north of the Site are owned by the Philadelphia Authority for Industrial Development. The Schuylkill River is immediately east of the Site.

SCOPE OF WORK

General Sampling

These areas are defined as open-air, non-enclosed locations where access is not restricted and the likelihood of encountering vapors, and their subsequent accumulation, is low. This would include locations as surface water drainage areas, surface soils and the Schuylkill River. DEP personnel conducting the training have received at a minimum the Hazwoper -24-hour Moderate Risk training for 29 CFR 1910.120 certification.

All work performed in these areas will be in Level "D" and will include protective gloves.

C. ON-SITE ORGANIZATION AND COORDINATION

The following personnel are designated to carry out the stated job functions on site. (Note: One person may carry out more than one job function.)

Point of Contact	
Project Officer (PO) & Site Health & Safety Officer	Christine McCarthy
Alternate Contact & Geologist (PG)	Matthew Sabetta, P.G

Bonnie McClennen (HSCA Environmental Group Manager) will be available in the Southeast Regional Office as necessary 484-250-5917

D. ON-SITE CONTROL AND SECURITY

1. DEP personnel will access public areas along the trail. On July 19, 2024, a Consent for Access and Right Of Entry to Property form was signed by Robert Allen the Director of Property and Concessions Management Department of Parks and Recreation on behalf of the City of Philadelphia, Bartram Gardens to grant DEP access for the purpose of collecting the samples.

2. All DEP personnel will display identification when working on site.

E. HAZARD EVALUATION

Site Hazards: Chemical

Hexavalent chromium is the primary contaminant of concern, other potential contaminants may include lead. The Site Safety Officer will be available to make determinations and take appropriate actions to ensure personnel safety.

During completion of all site activities, personnel should attempt to minimize contact with contaminated materials. This involves a conscientious effort to keep "clean" during site activities. All personnel should minimize kneeling, splash generation, and other physical contact with contamination. This may ultimately minimize the degree of decontamination required and the generation of waste materials from site operations.

On July 17, 2024 - the Fire Department inspected the site with what appears to be a PID. They found no issues.

The following substance(s) are known or suspected to be on site. The primary hazards of each substance are identified.

Primary Anticipated Substance(s) Involved

Substance	Concentration (If known)	Primary Hazards	Primary Control
Chromium (VI) CAS # 7440-47-3	Unknown	Inhalation, absorbed through skin, occupationally insignificant at site exposure levels. OSHA TWA 100 ppm in air	Avoid prolonged or repeated skin contact. Ventilate contained areas where raw water may be present.

Material Safety Data Sheets for contaminants of concern and sample preservatives are attached in Section L

Site Hazards: Physical

Physical hazards will be identified and secured, where possible.

Extreme heat and humidity may be a factor. Take frequent breaks and drink plenty of fluids to prevent heat exhaustion and heat stroke. If site conditions warrant, the Site Safety Officer may adjust the work hours to avoid the mid-day heat.

Sunblock will be worn by staff members to avoid sunburn.

When working outdoors, biting and stinging insects, poison ivy and oak, and snakes may all be present; therefore, use caution when inspecting confined areas and wear protective clothing.

Slip, trip and fall hazards may all be present. Personal should maintain a orderly work area to eliminate trip hazards from tools. Care should be exercised when wet surfaces are present. Water hazards may be present during sampling of surface water.

F. PERSONAL PROTECTIVE EQUIPMENT

Based upon evaluation of the potential hazards, the following personal protection has been designated for the applicable work areas or tasks:

Steel toe boots
Safety vests will be worn
Nitrile protective gloves for sampling

G. COMMUNICATION EQUIPMENT & PROCEDURES

A cell phone will be present at the site for offsite communication.

H. DECONTAMINATION PROCEDURES AND WASTE HANDLING

No personnel decontamination procedures are necessary.

Sampling equipment will be decontaminated as necessary using Alconox, as described in the Sampling and Analysis plan.

Disposable equipment/supplies will be used where available.

At the conclusion of the sampling event, all materials, including nitrile gloves and all disposable sampling supplies, and general litter will be removed for proper disposal.

J. EMERGENCY PROCEDURES

Injury to DEP Personnel

All injuries, including those requiring first aid only, are to be reported to the Project Manager as soon as possible. Work-related injuries to DEP personnel will be reported to their supervisor or other available supervisory personnel immediately.

A first aid kit will be maintained in all vehicles.

The Project Manager and the Manager in the office shall be notified of any of the emergencies listed here.

Emergency Phone Numbers

On-site cell phone(s): Christine’s cell phone will be used.

Ambulance: 911
Fire: 911
Police: 911
State Police: 911
County EMS: 911

K. DIRECTIONS TO THE HOSPITAL

bing maps

A 4901 Botanic Ave, Philadelphia, PA 19143, United States

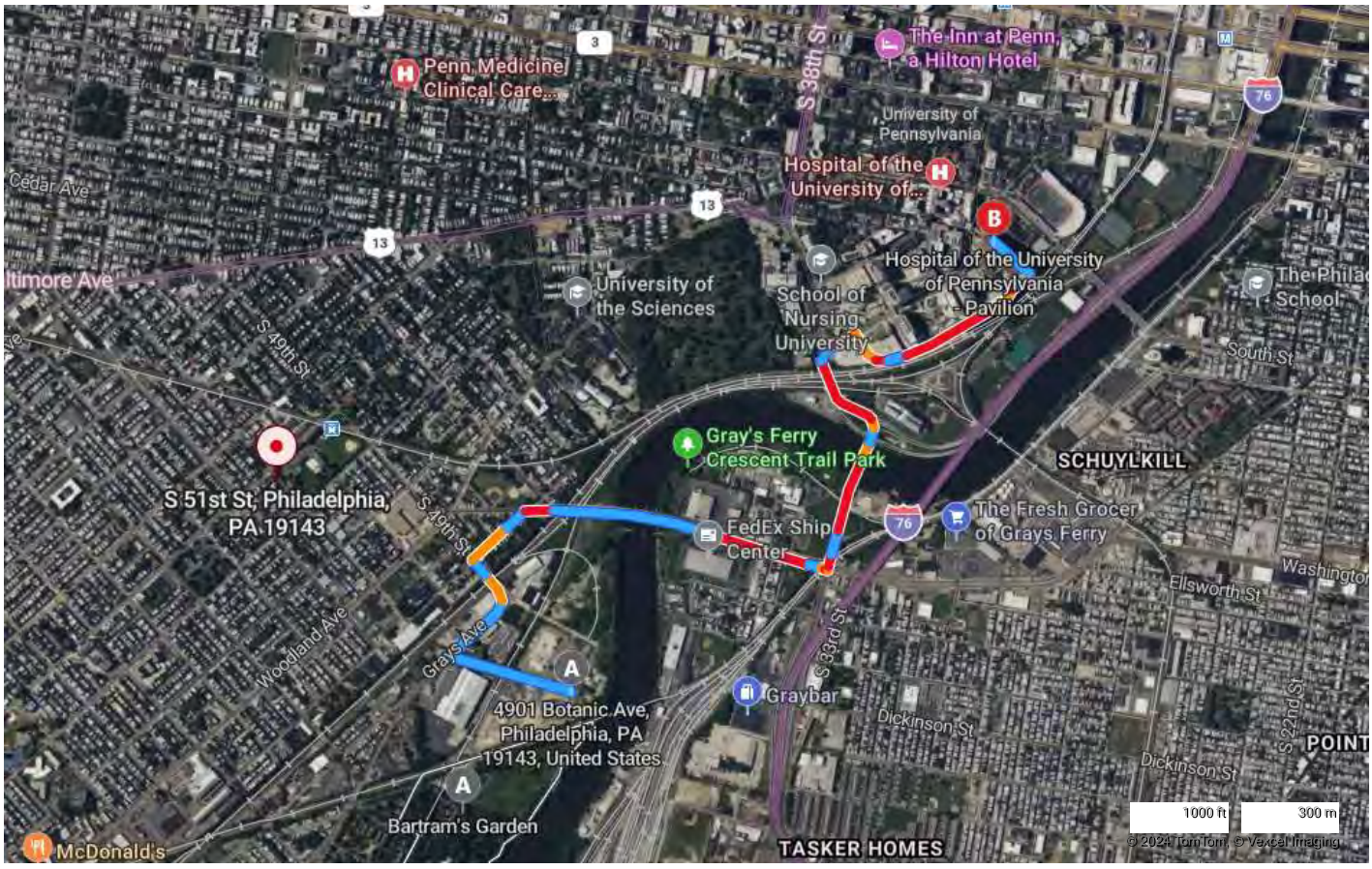
B Hospital of the University of Pennsylvania - Pavilion, 1 Convention Avenue, Philadelphia, PA 19104

12 min , 2.4 miles
Moderate traffic
Via Grays Ferry Ave, Health Sciences Dr
· Local roads

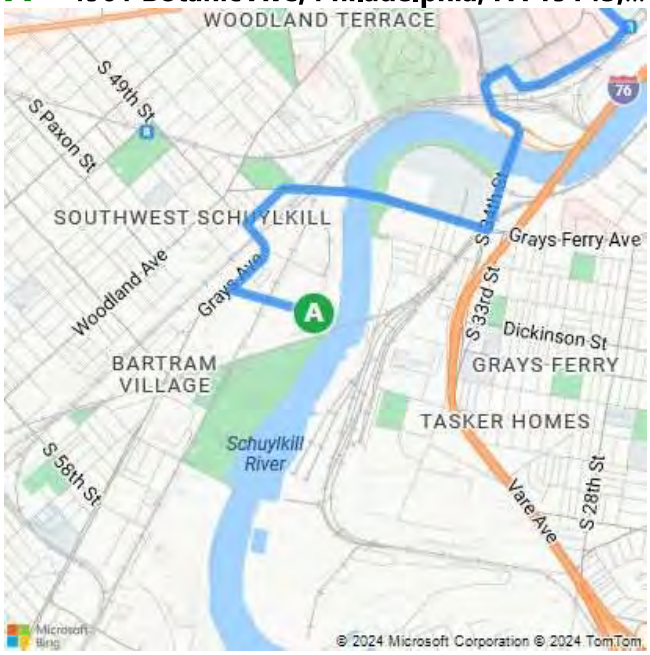
A 4901 Botanic Ave, Philadelphia, PA 19143, United States

↑	1.	Head **west** on **S 51st St** toward Grays Ave	0.3 mi
↱	2.	Turn **right** onto **Grays Ave**	0.2 mi
↑	3.	Keep **straight** to get onto **S 49th St**	0.1 mi
↱	4.	Turn **right** onto **Paschall Ave**	0.1 mi
↗	5.	Bear **right** onto **Grays Ferry Ave**	0.6 mi
↰	6.	Turn **left** onto **S 34th St** Exxon on the corner • *Roadwork on THIRTYFOURTH ST / THIRTYEIGHTH ST / TWENTYSIXTH ST / UNIVERSITY AV northbound between GRAYS FERRY AV and 1 miles NORTH of Exit: I-76 WEST - SCHUYLKILL EXPRESSWAY. There is a traffic disruption.*	0.3 mi
↑	7.	Road name changes to **University Ave**	0.2 mi
↱	8.	Turn **right** onto **Civic Center Blvd**	482 ft
↱	9.	Turn **right** onto **Health Sciences Dr**	0.3 mi
↑	10.	Continue on **Convention Ave**	459 ft
↰	11.	Turn **left**	495 ft
	12.	Arrive at your destination on the left The last intersection before your destination is Convention Ave	

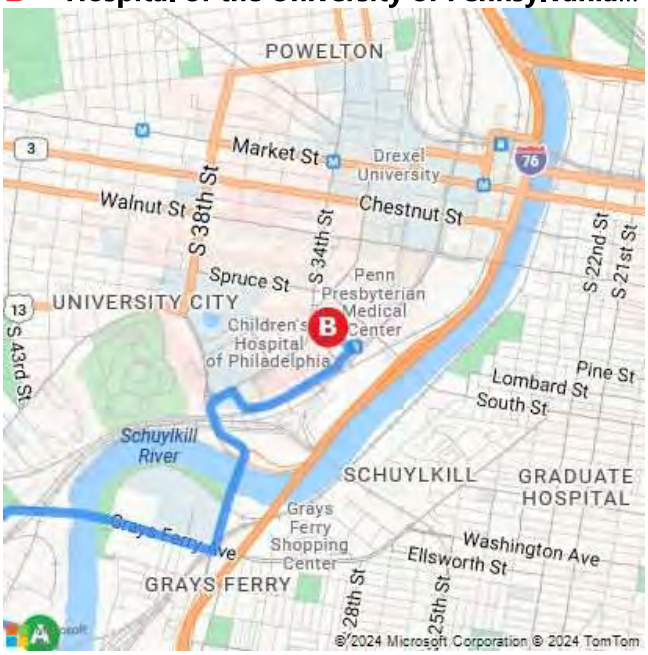
B Hospital of the University of Pennsylvania - Pavilion



A 4901 Botanic Ave, Philadelphia, PA 19143,...



B Hospital of the University of Pennsylvania...



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L. SAFETY DATA SHETS (SDS)

Preservatives: Nitric Acid

Contaminants of Concern: Hexavalent Chromium, Lead

SAFETY DATA SHEET

Revision Date 01-Apr-2024 **Revision Number** 3

1. Identification

Product Name **Hexavalent Chromium, standard solution, Specpure®, Cr(+6) 1000µg/ml**

Cat No. : **42234**

Synonyms No information available

Recommended Use Laboratory chemicals.
Uses advised against Food, drug, pesticide or biocidal product use.

Details of the supplier of the safety data sheet

Company
Thermo Fisher Scientific Chemicals, Inc.
30 Bond Street
Ward Hill, MA 01835-8099
Tel: 800-343-0660
Fax: 800-322-4757

Emergency Telephone Number
For information **US** call: 001-800-227-6701 / **Europe** call: +32 14 57 52 11
Emergency Number **US:**001-201-796-7100 / **Europe:** +32 14 57 52 99
CHEMTREC Tel. No. **US:**001-800-424-9300 / **Europe:**001-703-527-3887

2. Hazard(s) identification

Classification
This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Germ Cell Mutagenicity	Category 1B
Carcinogenicity	Category 1A
Reproductive Toxicity	Category 1B

Label Elements

Signal Word
Danger

Hazard Statements
May cause genetic defects
May cause cancer
May damage fertility or the unborn child

Precautionary Statements
Prevention
Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Use personal protective equipment as required
Response
IF exposed or concerned: Get medical attention/advice
Storage
Store locked up
Disposal
Dispose of contents/container to an approved waste disposal plant
Hazards not otherwise classified (HNOC)
None identified
WARNING. Cancer and Reproductive Harm - https://www.p65warnings.ca.gov/.

3. Composition/Information on Ingredients

Component	CAS No	Weight %
Water	7732-18-5	99.76
Ammonium bichromate	7789-09-5	0.24

4. First-aid measures

General Advice If symptoms persist, call a physician.

Eye Contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.

Skin Contact Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists, call a physician.

Inhalation Remove to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms occur.

Ingestion Clean mouth with water and drink afterwards plenty of water.

Most important symptoms and effects None reasonably foreseeable.

Notes to Physician Treat symptomatically

5. Fire-fighting measures

Suitable Extinguishing Media Not combustible.

Unsuitable Extinguishing Media No information available

Flash Point No information available

Method -	No information available
Autoignition Temperature	No information available
Explosion Limits	
Upper	No data available
Lower	No data available
Sensitivity to Mechanical Impact	No information available
Sensitivity to Static Discharge	No information available

Specific Hazards Arising from the Chemical
None reasonably foreseeable.

Hazardous Combustion Products
Nitrogen oxides (NOx). Ammonia. Chromium oxide.
Protective Equipment and Precautions for Firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA

Health	Flammability	Instability	Physical hazards
0	0	0	-

6. Accidental release measures

Personal Precautions	Ensure adequate ventilation. Use personal protective equipment as required.
Environmental Precautions	Should not be released into the environment. See Section 12 for additional Ecological Information. Do not allow material to contaminate ground water system. Do not flush into surface water or sanitary sewer system.
Methods for Containment and Clean Up	Soak up with inert absorbent material. Keep in suitable, closed containers for disposal.

7. Handling and storage

Handling	Wear personal protective equipment/face protection. Ensure adequate ventilation. Do not get in eyes, on skin, or on clothing. Avoid ingestion and inhalation.
Storage.	Keep containers tightly closed in a dry, cool and well-ventilated place.

8. Exposure controls / personal protection

Exposure Guidelines

Component	ACGIH TLV	OSHA PEL	NIOSH	Mexico OEL (TWA)
Ammonium bichromate	TWA: 0.0002 mg/m³ STEL: 0.0005 mg/m³ Skin	(Vacated) Ceiling: 0.1 mg/m³ Ceiling: 0.1 mg/m³	IDLH: 15 mg/m³ TWA: 0.0002 mg/m³	TWA: 0.05 mg/m³

Legend

ACGIH - American Conference of Governmental Industrial Hygienists
OSHA - Occupational Safety and Health Administration
NIOSH: NIOSH - National Institute for Occupational Safety and Health

Engineering Measures	Ensure adequate ventilation, especially in confined areas.

Personal Protective Equipment

Eye/face Protection	Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard

EN166.

Skin and body protection Wear appropriate protective gloves and clothing to prevent skin exposure.

Respiratory Protection Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Recommended Filter type: Organic gases and vapours filter. Particulates filter conforming to EN 143.

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties

Physical State	Liquid
Appearance	Yellow
Odor	Odorless
Odor Threshold	No information available
pH	4 (1%)
Melting Point/Range	No data available
Boiling Point/Range	No information available
Flash Point	No information available
Evaporation Rate	No information available
Flammability (solid,gas)	Not applicable
Flammability or explosive limits	
Upper	No data available
Lower	No data available
Vapor Pressure	23 hPa @ 20 °C
Vapor Density	No information available
Specific Gravity	No information available
Solubility	No information available
Partition coefficient; n-octanol/water	No data available
Autoignition Temperature	No information available
Decomposition Temperature	No information available
Viscosity	No information available
Molecular Formula	(NH4)2 Cr2 O7 in H2 O

10. Stability and reactivity

Reactive Hazard None known, based on information available

Stability Stable under normal conditions.

Conditions to Avoid Incompatible products.

Incompatible Materials Strong oxidizing agents

Hazardous Decomposition Products Nitrogen oxides (NOx), Ammonia, Chromium oxide

Hazardous Polymerization Hazardous polymerization does not occur.

Hazardous Reactions None under normal processing.

11. Toxicological information

Acute Toxicity

Product Information

Oral LD50	Based on ATE data, the classification criteria are not met. ATE > 2000 mg/kg.
Dermal LD50	Based on ATE data, the classification criteria are not met. ATE > 2000 mg/kg.

Vapor LC50 Based on ATE data, the classification criteria are not met. ATE > 20 mg/l.

Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Water	-	-	-
Ammonium bichromate	LD50 = 48 mg/kg (Rat)	LD50 = 1860 mg/kg (Rabbit)	LC50 = 0.2 mg/L (Rat) 4 h

Toxicologically Synergistic Products No information available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Irritation No information available

Sensitization No information available

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Component	CAS No	IARC	NTP	ACGIH	OSHA	Mexico
Water	7732-18-5	Not listed	Not listed	Not listed	Not listed	Not listed
Ammonium bichromate	7789-09-5	Group 1	Known	A1	X	A1

IARC (International Agency for Research on Cancer)

IARC (International Agency for Research on Cancer)
Group 1 - Carcinogenic to Humans
Group 2A - Probably Carcinogenic to Humans
Group 2B - Possibly Carcinogenic to Humans

NTP: (National Toxicity Program)

NTP: (National Toxicity Program)
Known - Known Carcinogen
Reasonably Anticipated - Reasonably Anticipated to be a Human Carcinogen

ACGIH: (American Conference of Governmental Industrial Hygienists)

A1 - Known Human Carcinogen
A2 - Suspected Human Carcinogen
A3 - Animal Carcinogen
ACGIH: (American Conference of Governmental Industrial Hygienists)

Mexico - Occupational Exposure Limits - Carcinogens

Mexico - Occupational Exposure Limits - Carcinogens
A1 - Confirmed Human Carcinogen
A2 - Suspected Human Carcinogen
A3 - Confirmed Animal Carcinogen
A4 - Not Classifiable as a Human Carcinogen
A5 - Not Suspected as a Human Carcinogen

Mutagenic Effects No information available

Reproductive Effects California Proposition 65. Reproductive toxicity.

Developmental Effects No information available.

Teratogenicity No information available.

STOT - single exposure None known

STOT - repeated exposure None known

Aspiration hazard No information available

Symptoms / effects,both acute and delayed No information available

Endocrine Disruptor Information No information available

Other Adverse Effects The toxicological properties have not been fully investigated.

12. Ecological information

Ecotoxicity

May cause long-term adverse effects in the environment. Do not allow material to contaminate ground water system.

Persistence and Degradability based on information available. May persist

Bioaccumulation/ Accumulation No information available.

Mobility Will likely be mobile in the environment due to its water solubility.

13. Disposal considerations

Waste Disposal Methods Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

14. Transport information

DOT Not regulated
TDG Not regulated
IATA Not regulated
IMDG/IMO Not regulated

15. Regulatory information

United States of America Inventory

Component	CAS No	TSCA	TSCA Inventory notification - Active-Inactive	TSCA - EPA Regulatory Flags
Water	7732-18-5	X	ACTIVE	-
Ammonium bichromate	7789-09-5	X	ACTIVE	-

Legend:
TSCA US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)
X - Listed
'-' - Not Listed

TSCA - Per 40 CFR 751, Regulation of Certain Chemical Substances & Mixtures, Under TSCA Section 6(h) (PBT) Not applicable

TSCA 12(b) - Notices of Export

Component	CAS No	**TSCA 12(b)** - Notices of Export
Ammonium bichromate	7789-09-5	Section 6

International Inventories
Canada (DSL/NDSL), Europe (EINECS/ELINCS/NLP), Philippines (PICCS), Japan (ENCS), Japan (ISHL), Australia (AICS), China (IECSC), Korea (KECL).

Component	CAS No	DSL	NDSL	EINECS	PICCS	ENCS	ISHL	AICS	IECSC	KECL
Water	7732-18-5	X	-	231-791-2	X	X		X	X	KE-35400
Ammonium bichromate	7789-09-5	X	-	232-143-1	X	X	X	X	X	KE-01653

KECL - NIER number or KE number (http://ncis.nier.go.kr/en/main.do)

U.S. Federal Regulations

SARA 313
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

Component	CAS No	Weight %	SARA 313 - Threshold Values %	SARA 313 - Reporting threasholds
Ammonium bichromate	7789-09-5	0.24	0.1 % 1.0 %	-

SARA 311/312 Hazard Categories
Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications.

CWA (Clean Water Act)

Component	CWA - Hazardous Substances	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants
Ammonium bichromate	X	10 lb	X	-

Clean Air Act

Component	HAPS Data	Class 1 Ozone Depletors	Class 2 Ozone Depletors
Ammonium bichromate	X		-

OSHA - Occupational Safety and Health Administration — Not applicable

Component	Specifically Regulated Chemicals	Highly Hazardous Chemicals
Ammonium bichromate	5 µg/m³ TWA 2.5 µg/m³ Action Level	-

CERCLA
This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355).

Component	Hazardous Substances RQs	CERCLA Extremely Hazardous Substances RQs	SARA Reportable Quantity (RQ)
Ammonium bichromate	10 lb	-	10 lb 4.54 kg

California Proposition 65 — This product contains the following Proposition 65 chemicals.

Component	CAS No	California Prop. 65	Prop 65 NSRL	Category
Ammonium bichromate	7789-09-5	Carcinogen Developmental Female Reproductive Male Reproductive	-	Developmental Carcinogen

U.S. State Right-to-Know Regulations

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Water	-	-	X	-	-
Ammonium bichromate	X	X	X	X	X

U.S. Department of Transportation

Reportable Quantity (RQ):	Y
DOT Marine Pollutant	N
DOT Severe Marine Pollutant	N

U.S. Department of Homeland Security — This product does not contain any DHS chemicals.

Other International Regulations

Mexico - Grade — No information available

Authorisation/Restrictions according to EU REACH

Component	CAS No	REACH (1907/2006) - Annex XIV - Substances Subject to Authorization	REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances	REACH Regulation (EC 1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC)
Water	7732-18-5	-	-	-
Ammonium bichromate	7789-09-5	Carcinogenic Category 1B, Mutagenic Category 1B, Toxic for reproduction Category 1B Article 57 Application date: March 21, 2016 Sunset date: September 21, 2017 Exemption - None	Use restricted. See item 72. (see link for restriction details) Use restricted. See item 28. (see link for restriction details) Use restricted. See item 30. (see link for restriction details) Use restricted. See item 29. (see link for restriction details) Use restricted. See item 75. (see link for restriction details) Use restricted. See item 47. (see link for restriction details) Use restricted. See item 65. (see link for restriction details)	SVHC Candidate list - 232-143-1 - Carcinogenic, Article 57a;Mutagenic, Article 57b;Toxic for reproduction, Article 57c

After the sunset date the use of this substance requires either an authorization or can only be used for exempted uses, e.g. use in scientific research and development which includes routine analytics or use as intermediate.

REACH links
https://echa.europa.eu/authorisation-list
https://echa.europa.eu/substances-restricted-under-reach
https://echa.europa.eu/candidate-list-table

Safety, health and environmental regulations/legislation specific for the substance or mixture

Component	CAS No	OECD HPV	Persistent Organic Pollutant	Ozone Depletion Potential	Restriction of Hazardous Substances (RoHS)
Water	7732-18-5	Listed	Not applicable	Not applicable	Not applicable
Ammonium bichromate	7789-09-5	Listed	Not applicable	Not applicable	Not applicable

Contains component(s) that meet a 'definition' of per & poly fluoroalkyl substance (PFAS)?
Not applicable

Other International Regulations

Component	CAS No	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements	Rotterdam Convention (PIC)	Basel Convention (Hazardous Waste)

Water	7732-18-5	Not applicable	Not applicable	Not applicable	Not applicable
Ammonium bichromate	7789-09-5	Not applicable	Not applicable	Not applicable	Annex I - Y21

16. Other information

Prepared By
Health, Safety and Environmental Department
Email: chem.techinfo@thermofisher.com
www.thermofisher.com

Revision Date 01-Apr-2024
Print Date 01-Apr-2024
Revision Summary New emergency telephone response service provider.

Disclaimer
The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of SDS

Lead Metal
Safety Data Sheet

Section 1: Identification

Product Name: Lead Metal
CAS No.: 7439-92-1
Chemical Formula: Pb
Other Names: Lead, Lead Block, Lead Wire, Lead Ingot, Pb, Plumbum, Pure Lead, Refined Lead, Sheet Lead, Soft Lead, Lead rod
Intended Use / Restrictions on Use:
For professional/industrial use only.

Contact Information:
Chemical Store Inc.
1059 Main Avenue,
Clifton, NJ 07011
Phone: 973-405-6248

Emergency Contact:
Chemical Store: 973-420-4972

Section 2: Hazard Identification

Classification:
Carcinogen 1B - H350

Label Elements:
Hazard Pictograms:

Signal Word: Danger
Hazard Statements: H350 – May cause cancer. H302 – Harmful if swallowed.
Precautionary Statements: P201 – Obtain special instructions before use. P202 Do not handle until all safety precautions have been read and understood. P260 – Do not breathe dust/fume/gas/mist/vapors/spray. P264 – Wash skin thoroughly after handling. P273 – Avoid release to the environment. P280 - Wear eye protection, protective clothing, protective gloves. P308 +P313 – If exposed or concerned: Get medical advice/attention. P405 – Store locked up. P501 – Dispose of contents/container in accordance with local, regional, national and international regulations.
Other Hazards: Prevent particles from becoming airborne. Can cause thermal burns when molten.

Unknown Acute Toxicity Statement:
Not Applicable

Section 3: Composition / Information on Ingredients

Name: Lead Metal

Synonyms: Lead, Lead Block, Lead wire, Lead Ingot, Pb, Plumbum, Pure Lead, Refined Lead, Sheet Lead, Soft Lead

Chemical Name	CAS Number	% by Weight
Lead (Pb)	7439-92-1	>99

Mixture:

Not applicable

Section 4: First-Aid Measures

Required Treatment:

After inhalation, move to fresh air and rest in a position comfortable for breathing.
After skin contact, wash skin thoroughly. If contact with molten metal, cool skin rapidly and seek medical assistance.
After eye contact, remove contact lenses if applicable and flush eyes with water for at least 15 minutes.
After ingestion, do not induce vomiting. Call poison control center or doctor.

Important Symptoms & Effects, Acute & Delayed:

Lead poisoning can occur through acute or chronic doses. Symptoms include headaches, abdominal pain, memory loss, kidney failure, anemia, change in skin tone, reproductive problems, weakness, pain, or tingling.

Indication of Medical Attention:

If any acute or chronic symptoms arise or if feeling unwell after exposure, seek medical advice.

Section 5: Fire Fighting Measures

Extinguishing Techniques/Equipment:

Use extinguishing media appropriate for surrounding media. Do not use water if metal is hot as it may increase fire intensity.

Chemical Hazards from Fire:

Lead Metal is not flammable or explosive. May react violently with water in molten state.

Special Equipment and Precautions for Firefighters:

Exercise caution. Under fire conditions, fumes will be present. If entering fire area, wear proper protective equipment including respiratory protection.

Section 6: Accidental Release Measures

Emergency Procedures/Personal Protection:

Avoid all contact with skin, eyes, or clothing. Avoid breathing fumes and dust.
Evacuate all unnecessary personnel.

Protective Equipment:

Use appropriate personal protection equipment (PPE), as listed in section 8.

Methods of Containment & Cleanup:

Allow metal to cool and solidify if molten. Collect solid metal and clean up spill site, disposing of waste properly.

Section 7: Handling and Storage

Precautions for Safe Handling:
When molten, use safe furnace practices. When solid, practice good industrial hygiene and safety procedures. Wash exposed areas with soap and water.

Precautions for Safe Storage:
Store in cool, dry and well ventilated location. Seal containers. Keep away from incompatible materials such as strong acids, strong bases, and strong oxidizers. If molten, keep away from water.

Section 8: Exposure Controls / Personal Protection

Control Parameters:

USA ACGIH	ACGIH TWA (mg/m^3)	0.05 mg/m^3
USA NIOSH	NIOSH REL (TWA) (mg/m^3)	0.050 mg/m^3
USA IDLH	US IDLH (mg/m^3)	100 mg/m^3
USA OSHA	OSHA PEL (TWA) (mg/m^3)	50 $\mu g/m^3$

Engineering Controls:
Ensure adequate ventilation. Emergency eye wash stations and safety showers should be nearby any potential exposure. Ensure national/local regulations are observed.

Personal Protective Equipment:
Protective goggles, gloves and clothing. If insufficient ventilation, wear respiratory protection.
Materials for Protective Clothing: Wear chemically resistant materials and fabrics.
Hand Protection: Wear chemically resistant gloves. If working with molten or hot material, wear thermally resistant gloves.
Eye Protection: Chemical googles or safety glasses should be worn at all times. For furnace work, wear a face shield or safety glasses.
Respiratory Protection: If exposure limits are exceeded or irritation is experienced, NIOSH approved respiratory protection should be worn.
Thermal Hazard Protection: For furnace work, fire retardant clothing, gloves, and safety shoes should be worn.
Consumer Exposure Controls: Do not eat, drink, or smoke during use.

Section 9: Physical and Chemical Properties

Physical State: Solid (Metal)	**Evaporation Rate:** N/A
Color: Blueish-grey. Silvery	**Flammability:** N/A
Taste: N/A	**Upper/Lower Flammability Limits:** N/A
Molecular Weight: 207.21 g/mol	**Vapor Pressure:** 1 mm Hg @ 973°C (1783°F)
Odor: N/A	**Vapor Density:** N/A
Odor Threshold: N/A	**Specific Gravity (Relative Density):** 11.3
pH: N/A	**Solubility:** Insoluble in water
Melting Point: 327.43°C (621.4°F)	**Partition Coefficient:** N/A
Boiling Point: 1740 °C (3164°F)	**Auto-ignition Temperature:** N/A
Boiling Range: N/A	**Decomposition Temperature:** N/A
Flash Point: N/A	**Viscosity:** N/A

Section 10: Stability and Reactivity

Reactivity: May react violently with water in molten form.
Stability: Stable under proper handling and storage conditions.
Hazardous Reactions: Thermal reactions generate lead fumes.
Conditions to Avoid: Avoid incompatible materials. Avoid Moisture in molten form.
Incompatible Materials: Strong acids, strong bases, and strong oxidizers. If molten, water. **Hazardous Decomposition Products:** Melting produces lead fumes.

Section 11: Toxicological Information

Routes of Exposure
Inhalation of dust, fumes. Skin contact through physical contact. Eye contact through physical contact or dust and fumes. Ingestion through contamination of skin/surfaces.

Chronic and Acute Related Symptoms/Effects:
Inhalation of fumes or dust can cause respiratory irritation. Skin contact with molten metal can cause burns. Dust or fumes can cause eye irritation. Ingestion can cause harmful effects. Acute symptoms can include headaches, abdominal pain, memory loss, kidney failure, anemia, change in skin tone, reproductive problems, weakness, pain, or tingling. Chronic exposure may cause cancer or lead poisoning.

Measures of Toxicology:
Acute Toxicity: Not Classified
Skin Corrosion/Irritation: Not Classified
Serious Eye Damage/ Irritation: Not Classified
Respiratory or Skin Sensitization: Not Classified **Germ Cell Mutagenicity:** Not Classified **Reproductive Toxicity:** Not Classified **Carcinogenic Information:**
May cause cancer.
IARC Group: 2A
National Toxicology Program (NTP) Status: Reasonably anticipated to be a human carcinogen.

Section 12: Ecological Information

Ecotoxicity: Toxic to aquatic life and terrestrial environments
Persistence and Degradability: N/A
Bioaccumulative Potential: Bioaccumulates in animals and plants
Mobility in Soil: Accumulates in Soil but not particularly mobile
Other Adverse Effects:
Prevent entry to sewers and public waterways. Avoid release to the environment. Ensure accordance with national and local regulations.

Section 13: Disposal Considerations

Dispose of waste in accordance with all local, regional, national, and international regulations.

Section 14: Transportation Information

UN Number: 3077
UN Proper Shipping Name: Environmentally hazardous substance, solid, n.o.s. (Lead)
Class: 9
Packing Group: III
Environmental Hazards: Do not release to waterways.
Transportation in Bulk: N/A
Special Precautions: Wash skin after contact

Section 15: Regulatory Information

US Federal Regulations:
SARA Section 311/312 Hazard Classes – Delayed (chronic) Health Hazard
SARA Section 313 Emissions Reporting – 0.1%

US State Regulations:
California – Prop. 65 – Carcinogens List California –
Prop. 65 – Developmental Toxicity
California – Prop. 65 – Reproductive Toxicity Male/Female
Massachusetts – Right To Know List
Pennsylvania – Right To Know List (Environmental Hazard)
Pennsylvania – Right To Know List
New Jersey – Right To Know List (Hazardous Substance)

Section 16: Other Information

Date of Preparation: 05/20/15
Date of Revision: 05/07/18
Prepared in accordance with OSHA HCS 29 CFR 1910.1200.

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SAFETY DATA SHEET

Creation Date 12-Mar-2009 **Revision Date** 24-Dec-2021 **Revision Number** 9

1. Identification

Product Name **Nitric acid (67 - 70%)**

Cat No. : **A467-1, A467-2, A467-250, A467-500**

CAS No 7697-37-2
Synonyms Azotic acid; Engraver's acid; Aqua fortis

Recommended Use Laboratory chemicals.
Uses advised against Food, drug, pesticide or biocidal product use.

Details of the supplier of the safety data sheet

Company
Fisher Scientific Company
One Reagent Lane
Fair Lawn, NJ 07410
Tel: (201) 796-7100

Emergency Telephone Number Chemtrec US: (800) 424-9300
Chemtrec EU: 001-703-527-3887

2. Hazard(s) identification

Classification
This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Oxidizing liquids	Category 3
Corrosive to metals	Category 1
Acute Inhalation Toxicity - Vapors	Category 3
Skin Corrosion/Irritation	Category 1 A
Serious Eye Damage/Eye Irritation	Category 1

Label Elements

Signal Word
Danger

Hazard Statements
May intensify fire; oxidizer
May be corrosive to metals
Causes severe skin burns and eye damage

Toxic if inhaled
Corrosive to the respiratory tract

Precautionary Statements
Prevention
Do not breathe dust/fume/gas/mist/vapors/spray
Wash face, hands and any exposed skin thoroughly after handling
Wear protective gloves/protective clothing/eye protection/face protection
Use only outdoors or in a well-ventilated area
Keep away from heat/sparks/open flames/hot surfaces. - No smoking
Keep/Store away from clothing/ other combustible materials
Take any precaution to avoid mixing with combustibles
Keep only in original container
Wear respiratory protection
Response
Immediately call a POISON CENTER or doctor/physician
Inhalation
IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
Immediately call a POISON CENTER or doctor/physician
Skin
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
Wash contaminated clothing before reuse
Eyes
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
Ingestion
IF SWALLOWED: Rinse mouth. DO NOT induce vomiting
Fire
In case of fire: Use CO2, dry chemical, or foam for extinction
Spills
Absorb spillage to prevent material damage
Storage
Store locked up
Store in a well-ventilated place. Keep container tightly closed
Store in a dry place
Disposal
Dispose of contents/container to an approved waste disposal plant
Hazards not otherwise classified (HNOC)
Corrosive to the respiratory tract

3. Composition/Information on Ingredients

Component	CAS No	Weight %
Nitric acid …% [C ≤ 70 %]	7697-37-2	65 - 70
Water	7732-18-5	30 - 35

4. First-aid measures

General Advice Immediate medical attention is required. Show this safety data sheet to the doctor in

attendance.

Eye Contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required.

Skin Contact Wash off immediately with plenty of water for at least 15 minutes. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Call a physician immediately.

Inhalation If breathing is difficult, give oxygen. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Remove from exposure, lie down. Call a physician immediately.

Ingestion Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Clean mouth with water. Call a physician immediately.

Most important symptoms and effects Causes burns by all exposure routes. Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation: Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated

Notes to Physician Treat symptomatically

5. Fire-fighting measures

Suitable Extinguishing Media CO_2, dry chemical, dry sand, alcohol-resistant foam.

Unsuitable Extinguishing Media No information available

Flash Point Not applicable
Method - No information available

Autoignition Temperature No information available
Explosion Limits
Upper No data available
Lower No data available
Oxidizing Properties Oxidizer

Sensitivity to Mechanical Impact No information available
Sensitivity to Static Discharge No information available

Specific Hazards Arising from the Chemical
Thermal decomposition can lead to release of irritating gases and vapors. The product causes burns of eyes, skin and mucous membranes. Oxidizer: Contact with combustible/organic material may cause fire. May ignite combustibles (wood paper, oil, clothing, etc.).

Hazardous Combustion Products
Nitrogen oxides (NOx). Thermal decomposition can lead to release of irritating gases and vapors.
Protective Equipment and Precautions for Firefighters
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Thermal decomposition can lead to release of irritating gases and vapors.

NFPA

Health	Flammability	Instability	Physical hazards
4	0	0	OX

6. Accidental release measures

Personal Precautions Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak. Ensure adequate ventilation. Use personal protective equipment as required.

Environmental Precautions Should not be released into the environment. Do not flush into surface water or sanitary sewer system. See Section 12 for additional Ecological Information.

Methods for Containment and Clean Up Soak up with inert absorbent material. Keep in suitable, closed containers for disposal. Sweep up and shovel into suitable containers for disposal. Wear self-contained breathing apparatus and protective suit.

7. Handling and storage

Handling Use only under a chemical fume hood. Wear personal protective equipment/face protection. Do not get in eyes, on skin, or on clothing. Do not ingest. If swallowed then seek immediate medical assistance. Do not breathe mist/vapors/spray. Keep away from clothing and other combustible materials.

Storage. Keep containers tightly closed in a dry, cool and well-ventilated place. Do not store near combustible materials. Do not store in metal containers. Keep in properly labeled containers. Corrosives area. Incompatible Materials. Combustible material. Strong bases. Reducing Agent. Metals. Finely powdered metals. Organic materials. Aldehydes. Alcohols. Cyanides. Ammonia. Strong reducing agents.

8. Exposure controls / personal protection

Exposure Guidelines

Component	ACGIH TLV	OSHA PEL	NIOSH IDLH	Mexico OEL (TWA)
Nitric acid …% [C ≤ 70 %]	TWA: 2 ppm STEL: 4 ppm	(Vacated) TWA: 2 ppm (Vacated) TWA: 5 mg/m³ (Vacated) STEL: 4 ppm (Vacated) STEL: 10 mg/m³ TWA: 2 ppm TWA: 5 mg/m³	IDLH: 25 ppm TWA: 2 ppm TWA: 5 mg/m³ STEL: 4 ppm STEL: 10 mg/m³	TWA: 2 ppm STEL: 4 ppm

Legend

ACGIH - American Conference of Governmental Industrial Hygienists
OSHA - Occupational Safety and Health Administration
NIOSH IDLH: NIOSH - National Institute for Occupational Safety and Health

Engineering Measures Use only under a chemical fume hood. Ensure that eyewash stations and safety showers are close to the workstation location. Ensure adequate ventilation, especially in confined areas.

Personal Protective Equipment

Eye/face Protection Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166. Tight sealing safety goggles. Face protection shield.

Skin and body protection Wear appropriate protective gloves and clothing to prevent skin exposure.

Respiratory Protection Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Hygiene Measures Keep away from food, drink and animal feeding stuffs. When using do not eat, drink or smoke. Contaminated work clothing should not be allowed out of the workplace. Provide regular cleaning of equipment, work area and clothing. Avoid contact with skin, eyes or clothing. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wear suitable gloves and eye/face protection.

9. Physical and chemical properties

Physical State	Liquid
Appearance	Clear Colorless, Light yellow
Odor	Strong Acrid
Odor Threshold	No information available
pH	< 1.0 (0.1M)
Melting Point/Range	-41 °C / -41.8 °F
Boiling Point/Range	Not applicable
Flash Point	Not applicable
Evaporation Rate	No information available
Flammability (solid,gas)	Not applicable
Flammability or explosive limits	
Upper	No data available
Lower	No data available
Vapor Pressure	0.94 kPa (20°C)
Vapor Density	No information available
Specific Gravity	1.40
Solubility	miscible
Partition coefficient; n-octanol/water	No data available
Autoignition Temperature	No information available
Decomposition Temperature	No information available
Viscosity	No information available
Molecular Formula	HNO3
Molecular Weight	63.01

10. Stability and reactivity

Reactive Hazard Yes

Stability Oxidizer: Contact with combustible/organic material may cause fire.

Conditions to Avoid Incompatible products. Combustible material. Excess heat. Exposure to air or moisture over prolonged periods.

Incompatible Materials Combustible material, Strong bases, Reducing Agent, Metals, Finely powdered metals, Organic materials, Aldehydes, Alcohols, Cyanides, Ammonia, Strong reducing agents

Hazardous Decomposition Products Nitrogen oxides (NOx), Thermal decomposition can lead to release of irritating gases and vapors

Hazardous Polymerization Hazardous polymerization does not occur.

Hazardous Reactions None under normal processing.

11. Toxicological information

Acute Toxicity

Product Information

Oral LD50	Based on ATE data, the classification criteria are not met. ATE > 2000 mg/kg.
Dermal LD50	Based on ATE data, the classification criteria are not met. ATE > 2000 mg/kg.
Mist LC50	Category 3. ATE = 1 - 5 mg/l. Category 4.
Vapor LC50	Based on ATE data, the classification criteria are not met. ATE > 20 mg/l.

Component Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Nitric acid …% [C ≤ 70 %]	Not listed	Not listed	LC50 = 2500 ppm. (Rat) 1h
Water	-	-	-

Toxicologically Synergistic Products No information available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Irritation Causes severe burns by all exposure routes

Sensitization No information available

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Component	CAS No	IARC	NTP	ACGIH	OSHA	Mexico
Nitric acid …% [C ≤ 70 %]	7697-37-2	Not listed	Not listed	Not listed	Not listed	Not listed
Water	7732-18-5	Not listed	Not listed	Not listed	Not listed	Not listed

Mutagenic Effects No information available

Reproductive Effects No information available.

Developmental Effects No information available.

Teratogenicity No information available.

STOT - single exposure None known
STOT - repeated exposure None known

Aspiration hazard No information available

Symptoms / effects,both acute and delayed Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation: Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated

Endocrine Disruptor Information No information available

Other Adverse Effects The toxicological properties have not been fully investigated.

12. Ecological information

Ecotoxicity
Do not empty into drains. Large amounts will affect pH and harm aquatic organisms.

Persistence and Degradability Miscible with water Persistence is unlikely based on information available.

Bioaccumulation/ Accumulation No information available.

Mobility Will likely be mobile in the environment due to its water solubility.

Component	log Pow
Nitric acid …% [C ≤ 70 %]	-2.3

13. Disposal considerations

Waste Disposal Methods Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

14. Transport information

DOT
UN-No UN2031
Proper Shipping Name NITRIC ACID
Hazard Class 8
Subsidiary Hazard Class 5.1
Packing Group II

TDG
UN-No UN2031

Proper Shipping Name	NITRIC ACID
Hazard Class	8
Subsidiary Hazard Class	5.1
Packing Group	II

IATA

UN-No	UN2031
Proper Shipping Name	NITRIC ACID
Hazard Class	8
Subsidiary Hazard Class	5.1
Packing Group	II

IMDG/IMO

UN-No	UN2031
Proper Shipping Name	NITRIC ACID
Hazard Class	8
Subsidiary Hazard Class	5.1
Packing Group	II

15. Regulatory information

United States of America Inventory

Component	CAS No	TSCA	TSCA Inventory notification - Active-Inactive	TSCA - EPA Regulatory Flags
Nitric acid …% [C ≤ 70 %]	7697-37-2	X	ACTIVE	-
Water	7732-18-5	X	ACTIVE	-

Legend:
TSCA US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)
X - Listed
'-' - Not Listed

TSCA 12(b) - Notices of Export Not applicable

International Inventories
Canada (DSL/NDSL), Europe (EINECS/ELINCS/NLP), Philippines (PICCS), Japan (ENCS), Japan (ISHL), Australia (AICS), China (IECSC), Korea (KECL).

Component	CAS No	DSL	NDSL	EINECS	PICCS	ENCS	ISHL	AICS	IECSC	KECL
Nitric acid …% [C ≤ 70 %]	7697-37-2	X	-	231-714-2	X	X	X	X	X	KE-25911
Water	7732-18-5	X	-	231-791-2	X	X		X	X	KE-35400

KECL - NIER number or KE number (http://ncis.nier.go.kr/en/main.do)

U.S. Federal Regulations

SARA 313

Component	CAS No	Weight %	SARA 313 - Threshold Values %
Nitric acid …% [C ≤ 70 %]	7697-37-2	65 - 70	1.0

SARA 311/312 Hazard Categories See section 2 for more information

CWA (Clean Water Act)

Component	CWA - Hazardous Substances	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants
Nitric acid …% [C ≤ 70 %]	X	1000 lb	-	-

Clean Air Act Not applicable

OSHA - Occupational Safety and Health Administration

Component	Specifically Regulated Chemicals	Highly Hazardous Chemicals
Nitric acid …% [C ≤ 70 %]	-	TQ: 500 lb

CERCLA This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Component	Hazardous Substances RQs	CERCLA EHS RQs
Nitric acid …% [C ≤ 70 %]	1000 lb	1000 lb

California Proposition 65 This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Nitric acid …% [C ≤ 70 %]	X	X	X	X	X
Water	-	-	X	-	-

U.S. Department of Transportation

Reportable Quantity (RQ): Y
DOT Marine Pollutant N
DOT Severe Marine Pollutant N

U.S. Department of Homeland Security This product contains the following DHS chemicals:
Legend - STQs = Screening Threshold Quantities, APA = A placarded amount

Component	DHS Chemical Facility Anti-Terrorism Standard
Nitric acid …% [C ≤ 70 %]	Release STQs - 15000lb Theft STQs - 400lb

Other International Regulations

Mexico - Grade No information available

Authorisation/Restrictions according to EU REACH

Component	REACH (1907/2006) - Annex XIV - Substances Subject to Authorization	REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances	REACH Regulation (EC 1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC)
Nitric acid …% [C ≤ 70 %]	-	Use restricted. See item 75. (see link for restriction details)	-

https://echa.europa.eu/substances-restricted-under-reach

Safety, health and environmental regulations/legislation specific for the substance or mixture

Component	CAS No	OECD HPV	Persistent Organic Pollutant	Ozone Depletion Potential	Restriction of Hazardous Substances (RoHS)
Nitric acid …% [C ≤ 70 %]	7697-37-2	Listed	Not applicable	Not applicable	Not applicable
Water	7732-18-5	Listed	Not applicable	Not applicable	Not applicable

Component	CAS No	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements	Rotterdam Convention (PIC)	Basel Convention (Hazardous Waste)
Nitric acid …% [C ≤ 70 %]	7697-37-2	Not applicable	Not applicable	Not applicable	Annex I - Y34
Water	7732-18-5	Not applicable	Not applicable	Not applicable	Not applicable

16. Other information

Prepared By	Regulatory Affairs Thermo Fisher Scientific Email: EMSDS.RA@thermofisher.com
Creation Date	12-Mar-2009
Revision Date	24-Dec-2021
Print Date	24-Dec-2021
Revision Summary	SDS sections updated. 2. 11.

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of SDS

M. REFERENCES

HSCA Health and Safety Plan 2014

Appendix B

Sampling Narrative dated July 22, 2024

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DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL CLEANUP AND BROWNFIELDS

NARRATIVE REPORT FORM

Facility Name: Alliance 51st Street **Primary Facility ID:** 855927

Inspection Date: July 22, 2024	**Inspection Time:** 0930 - 1330	**Lat/Long:** 39.93496631230625, -75.20914844926827	
Inspecting Program:	☐ **Storage Tanks**	☒ **HSCA**	☒ **LRP**
Owner Name: Alliance 51st Street LLC	**Inspection Number:** N/A	**Site ID:** N/A	

Facility Location (911) Address: 1646 South 51st Street Philadelphia, PA 19143	**Municipality:** Philadelphia **County:** Philadelphia
Responsible Official Name: Max Ryan **Responsible Official Title:** Director of Development and Construction – Alliance 51st Street LLC	**Responsible Official Address:** 40 Morris Avenue, Suite 230 Bryn Mawr, PA 19010
Responsible Official Telephone: 856-699-1105 **Responsible Official Fax:** Not applicable	**Email Address:** mryan@alliancehsp.com

Narrative:

Attendee List

- PADEP – Matthew Sabetta, Christine McCarthy, Jenna Kokoskie, and Tim Cherry
- Arcadis – Matt Hilinski

Purpose of Visit

- DEP on site to collect soil and surface water analytical samples along the pedestrian bike path that runs along the east edge of the Alliance property boundary. Arcadis on site to collect split samples from all DEP sample locations.

Discussion

- 9:30 – DEP arrived onsite and met the representative from Arcadis, consultants working on behalf of Alliance 51st Street LLC at S 51st St entrance to bike trail.
- It was noted that more heavy pieces of equipment were onsite than during DEP's 7/17/24 Site Visit. Fugitive dust was observed as equipment traveled across the site.
- Personnel on the Alliance site were constructing additional measures to prevent further surface water discharges from the site. They actively worked in this area for the duration of DEP's sampling activities.

DEP Representatives Name	DEP Representative Signatures	Titles	Date: July 22, 2024
Matthew Sabetta	Matthew Sabetta	LPG	Telephone: 484-250-5788
Christine McCarthy	Christine McCarthy	Solid Waste Supervisor	484-250-5725

Signature by the person interviewed does not necessarily imply concurrence with the findings on this report, but does acknowledge that the person was shown the report or that a copy was left with the person.

Name of Person Interviewed	Signature of Person Interviewed	Title	Date:
			Telephone:

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BUREAU OF ENVIRONMENTAL CLEANUP AND BROWNFIELDS

NARRATIVE REPORT FORM

Facility Name: **Alliance 51st Street** **Primary Facility ID:** **855927**

- The sampling was performed in accordance with the July 19, 2024, Sampling and Analysis plan for the Site.
- DEP marked the locations where soil samples were to be collected. A total of 11 soil sample locations were chosen. Additional location information is included in the table and photos below.
- It was noted that the accumulated sediment/material that was previously observed on the asphalt trail had been scraped away and was no longer present. Sediment socks have been placed on the trail in front of all drainpipes/ports.
- 10:30 – Began soil sample collection. Samples were collected from the first occurrence of surface soil or from accumulated material that appeared to have been transported and deposited by runoff from the Alliance Site. All soil samples were collected using disposable scoops. At each location, DEP collected a sample first, followed by Arcadis. Additional collection information is included in the table below. A shovel was used to clear rocks or grass in two locations as noted in the table below. The shovel was decontaminated with Alconox and DI water rinses between each use.
- A duplicate sample was collected with the DEP51-S6 sample for quality control purposes.
- A total of 11 soil samples and 1 duplicate were collected for the following analyses: TCL VOCs 4.3 by 8260D, Total Metals TAL List by 6020B, Hexavalent Chromium by 7196A, Trivalent Chromium Calculation by 7199 CR3, and Percent Moisture.
- 12:05 – Began collecting surface water samples from 4 locations in the Schuylkill River along the trail. Additional location information is included in the table and photos below.
- All surface water samples were collected with disposable bailers.
- A duplicate sample was collected with the DEP51-W1 sample for quality control purposes.
- A total of 4 surface water samples and 1 duplicate were collected for the following analyses: TCL VOCs 4.3 by 8260D, Total Metals TAL List by 6020B, Hexavalent Chromium by 7196A, and Trivalent Chromium Calculation by 7199 CR3.
- Samples were field filtered with 0.45-micron filters prior to filling the Total Metals and Chromium sample containers. At each location, DEP collected a sample first, followed by Arcadis.
- Two laboratory-filled trip blanks were labeled for transport in each sample cooler, for analysis of TCL VOCs 4.3 by 8260D.
- 13:30 – DEP and Arcadis completed sample collection. DEP offsite.

DEP transported all samples (11 soil, 4 surface water, 2 duplicates, 2 trip blanks) back to the DEP office in Norristown for transfer to Eurofins courier. All samples transferred to Eurofins courier at 15:00 for same day transport to Eurofins Lancaster Laboratories Environmental. A 3-day Rush Turn Around Time was ordered. The Chain of Custody is attached to this Narrative Report.

DEP Representatives Name	DEP Representative Signatures	Titles	Date: July 22, 2024
Matthew Sabetta	Matthew Sabetta	LPG	Telephone: 484-250-5788
Christine McCarthy	Christine McCarthy	Solid Waste Supervisor	484-250-5725
Signature by the person interviewed does not necessarily imply concurrence with the findings on this report, but does acknowledge that the person was shown the report or that a copy was left with the person.			
Name of Person Interviewed	**Signature of Person Interviewed**	**Title**	**Date:** / **Telephone:**

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Facility Name: Alliance 51st Street **Primary Facility ID:** 855927

Table 1 – Sample Summary

Location ID	Media	Latitude	Longitude	Sample Date	Sample Time	PID	Description of Location
DEP51-S1	Soil	39.93537	-75.207096	7/22/2024	10:30	0.0	Directly next to Alliance property fence line next to discharge area; Collector scraped surface soil with shovel prior to collection. Area was dry and rocky.
DEP51-S2	Soil	39.935366	-75.207067	7/22/2024	10:45	0.0	Downgradient from fence within 1ft of trail near area of white "staining" on the asphalt.
DEP51-S3	Soil	39.935356	-75.207073	7/22/2024	10:50	--	Collected 5ft south of DEP51-S2, directly next to trail and area of white "staining".
DEP51-S4	Soil	39.93536	-75.206877	7/22/2024	11:00	--	Collected on opposite side of trail from Alliance site near base of the cell phone tower.
DEP51-S5	Soil	39.935184	-75.206794	7/22/2024	11:05	--	Collected from downgradient side of drainpipe (i.e. river side). This is the first visible drainpipe that drains runoff from the trail.
DEP51-S6 Duplicate	Soil	39.935205	-75.206767	7/22/2024	11:10	--	Located about 15ft downgradient of DEP51-S5 as close to the river as possible before concrete.
DEP51-S7	Soil	39.935121	-75.206807	7/22/2024	11:15	--	Located about 20ft south of the first drain, this is accumulated material in what appeared to be a former drain or crack.
DEP51-S8	Soil	39.935084	-75.206832	7/22/2024	11:20	--	Collected riverside downgradient of second drain.

DEP Representatives Name	DEP Representative Signatures	Titles	Date: July 22, 2024
Matthew Sabetta Christine McCarthy	Matthew Sabetta Christine McCarthy	LPG Solid Waste Supervisor	**Telephone:** 484-250-5788 484-250-5725
Signature by the person interviewed does not necessarily imply concurrence with the findings on this report, but does acknowledge that the person was shown the report or that a copy was left with the person.			
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NARRATIVE REPORT FORM

Facility Name: Alliance 51st Street **Primary Facility ID:** 855927

DEP51-S9	Soil	39.935289	-75.206831	7/22/2024	11:25	--	Collected from a crack or former drain where material accumulated between locations DEP51-S4 and DEP51-S5; located directly below train bridge.
DEP51-S10	Soil	39.935034	-75.206867	7/22/2024	11:30	--	Collected furthest downgradient from Alliance site in front of last drain. There was no material to sample on the river side of the drain.
DEP51-S11	Soil	39.935467	-75.207185	7/22/2024	11:40	--	Collected upgradient from the discharge area on Alliance side of the trail. Located about 50ft north of the discharge area. Collector removed grass from sample location with shovel and collected first soil encountered.
DEP51-W1 Duplicate	Surface Water	39.935217	-75.20661	7/22/2024	12:05	--	Surface water sample collected next to DEP51-S5 and DEP51-S6
DEP51-W2	Surface Water	39.935002	-75.206901	7/22/2024	12:10	--	Surface water sample collected about 20ft south of DEP51-S10
DEP51-W3	Surface Water	39.933563	-75.20814	7/22/2024	12:15	--	Surface water sample collected from Bartram's Garden Boat dock/fishing pier
DEP51-W4	Surface Water	39.93783	-75.205992	7/22/2024	13:00	--	Surface water sample collected from upstream from fishing pier

PID readings were discontinued due to an instrument issue.

DEP Representatives Name	DEP Representative Signatures	Titles	Date: July 22, 2024
Matthew Sabetta Christine McCarthy	Matthew Sabetta Christine McCarthy	LPG Solid Waste Supervisor	**Telephone:** 484-250-5788 484-250-5725
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Facility Name: Alliance 51st Street **Primary Facility ID:** 855927

MAPS / PHOTOGRAPHS / ATTACHMENTS

Figure 1 – 7/22/24 DEP Sample Locations. Soil locations in pink, surface water locations in blue.

DEP Representatives Name	DEP Representative Signatures	Titles	Date: July 22, 2024
Matthew Sabetta Christine McCarthy	Matthew Sabetta Christine McCarthy	LPG Solid Waste Supervisor	**Telephone:** 484-250-5788 484-250-5725
Signature by the person interviewed does not necessarily imply concurrence with the findings on this report, but does acknowledge that the person was shown the report or that a copy was left with the person.			
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Facility Name: Alliance 51st Street **Primary Facility ID:** 855927

Figure 2 – 7/22/24 DEP Sampling Locations, close view. Soil locations in pink, surface water locations in blue.

DEP Representatives Name	DEP Representative Signatures	Titles	Date: July 22, 2024
Matthew Sabetta Christine McCarthy	Matthew Sabetta Christine McCarthy	LPG Solid Waste Supervisor	**Telephone:** 484-250-5788 484-250-5725
Signature by the person interviewed does not necessarily imply concurrence with the findings on this report, but does acknowledge that the person was shown the report or that a copy was left with the person.			
Name of Person Interviewed	**Signature of Person Interviewed**	**Title**	**Date:** **Telephone:**

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NARRATIVE REPORT FORM

Facility Name: Alliance 51st Street **Primary Facility ID:** 855927

Eurofins Lancaster Laboratories Environme
2425 New Holland Pike
Lancaster, PA 17601
Phone: 717-656-2300 Fax: 717-656-2681

Chain of Custody Record

eurofins | Environment Testing

Client Information	Sampler: Christine McCarthy	Lab PM: Sachtleben, Kerri S	Carrier Tracking No(s):	COC No: 410-127010-35441.1
Client Contact: Glorinés Suárez Rivera	Phone: 484-250-5725	E-Mail: Kerri.Sachtleben@et.eurofinsus.com	State of Origin: PA	Page: Page 1 of 2
Company: Pennsylvania Dept of Env Protection	PWSID:	Analysis Requested		Job #:
Address: 2 East Main Street	Due Date Requested:			Preservation Codes: N - Nitric Acid; H - Hydrochloric Acid; m - Methanol
City: Norristown	TAT Requested (days): RUSH 3 DAY TAT			
State, Zip: PA, 19401	Compliance Project: Δ Yes Δ No			
Phone: 484-250-5724(Tel)	PO #: Purchase Order Requested			
Email: gsuarezriv@pa.gov	WO #:			
Project Name: DEP 51st	Project #: 41020738			
Site: Alliance 51st Street Bike Trail	SSOW#:			Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260D TCL VOCs 4 S	6020B Total Metals TAL List	7196A Hex Chrom	7199 CR3 calc.	Percent Moisture	Total Number of containers	Special Instructions/Note:
			Preservation Code:				M						
DEP51-S1	7/22/24	1030	G	S			X	X	X	X	X	5	
DEP51-S2	7/22/24	1045	G	S			X	X	X	X	X	5	
DEP51-S3	7/22/24	1050	G	S			X	X	X	X	X	5	
DEP51-S4	7/22/24	1100	G	S			X	X	X	X	X	5	
DEP51-S5	7/22/24	1105	G	S			X	X	X	X	X	5	
DEP51-S6	7/22/24	1110	G	S			X	X	X	X	X	5	
DEP51-S7	7/22/24	1115	G	S			X	X	X	X	X	5	
DUP-S	7/22/24	—	G	S			X	X	X	X	X	5	
DEP51-S8	7/22/24	1120	G	S			X	X	X	X	X	5	
DEP51-S9	7/22/24	1125	G	S			X	X	X	X	X	5	
DEP51-S10	7/22/24	1130	G	S			X	X	X	X	X	5	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For ____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by: Date: 7/19/24 Time: 9:55 Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by: Christine McCarthy	Date/Time: 7/22/24 1500	Company PA DEP	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

Ver: 04/02/2024

DEP Representatives Name	DEP Representative Signatures	Titles	Date: July 22, 2024
Matthew Sabetta	Matthew Sabetta	LPG	Telephone: 484-250-5788
Christine McCarthy	Christine McCarthy	Solid Waste Supervisor	484-250-5725

Signature by the person interviewed does not necessarily imply concurrence with the findings on this report, but does acknowledge that the person was shown the report or that a copy was left with the person.

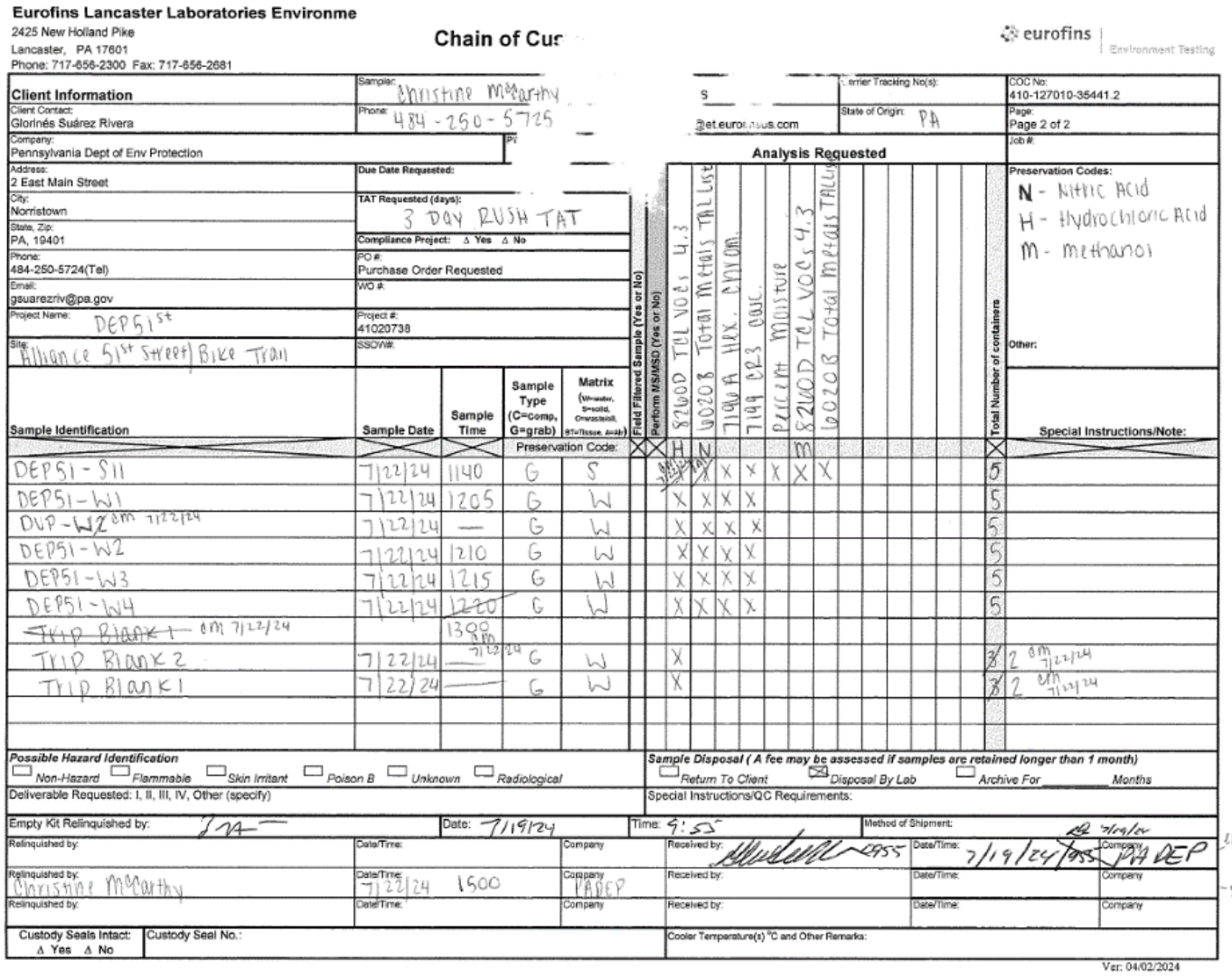
Name of Person Interviewed	Signature of Person Interviewed	Title	Date:
			Telephone:

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL CLEANUP AND BROWNFIELDS

NARRATIVE REPORT FORM

Facility Name: Alliance 51st Street **Primary Facility ID:** 855927



Eurofins Lancaster Laboratories Environme
2425 New Holland Pike
Lancaster, PA 17601
Phone: 717-656-2300 Fax: 717-656-2681

Chain of Cus

eurofins | Environment Testing

Client Information	Sampler: Christine McCarthy		Carrier Tracking No(s):	COC No: 410-127010-35441.2
Client Contact: Glorinés Suárez Rivera	Phone: 484-250-5725	@et.eurofinsus.com	State of Origin: PA	Page: Page 2 of 2
Company: Pennsylvania Dept of Env Protection	PWSID:	Analysis Requested		Job #:
Address: 2 East Main Street	Due Date Requested:			Preservation Codes: N - Nitric Acid; H - Hydrochloric Acid; M - methanol
City: Norristown	TAT Requested (days): 3 DAY RUSH TAT			
State, Zip: PA, 19401	Compliance Project: Δ Yes Δ No			
Phone: 484-250-5724(Tel)	PO #: Purchase Order Requested			
Email: gsuarezriv@pa.gov	WO #:			
Project Name: DEP51st	Project #: 41020738			Other:
Site: Alliance 51st Street/Bike Trail	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260D TCL VOCs 4.3	6020B Total Metals TAL List	7196A Hex. Chrom.	7199 Cl2 Gas	Percent Moisture	8260D TCL VOCs 4.3	6020B Total Metals TAL List	Total Number of containers	Special Instructions/Note:
			Preservation Code:				H	N			M				
DEP51-S11	7/22/24	1140	G	S			X	X	X	X	X	X		5	
DEP51-W1	7/22/24	1205	G	W			X	X	X	X				5	
DUP-W2	7/22/24	—	G	W			X	X	X	X				5	
DEP51-W2	7/22/24	1210	G	W			X	X	X	X				5	
DEP51-W3	7/22/24	1215	G	W			X	X	X	X				5	
DEP51-W4	7/22/24	1220	G	W			X	X	X	X				5	
~~Trip Blank 1~~		1300													
Trip Blank 2	7/22/24	—	G	W			X							3 2	
Trip Blank 1	7/22/24	—	G	W			X							3 2	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For ____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date: 7/19/24	Time: 9:55	Method of Shipment:		
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 7/19/24 1055	Company PA DEP
Relinquished by: Christine McCarthy	Date/Time: 7/22/24 1500	Company PADEP	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

Ver: 04/02/2024

empty kit
sample

DEP Representatives Name	DEP Representative Signatures	Titles	Date: July 22, 2024
Matthew Sabetta	Matthew Sabetta	LPG	Telephone: 484-250-5788
Christine McCarthy	Christine McCarthy	Solid Waste Supervisor	484-250-5725

Signature by the person interviewed does not necessarily imply concurrence with the findings on this report, but does acknowledge that the person was shown the report or that a copy was left with the person.

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			Telephone:

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

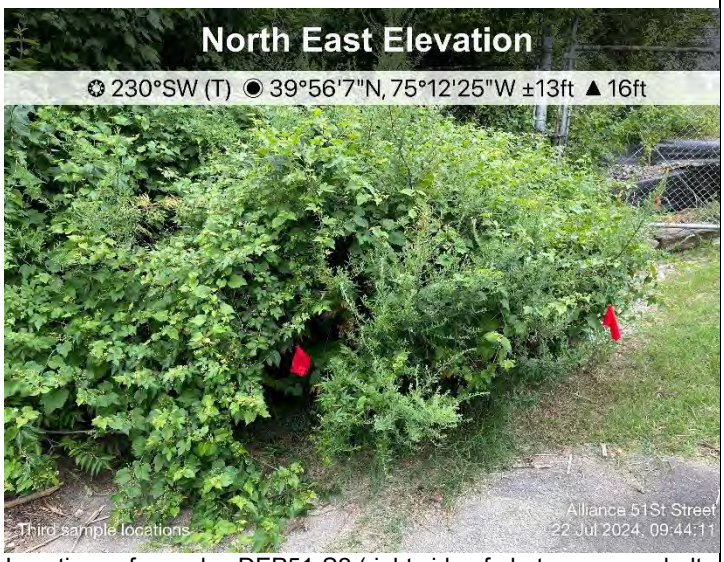
COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL CLEANUP AND BROWNFIELDS

NARRATIVE REPORT FORM

Facility Name: Alliance 51st Street **Primary Facility ID:** 855927

Additional surface water control measures installed onsite

Locations of samples DEP51-S1 (right side of photo, near fence) and DEP51-S2 (left side of photo, near asphalt trail)



Locations of samples DEP51-S2 (right side of photo, near asphalt trail) and DEP51-S3 (center of photo, in brush)

DEP Representatives Name	DEP Representative Signatures	Titles	Date: July 22, 2024
Matthew Sabetta Christine McCarthy	Matthew Sabetta Christine McCarthy	LPG Solid Waste Supervisor	**Telephone:** 484-250-5788 484-250-5725
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Facility Name: Alliance 51st Street **Primary Facility ID:** 855927

Location of sample DEP51-S4

Location of sample DEP51-S5 (behind concrete barrier). New sediment sock blocking drain.

Location of sample DEP51-S6 and Duplicate-S

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NARRATIVE REPORT FORM

Facility Name: Alliance 51st Street **Primary Facility ID:** 855927

View of DEP51-S7 location

View of DEP51-S8 loaction. Collected downgradient of second drain pipe.

View of DEP51-S9 collected from a former drain or crack with accumulated material.

View of DEP51-S10 collected from a former drain or crack with accumualted material.

DEP Representatives Name	DEP Representative Signatures	Titles	Date: July 22, 2024
Matthew Sabetta Christine McCarthy	Matthew Sabetta Christine McCarthy	LPG Solid Waste Supervisor	**Telephone:** 484-250-5788 484-250-5725
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NARRATIVE REPORT FORM

Facility Name: Alliance 51st Street **Primary Facility ID:** 855927

View of sample locations DEP51-S2 and DEP51-S3

Location of sample DEP51-S11, upgradient from discharge/runoff from Site

View of surface water sample location DEP51-W1 and Duplicate-W.

View of surface water location DEP51-W2 from looking north east toward train bridge.

DEP Representatives Name	DEP Representative Signatures	Titles	Date: July 22, 2024
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NARRATIVE REPORT FORM

Facility Name: Alliance 51st Street **Primary Facility ID:** 855927

View of surface water location DEP51-W3 from Bartram's Garden fishing dock.

View of location DEP51-W4 collected from Bartram's Mile Fishing Pier.

DEP Representatives Name	DEP Representative Signatures	Titles	Date: July 22, 2024
Matthew Sabetta Christine McCarthy	Matthew Sabetta Christine McCarthy	LPG Solid Waste Supervisor	**Telephone:** 484-250-5788 484-250-5725
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Name of Person Interviewed	**Signature of Person Interviewed**	**Title**	**Date:** **Telephone:**

Sampling Narrative dated August 13, 2024

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NARRATIVE REPORT FORM

Facility Name: Alliance 51st Street **Primary Facility ID:** 855927

Inspection Date: August 13, 2024	**Inspection Time:** 09:55-13:10	**Lat/Long:** 39.93496631230625, -75.20914844926827	
Inspecting Program:	☐ **Storage Tanks**	☒ **HSCA**	☒ **LRP**
Owner Name: Alliance 51st Street LLC	**Inspection Number:** N/A	**Site ID:** N/A	

Facility Location (911) Address: 1646 South 51st Street Philadelphia, PA 19143	**Municipality:** Philadelphia **County:** Philadelphia
Responsible Official Name: Max Ryan **Responsible Official Title:** Director of Development and Construction – Alliance 51st Street LLC	**Responsible Official Address:** 40 Morris Avenue, Suite 230 Bryn Mawr, PA 19010
Responsible Official Telephone: 856-699-1105 **Responsible Official Fax:** Not applicable	**Email Address:** mryan@alliancehsp.com

Narrative:

Attendee List

- PADEP – Matthew Sabetta, Christine McCarthy, and Jenna Kokoskie
- Arcadis – Matt Hilinski

Purpose of Visit

- DEP on site to collect confirmatory post cleanup soil analytical samples along the pedestrian bike path that runs along the east edge of the Alliance property boundary. Arcadis on site to collect split samples from all DEP sample locations.
- Determine if surface water is present in the drainage swale located on the Alliance property to allow for sample collected and laboratory analysis.

Discussion

- 9:55 – DEP arrived onsite and met the representative from Arcadis, consultants working on behalf of Alliance 51st Street LLC, at S 51st St entrance to bike trail.
- The sampling was performed in accordance with the August 12, 2024, Sampling and Analysis plan for the Site.

DEP Representatives Name	DEP Representative Signatures	Titles	Date: August 13, 2024
Matthew Sabetta Christine McCarthy	Matthew Sabetta Christine McCarthy	LPG Solid Waste Supervisor	**Telephone:** 484-250-5788 484-250-5725

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NARRATIVE REPORT FORM

Facility Name: **Alliance 51st Street** **Primary Facility ID:** **855927**

- DEP marked the locations where soil samples were to be collected. A total of 10 soil sample locations were chosen that included six previously sample locations and four new ones. Additional location information is included in the table and photos below.
- Sediment socks were still in place on the trail in front of all drainpipes/ports. However, some areas of accumulated sediment were present on the side of the trail closest to the river. It could not be determined if the sediment originated from the Alliance property or from another area along the trail.
- 10:30 – Began soil sample collection. Samples were collected from the first occurrence of surface soil or from accumulated material that appeared to have been transported and deposited by runoff on the trail. All soil samples were collected using disposable scoops. At each location, soil was homogenized prior to collection by both the Department and Arcadis. Additional collection information is included in the table below. A shovel was used to clear grass at the DEP51-S12 location. The shovel was decontaminated with Alconox and DI water rinses prior to use.
- A duplicate sample was collected with the DEP51-S6 and DEP51-S12 samples for quality control purposes.
- A total of 10 soil samples and 2 duplicates were collected for the following analyses: Total Metals TAL List by 6020B, Hexavalent Chromium by 7196A, and Trivalent Chromium Calculation by 7196A.
- 12:00 – Accessed to the Alliance property was granted. The purpose of accessing the property was to determine if water was present in swale located along the southern property boundary for sample collection.
- While walking to the drainage swale, potentially "green" stained soil was visible near the southwestern corner of the property near start of the drainage swale.
- Two areas of "green" pooled water were present prior to the first berm.
- Samples were collected with either a syringe (DP51-W5) or bailer (DEP51-W6).
- A total of 2 surface water samples were collected for the following analyses: Dissolved Metals TAL List by 6020B, Hexavalent Chromium by 7196A, and Trivalent Chromium Calculation by 7196A.
- Aqueous samples were field filtered with 0.45-micron filters prior to filling the Total Metals and Chromium sample containers. Split samples were collected by Arcadis by alternating filling sample bottles during filtering.
- 13:10 – DEP and Arcadis completed sample collection. DEP offsite.

DEP transported all samples (10 soil, 2 surface water, 2 soil duplicates) back to the DEP office in Norristown for transfer to Eurofins courier. All samples transferred to Eurofins courier at 14:45 for same day transport to Eurofins Lancaster Laboratories Environmental. A 3-day Rush Turn Around Time was ordered. The Chain of Custody is attached to this Narrative Report.

DEP Representatives Name	DEP Representative Signatures	Titles	Date: August 13, 2024
Matthew Sabetta Christine McCarthy	Matthew Sabetta Christine McCarthy	LPG Solid Waste Supervisor	Telephone: 484-250-5788 484-250-5725
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NARRATIVE REPORT FORM

Facility Name: Alliance 51st Street **Primary Facility ID:** 855927

Table 1 – Sample Summary

Location ID	Media	Latitude	Longitude	Sample Date	Sample Time	Description of Location
DEP51-S3	Soil	39.935363	-75.207062	8/13/2024	10:55	collected from original location; next to stone area
DEP51-S5	Soil	39.935167	-75.206775	8/13/2024	11:10	collected from downgradient side of drainpipe (i.e. river side). This is the first visible drainpipe that drains runoff from the trail
DEP51-S6 DUP-SB	Soil	39.935262	-75.206703	8/13/2024	11:20	Located about 15ft downgradient of DEP51-S5 as close to the river as possible before concrete
DEP51-S7	Soil	39.935146	-75.206808	8/13/2024	11:25	Located about 20ft south of the first drain, this is accumulated material in what appeared to be a former drain or crack
DEP51-S8A	Soil	39.935115	-75.206873	8/13/2024	11:30	Collected riverside downgradient of second drain; collected ~5ft from drain and original location
DEP51-S10A	Soil	39.935056	-75.206899	8/13/2024	11:35	Collected furthest downgradient of Alliance site in front of last drain. Sample collected from ~5ft from original location
DEP51-S12 DUP-SA	Soil	39.935421	-75.207091	8/13/2024	10:51	Surface soil sample collected from near Alliance fence; ~5ft from stone.
DEP51-S13	Soil	39.935316	-75.206798	8/13/2024	11:05	Scraped sediment accumulated on trail ~20ft north of first drainpipe.

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NARRATIVE REPORT FORM

Facility Name: **Alliance 51st Street** **Primary Facility ID:** **855927**

DEP51-S14	Soil	39.934989	-75.206938	8/13/2024	11:45	Surface soil collected ~10ft north of the trail gate on Bartram's Garden property.
DEP51-S15	Soil	39.934885	-75.207088	8/13/2024	11:55	Surface soil collected from ~25ft south of gate on Bartram's Garden Property
DEP51-W5	Surface Water	39.934989	-75.208952	8/13/2024	12:30	pooled water next to first berm in onsite swale
DEP51-W6	Surface Water	39.934886	-75.209468	8/13/2024	12:55	pooled water from head of onsite swale near unknown pipe/outlet

DEP Representatives Name	**DEP Representative Signatures**	**Titles**	**Date:** August 13, 2024
Matthew Sabetta Christine McCarthy	Matthew Sabetta Christine McCarthy	LPG Solid Waste Supervisor	**Telephone:** 484-250-5788 484-250-5725
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Facility Name: Alliance 51st Street **Primary Facility ID:** 855927

MAPS / PHOTOGRAPHS / ATTACHMENTS

Figure 1 – 8/13/24 DEP Soil Sample Locations.

DEP Representatives Name	DEP Representative Signatures	Titles	Date: August 13, 2024
Matthew Sabetta Christine McCarthy	Matthew Sabetta Christine McCarthy	LPG Solid Waste Supervisor	**Telephone:** 484-250-5788 484-250-5725
Signature by the person interviewed does not necessarily imply concurrence with the findings on this report, but does acknowledge that the person was shown the report or that a copy was left with the person.			
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NARRATIVE REPORT FORM

Facility Name: Alliance 51st Street **Primary Facility ID:** 855927

Figure 2 – 8/13/4 DEP Surface Water Sample Locations

DEP Representatives Name	DEP Representative Signatures	Titles	Date: August 13, 2024
Matthew Sabetta Christine McCarthy	Matthew Sabetta Christine McCarthy	LPG Solid Waste Supervisor	**Telephone:** 484-250-5788 484-250-5725
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NARRATIVE REPORT FORM

Facility Name: **Alliance 51st Street** **Primary Facility ID:** **855927**

Eurofins Lancaster Laboratories Environme
2425 New Holland Pike
Lancaster, PA 17601
Phone: 717-656-2300 Fax: 717-656-2681

Chain of Custody Record

eurofins | Environment Testing

Client Information	Sampler: Christine McCarthy	Lab PM: Sachtleben, Kerri S	Carrier Tracking No(s):	COC No: 410-128513-35441.1
Client Contact: Glorinés Suárez Rivera	Phone: 484-250-5725	E-Mail: Kerri.Sachtleben@et.eurofinsus.com	State of Origin: PA	Page: Page 1 of 2
Company: Pennsylvania Dept of Env Protection	PWSID:	Analysis Requested		Job #:
Address: 2 East Main Street	Due Date Requested:			Preservation Codes: U-unpreserved
City: Norristown	TAT Requested (days): 3 DAY RUSH			
State, Zip: PA, 19401	Compliance Project: Δ Yes Δ No			
Phone: 484-250-5724(Tel)	PO #: 188260			
Email: gsuarezriv@pa.gov	WO #:			
Project Name: DEP 51st	Project #: 41020738			Other:
Site: Alliance 51st St Bartram's Trail	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020B Total Metals	7196A Hexavalent Chromium	7196A Trivalent Chromium Calc	Total Number of containers	Special Instructions/Note:
			Preservation Code:				U	U	U		
DEP51-S12-240813	8/13/24	1051	G	S			X	X	X	1	
DUP-SA-240813	8/13/24	—	G	S			X	X	X	1	
DEP51-S3-240813	8/13/24	1055	G	S			X	X	X	1	
DEP51-S5-240813	8/13/24	1110	G	S			X	X	X	1	
DEP51-S6-240813	8/13/24	1120	G	S			X	X	X	1	
DUP-SB-240813	8/13/24	—	G	S			X	X	X	1	
DEP51-S13-240813	8/13/24	1105	G	S			X	X	X	1	
DEP51-S7-240813	8/13/24	1125	G	S			X	X	X	1	
DEP51-S8A-240813	8/13/24	1130	G	S			X	X	X	1	
DEP51-S10A-240813	8/13/24	1135	G	S			X	X	X	1	
DEP51-S14-240813	8/13/24	1145	G	S			X	X	X	1	

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
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Deliverable Requested: I, II, III, IV, Other (specify) II

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Christine McCarthy	8/13/24 1445	PADEP			
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No	Custody Seal No.:	Cooler Temperature(s) °C and Other Remarks:

Ver: 04/02/2024

DEP Representatives Name	DEP Representative Signatures	Titles	Date: August 13, 2024
Matthew Sabetta	Matthew Sabetta	LPG	Telephone: 484-250-5788
Christine McCarthy	Christine McCarthy	Solid Waste Supervisor	484-250-5725

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NARRATIVE REPORT FORM

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Lancaster, PA 17601
Phone: 717-656-2300 Fax: 717-656-2681

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Company: Pennsylvania Dept of Env Protection	PWSID:	Analysis Requested		Job #:
Address: 2 East Main Street	Due Date Requested:			Preservation Codes: U=unpreserved N=Nitric acid
City: Norristown	TAT Requested (days): 3 DAY RUSH			
State, Zip: PA, 19401	Compliance Project: Δ Yes Δ No			
Phone: 484-250-5724(Tel)	PO #: 188260			
Email: gsuarezriv@pa.gov	WO #:			
Project Name: DEP 51st	Project #: 41020738			Other:
Site: Alliance 51st St/ Bartram's Trail	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=wasteoil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	00208 Total Metals	7196A Hexavalent Chromium	7196A Dissolved Hexavalent Chromium	00208 Dissolved Metals	7196A Hexavalent Chromium	7196A Trivalent Chromium Calc	Total Number of containers	Special Instructions/Note:
			Preservation Code:				U	U	U	N	U	U		
DEP51-SS-240813	8/13/24	1155	G	S			X	X	X				1	
DEP51-WS-240813	8/13/24	1230	G	W	X					X	X	X	2	Field Filtered
DEP51-WD-240813	8/13/24	1255	G	W	X					X	X	X	2	Field Filtered

Possible Hazard Identification: ☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify) II

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by: Christine McCarthy	Date/Time: 8/13/24 1445	Company PADEP	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

Ver: 04/02/2024

DEP Representatives Name	DEP Representative Signatures	Titles	Date: August 13, 2024
Matthew Sabetta Christine McCarthy	Matthew Sabetta Christine McCarthy	LPG Solid Waste Supervisor	Telephone: 484-250-5788 484-250-5725
Signature by the person interviewed does not necessarily imply concurrence with the findings on this report, but does acknowledge that the person was shown the report or that a copy was left with the person.			
Name of Person Interviewed	**Signature of Person Interviewed**	**Title**	**Date:** **Telephone:**

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL CLEANUP AND BROWNFIELDS

NARRATIVE REPORT FORM

Facility Name: Alliance 51st Street **Primary Facility ID:** 855927

Current conditions on the trail where original discharge was noted.

Current conditions on the trail looking toward Alliance property.

Dried sediment on trail under railroad bridge.

View of DEP51-S3. Sampled from surface soil adjacent stone.

DEP Representatives Name	DEP Representative Signatures	Titles	Date: August 13, 2024
Matthew Sabetta Christine McCarthy	Matthew Sabetta Christine McCarthy	LPG Solid Waste Supervisor	**Telephone:** 484-250-5788 484-250-5725
Signature by the person interviewed does not necessarily imply concurrence with the findings on this report, but does acknowledge that the person was shown the report or that a copy was left with the person.			
Name of Person Interviewed	**Signature of Person Interviewed**	**Title**	**Date:** **Telephone:**

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL CLEANUP AND BROWNFIELDS

NARRATIVE REPORT FORM

Facility Name: Alliance 51st Street **Primary Facility ID:** 855927

View of DEP51-S5 and DEP51-S6/DUP-SB

View of DEP51-S5 and DEP51-S6/DUP-SB

View of DEP51-S7 sampled from accumulated material behind sock.

Location of sample DEP51-S8A; sample collected from accumulated soil as close as possible to original location.

DEP Representatives Name	DEP Representative Signatures	Titles	Date: August 13, 2024
Matthew Sabetta Christine McCarthy	Matthew Sabetta Christine McCarthy	LPG Solid Waste Supervisor	**Telephone:** 484-250-5788 484-250-5725
Signature by the person interviewed does not necessarily imply concurrence with the findings on this report, but does acknowledge that the person was shown the report or that a copy was left with the person.			
Name of Person Interviewed	**Signature of Person Interviewed**	**Title**	**Date:** **Telephone:**

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL CLEANUP AND BROWNFIELDS

NARRATIVE REPORT FORM

Facility Name: Alliance 51st Street **Primary Facility ID:** 855927

View of DEP51-S10A; location moved to where sediment was present

View of DEP51-S12 located in grass adjacent to soil removal area.

View of sample location DEP51-S13; sediment on trail

Overview of DEP51-S13 showing sediment on trail.

DEP Representatives Name	DEP Representative Signatures	Titles	Date: August 13, 2024
Matthew Sabetta Christine McCarthy	Matthew Sabetta Christine McCarthy	LPG Solid Waste Supervisor	**Telephone:** 484-250-5788 484-250-5725
Signature by the person interviewed does not necessarily imply concurrence with the findings on this report, but does acknowledge that the person was shown the report or that a copy was left with the person.			
Name of Person Interviewed	**Signature of Person Interviewed**	**Title**	**Date:** **Telephone:**

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL CLEANUP AND BROWNFIELDS

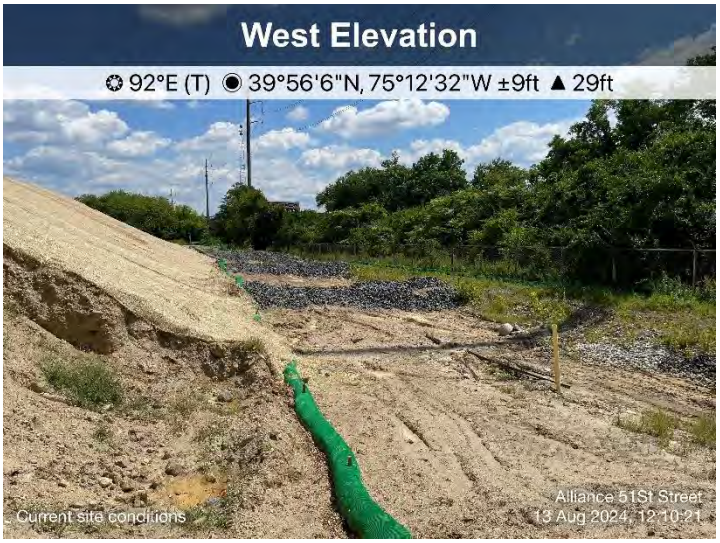
NARRATIVE REPORT FORM

Facility Name: Alliance 51st Street **Primary Facility ID:** 855927

View of DEP51-S14 collected from surface soil in front of gate.

View of DEP51-S15 collected past the gate on Bartram's Garden property.

Ponded water upgradient of first berm.



View from top of first berm looking downgradient toward the River. No pooled water is present downgradient of first berm.

DEP Representatives Name	DEP Representative Signatures	Titles	Date: August 13, 2024
Matthew Sabetta Christine McCarthy	Matthew Sabetta Christine McCarthy	LPG Solid Waste Supervisor	**Telephone:** 484-250-5788 484-250-5725
Signature by the person interviewed does not necessarily imply concurrence with the findings on this report, but does acknowledge that the person was shown the report or that a copy was left with the person.			
Name of Person Interviewed	**Signature of Person Interviewed**	**Title**	**Date:** **Telephone:**

pennsylvania
DEPARTMENT OF ENVIRONMENTAL PROTECTION

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF ENVIRONMENTAL CLEANUP AND BROWNFIELDS

NARRATIVE REPORT FORM

Facility Name: Alliance 51st Street **Primary Facility ID:** 855927

View of DEP51-W5 sample location collected next to first berm within drainage swale.

View of location DEP51-W6 collected near unknown pipe from within drainage swale.

Visible green soil near drainage swale near southwestern corner of Alliance property.

Visible green soil near drainage swale near southwestern corner of Alliance property.

DEP Representatives Name	DEP Representative Signatures	Titles	Date: August 13, 2024
Matthew Sabetta Christine McCarthy	Matthew Sabetta Christine McCarthy	LPG Solid Waste Supervisor	**Telephone:** 484-250-5788 484-250-5725
Signature by the person interviewed does not necessarily imply concurrence with the findings on this report, but does acknowledge that the person was shown the report or that a copy was left with the person.			
Name of Person Interviewed	**Signature of Person Interviewed**	**Title**	**Date:** **Telephone:**

Appendix C

DEP (Eurofins) Laboratory Data Package received July 26, 2024 (revised)

eurofins | Environment Testing

ANALYTICAL REPORT

PREPARED FOR

Attn: Glorinés Suárez Rivera
Pennsylvania Dept of Env Protection
2 East Main Street
Norristown, Pennsylvania 19401

Generated 8/22/2024 5:11:25 PM Revision 1

JOB DESCRIPTION

DEP 51st

JOB NUMBER

410-180859-1

Eurofins Lancaster Laboratories Environment Testing, LLC
2425 New Holland Pike
Lancaster PA 17601

See page two for job notes and contact information.

my EOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization

Generated
8/22/2024 5:11:25 PM
Revision 1

Authorized for release by
Kerri Sachtleben, Client Services Group Leader
Kerri.Sachtleben@et.eurofinsus.com
(717)556-7376

Compliance Statement

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.
· QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
· Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
· Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. The foregoing express warranty is exclusive and is given in lieu of all other warranties, expressed or implied, except as otherwise agreed. We disclaim any other warranties, expressed or implied, including a warranty of fitness for particular purpose and warranty of merchantability. In no event shall Eurofins Lancaster Laboratories Environmental, LLC be liable for indirect, special, consequential, or incidental damages including, but not limited to, damages for loss of profit or goodwill regardless of (A) the negligence (either sole or concurrent) of Eurofins Lancaster Laboratories Environmental and (B) whether Eurofins Lancaster Laboratories Environmental has been informed of the possibility of such damages. We accept no legal responsibility for the purposes for which the client uses the test results. Except as otherwise agreed, no purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

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Definitions/Glossary

Client: Pennsylvania Dept of Env Protection
Project/Site: DEP 51st

Job ID: 410-180859-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*+	LCS and/or LCSD is outside acceptance limits, high biased.
*3	ISTD response or retention time outside acceptable limits.
^c	CCV Recovery is outside acceptance limits.
cn	Refer to Case Narrative for further detail
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

Metals

Qualifier	Qualifier Description
^2	Calibration Blank (ICB and/or CCB) is outside acceptance limits.
B	Analyte was found in the blank.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
!	Laboratory is not accredited for this parameter.
cn	Refer to Case Narrative for further detail

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Job Narrative
410-180859-1

REVISION

The report being provided is a revision of the original report sent on 7/26/2024. The report (revision 1) is being revised due to update to trivalent chromium method reference to be consistent with the hexavalent chromium method.

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 7/22/2024 4:10 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperatures of the 2 coolers at receipt time were 11.0°C and 14.5°C.

Receipt Exceptions
The Chain-of-Custody (COC) was incomplete as received. The COC is missing Sample Preservation. This does not meet regulatory requirements. The client stated that any samples without a preservation code were unpreserved.

GC/MS VOA
Method 8260D: The continuing calibration verification (CCV) associated with batch 410-531308 recovered outside acceptance criteria, low biased, for 2-Butanone. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Non-detections of the affected analytes are reported. Any detections are considered estimated.

Method 8260D: The continuing calibration verification (CCV) associated with batch 410-532050 recovered outside acceptance criteria, low biased, for 1,2-Dibromo-3-Chloropropane, 2-Hexanone, 4-Methyl-2-pentanone and Methyl acetate. A reporting limit (RL) standard was analyzed and non-detections of the affected analytes are reported. Any detections are considered estimated.

Method 8260D: The continuing calibration verification (CCV) associated with batch 410-532050 recovered above the upper control limit for Acetone, Bromomethane and Chloroethane. Non-detections of the affected analytes are reported. Any detections are considered estimated.

Method 8260D: The following volatiles samples were diluted due to foaming at the time of purging during the original sample analysis: DEP51-S7 (410-180859-7) and DUP-S (410-180859-8). Elevated reporting limits (RLs) are provided.

Method 8260D: Internal standard (ISTD) response for the following samples were outside control limits: DEP51-S6 (410-180859-6), DEP51-S8 (410-180859-9), DEP51-S9 (410-180859-10) and DEP51-S10 (410-180859-11). The sample(s) was re-extracted and/or re-analyzed and ISTD response was outside control limits.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
Method 7196A: The following samples were diluted due to the nature of the sample matrix: DEP51-S4 (410-180859-4), DEP51-S5 (410-180859-5), DEP51-S6 (410-180859-6), DEP51-S9 (410-180859-10) and DEP51-S11 (410-180859-12). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: Pennsylvania Dept of Env Protection
Project/Site: DEP 51st

Job ID: 410-180859-1

Client Sample ID: DEP51-S1 — Lab Sample ID: 410-180859-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	8200		14	6.7	mg/Kg	2	☼	6020B	Total/NA
Antimony	0.31		0.14	0.054	mg/Kg	2	☼	6020B	Total/NA
Arsenic	4.4		0.27	0.090	mg/Kg	2	☼	6020B	Total/NA
Barium	86	B ^2	0.27	0.12	mg/Kg	2	☼	6020B	Total/NA
Beryllium	0.37		0.068	0.016	mg/Kg	2	☼	6020B	Total/NA
Cadmium	0.19		0.068	0.027	mg/Kg	2	☼	6020B	Total/NA
Calcium	38000		140	66	mg/Kg	10	☼	6020B	Total/NA
Chromium	640		14	6.4	mg/Kg	100	☼	6020B	Total/NA
Cobalt	9.5		0.14	0.054	mg/Kg	2	☼	6020B	Total/NA
Copper	16		0.27	0.12	mg/Kg	2	☼	6020B	Total/NA
Iron	16000		68	31	mg/Kg	10	☼	6020B	Total/NA
Lead	44		0.68	0.26	mg/Kg	10	☼	6020B	Total/NA
Magnesium	5700		6.8	3.3	mg/Kg	2	☼	6020B	Total/NA
Manganese	300		0.27	0.14	mg/Kg	2	☼	6020B	Total/NA
Nickel	34		0.27	0.13	mg/Kg	2	☼	6020B	Total/NA
Potassium	3200		27	11	mg/Kg	2	☼	6020B	Total/NA
Selenium	0.13	J	0.27	0.068	mg/Kg	2	☼	6020B	Total/NA
Silver	0.035	J	0.068	0.027	mg/Kg	2	☼	6020B	Total/NA
Sodium	95		34	16	mg/Kg	2	☼	6020B	Total/NA
Thallium	0.17		0.068	0.026	mg/Kg	2	☼	6020B	Total/NA
Vanadium	32		0.54	0.14	mg/Kg	2	☼	6020B	Total/NA
Zinc	140	^2	100	14	mg/Kg	10	☼	6020B	Total/NA
Mercury	0.062		0.056	0.019	mg/Kg	1	☼	7471B	Total/NA
Cr (VI)	15		0.43	0.14	mg/Kg	1	☼	7196A	Total/NA
Cr (III)	620	!	0.011	0.0035	mg/Kg	1	☼	7196A	Total/NA

Client Sample ID: DEP51-S2 — Lab Sample ID: 410-180859-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone	4.5	J	16	3.2	ug/Kg	1	☼	8260D	Total/NA
Acetone	61		32	9.6	ug/Kg	1	☼	8260D	Total/NA
Methyl acetate	1.6	J	8.0	1.6	ug/Kg	1	☼	8260D	Total/NA
Aluminum	9500		16	8.0	mg/Kg	2	☼	6020B	Total/NA
Antimony	0.34		0.16	0.064	mg/Kg	2	☼	6020B	Total/NA
Arsenic	5.7		0.32	0.11	mg/Kg	2	☼	6020B	Total/NA
Barium	97	B ^2	0.32	0.15	mg/Kg	2	☼	6020B	Total/NA
Beryllium	0.44		0.081	0.019	mg/Kg	2	☼	6020B	Total/NA
Cadmium	0.23		0.081	0.032	mg/Kg	2	☼	6020B	Total/NA
Calcium	28000		160	79	mg/Kg	10	☼	6020B	Total/NA
Chromium	760		16	7.7	mg/Kg	100	☼	6020B	Total/NA
Cobalt	11		0.16	0.064	mg/Kg	2	☼	6020B	Total/NA
Copper	21		0.32	0.15	mg/Kg	2	☼	6020B	Total/NA
Iron	17000		81	37	mg/Kg	10	☼	6020B	Total/NA
Lead	66		0.81	0.31	mg/Kg	10	☼	6020B	Total/NA
Magnesium	6100		8.1	3.9	mg/Kg	2	☼	6020B	Total/NA
Manganese	310		0.32	0.16	mg/Kg	2	☼	6020B	Total/NA
Nickel	42		0.32	0.15	mg/Kg	2	☼	6020B	Total/NA
Potassium	3700		32	13	mg/Kg	2	☼	6020B	Total/NA
Selenium	0.14	J	0.32	0.081	mg/Kg	2	☼	6020B	Total/NA
Silver	0.11		0.081	0.033	mg/Kg	2	☼	6020B	Total/NA
Sodium	120		40	19	mg/Kg	2	☼	6020B	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Pennsylvania Dept of Env Protection
Project/Site: DEP 51st

Job ID: 410-180859-1

Client Sample ID: DEP51-S2 (Continued) — Lab Sample ID: 410-180859-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Thallium	0.21		0.081	0.032	mg/Kg	2	☼	6020B	Total/NA
Vanadium	35		0.64	0.16	mg/Kg	2	☼	6020B	Total/NA
Zinc	200	^2	120	16	mg/Kg	10	☼	6020B	Total/NA
Mercury	0.053	J	0.062	0.021	mg/Kg	1	☼	7471B	Total/NA
Cr (VI)	10		0.47	0.16	mg/Kg	1	☼	7196A	Total/NA
Cr (III)	750	!	0.011	0.0035	mg/Kg	1	☼	7196A	Total/NA

Client Sample ID: DEP51-S3 — Lab Sample ID: 410-180859-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	17000		19	9.6	mg/Kg	2	☼	6020B	Total/NA
Antimony	0.53		0.19	0.077	mg/Kg	2	☼	6020B	Total/NA
Arsenic	9.8		0.39	0.13	mg/Kg	2	☼	6020B	Total/NA
Barium	160	B	0.39	0.18	mg/Kg	2	☼	6020B	Total/NA
Beryllium	0.76		0.097	0.023	mg/Kg	2	☼	6020B	Total/NA
Cadmium	0.41		0.097	0.039	mg/Kg	2	☼	6020B	Total/NA
Calcium	49000		190	95	mg/Kg	10	☼	6020B	Total/NA
Chromium	1400		19	9.2	mg/Kg	100	☼	6020B	Total/NA
Cobalt	18	^2	0.19	0.077	mg/Kg	2	☼	6020B	Total/NA
Copper	41		0.39	0.17	mg/Kg	2	☼	6020B	Total/NA
Iron	30000		97	45	mg/Kg	10	☼	6020B	Total/NA
Lead	110		0.19	0.073	mg/Kg	2	☼	6020B	Total/NA
Magnesium	9600		9.7	4.7	mg/Kg	2	☼	6020B	Total/NA
Manganese	530		0.39	0.19	mg/Kg	2	☼	6020B	Total/NA
Nickel	66		0.39	0.18	mg/Kg	2	☼	6020B	Total/NA
Potassium	6800		39	15	mg/Kg	2	☼	6020B	Total/NA
Selenium	0.33	J	0.39	0.097	mg/Kg	2	☼	6020B	Total/NA
Silver	0.11		0.097	0.039	mg/Kg	2	☼	6020B	Total/NA
Sodium	170		48	23	mg/Kg	2	☼	6020B	Total/NA
Thallium	0.37		0.097	0.038	mg/Kg	2	☼	6020B	Total/NA
Vanadium	62		0.77	0.19	mg/Kg	2	☼	6020B	Total/NA
Zinc	310		150	19	mg/Kg	10	☼	6020B	Total/NA
Mercury	0.13		0.061	0.020	mg/Kg	1	☼	7471B	Total/NA
Cr (VI)	38		4.6	1.5	mg/Kg	10	☼	7196A	Total/NA
Cr (III)	1400	!	0.011	0.0035	mg/Kg	1	☼	7196A	Total/NA

Client Sample ID: DEP51-S4 — Lab Sample ID: 410-180859-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone	25		23	4.6	ug/Kg	1	☼	8260D	Total/NA
Acetone	270		46	14	ug/Kg	1	☼	8260D	Total/NA
Carbon disulfide	2.2	J	12	1.9	ug/Kg	1	☼	8260D	Total/NA
Toluene	2.4	J	12	2.3	ug/Kg	1	☼	8260D	Total/NA
Aluminum	14000		17	8.6	mg/Kg	2	☼	6020B	Total/NA
Antimony	0.65		0.17	0.069	mg/Kg	2	☼	6020B	Total/NA
Arsenic	8.2		0.35	0.12	mg/Kg	2	☼	6020B	Total/NA
Barium	140	B ^2	0.35	0.16	mg/Kg	2	☼	6020B	Total/NA
Beryllium	0.63		0.087	0.021	mg/Kg	2	☼	6020B	Total/NA
Cadmium	0.41		0.087	0.035	mg/Kg	2	☼	6020B	Total/NA
Calcium	29000		170	85	mg/Kg	10	☼	6020B	Total/NA
Chromium	810		17	8.2	mg/Kg	100	☼	6020B	Total/NA
Cobalt	14		0.17	0.069	mg/Kg	2	☼	6020B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: DEP51-S4 (Continued) — Lab Sample ID: 410-180859-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Copper	42		0.35	0.16	mg/Kg	2	☼	6020B	Total/NA
Iron	29000		87	40	mg/Kg	10	☼	6020B	Total/NA
Lead	230		0.87	0.33	mg/Kg	10	☼	6020B	Total/NA
Magnesium	9100		8.7	4.2	mg/Kg	2	☼	6020B	Total/NA
Manganese	500		0.35	0.17	mg/Kg	2	☼	6020B	Total/NA
Nickel	49		0.35	0.16	mg/Kg	2	☼	6020B	Total/NA
Potassium	4500		35	14	mg/Kg	2	☼	6020B	Total/NA
Selenium	0.30	J	0.35	0.087	mg/Kg	2	☼	6020B	Total/NA
Silver	0.12		0.087	0.035	mg/Kg	2	☼	6020B	Total/NA
Sodium	210		43	21	mg/Kg	2	☼	6020B	Total/NA
Thallium	0.29		0.087	0.034	mg/Kg	2	☼	6020B	Total/NA
Vanadium	44		0.69	0.17	mg/Kg	2	☼	6020B	Total/NA
Zinc	310	^2	130	17	mg/Kg	10	☼	6020B	Total/NA
Mercury	0.098		0.062	0.021	mg/Kg	1	☼	7471B	Total/NA
Cr (III)	810	!	0.011	0.0035	mg/Kg	1	☼	7196A	Total/NA

Client Sample ID: DEP51-S5 — Lab Sample ID: 410-180859-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone	32		21	4.2	ug/Kg	1	☼	8260D	Total/NA
Acetone	440		42	13	ug/Kg	1	☼	8260D	Total/NA
Toluene	2.8	J	10	2.1	ug/Kg	1	☼	8260D	Total/NA
Aluminum	9200		21	10	mg/Kg	2	☼	6020B	Total/NA
Antimony	0.49		0.21	0.084	mg/Kg	2	☼	6020B	Total/NA
Arsenic	5.0		0.42	0.14	mg/Kg	2	☼	6020B	Total/NA
Barium	110	B	0.42	0.19	mg/Kg	2	☼	6020B	Total/NA
Beryllium	0.42		0.11	0.025	mg/Kg	2	☼	6020B	Total/NA
Cadmium	0.28		0.11	0.042	mg/Kg	2	☼	6020B	Total/NA
Calcium	10000		42	21	mg/Kg	2	☼	6020B	Total/NA
Chromium	330		2.1	1.0	mg/Kg	10	☼	6020B	Total/NA
Cobalt	9.7	^2	0.21	0.084	mg/Kg	2	☼	6020B	Total/NA
Copper	26		0.42	0.19	mg/Kg	2	☼	6020B	Total/NA
Iron	19000		110	49	mg/Kg	10	☼	6020B	Total/NA
Lead	460		1.1	0.40	mg/Kg	10	☼	6020B	Total/NA
Magnesium	6200		11	5.2	mg/Kg	2	☼	6020B	Total/NA
Manganese	340		0.42	0.21	mg/Kg	2	☼	6020B	Total/NA
Nickel	28		0.42	0.20	mg/Kg	2	☼	6020B	Total/NA
Potassium	4600		42	17	mg/Kg	2	☼	6020B	Total/NA
Selenium	0.17	J	0.42	0.11	mg/Kg	2	☼	6020B	Total/NA
Silver	0.056	J	0.11	0.043	mg/Kg	2	☼	6020B	Total/NA
Sodium	220		53	25	mg/Kg	2	☼	6020B	Total/NA
Thallium	0.23		0.11	0.041	mg/Kg	2	☼	6020B	Total/NA
Vanadium	30		0.84	0.21	mg/Kg	2	☼	6020B	Total/NA
Zinc	280		160	21	mg/Kg	10	☼	6020B	Total/NA
Cr (III)	330	!	0.011	0.0035	mg/Kg	1	☼	7196A	Total/NA

Client Sample ID: DEP51-S6 — Lab Sample ID: 410-180859-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone	9.7	J cn	15	2.9	ug/Kg	1	☼	8260D	Total/NA
Acetone	100	cn	29	8.8	ug/Kg	1	☼	8260D	Total/NA
Benzene	3.0	J cn	7.4	1.2	ug/Kg	1	☼	8260D	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: DEP51-S6 (Continued)

Lab Sample ID: 410-180859-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Carbon disulfide	3.4	J cn	7.4	1.2	ug/Kg	1	☼	8260D	Total/NA
Toluene	2.7	J cn	7.4	1.5	ug/Kg	1	☼	8260D	Total/NA
Aluminum	7400		20	10	mg/Kg	2	☼	6020B	Total/NA
Antimony	1.9		0.20	0.082	mg/Kg	2	☼	6020B	Total/NA
Arsenic	12		0.41	0.14	mg/Kg	2	☼	6020B	Total/NA
Barium	130	B	0.41	0.19	mg/Kg	2	☼	6020B	Total/NA
Beryllium	0.49		0.10	0.024	mg/Kg	2	☼	6020B	Total/NA
Cadmium	0.59		0.10	0.041	mg/Kg	2	☼	6020B	Total/NA
Calcium	13000		41	20	mg/Kg	2	☼	6020B	Total/NA
Chromium	250		2.0	0.97	mg/Kg	10	☼	6020B	Total/NA
Cobalt	11	^2	0.20	0.082	mg/Kg	2	☼	6020B	Total/NA
Copper	88		0.41	0.18	mg/Kg	2	☼	6020B	Total/NA
Iron	58000		100	47	mg/Kg	10	☼	6020B	Total/NA
Lead	270		1.0	0.39	mg/Kg	10	☼	6020B	Total/NA
Magnesium	3500		10	5.0	mg/Kg	2	☼	6020B	Total/NA
Manganese	480		0.41	0.20	mg/Kg	2	☼	6020B	Total/NA
Nickel	33		0.41	0.19	mg/Kg	2	☼	6020B	Total/NA
Potassium	2100		41	16	mg/Kg	2	☼	6020B	Total/NA
Selenium	0.53		0.41	0.10	mg/Kg	2	☼	6020B	Total/NA
Silver	0.16		0.10	0.041	mg/Kg	2	☼	6020B	Total/NA
Sodium	140		51	24	mg/Kg	2	☼	6020B	Total/NA
Thallium	0.19		0.10	0.040	mg/Kg	2	☼	6020B	Total/NA
Vanadium	27		0.82	0.20	mg/Kg	2	☼	6020B	Total/NA
Zinc	210		150	20	mg/Kg	10	☼	6020B	Total/NA
Mercury	0.25		0.084	0.028	mg/Kg	1	☼	7471B	Total/NA
Cr (III)	250	!	0.011	0.0035	mg/Kg	1	☼	7196A	Total/NA

Client Sample ID: DEP51-S7

Lab Sample ID: 410-180859-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Methyl acetate	210	J ^c cn	500	99	ug/Kg	50	☼	8260D	Total/NA
Aluminum	13000		24	12	mg/Kg	2	☼	6020B	Total/NA
Antimony	0.79		0.24	0.096	mg/Kg	2	☼	6020B	Total/NA
Arsenic	10		0.48	0.16	mg/Kg	2	☼	6020B	Total/NA
Barium	120	B	0.48	0.22	mg/Kg	2	☼	6020B	Total/NA
Beryllium	0.66		0.12	0.029	mg/Kg	2	☼	6020B	Total/NA
Cadmium	0.45		0.12	0.048	mg/Kg	2	☼	6020B	Total/NA
Calcium	26000		240	120	mg/Kg	10	☼	6020B	Total/NA
Chromium	1100		2.4	1.1	mg/Kg	10	☼	6020B	Total/NA
Cobalt	14	^2	0.24	0.096	mg/Kg	2	☼	6020B	Total/NA
Copper	45		0.48	0.22	mg/Kg	2	☼	6020B	Total/NA
Iron	28000		120	55	mg/Kg	10	☼	6020B	Total/NA
Lead	200		0.24	0.091	mg/Kg	2	☼	6020B	Total/NA
Magnesium	7700		12	5.9	mg/Kg	2	☼	6020B	Total/NA
Manganese	460		0.48	0.24	mg/Kg	2	☼	6020B	Total/NA
Nickel	60		0.48	0.23	mg/Kg	2	☼	6020B	Total/NA
Potassium	4000		48	19	mg/Kg	2	☼	6020B	Total/NA
Selenium	0.32	J	0.48	0.12	mg/Kg	2	☼	6020B	Total/NA
Silver	0.13		0.12	0.049	mg/Kg	2	☼	6020B	Total/NA
Sodium	230		60	29	mg/Kg	2	☼	6020B	Total/NA
Thallium	0.25		0.12	0.047	mg/Kg	2	☼	6020B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: DEP51-S7 (Continued) — Lab Sample ID: 410-180859-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Vanadium	49		0.96	0.24	mg/Kg	2	☼	6020B	Total/NA
Zinc	360		180	24	mg/Kg	10	☼	6020B	Total/NA
Mercury	0.11		0.077	0.026	mg/Kg	1	☼	7471B	Total/NA
Cr (VI)	77		2.9	0.96	mg/Kg	5	☼	7196A	Total/NA
Cr (III)	980	!	0.011	0.0035	mg/Kg	1	☼	7196A	Total/NA

Client Sample ID: DUP-S — Lab Sample ID: 410-180859-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cyclohexane	180	J cn	510	51	ug/Kg	50	☼	8260D	Total/NA
Ethylbenzene	47	J cn	510	41	ug/Kg	50	☼	8260D	Total/NA
Methyl acetate	120	J ^c cn	510	100	ug/Kg	50	☼	8260D	Total/NA
Methylcyclohexane	460	J cn	510	62	ug/Kg	50	☼	8260D	Total/NA
Toluene	130	J cn	510	62	ug/Kg	50	☼	8260D	Total/NA
Xylenes, Total	390	J cn	510	140	ug/Kg	50	☼	8260D	Total/NA
Aluminum	9100		24	12	mg/Kg	2	☼	6020B	Total/NA
Antimony	2.5		0.24	0.096	mg/Kg	2	☼	6020B	Total/NA
Arsenic	13		0.48	0.16	mg/Kg	2	☼	6020B	Total/NA
Barium	160	B	0.48	0.22	mg/Kg	2	☼	6020B	Total/NA
Beryllium	0.59		0.12	0.029	mg/Kg	2	☼	6020B	Total/NA
Cadmium	0.66		0.12	0.048	mg/Kg	2	☼	6020B	Total/NA
Calcium	15000		48	24	mg/Kg	2	☼	6020B	Total/NA
Chromium	380		2.4	1.1	mg/Kg	10	☼	6020B	Total/NA
Cobalt	11	^2	0.24	0.096	mg/Kg	2	☼	6020B	Total/NA
Copper	110		0.48	0.22	mg/Kg	2	☼	6020B	Total/NA
Iron	44000		120	55	mg/Kg	10	☼	6020B	Total/NA
Lead	330		1.2	0.46	mg/Kg	10	☼	6020B	Total/NA
Magnesium	4200		12	5.9	mg/Kg	2	☼	6020B	Total/NA
Manganese	450		0.48	0.24	mg/Kg	2	☼	6020B	Total/NA
Nickel	37		0.48	0.23	mg/Kg	2	☼	6020B	Total/NA
Potassium	2500		48	19	mg/Kg	2	☼	6020B	Total/NA
Selenium	0.68		0.48	0.12	mg/Kg	2	☼	6020B	Total/NA
Silver	0.18		0.12	0.049	mg/Kg	2	☼	6020B	Total/NA
Sodium	170		60	29	mg/Kg	2	☼	6020B	Total/NA
Thallium	0.23		0.12	0.047	mg/Kg	2	☼	6020B	Total/NA
Vanadium	33		0.96	0.24	mg/Kg	2	☼	6020B	Total/NA
Zinc	290		180	24	mg/Kg	10	☼	6020B	Total/NA
Mercury	0.27		0.074	0.025	mg/Kg	1	☼	7471B	Total/NA
Cr (VI)	28		5.8	1.9	mg/Kg	10	☼	7196A	Total/NA
Cr (III)	350	!	0.011	0.0035	mg/Kg	1	☼	7196A	Total/NA

Client Sample ID: DEP51-S8 — Lab Sample ID: 410-180859-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Acetone	40	cn	32	9.6	ug/Kg	1	☼	8260D	Total/NA
Carbon disulfide	1.3	J cn	8.0	1.3	ug/Kg	1	☼	8260D	Total/NA
Methyl acetate	14	cn	8.0	1.6	ug/Kg	1	☼	8260D	Total/NA
Aluminum	12000		23	11	mg/Kg	2	☼	6020B	Total/NA
Antimony	0.92		0.23	0.092	mg/Kg	2	☼	6020B	Total/NA
Arsenic	9.9		0.46	0.15	mg/Kg	2	☼	6020B	Total/NA
Barium	130	B	0.46	0.21	mg/Kg	2	☼	6020B	Total/NA
Beryllium	0.64		0.11	0.027	mg/Kg	2	☼	6020B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: DEP51-S8 (Continued)

Lab Sample ID: 410-180859-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cadmium	0.43		0.11	0.046	mg/Kg	2	☼	6020B	Total/NA
Calcium	23000		230	110	mg/Kg	10	☼	6020B	Total/NA
Chromium	870		2.3	1.1	mg/Kg	10	☼	6020B	Total/NA
Cobalt	14		0.23	0.092	mg/Kg	2	☼	6020B	Total/NA
Copper	62		0.46	0.21	mg/Kg	2	☼	6020B	Total/NA
Iron	25000		110	53	mg/Kg	10	☼	6020B	Total/NA
Lead	200		0.23	0.087	mg/Kg	2	☼	6020B	Total/NA
Magnesium	6900		11	5.6	mg/Kg	2	☼	6020B	Total/NA
Manganese	560		0.46	0.23	mg/Kg	2	☼	6020B	Total/NA
Nickel	48		0.46	0.22	mg/Kg	2	☼	6020B	Total/NA
Potassium	3800		46	18	mg/Kg	2	☼	6020B	Total/NA
Selenium	0.46		0.46	0.11	mg/Kg	2	☼	6020B	Total/NA
Silver	0.12		0.11	0.047	mg/Kg	2	☼	6020B	Total/NA
Sodium	240		57	28	mg/Kg	2	☼	6020B	Total/NA
Thallium	0.27		0.11	0.045	mg/Kg	2	☼	6020B	Total/NA
Vanadium	46		0.92	0.23	mg/Kg	2	☼	6020B	Total/NA
Zinc	290		170	23	mg/Kg	10	☼	6020B	Total/NA
Mercury	0.15		0.090	0.030	mg/Kg	1	☼	7471B	Total/NA
Cr (VI)	54		3.4	1.1	mg/Kg	5	☼	7196A	Total/NA
Cr (III)	820	!	0.011	0.0035	mg/Kg	1	☼	7196A	Total/NA

Client Sample ID: DEP51-S9

Lab Sample ID: 410-180859-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone	11	J cn	17	3.4	ug/Kg	1	☼	8260D	Total/NA
Acetone	95	cn	34	10	ug/Kg	1	☼	8260D	Total/NA
Benzene	1.5	J cn	8.5	1.4	ug/Kg	1	☼	8260D	Total/NA
Carbon disulfide	2.9	J cn	8.5	1.4	ug/Kg	1	☼	8260D	Total/NA
Toluene	2.5	J cn	8.5	1.7	ug/Kg	1	☼	8260D	Total/NA
Aluminum	15000		22	11	mg/Kg	2	☼	6020B	Total/NA
Antimony	0.65		0.22	0.090	mg/Kg	2	☼	6020B	Total/NA
Arsenic	8.6		0.45	0.15	mg/Kg	2	☼	6020B	Total/NA
Barium	150	B	0.45	0.21	mg/Kg	2	☼	6020B	Total/NA
Beryllium	0.82		0.11	0.027	mg/Kg	2	☼	6020B	Total/NA
Cadmium	0.61		0.11	0.045	mg/Kg	2	☼	6020B	Total/NA
Calcium	22000		220	110	mg/Kg	10	☼	6020B	Total/NA
Chromium	820		2.2	1.1	mg/Kg	10	☼	6020B	Total/NA
Cobalt	16	^2	0.22	0.090	mg/Kg	2	☼	6020B	Total/NA
Copper	48		0.45	0.20	mg/Kg	2	☼	6020B	Total/NA
Iron	28000		110	52	mg/Kg	10	☼	6020B	Total/NA
Lead	380		1.1	0.43	mg/Kg	10	☼	6020B	Total/NA
Magnesium	8200		11	5.5	mg/Kg	2	☼	6020B	Total/NA
Manganese	620		0.45	0.22	mg/Kg	2	☼	6020B	Total/NA
Nickel	53		0.45	0.21	mg/Kg	2	☼	6020B	Total/NA
Potassium	4100		45	18	mg/Kg	2	☼	6020B	Total/NA
Selenium	0.46		0.45	0.11	mg/Kg	2	☼	6020B	Total/NA
Silver	0.18		0.11	0.046	mg/Kg	2	☼	6020B	Total/NA
Sodium	200		56	27	mg/Kg	2	☼	6020B	Total/NA
Thallium	0.29		0.11	0.044	mg/Kg	2	☼	6020B	Total/NA
Vanadium	47		0.90	0.22	mg/Kg	2	☼	6020B	Total/NA
Zinc	430		170	22	mg/Kg	10	☼	6020B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: DEP51-S9 (Continued) — Lab Sample ID: 410-180859-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Mercury	0.12		0.076	0.025	mg/Kg	1	☼	7471B	Total/NA
Cr (III)	820	!	0.011	0.0035	mg/Kg	1	☼	7196A	Total/NA

Client Sample ID: DEP51-S10 — Lab Sample ID: 410-180859-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone	20	cn	18	3.5	ug/Kg	1	☼	8260D	Total/NA
Acetone	210	cn	35	11	ug/Kg	1	☼	8260D	Total/NA
Carbon disulfide	1.9	J cn	8.8	1.4	ug/Kg	1	☼	8260D	Total/NA
Aluminum	21000		27	13	mg/Kg	2	☼	6020B	Total/NA
Antimony	0.81		0.27	0.11	mg/Kg	2	☼	6020B	Total/NA
Arsenic	14		0.54	0.18	mg/Kg	2	☼	6020B	Total/NA
Barium	150	B	0.54	0.25	mg/Kg	2	☼	6020B	Total/NA
Beryllium	1.4		0.14	0.032	mg/Kg	2	☼	6020B	Total/NA
Cadmium	0.52		0.14	0.054	mg/Kg	2	☼	6020B	Total/NA
Calcium	43000		270	130	mg/Kg	10	☼	6020B	Total/NA
Chromium	940		2.7	1.3	mg/Kg	10	☼	6020B	Total/NA
Cobalt	19	^2	0.27	0.11	mg/Kg	2	☼	6020B	Total/NA
Copper	61		0.54	0.24	mg/Kg	2	☼	6020B	Total/NA
Iron	36000		140	62	mg/Kg	10	☼	6020B	Total/NA
Lead	170		0.27	0.10	mg/Kg	2	☼	6020B	Total/NA
Magnesium	24000		14	6.6	mg/Kg	2	☼	6020B	Total/NA
Manganese	850		0.54	0.27	mg/Kg	2	☼	6020B	Total/NA
Nickel	62		0.54	0.26	mg/Kg	2	☼	6020B	Total/NA
Potassium	5100		54	22	mg/Kg	2	☼	6020B	Total/NA
Selenium	0.56		0.54	0.14	mg/Kg	2	☼	6020B	Total/NA
Silver	0.19		0.14	0.055	mg/Kg	2	☼	6020B	Total/NA
Sodium	1600		68	32	mg/Kg	2	☼	6020B	Total/NA
Thallium	0.40		0.14	0.053	mg/Kg	2	☼	6020B	Total/NA
Vanadium	86		1.1	0.27	mg/Kg	2	☼	6020B	Total/NA
Zinc	340		200	27	mg/Kg	10	☼	6020B	Total/NA
Mercury	0.24		0.091	0.030	mg/Kg	1	☼	7471B	Total/NA
Cr (VI)	53		6.9	2.3	mg/Kg	10	☼	7196A	Total/NA
Cr (III)	880	!	0.011	0.0035	mg/Kg	1	☼	7196A	Total/NA

Client Sample ID: DEP51-S11 — Lab Sample ID: 410-180859-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
2-Butanone	21		21	4.2	ug/Kg	1	☼	8260D	Total/NA
Acetone	210		42	13	ug/Kg	1	☼	8260D	Total/NA
Benzene	3.1	J	10	1.7	ug/Kg	1	☼	8260D	Total/NA
Toluene	12		10	2.1	ug/Kg	1	☼	8260D	Total/NA
Aluminum	13000		23	11	mg/Kg	2	☼	6020B	Total/NA
Antimony	0.82		0.23	0.091	mg/Kg	2	☼	6020B	Total/NA
Arsenic	7.0		0.45	0.15	mg/Kg	2	☼	6020B	Total/NA
Barium	110	B	0.45	0.21	mg/Kg	2	☼	6020B	Total/NA
Beryllium	0.75		0.11	0.027	mg/Kg	2	☼	6020B	Total/NA
Cadmium	0.47		0.11	0.045	mg/Kg	2	☼	6020B	Total/NA
Calcium	7200		45	22	mg/Kg	2	☼	6020B	Total/NA
Chromium	100		0.45	0.22	mg/Kg	2	☼	6020B	Total/NA
Cobalt	10	^2	0.23	0.091	mg/Kg	2	☼	6020B	Total/NA
Copper	46		0.45	0.20	mg/Kg	2	☼	6020B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: DEP51-S11 (Continued) — Lab Sample ID: 410-180859-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Iron	23000		110	52	mg/Kg	10	☼	6020B	Total/NA
Lead	170		0.23	0.086	mg/Kg	2	☼	6020B	Total/NA
Magnesium	5400		11	5.6	mg/Kg	2	☼	6020B	Total/NA
Manganese	420		0.45	0.23	mg/Kg	2	☼	6020B	Total/NA
Nickel	21		0.45	0.22	mg/Kg	2	☼	6020B	Total/NA
Potassium	2500		45	18	mg/Kg	2	☼	6020B	Total/NA
Selenium	0.50		0.45	0.11	mg/Kg	2	☼	6020B	Total/NA
Silver	0.26		0.11	0.046	mg/Kg	2	☼	6020B	Total/NA
Sodium	160		57	27	mg/Kg	2	☼	6020B	Total/NA
Thallium	0.25		0.11	0.044	mg/Kg	2	☼	6020B	Total/NA
Vanadium	42		0.91	0.23	mg/Kg	2	☼	6020B	Total/NA
Zinc	250		170	23	mg/Kg	10	☼	6020B	Total/NA
Mercury	0.16		0.069	0.023	mg/Kg	1	☼	7471B	Total/NA
Cr (III)	100	!	0.011	0.0035	mg/Kg	1	☼	7196A	Total/NA

Client Sample ID: DEP51-W1 — Lab Sample ID: 410-180859-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Antimony	0.52	J	1.0	0.21	ug/L	1		6020B	Dissolved
Arsenic	1.1	J	2.1	0.70	ug/L	1		6020B	Dissolved
Barium	44		2.1	0.77	ug/L	1		6020B	Dissolved
Calcium	32000		120	52	ug/L	1		6020B	Dissolved
Cobalt	0.24	J	0.52	0.16	ug/L	1		6020B	Dissolved
Copper	2.2		1.0	0.37	ug/L	1		6020B	Dissolved
Iron	36	J	52	21	ug/L	1		6020B	Dissolved
Magnesium	12000		52	16	ug/L	1		6020B	Dissolved
Manganese	6.3		2.1	0.98	ug/L	1		6020B	Dissolved
Nickel	1.4		1.0	0.41	ug/L	1		6020B	Dissolved
Potassium	4000		210	67	ug/L	1		6020B	Dissolved
Sodium	29000	^2	210	93	ug/L	1		6020B	Dissolved
Vanadium	1.3	J	4.1	0.82	ug/L	1		6020B	Dissolved

Client Sample ID: DUP-W — Lab Sample ID: 410-180859-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Antimony	0.55	J	1.0	0.21	ug/L	1		6020B	Dissolved
Arsenic	1.2	J	2.1	0.70	ug/L	1		6020B	Dissolved
Barium	44		2.1	0.77	ug/L	1		6020B	Dissolved
Calcium	32000		120	52	ug/L	1		6020B	Dissolved
Cobalt	0.43	J	0.52	0.16	ug/L	1		6020B	Dissolved
Copper	3.3		1.0	0.37	ug/L	1		6020B	Dissolved
Iron	33	J	52	21	ug/L	1		6020B	Dissolved
Lead	0.35	J	0.52	0.12	ug/L	1		6020B	Dissolved
Magnesium	12000		52	16	ug/L	1		6020B	Dissolved
Manganese	6.5		2.1	0.98	ug/L	1		6020B	Dissolved
Nickel	1.5		1.0	0.41	ug/L	1		6020B	Dissolved
Potassium	4000		210	67	ug/L	1		6020B	Dissolved
Selenium	0.29	J	1.0	0.29	ug/L	1		6020B	Dissolved
Sodium	29000	^2	210	93	ug/L	1		6020B	Dissolved
Vanadium	1.3	J	4.1	0.82	ug/L	1		6020B	Dissolved
Zinc	8.0	J	10	4.1	ug/L	1		6020B	Dissolved

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Pennsylvania Dept of Env Protection
Project/Site: DEP 51st

Job ID: 410-180859-1

Client Sample ID: DEP51-W2 — Lab Sample ID: 410-180859-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Carbon disulfide	1.5	J	5.0	0.30	ug/L	1		8260D	Total/NA
Antimony	0.47	J	1.0	0.21	ug/L	1		6020B	Dissolved
Arsenic	1.0	J	2.1	0.70	ug/L	1		6020B	Dissolved
Barium	43		2.1	0.77	ug/L	1		6020B	Dissolved
Calcium	33000		120	52	ug/L	1		6020B	Dissolved
Copper	2.0		1.0	0.37	ug/L	1		6020B	Dissolved
Magnesium	13000		52	16	ug/L	1		6020B	Dissolved
Manganese	5.6		2.1	0.98	ug/L	1		6020B	Dissolved
Nickel	0.92	J	1.0	0.41	ug/L	1		6020B	Dissolved
Potassium	4100		210	67	ug/L	1		6020B	Dissolved
Sodium	30000	^2	210	93	ug/L	1		6020B	Dissolved
Vanadium	1.1	J	4.1	0.82	ug/L	1		6020B	Dissolved
Zinc	4.5	J	10	4.1	ug/L	1		6020B	Dissolved

Client Sample ID: DEP51-W3 — Lab Sample ID: 410-180859-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Antimony	0.50	J	1.0	0.21	ug/L	1		6020B	Dissolved
Arsenic	0.96	J	2.1	0.70	ug/L	1		6020B	Dissolved
Barium	45		2.1	0.77	ug/L	1		6020B	Dissolved
Calcium	32000		120	52	ug/L	1		6020B	Dissolved
Copper	1.9		1.0	0.37	ug/L	1		6020B	Dissolved
Magnesium	13000		52	16	ug/L	1		6020B	Dissolved
Manganese	5.7		2.1	0.98	ug/L	1		6020B	Dissolved
Nickel	1.3		1.0	0.41	ug/L	1		6020B	Dissolved
Potassium	4000		210	67	ug/L	1		6020B	Dissolved
Selenium	0.31	J	1.0	0.29	ug/L	1		6020B	Dissolved
Sodium	29000	^2	210	93	ug/L	1		6020B	Dissolved
Vanadium	1.1	J	4.1	0.82	ug/L	1		6020B	Dissolved

Client Sample ID: DEP51-W4 — Lab Sample ID: 410-180859-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Antimony	0.42	J	1.0	0.21	ug/L	1		6020B	Dissolved
Arsenic	1.0	J	2.1	0.70	ug/L	1		6020B	Dissolved
Barium	44		2.1	0.77	ug/L	1		6020B	Dissolved
Calcium	32000		120	52	ug/L	1		6020B	Dissolved
Copper	2.1		1.0	0.37	ug/L	1		6020B	Dissolved
Iron	22	J	52	21	ug/L	1		6020B	Dissolved
Magnesium	12000		52	16	ug/L	1		6020B	Dissolved
Manganese	5.3		2.1	0.98	ug/L	1		6020B	Dissolved
Nickel	1.4		1.0	0.41	ug/L	1		6020B	Dissolved
Potassium	4000		210	67	ug/L	1		6020B	Dissolved
Sodium	30000	^2	210	93	ug/L	1		6020B	Dissolved
Vanadium	1.1	J	4.1	0.82	ug/L	1		6020B	Dissolved
Zinc	4.3	J	10	4.1	ug/L	1		6020B	Dissolved

Client Sample ID: Trip Blank 2 — Lab Sample ID: 410-180859-18

No Detections.

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Pennsylvania Dept of Env Protection
Project/Site: DEP 51st

Job ID: 410-180859-1

Client Sample ID: Trip Blank 1

Lab Sample ID: 410-180859-19

No Detections.

This Detection Summary does not include radiochemical test results.

Client: Pennsylvania Dept of Env Protection
Project/Site: DEP 51st

Job ID: 410-180859-1

Client Sample ID: DEP51-S1
Date Collected: 07/22/24 10:30
Date Received: 07/22/24 16:10

Lab Sample ID: 410-180859-1
Matrix: Solid
Percent Solids: 99.3

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.4	0.87	ug/Kg	☼	07/23/24 10:54	07/24/24 13:46	1
1,1,2,2-Tetrachloroethane	ND		5.4	0.87	ug/Kg	☼	07/23/24 10:54	07/24/24 13:46	1
1,1,2-Trichloroethane	ND		5.4	0.76	ug/Kg	☼	07/23/24 10:54	07/24/24 13:46	1
1,1-Dichloroethane	ND		5.4	0.87	ug/Kg	☼	07/23/24 10:54	07/24/24 13:46	1
1,1-Dichloroethene	ND		5.4	0.87	ug/Kg	☼	07/23/24 10:54	07/24/24 13:46	1
1,2,4-Trichlorobenzene	ND		11	5.4	ug/Kg	☼	07/23/24 10:54	07/24/24 13:46	1
1,2-Dibromo-3-Chloropropane	ND		5.4	0.87	ug/Kg	☼	07/23/24 10:54	07/24/24 13:46	1
1,2-Dibromoethane	ND		5.4	0.76	ug/Kg	☼	07/23/24 10:54	07/24/24 13:46	1
1,2-Dichlorobenzene	ND		5.4	0.98	ug/Kg	☼	07/23/24 10:54	07/24/24 13:46	1
1,2-Dichloroethane	ND		5.4	0.65	ug/Kg	☼	07/23/24 10:54	07/24/24 13:46	1
1,2-Dichloropropane	ND		5.4	0.87	ug/Kg	☼	07/23/24 10:54	07/24/24 13:46	1
1,3-Dichlorobenzene	ND		5.4	1.1	ug/Kg	☼	07/23/24 10:54	07/24/24 13:46	1
1,4-Dichlorobenzene	ND		5.4	0.98	ug/Kg	☼	07/23/24 10:54	07/24/24 13:46	1
2-Butanone	ND		11	2.2	ug/Kg	☼	07/23/24 10:54	07/24/24 13:46	1
2-Hexanone	ND		11	2.7	ug/Kg	☼	07/23/24 10:54	07/24/24 13:46	1
4-Methyl-2-pentanone	ND		11	2.2	ug/Kg	☼	07/23/24 10:54	07/24/24 13:46	1
Acetone	ND		22	6.5	ug/Kg	☼	07/23/24 10:54	07/24/24 13:46	1
Benzene	ND		5.4	0.87	ug/Kg	☼	07/23/24 10:54	07/24/24 13:46	1
Bromodichloromethane	ND		5.4	0.76	ug/Kg	☼	07/23/24 10:54	07/24/24 13:46	1
Bromoform	ND		11	5.4	ug/Kg	☼	07/23/24 10:54	07/24/24 13:46	1
Bromomethane	ND		5.4	1.1	ug/Kg	☼	07/23/24 10:54	07/24/24 13:46	1
Carbon disulfide	ND		5.4	0.87	ug/Kg	☼	07/23/24 10:54	07/24/24 13:46	1
Carbon tetrachloride	ND		5.4	0.87	ug/Kg	☼	07/23/24 10:54	07/24/24 13:46	1
Chlorobenzene	ND		5.4	0.98	ug/Kg	☼	07/23/24 10:54	07/24/24 13:46	1
Chloroethane	ND		5.4	1.1	ug/Kg	☼	07/23/24 10:54	07/24/24 13:46	1
Chloroform	ND		5.4	0.87	ug/Kg	☼	07/23/24 10:54	07/24/24 13:46	1
Chloromethane	ND		5.4	1.1	ug/Kg	☼	07/23/24 10:54	07/24/24 13:46	1
cis-1,2-Dichloroethene	ND		5.4	0.87	ug/Kg	☼	07/23/24 10:54	07/24/24 13:46	1
cis-1,3-Dichloropropene	ND		5.4	0.65	ug/Kg	☼	07/23/24 10:54	07/24/24 13:46	1
Cyclohexane	ND		5.4	0.98	ug/Kg	☼	07/23/24 10:54	07/24/24 13:46	1
Dibromochloromethane	ND		5.4	0.54	ug/Kg	☼	07/23/24 10:54	07/24/24 13:46	1
Dichlorodifluoromethane	ND		5.4	1.1	ug/Kg	☼	07/23/24 10:54	07/24/24 13:46	1
Ethylbenzene	ND		5.4	1.1	ug/Kg	☼	07/23/24 10:54	07/24/24 13:46	1
Freon 113	ND		11	0.98	ug/Kg	☼	07/23/24 10:54	07/24/24 13:46	1
Isopropylbenzene	ND		5.4	1.6	ug/Kg	☼	07/23/24 10:54	07/24/24 13:46	1
Methyl acetate	ND		5.4	1.1	ug/Kg	☼	07/23/24 10:54	07/24/24 13:46	1
Methyl tertiary butyl ether	ND		5.4	0.87	ug/Kg	☼	07/23/24 10:54	07/24/24 13:46	1
Methylcyclohexane	ND		5.4	0.87	ug/Kg	☼	07/23/24 10:54	07/24/24 13:46	1
Methylene Chloride	ND		5.4	2.2	ug/Kg	☼	07/23/24 10:54	07/24/24 13:46	1
Styrene	ND		5.4	0.98	ug/Kg	☼	07/23/24 10:54	07/24/24 13:46	1
Tetrachloroethene	ND		5.4	1.6	ug/Kg	☼	07/23/24 10:54	07/24/24 13:46	1
Toluene	ND		5.4	1.1	ug/Kg	☼	07/23/24 10:54	07/24/24 13:46	1
trans-1,2-Dichloroethene	ND		5.4	0.87	ug/Kg	☼	07/23/24 10:54	07/24/24 13:46	1
trans-1,3-Dichloropropene	ND		5.4	0.65	ug/Kg	☼	07/23/24 10:54	07/24/24 13:46	1
Trichloroethene	ND		5.4	0.87	ug/Kg	☼	07/23/24 10:54	07/24/24 13:46	1
Trichlorofluoromethane	ND		5.4	1.1	ug/Kg	☼	07/23/24 10:54	07/24/24 13:46	1
Vinyl chloride	ND		5.4	0.87	ug/Kg	☼	07/23/24 10:54	07/24/24 13:46	1
Xylenes, Total	ND		11	0.76	ug/Kg	☼	07/23/24 10:54	07/24/24 13:46	1

Client Sample ID: DEP51-S1

Date Collected: 07/22/24 10:30
Date Received: 07/22/24 16:10

Lab Sample ID: 410-180859-1

Matrix: Solid
Percent Solids: 99.3

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*54 - 135*	*07/23/24 10:54*	*07/24/24 13:46*	*1*
4-Bromofluorobenzene (Surr)	*96*		*50 - 131*	*07/23/24 10:54*	*07/24/24 13:46*	*1*
Dibromofluoromethane (Surr)	*96*		*50 - 141*	*07/23/24 10:54*	*07/24/24 13:46*	*1*
Toluene-d8 (Surr)	*106*		*52 - 141*	*07/23/24 10:54*	*07/24/24 13:46*	*1*

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	8200		14	6.7	mg/Kg	☼	07/23/24 06:30	07/25/24 13:27	2
Antimony	0.31		0.14	0.054	mg/Kg	☼	07/23/24 06:30	07/25/24 13:27	2
Arsenic	4.4		0.27	0.090	mg/Kg	☼	07/23/24 06:30	07/25/24 13:27	2
Barium	86	B ^2	0.27	0.12	mg/Kg	☼	07/23/24 06:30	07/25/24 13:27	2
Beryllium	0.37		0.068	0.016	mg/Kg	☼	07/23/24 06:30	07/25/24 13:27	2
Cadmium	0.19		0.068	0.027	mg/Kg	☼	07/23/24 06:30	07/25/24 13:27	2
Calcium	38000		140	66	mg/Kg	☼	07/23/24 06:30	07/25/24 13:29	10
Chromium	640		14	6.4	mg/Kg	☼	07/23/24 06:30	07/25/24 18:06	100
Cobalt	9.5		0.14	0.054	mg/Kg	☼	07/23/24 06:30	07/25/24 13:27	2
Copper	16		0.27	0.12	mg/Kg	☼	07/23/24 06:30	07/25/24 13:27	2
Iron	16000		68	31	mg/Kg	☼	07/23/24 06:30	07/25/24 13:29	10
Lead	44		0.68	0.26	mg/Kg	☼	07/23/24 06:30	07/25/24 18:04	10
Magnesium	5700		6.8	3.3	mg/Kg	☼	07/23/24 06:30	07/25/24 13:27	2
Manganese	300		0.27	0.14	mg/Kg	☼	07/23/24 06:30	07/25/24 13:27	2
Nickel	34		0.27	0.13	mg/Kg	☼	07/23/24 06:30	07/25/24 13:27	2
Potassium	3200		27	11	mg/Kg	☼	07/23/24 06:30	07/25/24 13:27	2
Selenium	0.13	J	0.27	0.068	mg/Kg	☼	07/23/24 06:30	07/25/24 13:27	2
Silver	0.035	J	0.068	0.027	mg/Kg	☼	07/23/24 06:30	07/25/24 13:27	2
Sodium	95		34	16	mg/Kg	☼	07/23/24 06:30	07/25/24 13:27	2
Thallium	0.17		0.068	0.026	mg/Kg	☼	07/23/24 06:30	07/25/24 13:27	2
Vanadium	32		0.54	0.14	mg/Kg	☼	07/23/24 06:30	07/25/24 13:27	2
Zinc	140	^2	100	14	mg/Kg	☼	07/23/24 06:30	07/25/24 13:29	10

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.062		0.056	0.019	mg/Kg	☼	07/23/24 22:00	07/24/24 12:29	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI) (SW846 7196A)	15		0.43	0.14	mg/Kg	☼	07/23/24 18:44	07/23/24 22:40	1
Cr (III) (SW846 7196A)	620	!	0.011	0.0035	mg/Kg	☼		08/22/24 16:11	1
Percent Moisture (EPA Moisture)	0.7	!	1.0	1.0	%			07/23/24 09:39	1

Client Sample ID: DEP51-S2

Date Collected: 07/22/24 10:45
Date Received: 07/22/24 16:10

Lab Sample ID: 410-180859-2

Matrix: Solid
Percent Solids: 94.7

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		8.0	1.3	ug/Kg	☼	07/23/24 10:54	07/24/24 14:09	1
1,1,2,2-Tetrachloroethane	ND		8.0	1.3	ug/Kg	☼	07/23/24 10:54	07/24/24 14:09	1
1,1,2-Trichloroethane	ND		8.0	1.1	ug/Kg	☼	07/23/24 10:54	07/24/24 14:09	1
1,1-Dichloroethane	ND		8.0	1.3	ug/Kg	☼	07/23/24 10:54	07/24/24 14:09	1
1,1-Dichloroethene	ND		8.0	1.3	ug/Kg	☼	07/23/24 10:54	07/24/24 14:09	1

Client: Pennsylvania Dept of Env Protection
Project/Site: DEP 51st

Job ID: 410-180859-1

Client Sample ID: DEP51-S2
Date Collected: 07/22/24 10:45
Date Received: 07/22/24 16:10

Lab Sample ID: 410-180859-2
Matrix: Solid
Percent Solids: 94.7

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		16	8.0	ug/Kg	☼	07/23/24 10:54	07/24/24 14:09	1
1,2-Dibromo-3-Chloropropane	ND		8.0	1.3	ug/Kg	☼	07/23/24 10:54	07/24/24 14:09	1
1,2-Dibromoethane	ND		8.0	1.1	ug/Kg	☼	07/23/24 10:54	07/24/24 14:09	1
1,2-Dichlorobenzene	ND		8.0	1.4	ug/Kg	☼	07/23/24 10:54	07/24/24 14:09	1
1,2-Dichloroethane	ND		8.0	0.96	ug/Kg	☼	07/23/24 10:54	07/24/24 14:09	1
1,2-Dichloropropane	ND		8.0	1.3	ug/Kg	☼	07/23/24 10:54	07/24/24 14:09	1
1,3-Dichlorobenzene	ND		8.0	1.6	ug/Kg	☼	07/23/24 10:54	07/24/24 14:09	1
1,4-Dichlorobenzene	ND		8.0	1.4	ug/Kg	☼	07/23/24 10:54	07/24/24 14:09	1
2-Butanone	**4.5**	**J**	16	3.2	ug/Kg	☼	07/23/24 10:54	07/24/24 14:09	1
2-Hexanone	ND		16	4.0	ug/Kg	☼	07/23/24 10:54	07/24/24 14:09	1
4-Methyl-2-pentanone	ND		16	3.2	ug/Kg	☼	07/23/24 10:54	07/24/24 14:09	1
Acetone	**61**		32	9.6	ug/Kg	☼	07/23/24 10:54	07/24/24 14:09	1
Benzene	ND		8.0	1.3	ug/Kg	☼	07/23/24 10:54	07/24/24 14:09	1
Bromodichloromethane	ND		8.0	1.1	ug/Kg	☼	07/23/24 10:54	07/24/24 14:09	1
Bromoform	ND		16	8.0	ug/Kg	☼	07/23/24 10:54	07/24/24 14:09	1
Bromomethane	ND		8.0	1.6	ug/Kg	☼	07/23/24 10:54	07/24/24 14:09	1
Carbon disulfide	ND		8.0	1.3	ug/Kg	☼	07/23/24 10:54	07/24/24 14:09	1
Carbon tetrachloride	ND		8.0	1.3	ug/Kg	☼	07/23/24 10:54	07/24/24 14:09	1
Chlorobenzene	ND		8.0	1.4	ug/Kg	☼	07/23/24 10:54	07/24/24 14:09	1
Chloroethane	ND		8.0	1.6	ug/Kg	☼	07/23/24 10:54	07/24/24 14:09	1
Chloroform	ND		8.0	1.3	ug/Kg	☼	07/23/24 10:54	07/24/24 14:09	1
Chloromethane	ND		8.0	1.6	ug/Kg	☼	07/23/24 10:54	07/24/24 14:09	1
cis-1,2-Dichloroethene	ND		8.0	1.3	ug/Kg	☼	07/23/24 10:54	07/24/24 14:09	1
cis-1,3-Dichloropropene	ND		8.0	0.96	ug/Kg	☼	07/23/24 10:54	07/24/24 14:09	1
Cyclohexane	ND		8.0	1.4	ug/Kg	☼	07/23/24 10:54	07/24/24 14:09	1
Dibromochloromethane	ND		8.0	0.80	ug/Kg	☼	07/23/24 10:54	07/24/24 14:09	1
Dichlorodifluoromethane	ND		8.0	1.6	ug/Kg	☼	07/23/24 10:54	07/24/24 14:09	1
Ethylbenzene	ND		8.0	1.6	ug/Kg	☼	07/23/24 10:54	07/24/24 14:09	1
Freon 113	ND		16	1.4	ug/Kg	☼	07/23/24 10:54	07/24/24 14:09	1
Isopropylbenzene	ND		8.0	2.4	ug/Kg	☼	07/23/24 10:54	07/24/24 14:09	1
Methyl acetate	**1.6**	**J**	8.0	1.6	ug/Kg	☼	07/23/24 10:54	07/24/24 14:09	1
Methyl tertiary butyl ether	ND		8.0	1.3	ug/Kg	☼	07/23/24 10:54	07/24/24 14:09	1
Methylcyclohexane	ND		8.0	1.3	ug/Kg	☼	07/23/24 10:54	07/24/24 14:09	1
Methylene Chloride	ND		8.0	3.2	ug/Kg	☼	07/23/24 10:54	07/24/24 14:09	1
Styrene	ND		8.0	1.4	ug/Kg	☼	07/23/24 10:54	07/24/24 14:09	1
Tetrachloroethene	ND		8.0	2.4	ug/Kg	☼	07/23/24 10:54	07/24/24 14:09	1
Toluene	ND		8.0	1.6	ug/Kg	☼	07/23/24 10:54	07/24/24 14:09	1
trans-1,2-Dichloroethene	ND		8.0	1.3	ug/Kg	☼	07/23/24 10:54	07/24/24 14:09	1
trans-1,3-Dichloropropene	ND		8.0	0.96	ug/Kg	☼	07/23/24 10:54	07/24/24 14:09	1
Trichloroethene	ND		8.0	1.3	ug/Kg	☼	07/23/24 10:54	07/24/24 14:09	1
Trichlorofluoromethane	ND		8.0	1.6	ug/Kg	☼	07/23/24 10:54	07/24/24 14:09	1
Vinyl chloride	ND		8.0	1.3	ug/Kg	☼	07/23/24 10:54	07/24/24 14:09	1
Xylenes, Total	ND		16	1.1	ug/Kg	☼	07/23/24 10:54	07/24/24 14:09	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*54 - 135*	*07/23/24 10:54*	*07/24/24 14:09*	*1*
4-Bromofluorobenzene (Surr)	*95*		*50 - 131*	*07/23/24 10:54*	*07/24/24 14:09*	*1*
Dibromofluoromethane (Surr)	*95*		*50 - 141*	*07/23/24 10:54*	*07/24/24 14:09*	*1*
Toluene-d8 (Surr)	*105*		*52 - 141*	*07/23/24 10:54*	*07/24/24 14:09*	*1*

Client Sample ID: DEP51-S2

Date Collected: 07/22/24 10:45
Date Received: 07/22/24 16:10

Lab Sample ID: 410-180859-2

Matrix: Solid
Percent Solids: 94.7

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	9500		16	8.0	mg/Kg	☼	07/23/24 06:30	07/25/24 13:23	2
Antimony	0.34		0.16	0.064	mg/Kg	☼	07/23/24 06:30	07/25/24 13:23	2
Arsenic	5.7		0.32	0.11	mg/Kg	☼	07/23/24 06:30	07/25/24 13:23	2
Barium	97	B ^2	0.32	0.15	mg/Kg	☼	07/23/24 06:30	07/25/24 13:23	2
Beryllium	0.44		0.081	0.019	mg/Kg	☼	07/23/24 06:30	07/25/24 13:23	2
Cadmium	0.23		0.081	0.032	mg/Kg	☼	07/23/24 06:30	07/25/24 13:23	2
Calcium	28000		160	79	mg/Kg	☼	07/23/24 06:30	07/25/24 13:25	10
Chromium	760		16	7.7	mg/Kg	☼	07/23/24 06:30	07/25/24 18:02	100
Cobalt	11		0.16	0.064	mg/Kg	☼	07/23/24 06:30	07/25/24 13:23	2
Copper	21		0.32	0.15	mg/Kg	☼	07/23/24 06:30	07/25/24 13:23	2
Iron	17000		81	37	mg/Kg	☼	07/23/24 06:30	07/25/24 13:25	10
Lead	66		0.81	0.31	mg/Kg	☼	07/23/24 06:30	07/25/24 18:00	10
Magnesium	6100		8.1	3.9	mg/Kg	☼	07/23/24 06:30	07/25/24 13:23	2
Manganese	310		0.32	0.16	mg/Kg	☼	07/23/24 06:30	07/25/24 13:23	2
Nickel	42		0.32	0.15	mg/Kg	☼	07/23/24 06:30	07/25/24 13:23	2
Potassium	3700		32	13	mg/Kg	☼	07/23/24 06:30	07/25/24 13:23	2
Selenium	0.14	J	0.32	0.081	mg/Kg	☼	07/23/24 06:30	07/25/24 13:23	2
Silver	0.11		0.081	0.033	mg/Kg	☼	07/23/24 06:30	07/25/24 13:23	2
Sodium	120		40	19	mg/Kg	☼	07/23/24 06:30	07/25/24 13:23	2
Thallium	0.21		0.081	0.032	mg/Kg	☼	07/23/24 06:30	07/25/24 13:23	2
Vanadium	35		0.64	0.16	mg/Kg	☼	07/23/24 06:30	07/25/24 13:23	2
Zinc	200	^2	120	16	mg/Kg	☼	07/23/24 06:30	07/25/24 13:25	10

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.053	J	0.062	0.021	mg/Kg	☼	07/23/24 22:00	07/24/24 12:27	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI) (SW846 7196A)	10		0.47	0.16	mg/Kg	☼	07/23/24 18:44	07/23/24 22:40	1
Cr (III) (SW846 7196A)	750	!	0.011	0.0035	mg/Kg	☼		08/22/24 16:11	1
Percent Moisture (EPA Moisture)	5.3	!	1.0	1.0	%			07/23/24 09:39	1

Client Sample ID: DEP51-S3

Date Collected: 07/22/24 10:50
Date Received: 07/22/24 16:10

Lab Sample ID: 410-180859-3

Matrix: Solid
Percent Solids: 95.7

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		13	2.1	ug/Kg	☼	07/23/24 10:54	07/24/24 14:31	1
1,1,2,2-Tetrachloroethane	ND		13	2.1	ug/Kg	☼	07/23/24 10:54	07/24/24 14:31	1
1,1,2-Trichloroethane	ND		13	1.8	ug/Kg	☼	07/23/24 10:54	07/24/24 14:31	1
1,1-Dichloroethane	ND		13	2.1	ug/Kg	☼	07/23/24 10:54	07/24/24 14:31	1
1,1-Dichloroethene	ND		13	2.1	ug/Kg	☼	07/23/24 10:54	07/24/24 14:31	1
1,2,4-Trichlorobenzene	ND		26	13	ug/Kg	☼	07/23/24 10:54	07/24/24 14:31	1
1,2-Dibromo-3-Chloropropane	ND		13	2.1	ug/Kg	☼	07/23/24 10:54	07/24/24 14:31	1
1,2-Dibromoethane	ND		13	1.8	ug/Kg	☼	07/23/24 10:54	07/24/24 14:31	1
1,2-Dichlorobenzene	ND		13	2.4	ug/Kg	☼	07/23/24 10:54	07/24/24 14:31	1
1,2-Dichloroethane	ND		13	1.6	ug/Kg	☼	07/23/24 10:54	07/24/24 14:31	1
1,2-Dichloropropane	ND		13	2.1	ug/Kg	☼	07/23/24 10:54	07/24/24 14:31	1

Client: Pennsylvania Dept of Env Protection
Project/Site: DEP 51st

Job ID: 410-180859-1

Client Sample ID: DEP51-S3
Date Collected: 07/22/24 10:50
Date Received: 07/22/24 16:10

Lab Sample ID: 410-180859-3
Matrix: Solid
Percent Solids: 95.7

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	ND		13	2.6	ug/Kg	☼	07/23/24 10:54	07/24/24 14:31	1
1,4-Dichlorobenzene	ND		13	2.4	ug/Kg	☼	07/23/24 10:54	07/24/24 14:31	1
2-Butanone	ND		26	5.3	ug/Kg	☼	07/23/24 10:54	07/24/24 14:31	1
2-Hexanone	ND		26	6.6	ug/Kg	☼	07/23/24 10:54	07/24/24 14:31	1
4-Methyl-2-pentanone	ND		26	5.3	ug/Kg	☼	07/23/24 10:54	07/24/24 14:31	1
Acetone	ND		53	16	ug/Kg	☼	07/23/24 10:54	07/24/24 14:31	1
Benzene	ND		13	2.1	ug/Kg	☼	07/23/24 10:54	07/24/24 14:31	1
Bromodichloromethane	ND		13	1.8	ug/Kg	☼	07/23/24 10:54	07/24/24 14:31	1
Bromoform	ND		26	13	ug/Kg	☼	07/23/24 10:54	07/24/24 14:31	1
Bromomethane	ND		13	2.6	ug/Kg	☼	07/23/24 10:54	07/24/24 14:31	1
Carbon disulfide	ND		13	2.1	ug/Kg	☼	07/23/24 10:54	07/24/24 14:31	1
Carbon tetrachloride	ND		13	2.1	ug/Kg	☼	07/23/24 10:54	07/24/24 14:31	1
Chlorobenzene	ND		13	2.4	ug/Kg	☼	07/23/24 10:54	07/24/24 14:31	1
Chloroethane	ND		13	2.6	ug/Kg	☼	07/23/24 10:54	07/24/24 14:31	1
Chloroform	ND		13	2.1	ug/Kg	☼	07/23/24 10:54	07/24/24 14:31	1
Chloromethane	ND		13	2.6	ug/Kg	☼	07/23/24 10:54	07/24/24 14:31	1
cis-1,2-Dichloroethene	ND		13	2.1	ug/Kg	☼	07/23/24 10:54	07/24/24 14:31	1
cis-1,3-Dichloropropene	ND		13	1.6	ug/Kg	☼	07/23/24 10:54	07/24/24 14:31	1
Cyclohexane	ND		13	2.4	ug/Kg	☼	07/23/24 10:54	07/24/24 14:31	1
Dibromochloromethane	ND		13	1.3	ug/Kg	☼	07/23/24 10:54	07/24/24 14:31	1
Dichlorodifluoromethane	ND		13	2.6	ug/Kg	☼	07/23/24 10:54	07/24/24 14:31	1
Ethylbenzene	ND		13	2.6	ug/Kg	☼	07/23/24 10:54	07/24/24 14:31	1
Freon 113	ND		26	2.4	ug/Kg	☼	07/23/24 10:54	07/24/24 14:31	1
Isopropylbenzene	ND		13	4.0	ug/Kg	☼	07/23/24 10:54	07/24/24 14:31	1
Methyl acetate	ND		13	2.6	ug/Kg	☼	07/23/24 10:54	07/24/24 14:31	1
Methyl tertiary butyl ether	ND		13	2.1	ug/Kg	☼	07/23/24 10:54	07/24/24 14:31	1
Methylcyclohexane	ND		13	2.1	ug/Kg	☼	07/23/24 10:54	07/24/24 14:31	1
Methylene Chloride	ND		13	5.3	ug/Kg	☼	07/23/24 10:54	07/24/24 14:31	1
Styrene	ND		13	2.4	ug/Kg	☼	07/23/24 10:54	07/24/24 14:31	1
Tetrachloroethene	ND		13	4.0	ug/Kg	☼	07/23/24 10:54	07/24/24 14:31	1
Toluene	ND		13	2.6	ug/Kg	☼	07/23/24 10:54	07/24/24 14:31	1
trans-1,2-Dichloroethene	ND		13	2.1	ug/Kg	☼	07/23/24 10:54	07/24/24 14:31	1
trans-1,3-Dichloropropene	ND		13	1.6	ug/Kg	☼	07/23/24 10:54	07/24/24 14:31	1
Trichloroethene	ND		13	2.1	ug/Kg	☼	07/23/24 10:54	07/24/24 14:31	1
Trichlorofluoromethane	ND		13	2.6	ug/Kg	☼	07/23/24 10:54	07/24/24 14:31	1
Vinyl chloride	ND		13	2.1	ug/Kg	☼	07/23/24 10:54	07/24/24 14:31	1
Xylenes, Total	ND		26	1.8	ug/Kg	☼	07/23/24 10:54	07/24/24 14:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*54 - 135*	*07/23/24 10:54*	*07/24/24 14:31*	*1*
4-Bromofluorobenzene (Surr)	*90*		*50 - 131*	*07/23/24 10:54*	*07/24/24 14:31*	*1*
Dibromofluoromethane (Surr)	*97*		*50 - 141*	*07/23/24 10:54*	*07/24/24 14:31*	*1*
Toluene-d8 (Surr)	*107*		*52 - 141*	*07/23/24 10:54*	*07/24/24 14:31*	*1*

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**17000**		19	9.6	mg/Kg	☼	07/23/24 06:30	07/25/24 13:09	2
Antimony	**0.53**		0.19	0.077	mg/Kg	☼	07/23/24 06:30	07/25/24 13:09	2
Arsenic	**9.8**		0.39	0.13	mg/Kg	☼	07/23/24 06:30	07/25/24 13:09	2
Barium	**160**	**B**	0.39	0.18	mg/Kg	☼	07/23/24 06:30	07/25/24 13:09	2

Client Sample ID: DEP51-S3

Date Collected: 07/22/24 10:50
Date Received: 07/22/24 16:10

Lab Sample ID: 410-180859-3

Matrix: Solid
Percent Solids: 95.7

Method: SW846 6020B - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	0.76		0.097	0.023	mg/Kg	☼	07/23/24 06:30	07/25/24 13:09	2
Cadmium	0.41		0.097	0.039	mg/Kg	☼	07/23/24 06:30	07/25/24 13:09	2
Calcium	49000		190	95	mg/Kg	☼	07/23/24 06:30	07/25/24 13:11	10
Chromium	1400		19	9.2	mg/Kg	☼	07/23/24 06:30	07/25/24 17:48	100
Cobalt	18	^2	0.19	0.077	mg/Kg	☼	07/23/24 06:30	07/25/24 13:09	2
Copper	41		0.39	0.17	mg/Kg	☼	07/23/24 06:30	07/25/24 13:09	2
Iron	30000		97	45	mg/Kg	☼	07/23/24 06:30	07/25/24 13:11	10
Lead	110		0.19	0.073	mg/Kg	☼	07/23/24 06:30	07/25/24 13:09	2
Magnesium	9600		9.7	4.7	mg/Kg	☼	07/23/24 06:30	07/25/24 13:09	2
Manganese	530		0.39	0.19	mg/Kg	☼	07/23/24 06:30	07/25/24 13:09	2
Nickel	66		0.39	0.18	mg/Kg	☼	07/23/24 06:30	07/25/24 13:09	2
Potassium	6800		39	15	mg/Kg	☼	07/23/24 06:30	07/25/24 13:09	2
Selenium	0.33	J	0.39	0.097	mg/Kg	☼	07/23/24 06:30	07/25/24 13:09	2
Silver	0.11		0.097	0.039	mg/Kg	☼	07/23/24 06:30	07/25/24 13:09	2
Sodium	170		48	23	mg/Kg	☼	07/23/24 06:30	07/25/24 13:09	2
Thallium	0.37		0.097	0.038	mg/Kg	☼	07/23/24 06:30	07/25/24 13:09	2
Vanadium	62		0.77	0.19	mg/Kg	☼	07/23/24 06:30	07/25/24 13:09	2
Zinc	310		150	19	mg/Kg	☼	07/23/24 06:30	07/25/24 13:11	10

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.13		0.061	0.020	mg/Kg	☼	07/23/24 22:00	07/24/24 12:36	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI) (SW846 7196A)	38		4.6	1.5	mg/Kg	☼	07/23/24 18:44	07/23/24 22:40	10
Cr (III) (SW846 7196A)	1400	!	0.011	0.0035	mg/Kg	☼		08/22/24 16:11	1
Percent Moisture (EPA Moisture)	4.3	!	1.0	1.0	%			07/23/24 09:39	1

Client Sample ID: DEP51-S4

Date Collected: 07/22/24 11:00
Date Received: 07/22/24 16:10

Lab Sample ID: 410-180859-4

Matrix: Solid
Percent Solids: 97.0

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		12	1.9	ug/Kg	☼	07/23/24 10:54	07/24/24 14:54	1
1,1,2,2-Tetrachloroethane	ND		12	1.9	ug/Kg	☼	07/23/24 10:54	07/24/24 14:54	1
1,1,2-Trichloroethane	ND		12	1.6	ug/Kg	☼	07/23/24 10:54	07/24/24 14:54	1
1,1-Dichloroethane	ND		12	1.9	ug/Kg	☼	07/23/24 10:54	07/24/24 14:54	1
1,1-Dichloroethene	ND		12	1.9	ug/Kg	☼	07/23/24 10:54	07/24/24 14:54	1
1,2,4-Trichlorobenzene	ND		23	12	ug/Kg	☼	07/23/24 10:54	07/24/24 14:54	1
1,2-Dibromo-3-Chloropropane	ND		12	1.9	ug/Kg	☼	07/23/24 10:54	07/24/24 14:54	1
1,2-Dibromoethane	ND		12	1.6	ug/Kg	☼	07/23/24 10:54	07/24/24 14:54	1
1,2-Dichlorobenzene	ND		12	2.1	ug/Kg	☼	07/23/24 10:54	07/24/24 14:54	1
1,2-Dichloroethane	ND		12	1.4	ug/Kg	☼	07/23/24 10:54	07/24/24 14:54	1
1,2-Dichloropropane	ND		12	1.9	ug/Kg	☼	07/23/24 10:54	07/24/24 14:54	1
1,3-Dichlorobenzene	ND		12	2.3	ug/Kg	☼	07/23/24 10:54	07/24/24 14:54	1
1,4-Dichlorobenzene	ND		12	2.1	ug/Kg	☼	07/23/24 10:54	07/24/24 14:54	1
2-Butanone	25		23	4.6	ug/Kg	☼	07/23/24 10:54	07/24/24 14:54	1
2-Hexanone	ND		23	5.8	ug/Kg	☼	07/23/24 10:54	07/24/24 14:54	1

Client: Pennsylvania Dept of Env Protection
Project/Site: DEP 51st

Job ID: 410-180859-1

Client Sample ID: DEP51-S4
Date Collected: 07/22/24 11:00
Date Received: 07/22/24 16:10

Lab Sample ID: 410-180859-4
Matrix: Solid
Percent Solids: 97.0

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Methyl-2-pentanone	ND		23	4.6	ug/Kg	☼	07/23/24 10:54	07/24/24 14:54	1
Acetone	**270**		46	14	ug/Kg	☼	07/23/24 10:54	07/24/24 14:54	1
Benzene	ND		12	1.9	ug/Kg	☼	07/23/24 10:54	07/24/24 14:54	1
Bromodichloromethane	ND		12	1.6	ug/Kg	☼	07/23/24 10:54	07/24/24 14:54	1
Bromoform	ND		23	12	ug/Kg	☼	07/23/24 10:54	07/24/24 14:54	1
Bromomethane	ND		12	2.3	ug/Kg	☼	07/23/24 10:54	07/24/24 14:54	1
Carbon disulfide	**2.2**	**J**	12	1.9	ug/Kg	☼	07/23/24 10:54	07/24/24 14:54	1
Carbon tetrachloride	ND		12	1.9	ug/Kg	☼	07/23/24 10:54	07/24/24 14:54	1
Chlorobenzene	ND		12	2.1	ug/Kg	☼	07/23/24 10:54	07/24/24 14:54	1
Chloroethane	ND		12	2.3	ug/Kg	☼	07/23/24 10:54	07/24/24 14:54	1
Chloroform	ND		12	1.9	ug/Kg	☼	07/23/24 10:54	07/24/24 14:54	1
Chloromethane	ND		12	2.3	ug/Kg	☼	07/23/24 10:54	07/24/24 14:54	1
cis-1,2-Dichloroethene	ND		12	1.9	ug/Kg	☼	07/23/24 10:54	07/24/24 14:54	1
cis-1,3-Dichloropropene	ND		12	1.4	ug/Kg	☼	07/23/24 10:54	07/24/24 14:54	1
Cyclohexane	ND		12	2.1	ug/Kg	☼	07/23/24 10:54	07/24/24 14:54	1
Dibromochloromethane	ND		12	1.2	ug/Kg	☼	07/23/24 10:54	07/24/24 14:54	1
Dichlorodifluoromethane	ND		12	2.3	ug/Kg	☼	07/23/24 10:54	07/24/24 14:54	1
Ethylbenzene	ND		12	2.3	ug/Kg	☼	07/23/24 10:54	07/24/24 14:54	1
Freon 113	ND		23	2.1	ug/Kg	☼	07/23/24 10:54	07/24/24 14:54	1
Isopropylbenzene	ND		12	3.5	ug/Kg	☼	07/23/24 10:54	07/24/24 14:54	1
Methyl acetate	ND		12	2.3	ug/Kg	☼	07/23/24 10:54	07/24/24 14:54	1
Methyl tertiary butyl ether	ND		12	1.9	ug/Kg	☼	07/23/24 10:54	07/24/24 14:54	1
Methylcyclohexane	ND		12	1.9	ug/Kg	☼	07/23/24 10:54	07/24/24 14:54	1
Methylene Chloride	ND		12	4.6	ug/Kg	☼	07/23/24 10:54	07/24/24 14:54	1
Styrene	ND		12	2.1	ug/Kg	☼	07/23/24 10:54	07/24/24 14:54	1
Tetrachloroethene	ND		12	3.5	ug/Kg	☼	07/23/24 10:54	07/24/24 14:54	1
Toluene	**2.4**	**J**	12	2.3	ug/Kg	☼	07/23/24 10:54	07/24/24 14:54	1
trans-1,2-Dichloroethene	ND		12	1.9	ug/Kg	☼	07/23/24 10:54	07/24/24 14:54	1
trans-1,3-Dichloropropene	ND		12	1.4	ug/Kg	☼	07/23/24 10:54	07/24/24 14:54	1
Trichloroethene	ND		12	1.9	ug/Kg	☼	07/23/24 10:54	07/24/24 14:54	1
Trichlorofluoromethane	ND		12	2.3	ug/Kg	☼	07/23/24 10:54	07/24/24 14:54	1
Vinyl chloride	ND		12	1.9	ug/Kg	☼	07/23/24 10:54	07/24/24 14:54	1
Xylenes, Total	ND		23	1.6	ug/Kg	☼	07/23/24 10:54	07/24/24 14:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*54 - 135*	*07/23/24 10:54*	*07/24/24 14:54*	*1*
4-Bromofluorobenzene (Surr)	*87*		*50 - 131*	*07/23/24 10:54*	*07/24/24 14:54*	*1*
Dibromofluoromethane (Surr)	*96*		*50 - 141*	*07/23/24 10:54*	*07/24/24 14:54*	*1*
Toluene-d8 (Surr)	*112*		*52 - 141*	*07/23/24 10:54*	*07/24/24 14:54*	*1*

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**14000**		17	8.6	mg/Kg	☼	07/23/24 06:30	07/25/24 13:19	2
Antimony	**0.65**		0.17	0.069	mg/Kg	☼	07/23/24 06:30	07/25/24 13:19	2
Arsenic	**8.2**		0.35	0.12	mg/Kg	☼	07/23/24 06:30	07/25/24 13:19	2
Barium	**140**	**B ^2**	0.35	0.16	mg/Kg	☼	07/23/24 06:30	07/25/24 13:19	2
Beryllium	**0.63**		0.087	0.021	mg/Kg	☼	07/23/24 06:30	07/25/24 13:19	2
Cadmium	**0.41**		0.087	0.035	mg/Kg	☼	07/23/24 06:30	07/25/24 13:19	2
Calcium	**29000**		170	85	mg/Kg	☼	07/23/24 06:30	07/25/24 13:21	10
Chromium	**810**		17	8.2	mg/Kg	☼	07/23/24 06:30	07/25/24 17:58	100

Client Sample ID: DEP51-S4

Date Collected: 07/22/24 11:00
Date Received: 07/22/24 16:10

Lab Sample ID: 410-180859-4

Matrix: Solid
Percent Solids: 97.0

Method: SW846 6020B - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cobalt	14		0.17	0.069	mg/Kg	☼	07/23/24 06:30	07/25/24 13:19	2
Copper	42		0.35	0.16	mg/Kg	☼	07/23/24 06:30	07/25/24 13:19	2
Iron	29000		87	40	mg/Kg	☼	07/23/24 06:30	07/25/24 13:21	10
Lead	230		0.87	0.33	mg/Kg	☼	07/23/24 06:30	07/25/24 17:56	10
Magnesium	9100		8.7	4.2	mg/Kg	☼	07/23/24 06:30	07/25/24 13:19	2
Manganese	500		0.35	0.17	mg/Kg	☼	07/23/24 06:30	07/25/24 13:19	2
Nickel	49		0.35	0.16	mg/Kg	☼	07/23/24 06:30	07/25/24 13:19	2
Potassium	4500		35	14	mg/Kg	☼	07/23/24 06:30	07/25/24 13:19	2
Selenium	0.30	J	0.35	0.087	mg/Kg	☼	07/23/24 06:30	07/25/24 13:19	2
Silver	0.12		0.087	0.035	mg/Kg	☼	07/23/24 06:30	07/25/24 13:19	2
Sodium	210		43	21	mg/Kg	☼	07/23/24 06:30	07/25/24 13:19	2
Thallium	0.29		0.087	0.034	mg/Kg	☼	07/23/24 06:30	07/25/24 13:19	2
Vanadium	44		0.69	0.17	mg/Kg	☼	07/23/24 06:30	07/25/24 13:19	2
Zinc	310	^2	130	17	mg/Kg	☼	07/23/24 06:30	07/25/24 13:21	10

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.098		0.062	0.021	mg/Kg	☼	07/23/24 22:00	07/24/24 12:31	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI) (SW846 7196A)	ND	cn	4.5	1.5	mg/Kg	☼	07/23/24 18:44	07/23/24 22:40	10
Cr (III) (SW846 7196A)	810	!	0.011	0.0035	mg/Kg	☼		08/22/24 16:11	1
Percent Moisture (EPA Moisture)	3.0	!	1.0	1.0	%			07/23/24 09:39	1

Client Sample ID: DEP51-S5

Date Collected: 07/22/24 11:05
Date Received: 07/22/24 16:10

Lab Sample ID: 410-180859-5

Matrix: Solid
Percent Solids: 76.5

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		10	1.7	ug/Kg	☼	07/23/24 10:54	07/24/24 20:33	1
1,1,2,2-Tetrachloroethane	ND		10	1.7	ug/Kg	☼	07/23/24 10:54	07/24/24 20:33	1
1,1,2-Trichloroethane	ND		10	1.5	ug/Kg	☼	07/23/24 10:54	07/24/24 20:33	1
1,1-Dichloroethane	ND		10	1.7	ug/Kg	☼	07/23/24 10:54	07/24/24 20:33	1
1,1-Dichloroethene	ND		10	1.7	ug/Kg	☼	07/23/24 10:54	07/24/24 20:33	1
1,2,4-Trichlorobenzene	ND		21	10	ug/Kg	☼	07/23/24 10:54	07/24/24 20:33	1
1,2-Dibromo-3-Chloropropane	ND		10	1.7	ug/Kg	☼	07/23/24 10:54	07/24/24 20:33	1
1,2-Dibromoethane	ND		10	1.5	ug/Kg	☼	07/23/24 10:54	07/24/24 20:33	1
1,2-Dichlorobenzene	ND		10	1.9	ug/Kg	☼	07/23/24 10:54	07/24/24 20:33	1
1,2-Dichloroethane	ND		10	1.3	ug/Kg	☼	07/23/24 10:54	07/24/24 20:33	1
1,2-Dichloropropane	ND		10	1.7	ug/Kg	☼	07/23/24 10:54	07/24/24 20:33	1
1,3-Dichlorobenzene	ND		10	2.1	ug/Kg	☼	07/23/24 10:54	07/24/24 20:33	1
1,4-Dichlorobenzene	ND		10	1.9	ug/Kg	☼	07/23/24 10:54	07/24/24 20:33	1
2-Butanone	32		21	4.2	ug/Kg	☼	07/23/24 10:54	07/24/24 20:33	1
2-Hexanone	ND		21	5.2	ug/Kg	☼	07/23/24 10:54	07/24/24 20:33	1
4-Methyl-2-pentanone	ND		21	4.2	ug/Kg	☼	07/23/24 10:54	07/24/24 20:33	1
Acetone	440		42	13	ug/Kg	☼	07/23/24 10:54	07/24/24 20:33	1
Benzene	ND		10	1.7	ug/Kg	☼	07/23/24 10:54	07/24/24 20:33	1
Bromodichloromethane	ND		10	1.5	ug/Kg	☼	07/23/24 10:54	07/24/24 20:33	1

Client Sample ID: DEP51-S5
Date Collected: 07/22/24 11:05
Date Received: 07/22/24 16:10

Lab Sample ID: 410-180859-5
Matrix: Solid
Percent Solids: 76.5

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromoform	ND		21	10	ug/Kg	☼	07/23/24 10:54	07/24/24 20:33	1
Bromomethane	ND		10	2.1	ug/Kg	☼	07/23/24 10:54	07/24/24 20:33	1
Carbon disulfide	ND		10	1.7	ug/Kg	☼	07/23/24 10:54	07/24/24 20:33	1
Carbon tetrachloride	ND		10	1.7	ug/Kg	☼	07/23/24 10:54	07/24/24 20:33	1
Chlorobenzene	ND		10	1.9	ug/Kg	☼	07/23/24 10:54	07/24/24 20:33	1
Chloroethane	ND		10	2.1	ug/Kg	☼	07/23/24 10:54	07/24/24 20:33	1
Chloroform	ND		10	1.7	ug/Kg	☼	07/23/24 10:54	07/24/24 20:33	1
Chloromethane	ND		10	2.1	ug/Kg	☼	07/23/24 10:54	07/24/24 20:33	1
cis-1,2-Dichloroethene	ND		10	1.7	ug/Kg	☼	07/23/24 10:54	07/24/24 20:33	1
cis-1,3-Dichloropropene	ND		10	1.3	ug/Kg	☼	07/23/24 10:54	07/24/24 20:33	1
Cyclohexane	ND		10	1.9	ug/Kg	☼	07/23/24 10:54	07/24/24 20:33	1
Dibromochloromethane	ND		10	1.0	ug/Kg	☼	07/23/24 10:54	07/24/24 20:33	1
Dichlorodifluoromethane	ND		10	2.1	ug/Kg	☼	07/23/24 10:54	07/24/24 20:33	1
Ethylbenzene	ND		10	2.1	ug/Kg	☼	07/23/24 10:54	07/24/24 20:33	1
Freon 113	ND		21	1.9	ug/Kg	☼	07/23/24 10:54	07/24/24 20:33	1
Isopropylbenzene	ND		10	3.1	ug/Kg	☼	07/23/24 10:54	07/24/24 20:33	1
Methyl acetate	ND		10	2.1	ug/Kg	☼	07/23/24 10:54	07/24/24 20:33	1
Methyl tertiary butyl ether	ND		10	1.7	ug/Kg	☼	07/23/24 10:54	07/24/24 20:33	1
Methylcyclohexane	ND		10	1.7	ug/Kg	☼	07/23/24 10:54	07/24/24 20:33	1
Methylene Chloride	ND		10	4.2	ug/Kg	☼	07/23/24 10:54	07/24/24 20:33	1
Styrene	ND		10	1.9	ug/Kg	☼	07/23/24 10:54	07/24/24 20:33	1
Tetrachloroethene	ND		10	3.1	ug/Kg	☼	07/23/24 10:54	07/24/24 20:33	1
Toluene	**2.8**	**J**	10	2.1	ug/Kg	☼	07/23/24 10:54	07/24/24 20:33	1
trans-1,2-Dichloroethene	ND		10	1.7	ug/Kg	☼	07/23/24 10:54	07/24/24 20:33	1
trans-1,3-Dichloropropene	ND		10	1.3	ug/Kg	☼	07/23/24 10:54	07/24/24 20:33	1
Trichloroethene	ND		10	1.7	ug/Kg	☼	07/23/24 10:54	07/24/24 20:33	1
Trichlorofluoromethane	ND		10	2.1	ug/Kg	☼	07/23/24 10:54	07/24/24 20:33	1
Vinyl chloride	ND		10	1.7	ug/Kg	☼	07/23/24 10:54	07/24/24 20:33	1
Xylenes, Total	ND		21	1.5	ug/Kg	☼	07/23/24 10:54	07/24/24 20:33	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*99*		*54 - 135*	*07/23/24 10:54*	*07/24/24 20:33*	*1*
4-Bromofluorobenzene (Surr)	*80*		*50 - 131*	*07/23/24 10:54*	*07/24/24 20:33*	*1*
Dibromofluoromethane (Surr)	*97*		*50 - 141*	*07/23/24 10:54*	*07/24/24 20:33*	*1*
Toluene-d8 (Surr)	*119*		*52 - 141*	*07/23/24 10:54*	*07/24/24 20:33*	*1*

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**9200**		21	10	mg/Kg	☼	07/23/24 06:30	07/25/24 13:05	2
Antimony	**0.49**		0.21	0.084	mg/Kg	☼	07/23/24 06:30	07/25/24 13:05	2
Arsenic	**5.0**		0.42	0.14	mg/Kg	☼	07/23/24 06:30	07/25/24 13:05	2
Barium	**110**	**B**	0.42	0.19	mg/Kg	☼	07/23/24 06:30	07/25/24 13:05	2
Beryllium	**0.42**		0.11	0.025	mg/Kg	☼	07/23/24 06:30	07/25/24 13:05	2
Cadmium	**0.28**		0.11	0.042	mg/Kg	☼	07/23/24 06:30	07/25/24 13:05	2
Calcium	**10000**		42	21	mg/Kg	☼	07/23/24 06:30	07/25/24 13:05	2
Chromium	**330**		2.1	1.0	mg/Kg	☼	07/23/24 06:30	07/25/24 13:07	10
Cobalt	**9.7**	**^2**	0.21	0.084	mg/Kg	☼	07/23/24 06:30	07/25/24 13:05	2
Copper	**26**		0.42	0.19	mg/Kg	☼	07/23/24 06:30	07/25/24 13:05	2
Iron	**19000**		110	49	mg/Kg	☼	07/23/24 06:30	07/25/24 13:07	10
Lead	**460**		1.1	0.40	mg/Kg	☼	07/23/24 06:30	07/25/24 13:07	10

Client Sample ID: DEP51-S5

Date Collected: 07/22/24 11:05
Date Received: 07/22/24 16:10

Lab Sample ID: 410-180859-5

Matrix: Solid
Percent Solids: 76.5

Method: SW846 6020B - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Magnesium	**6200**		11	5.2	mg/Kg	☼	07/23/24 06:30	07/25/24 13:05	2
Manganese	**340**		0.42	0.21	mg/Kg	☼	07/23/24 06:30	07/25/24 13:05	2
Nickel	**28**		0.42	0.20	mg/Kg	☼	07/23/24 06:30	07/25/24 13:05	2
Potassium	**4600**		42	17	mg/Kg	☼	07/23/24 06:30	07/25/24 13:05	2
Selenium	**0.17**	**J**	0.42	0.11	mg/Kg	☼	07/23/24 06:30	07/25/24 13:05	2
Silver	**0.056**	**J**	0.11	0.043	mg/Kg	☼	07/23/24 06:30	07/25/24 13:05	2
Sodium	**220**		53	25	mg/Kg	☼	07/23/24 06:30	07/25/24 13:05	2
Thallium	**0.23**		0.11	0.041	mg/Kg	☼	07/23/24 06:30	07/25/24 13:05	2
Vanadium	**30**		0.84	0.21	mg/Kg	☼	07/23/24 06:30	07/25/24 13:05	2
Zinc	**280**		160	21	mg/Kg	☼	07/23/24 06:30	07/25/24 13:07	10

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.077	0.026	mg/Kg	☼	07/23/24 22:00	07/24/24 12:14	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI) (SW846 7196A)	ND	cn	5.6	1.9	mg/Kg	☼	07/23/24 18:44	07/23/24 22:40	10
Cr (III) (SW846 7196A)	**330**	**!**	0.011	0.0035	mg/Kg	☼		08/22/24 16:11	1
Percent Moisture (EPA Moisture)	**23.5**	**!**	1.0	1.0	%			07/23/24 09:39	1

Client Sample ID: DEP51-S6

Date Collected: 07/22/24 11:10
Date Received: 07/22/24 16:10

Lab Sample ID: 410-180859-6

Matrix: Solid
Percent Solids: 70.5

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND	cn	7.4	1.2	ug/Kg	☼	07/23/24 10:54	07/24/24 15:39	1
1,1,2,2-Tetrachloroethane	ND	*3 cn	7.4	1.2	ug/Kg	☼	07/23/24 10:54	07/24/24 15:39	1
1,1,2-Trichloroethane	ND	cn	7.4	1.0	ug/Kg	☼	07/23/24 10:54	07/24/24 15:39	1
1,1-Dichloroethane	ND	cn	7.4	1.2	ug/Kg	☼	07/23/24 10:54	07/24/24 15:39	1
1,1-Dichloroethene	ND	cn	7.4	1.2	ug/Kg	☼	07/23/24 10:54	07/24/24 15:39	1
1,2,4-Trichlorobenzene	ND	*3 cn	15	7.4	ug/Kg	☼	07/23/24 10:54	07/24/24 15:39	1
1,2-Dibromo-3-Chloropropane	ND	*3 cn	7.4	1.2	ug/Kg	☼	07/23/24 10:54	07/24/24 15:39	1
1,2-Dibromoethane	ND	cn	7.4	1.0	ug/Kg	☼	07/23/24 10:54	07/24/24 15:39	1
1,2-Dichlorobenzene	ND	*3 cn	7.4	1.3	ug/Kg	☼	07/23/24 10:54	07/24/24 15:39	1
1,2-Dichloroethane	ND	cn	7.4	0.88	ug/Kg	☼	07/23/24 10:54	07/24/24 15:39	1
1,2-Dichloropropane	ND	cn	7.4	1.2	ug/Kg	☼	07/23/24 10:54	07/24/24 15:39	1
1,3-Dichlorobenzene	ND	*3 cn	7.4	1.5	ug/Kg	☼	07/23/24 10:54	07/24/24 15:39	1
1,4-Dichlorobenzene	ND	*3 cn	7.4	1.3	ug/Kg	☼	07/23/24 10:54	07/24/24 15:39	1
2-Butanone	**9.7**	**J cn**	15	2.9	ug/Kg	☼	07/23/24 10:54	07/24/24 15:39	1
2-Hexanone	ND	cn	15	3.7	ug/Kg	☼	07/23/24 10:54	07/24/24 15:39	1
4-Methyl-2-pentanone	ND	cn	15	2.9	ug/Kg	☼	07/23/24 10:54	07/24/24 15:39	1
Acetone	**100**	**cn**	29	8.8	ug/Kg	☼	07/23/24 10:54	07/24/24 15:39	1
Benzene	**3.0**	**J cn**	7.4	1.2	ug/Kg	☼	07/23/24 10:54	07/24/24 15:39	1
Bromodichloromethane	ND	cn	7.4	1.0	ug/Kg	☼	07/23/24 10:54	07/24/24 15:39	1
Bromoform	ND	cn	15	7.4	ug/Kg	☼	07/23/24 10:54	07/24/24 15:39	1
Bromomethane	ND	cn	7.4	1.5	ug/Kg	☼	07/23/24 10:54	07/24/24 15:39	1
Carbon disulfide	**3.4**	**J cn**	7.4	1.2	ug/Kg	☼	07/23/24 10:54	07/24/24 15:39	1
Carbon tetrachloride	ND	cn	7.4	1.2	ug/Kg	☼	07/23/24 10:54	07/24/24 15:39	1

Client Sample ID: DEP51-S6
Date Collected: 07/22/24 11:10
Date Received: 07/22/24 16:10

Lab Sample ID: 410-180859-6
Matrix: Solid
Percent Solids: 70.5

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorobenzene	ND	cn	7.4	1.3	ug/Kg	☼	07/23/24 10:54	07/24/24 15:39	1
Chloroethane	ND	cn	7.4	1.5	ug/Kg	☼	07/23/24 10:54	07/24/24 15:39	1
Chloroform	ND	cn	7.4	1.2	ug/Kg	☼	07/23/24 10:54	07/24/24 15:39	1
Chloromethane	ND	cn	7.4	1.5	ug/Kg	☼	07/23/24 10:54	07/24/24 15:39	1
cis-1,2-Dichloroethene	ND	cn	7.4	1.2	ug/Kg	☼	07/23/24 10:54	07/24/24 15:39	1
cis-1,3-Dichloropropene	ND	cn	7.4	0.88	ug/Kg	☼	07/23/24 10:54	07/24/24 15:39	1
Cyclohexane	ND	cn	7.4	1.3	ug/Kg	☼	07/23/24 10:54	07/24/24 15:39	1
Dibromochloromethane	ND	cn	7.4	0.74	ug/Kg	☼	07/23/24 10:54	07/24/24 15:39	1
Dichlorodifluoromethane	ND	cn	7.4	1.5	ug/Kg	☼	07/23/24 10:54	07/24/24 15:39	1
Ethylbenzene	ND	cn	7.4	1.5	ug/Kg	☼	07/23/24 10:54	07/24/24 15:39	1
Freon 113	ND	cn	15	1.3	ug/Kg	☼	07/23/24 10:54	07/24/24 15:39	1
Isopropylbenzene	ND	cn	7.4	2.2	ug/Kg	☼	07/23/24 10:54	07/24/24 15:39	1
Methyl acetate	ND	cn	7.4	1.5	ug/Kg	☼	07/23/24 10:54	07/24/24 15:39	1
Methyl tertiary butyl ether	ND	cn	7.4	1.2	ug/Kg	☼	07/23/24 10:54	07/24/24 15:39	1
Methylcyclohexane	ND	cn	7.4	1.2	ug/Kg	☼	07/23/24 10:54	07/24/24 15:39	1
Methylene Chloride	ND	cn	7.4	2.9	ug/Kg	☼	07/23/24 10:54	07/24/24 15:39	1
Styrene	ND	cn	7.4	1.3	ug/Kg	☼	07/23/24 10:54	07/24/24 15:39	1
Tetrachloroethene	ND	cn	7.4	2.2	ug/Kg	☼	07/23/24 10:54	07/24/24 15:39	1
Toluene	**2.7**	**J cn**	7.4	1.5	ug/Kg	☼	07/23/24 10:54	07/24/24 15:39	1
trans-1,2-Dichloroethene	ND	cn	7.4	1.2	ug/Kg	☼	07/23/24 10:54	07/24/24 15:39	1
trans-1,3-Dichloropropene	ND	cn	7.4	0.88	ug/Kg	☼	07/23/24 10:54	07/24/24 15:39	1
Trichloroethene	ND	cn	7.4	1.2	ug/Kg	☼	07/23/24 10:54	07/24/24 15:39	1
Trichlorofluoromethane	ND	cn	7.4	1.5	ug/Kg	☼	07/23/24 10:54	07/24/24 15:39	1
Vinyl chloride	ND	cn	7.4	1.2	ug/Kg	☼	07/23/24 10:54	07/24/24 15:39	1
Xylenes, Total	ND	cn	15	1.0	ug/Kg	☼	07/23/24 10:54	07/24/24 15:39	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*	*cn*	*54 - 135*	*07/23/24 10:54*	*07/24/24 15:39*	*1*
4-Bromofluorobenzene (Surr)	*78*	*cn*	*50 - 131*	*07/23/24 10:54*	*07/24/24 15:39*	*1*
Dibromofluoromethane (Surr)	*98*	*cn*	*50 - 141*	*07/23/24 10:54*	*07/24/24 15:39*	*1*
Toluene-d8 (Surr)	*125*	*cn*	*52 - 141*	*07/23/24 10:54*	*07/24/24 15:39*	*1*

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**7400**		20	10	mg/Kg	☼	07/23/24 06:30	07/25/24 13:01	2
Antimony	**1.9**		0.20	0.082	mg/Kg	☼	07/23/24 06:30	07/25/24 13:01	2
Arsenic	**12**		0.41	0.14	mg/Kg	☼	07/23/24 06:30	07/25/24 13:01	2
Barium	**130**	**B**	0.41	0.19	mg/Kg	☼	07/23/24 06:30	07/25/24 13:01	2
Beryllium	**0.49**		0.10	0.024	mg/Kg	☼	07/23/24 06:30	07/25/24 13:01	2
Cadmium	**0.59**		0.10	0.041	mg/Kg	☼	07/23/24 06:30	07/25/24 13:01	2
Calcium	**13000**		41	20	mg/Kg	☼	07/23/24 06:30	07/25/24 13:01	2
Chromium	**250**		2.0	0.97	mg/Kg	☼	07/23/24 06:30	07/25/24 13:03	10
Cobalt	**11**	**^2**	0.20	0.082	mg/Kg	☼	07/23/24 06:30	07/25/24 13:01	2
Copper	**88**		0.41	0.18	mg/Kg	☼	07/23/24 06:30	07/25/24 13:01	2
Iron	**58000**		100	47	mg/Kg	☼	07/23/24 06:30	07/25/24 13:03	10
Lead	**270**		1.0	0.39	mg/Kg	☼	07/23/24 06:30	07/25/24 13:03	10
Magnesium	**3500**		10	5.0	mg/Kg	☼	07/23/24 06:30	07/25/24 13:01	2
Manganese	**480**		0.41	0.20	mg/Kg	☼	07/23/24 06:30	07/25/24 13:01	2
Nickel	**33**		0.41	0.19	mg/Kg	☼	07/23/24 06:30	07/25/24 13:01	2
Potassium	**2100**		41	16	mg/Kg	☼	07/23/24 06:30	07/25/24 13:01	2

Client Sample ID: DEP51-S6

Date Collected: 07/22/24 11:10
Date Received: 07/22/24 16:10

Lab Sample ID: 410-180859-6

Matrix: Solid
Percent Solids: 70.5

Method: SW846 6020B - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Selenium	**0.53**		0.41	0.10	mg/Kg	☼	07/23/24 06:30	07/25/24 13:01	2
Silver	**0.16**		0.10	0.041	mg/Kg	☼	07/23/24 06:30	07/25/24 13:01	2
Sodium	**140**		51	24	mg/Kg	☼	07/23/24 06:30	07/25/24 13:01	2
Thallium	**0.19**		0.10	0.040	mg/Kg	☼	07/23/24 06:30	07/25/24 13:01	2
Vanadium	**27**		0.82	0.20	mg/Kg	☼	07/23/24 06:30	07/25/24 13:01	2
Zinc	**210**		150	20	mg/Kg	☼	07/23/24 06:30	07/25/24 13:03	10

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.25**		0.084	0.028	mg/Kg	☼	07/23/24 22:00	07/24/24 12:08	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI) (SW846 7196A)	ND	cn	6.3	2.1	mg/Kg	☼	07/23/24 18:44	07/23/24 22:40	10
Cr (III) (SW846 7196A)	**250**	**!**	0.011	0.0035	mg/Kg	☼		08/22/24 16:11	1
Percent Moisture (EPA Moisture)	**29.5**	**!**	1.0	1.0	%			07/23/24 09:39	1

Client Sample ID: DEP51-S7

Date Collected: 07/22/24 11:15
Date Received: 07/22/24 16:10

Lab Sample ID: 410-180859-7

Matrix: Solid
Percent Solids: 71.9

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND	cn	500	69	ug/Kg	☼	07/23/24 11:01	07/25/24 02:22	50
1,1,2,2-Tetrachloroethane	ND	cn	500	59	ug/Kg	☼	07/23/24 11:01	07/25/24 02:22	50
1,1,2-Trichloroethane	ND	cn	500	50	ug/Kg	☼	07/23/24 11:01	07/25/24 02:22	50
1,1-Dichloroethane	ND	cn	500	50	ug/Kg	☼	07/23/24 11:01	07/25/24 02:22	50
1,1-Dichloroethene	ND	cn	500	59	ug/Kg	☼	07/23/24 11:01	07/25/24 02:22	50
1,2,4-Trichlorobenzene	ND	cn	990	500	ug/Kg	☼	07/23/24 11:01	07/25/24 02:22	50
1,2-Dibromo-3-Chloropropane	ND	^c cn	500	99	ug/Kg	☼	07/23/24 11:01	07/25/24 02:22	50
1,2-Dibromoethane	ND	cn	500	59	ug/Kg	☼	07/23/24 11:01	07/25/24 02:22	50
1,2-Dichlorobenzene	ND	cn	500	59	ug/Kg	☼	07/23/24 11:01	07/25/24 02:22	50
1,2-Dichloroethane	ND	cn	500	59	ug/Kg	☼	07/23/24 11:01	07/25/24 02:22	50
1,2-Dichloropropane	ND	cn	500	50	ug/Kg	☼	07/23/24 11:01	07/25/24 02:22	50
1,3-Dichlorobenzene	ND	cn	500	50	ug/Kg	☼	07/23/24 11:01	07/25/24 02:22	50
1,4-Dichlorobenzene	ND	cn	500	50	ug/Kg	☼	07/23/24 11:01	07/25/24 02:22	50
2-Butanone	ND	cn	990	200	ug/Kg	☼	07/23/24 11:01	07/25/24 02:22	50
2-Hexanone	ND	^c cn	990	150	ug/Kg	☼	07/23/24 11:01	07/25/24 02:22	50
4-Methyl-2-pentanone	ND	^c cn	990	150	ug/Kg	☼	07/23/24 11:01	07/25/24 02:22	50
Acetone	ND	^c cn	2000	590	ug/Kg	☼	07/23/24 11:01	07/25/24 02:22	50
Benzene	ND	cn	500	50	ug/Kg	☼	07/23/24 11:01	07/25/24 02:22	50
Bromodichloromethane	ND	cn	500	69	ug/Kg	☼	07/23/24 11:01	07/25/24 02:22	50
Bromoform	ND	cn	990	500	ug/Kg	☼	07/23/24 11:01	07/25/24 02:22	50
Bromomethane	ND	*+ ^c cn	500	160	ug/Kg	☼	07/23/24 11:01	07/25/24 02:22	50
Carbon disulfide	ND	cn	500	59	ug/Kg	☼	07/23/24 11:01	07/25/24 02:22	50
Carbon tetrachloride	ND	cn	500	200	ug/Kg	☼	07/23/24 11:01	07/25/24 02:22	50
Chlorobenzene	ND	cn	500	50	ug/Kg	☼	07/23/24 11:01	07/25/24 02:22	50
Chloroethane	ND	*+ ^c cn	500	150	ug/Kg	☼	07/23/24 11:01	07/25/24 02:22	50
Chloroform	ND	cn	500	59	ug/Kg	☼	07/23/24 11:01	07/25/24 02:22	50
Chloromethane	ND	cn	500	89	ug/Kg	☼	07/23/24 11:01	07/25/24 02:22	50

Client Sample ID: DEP51-S7
Date Collected: 07/22/24 11:15
Date Received: 07/22/24 16:10

Lab Sample ID: 410-180859-7
Matrix: Solid
Percent Solids: 71.9

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
cis-1,2-Dichloroethene	ND	cn	500	59	ug/Kg	☼	07/23/24 11:01	07/25/24 02:22	50
cis-1,3-Dichloropropene	ND	cn	500	59	ug/Kg	☼	07/23/24 11:01	07/25/24 02:22	50
Cyclohexane	ND	cn	500	50	ug/Kg	☼	07/23/24 11:01	07/25/24 02:22	50
Dibromochloromethane	ND	cn	500	200	ug/Kg	☼	07/23/24 11:01	07/25/24 02:22	50
Dichlorodifluoromethane	ND	cn	500	59	ug/Kg	☼	07/23/24 11:01	07/25/24 02:22	50
Ethylbenzene	ND	cn	500	40	ug/Kg	☼	07/23/24 11:01	07/25/24 02:22	50
Freon 113	ND	cn	990	69	ug/Kg	☼	07/23/24 11:01	07/25/24 02:22	50
Isopropylbenzene	ND	cn	500	59	ug/Kg	☼	07/23/24 11:01	07/25/24 02:22	50
Methyl acetate	**210**	**J ^c cn**	500	99	ug/Kg	☼	07/23/24 11:01	07/25/24 02:22	50
Methyl tertiary butyl ether	ND	cn	500	59	ug/Kg	☼	07/23/24 11:01	07/25/24 02:22	50
Methylcyclohexane	ND	cn	500	59	ug/Kg	☼	07/23/24 11:01	07/25/24 02:22	50
Methylene Chloride	ND	cn	500	200	ug/Kg	☼	07/23/24 11:01	07/25/24 02:22	50
Styrene	ND	cn	500	59	ug/Kg	☼	07/23/24 11:01	07/25/24 02:22	50
Tetrachloroethene	ND	cn	500	59	ug/Kg	☼	07/23/24 11:01	07/25/24 02:22	50
Toluene	ND	cn	500	59	ug/Kg	☼	07/23/24 11:01	07/25/24 02:22	50
trans-1,2-Dichloroethene	ND	cn	500	59	ug/Kg	☼	07/23/24 11:01	07/25/24 02:22	50
trans-1,3-Dichloropropene	ND	cn	500	59	ug/Kg	☼	07/23/24 11:01	07/25/24 02:22	50
Trichloroethene	ND	cn	500	59	ug/Kg	☼	07/23/24 11:01	07/25/24 02:22	50
Trichlorofluoromethane	ND	cn	500	79	ug/Kg	☼	07/23/24 11:01	07/25/24 02:22	50
Vinyl chloride	ND	cn	500	79	ug/Kg	☼	07/23/24 11:01	07/25/24 02:22	50
Xylenes, Total	ND	cn	500	140	ug/Kg	☼	07/23/24 11:01	07/25/24 02:22	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*76*	*cn*	*54 - 135*	*07/23/24 11:01*	*07/25/24 02:22*	*50*
4-Bromofluorobenzene (Surr)	*69*	*cn*	*50 - 131*	*07/23/24 11:01*	*07/25/24 02:22*	*50*
Dibromofluoromethane (Surr)	*75*	*cn*	*50 - 141*	*07/23/24 11:01*	*07/25/24 02:22*	*50*
Toluene-d8 (Surr)	*73*	*cn*	*52 - 141*	*07/23/24 11:01*	*07/25/24 02:22*	*50*

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**13000**		24	12	mg/Kg	☼	07/23/24 06:30	07/25/24 12:57	2
Antimony	**0.79**		0.24	0.096	mg/Kg	☼	07/23/24 06:30	07/25/24 12:57	2
Arsenic	**10**		0.48	0.16	mg/Kg	☼	07/23/24 06:30	07/25/24 12:57	2
Barium	**120**	**B**	0.48	0.22	mg/Kg	☼	07/23/24 06:30	07/25/24 12:57	2
Beryllium	**0.66**		0.12	0.029	mg/Kg	☼	07/23/24 06:30	07/25/24 12:57	2
Cadmium	**0.45**		0.12	0.048	mg/Kg	☼	07/23/24 06:30	07/25/24 12:57	2
Calcium	**26000**		240	120	mg/Kg	☼	07/23/24 06:30	07/25/24 12:59	10
Chromium	**1100**		2.4	1.1	mg/Kg	☼	07/23/24 06:30	07/25/24 12:59	10
Cobalt	**14**	**^2**	0.24	0.096	mg/Kg	☼	07/23/24 06:30	07/25/24 12:57	2
Copper	**45**		0.48	0.22	mg/Kg	☼	07/23/24 06:30	07/25/24 12:57	2
Iron	**28000**		120	55	mg/Kg	☼	07/23/24 06:30	07/25/24 12:59	10
Lead	**200**		0.24	0.091	mg/Kg	☼	07/23/24 06:30	07/25/24 12:57	2
Magnesium	**7700**		12	5.9	mg/Kg	☼	07/23/24 06:30	07/25/24 12:57	2
Manganese	**460**		0.48	0.24	mg/Kg	☼	07/23/24 06:30	07/25/24 12:57	2
Nickel	**60**		0.48	0.23	mg/Kg	☼	07/23/24 06:30	07/25/24 12:57	2
Potassium	**4000**		48	19	mg/Kg	☼	07/23/24 06:30	07/25/24 12:57	2
Selenium	**0.32**	**J**	0.48	0.12	mg/Kg	☼	07/23/24 06:30	07/25/24 12:57	2
Silver	**0.13**		0.12	0.049	mg/Kg	☼	07/23/24 06:30	07/25/24 12:57	2
Sodium	**230**		60	29	mg/Kg	☼	07/23/24 06:30	07/25/24 12:57	2
Thallium	**0.25**		0.12	0.047	mg/Kg	☼	07/23/24 06:30	07/25/24 12:57	2

Client Sample ID: DEP51-S7

Date Collected: 07/22/24 11:15
Date Received: 07/22/24 16:10

Lab Sample ID: 410-180859-7

Matrix: Solid
Percent Solids: 71.9

Method: SW846 6020B - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Vanadium	49		0.96	0.24	mg/Kg	☼	07/23/24 06:30	07/25/24 12:57	2
Zinc	360		180	24	mg/Kg	☼	07/23/24 06:30	07/25/24 12:59	10

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.11		0.077	0.026	mg/Kg	☼	07/23/24 22:00	07/24/24 12:25	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI) (SW846 7196A)	77		2.9	0.96	mg/Kg	☼	07/23/24 18:44	07/23/24 22:40	5
Cr (III) (SW846 7196A)	980	!	0.011	0.0035	mg/Kg	☼		08/22/24 16:11	1
Percent Moisture (EPA Moisture)	28.1	!	1.0	1.0	%			07/23/24 09:39	1

Client Sample ID: DUP-S

Date Collected: 07/22/24 00:00
Date Received: 07/22/24 16:10

Lab Sample ID: 410-180859-8

Matrix: Solid
Percent Solids: 74.5

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND	cn	510	72	ug/Kg	☼	07/23/24 11:01	07/25/24 02:43	50
1,1,2,2-Tetrachloroethane	ND	cn	510	62	ug/Kg	☼	07/23/24 11:01	07/25/24 02:43	50
1,1,2-Trichloroethane	ND	cn	510	51	ug/Kg	☼	07/23/24 11:01	07/25/24 02:43	50
1,1-Dichloroethane	ND	cn	510	51	ug/Kg	☼	07/23/24 11:01	07/25/24 02:43	50
1,1-Dichloroethene	ND	cn	510	62	ug/Kg	☼	07/23/24 11:01	07/25/24 02:43	50
1,2,4-Trichlorobenzene	ND	cn	1000	510	ug/Kg	☼	07/23/24 11:01	07/25/24 02:43	50
1,2-Dibromo-3-Chloropropane	ND	^c cn	510	100	ug/Kg	☼	07/23/24 11:01	07/25/24 02:43	50
1,2-Dibromoethane	ND	cn	510	62	ug/Kg	☼	07/23/24 11:01	07/25/24 02:43	50
1,2-Dichlorobenzene	ND	cn	510	62	ug/Kg	☼	07/23/24 11:01	07/25/24 02:43	50
1,2-Dichloroethane	ND	cn	510	62	ug/Kg	☼	07/23/24 11:01	07/25/24 02:43	50
1,2-Dichloropropane	ND	cn	510	51	ug/Kg	☼	07/23/24 11:01	07/25/24 02:43	50
1,3-Dichlorobenzene	ND	cn	510	51	ug/Kg	☼	07/23/24 11:01	07/25/24 02:43	50
1,4-Dichlorobenzene	ND	cn	510	51	ug/Kg	☼	07/23/24 11:01	07/25/24 02:43	50
2-Butanone	ND	cn	1000	210	ug/Kg	☼	07/23/24 11:01	07/25/24 02:43	50
2-Hexanone	ND	^c cn	1000	150	ug/Kg	☼	07/23/24 11:01	07/25/24 02:43	50
4-Methyl-2-pentanone	ND	^c cn	1000	150	ug/Kg	☼	07/23/24 11:01	07/25/24 02:43	50
Acetone	ND	^c cn	2100	620	ug/Kg	☼	07/23/24 11:01	07/25/24 02:43	50
Benzene	ND	cn	510	51	ug/Kg	☼	07/23/24 11:01	07/25/24 02:43	50
Bromodichloromethane	ND	cn	510	72	ug/Kg	☼	07/23/24 11:01	07/25/24 02:43	50
Bromoform	ND	cn	1000	510	ug/Kg	☼	07/23/24 11:01	07/25/24 02:43	50
Bromomethane	ND	*+ ^c cn	510	160	ug/Kg	☼	07/23/24 11:01	07/25/24 02:43	50
Carbon disulfide	ND	cn	510	62	ug/Kg	☼	07/23/24 11:01	07/25/24 02:43	50
Carbon tetrachloride	ND	cn	510	210	ug/Kg	☼	07/23/24 11:01	07/25/24 02:43	50
Chlorobenzene	ND	cn	510	51	ug/Kg	☼	07/23/24 11:01	07/25/24 02:43	50
Chloroethane	ND	*+ ^c cn	510	150	ug/Kg	☼	07/23/24 11:01	07/25/24 02:43	50
Chloroform	ND	cn	510	62	ug/Kg	☼	07/23/24 11:01	07/25/24 02:43	50
Chloromethane	ND	cn	510	92	ug/Kg	☼	07/23/24 11:01	07/25/24 02:43	50
cis-1,2-Dichloroethene	ND	cn	510	62	ug/Kg	☼	07/23/24 11:01	07/25/24 02:43	50
cis-1,3-Dichloropropene	ND	cn	510	62	ug/Kg	☼	07/23/24 11:01	07/25/24 02:43	50
Cyclohexane	180	J cn	510	51	ug/Kg	☼	07/23/24 11:01	07/25/24 02:43	50
Dibromochloromethane	ND	cn	510	210	ug/Kg	☼	07/23/24 11:01	07/25/24 02:43	50

Client Sample ID: DUP-S

Date Collected: 07/22/24 00:00
Date Received: 07/22/24 16:10

Lab Sample ID: 410-180859-8

Matrix: Solid
Percent Solids: 74.5

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Dichlorodifluoromethane	ND	cn	510	62	ug/Kg	☼	07/23/24 11:01	07/25/24 02:43	50
Ethylbenzene	**47**	**J cn**	510	41	ug/Kg	☼	07/23/24 11:01	07/25/24 02:43	50
Freon 113	ND	cn	1000	72	ug/Kg	☼	07/23/24 11:01	07/25/24 02:43	50
Isopropylbenzene	ND	cn	510	62	ug/Kg	☼	07/23/24 11:01	07/25/24 02:43	50
Methyl acetate	**120**	**J ^c cn**	510	100	ug/Kg	☼	07/23/24 11:01	07/25/24 02:43	50
Methyl tertiary butyl ether	ND	cn	510	62	ug/Kg	☼	07/23/24 11:01	07/25/24 02:43	50
Methylcyclohexane	**460**	**J cn**	510	62	ug/Kg	☼	07/23/24 11:01	07/25/24 02:43	50
Methylene Chloride	ND	cn	510	210	ug/Kg	☼	07/23/24 11:01	07/25/24 02:43	50
Styrene	ND	cn	510	62	ug/Kg	☼	07/23/24 11:01	07/25/24 02:43	50
Tetrachloroethene	ND	cn	510	62	ug/Kg	☼	07/23/24 11:01	07/25/24 02:43	50
Toluene	**130**	**J cn**	510	62	ug/Kg	☼	07/23/24 11:01	07/25/24 02:43	50
trans-1,2-Dichloroethene	ND	cn	510	62	ug/Kg	☼	07/23/24 11:01	07/25/24 02:43	50
trans-1,3-Dichloropropene	ND	cn	510	62	ug/Kg	☼	07/23/24 11:01	07/25/24 02:43	50
Trichloroethene	ND	cn	510	62	ug/Kg	☼	07/23/24 11:01	07/25/24 02:43	50
Trichlorofluoromethane	ND	cn	510	82	ug/Kg	☼	07/23/24 11:01	07/25/24 02:43	50
Vinyl chloride	ND	cn	510	82	ug/Kg	☼	07/23/24 11:01	07/25/24 02:43	50
Xylenes, Total	**390**	**J cn**	510	140	ug/Kg	☼	07/23/24 11:01	07/25/24 02:43	50

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*70*	*cn*	*54 - 135*	*07/23/24 11:01*	*07/25/24 02:43*	*50*
4-Bromofluorobenzene (Surr)	*59*	*cn*	*50 - 131*	*07/23/24 11:01*	*07/25/24 02:43*	*50*
Dibromofluoromethane (Surr)	*71*	*cn*	*50 - 141*	*07/23/24 11:01*	*07/25/24 02:43*	*50*
Toluene-d8 (Surr)	*66*	*cn*	*52 - 141*	*07/23/24 11:01*	*07/25/24 02:43*	*50*

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**9100**		24	12	mg/Kg	☼	07/23/24 06:30	07/25/24 12:47	2
Antimony	**2.5**		0.24	0.096	mg/Kg	☼	07/23/24 06:30	07/25/24 12:47	2
Arsenic	**13**		0.48	0.16	mg/Kg	☼	07/23/24 06:30	07/25/24 12:47	2
Barium	**160**	**B**	0.48	0.22	mg/Kg	☼	07/23/24 06:30	07/25/24 12:47	2
Beryllium	**0.59**		0.12	0.029	mg/Kg	☼	07/23/24 06:30	07/25/24 12:47	2
Cadmium	**0.66**		0.12	0.048	mg/Kg	☼	07/23/24 06:30	07/25/24 12:47	2
Calcium	**15000**		48	24	mg/Kg	☼	07/23/24 06:30	07/25/24 12:47	2
Chromium	**380**		2.4	1.1	mg/Kg	☼	07/23/24 06:30	07/25/24 12:49	10
Cobalt	**11**	**^2**	0.24	0.096	mg/Kg	☼	07/23/24 06:30	07/25/24 12:47	2
Copper	**110**		0.48	0.22	mg/Kg	☼	07/23/24 06:30	07/25/24 12:47	2
Iron	**44000**		120	55	mg/Kg	☼	07/23/24 06:30	07/25/24 12:49	10
Lead	**330**		1.2	0.46	mg/Kg	☼	07/23/24 06:30	07/25/24 12:49	10
Magnesium	**4200**		12	5.9	mg/Kg	☼	07/23/24 06:30	07/25/24 12:47	2
Manganese	**450**		0.48	0.24	mg/Kg	☼	07/23/24 06:30	07/25/24 12:47	2
Nickel	**37**		0.48	0.23	mg/Kg	☼	07/23/24 06:30	07/25/24 12:47	2
Potassium	**2500**		48	19	mg/Kg	☼	07/23/24 06:30	07/25/24 12:47	2
Selenium	**0.68**		0.48	0.12	mg/Kg	☼	07/23/24 06:30	07/25/24 12:47	2
Silver	**0.18**		0.12	0.049	mg/Kg	☼	07/23/24 06:30	07/25/24 12:47	2
Sodium	**170**		60	29	mg/Kg	☼	07/23/24 06:30	07/25/24 12:47	2
Thallium	**0.23**		0.12	0.047	mg/Kg	☼	07/23/24 06:30	07/25/24 12:47	2
Vanadium	**33**		0.96	0.24	mg/Kg	☼	07/23/24 06:30	07/25/24 12:47	2
Zinc	**290**		180	24	mg/Kg	☼	07/23/24 06:30	07/25/24 12:49	10

Client Sample ID: DUP-S

Date Collected: 07/22/24 00:00
Date Received: 07/22/24 16:10

Lab Sample ID: 410-180859-8

Matrix: Solid
Percent Solids: 74.5

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.27**		0.074	0.025	mg/Kg	☼	07/23/24 22:00	07/24/24 12:23	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI) (SW846 7196A)	**28**		5.8	1.9	mg/Kg	☼	07/23/24 18:44	07/23/24 22:40	10
Cr (III) (SW846 7196A)	**350**	**!**	0.011	0.0035	mg/Kg	☼		08/22/24 16:11	1
Percent Moisture (EPA Moisture)	**25.5**	**!**	1.0	1.0	%			07/23/24 09:39	1

Client Sample ID: DEP51-S8

Date Collected: 07/22/24 11:20
Date Received: 07/22/24 16:10

Lab Sample ID: 410-180859-9

Matrix: Solid
Percent Solids: 62.6

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND	cn	8.0	1.3	ug/Kg	☼	07/23/24 10:54	07/24/24 16:02	1
1,1,2,2-Tetrachloroethane	ND	*3 cn	8.0	1.3	ug/Kg	☼	07/23/24 10:54	07/24/24 16:02	1
1,1,2-Trichloroethane	ND	cn	8.0	1.1	ug/Kg	☼	07/23/24 10:54	07/24/24 16:02	1
1,1-Dichloroethane	ND	cn	8.0	1.3	ug/Kg	☼	07/23/24 10:54	07/24/24 16:02	1
1,1-Dichloroethene	ND	cn	8.0	1.3	ug/Kg	☼	07/23/24 10:54	07/24/24 16:02	1
1,2,4-Trichlorobenzene	ND	*3 cn	16	8.0	ug/Kg	☼	07/23/24 10:54	07/24/24 16:02	1
1,2-Dibromo-3-Chloropropane	ND	*3 cn	8.0	1.3	ug/Kg	☼	07/23/24 10:54	07/24/24 16:02	1
1,2-Dibromoethane	ND	cn	8.0	1.1	ug/Kg	☼	07/23/24 10:54	07/24/24 16:02	1
1,2-Dichlorobenzene	ND	*3 cn	8.0	1.4	ug/Kg	☼	07/23/24 10:54	07/24/24 16:02	1
1,2-Dichloroethane	ND	cn	8.0	0.96	ug/Kg	☼	07/23/24 10:54	07/24/24 16:02	1
1,2-Dichloropropane	ND	cn	8.0	1.3	ug/Kg	☼	07/23/24 10:54	07/24/24 16:02	1
1,3-Dichlorobenzene	ND	*3 cn	8.0	1.6	ug/Kg	☼	07/23/24 10:54	07/24/24 16:02	1
1,4-Dichlorobenzene	ND	*3 cn	8.0	1.4	ug/Kg	☼	07/23/24 10:54	07/24/24 16:02	1
2-Butanone	ND	cn	16	3.2	ug/Kg	☼	07/23/24 10:54	07/24/24 16:02	1
2-Hexanone	ND	cn	16	4.0	ug/Kg	☼	07/23/24 10:54	07/24/24 16:02	1
4-Methyl-2-pentanone	ND	cn	16	3.2	ug/Kg	☼	07/23/24 10:54	07/24/24 16:02	1
Acetone	**40**	**cn**	32	9.6	ug/Kg	☼	07/23/24 10:54	07/24/24 16:02	1
Benzene	ND	cn	8.0	1.3	ug/Kg	☼	07/23/24 10:54	07/24/24 16:02	1
Bromodichloromethane	ND	cn	8.0	1.1	ug/Kg	☼	07/23/24 10:54	07/24/24 16:02	1
Bromoform	ND	cn	16	8.0	ug/Kg	☼	07/23/24 10:54	07/24/24 16:02	1
Bromomethane	ND	cn	8.0	1.6	ug/Kg	☼	07/23/24 10:54	07/24/24 16:02	1
Carbon disulfide	**1.3**	**J cn**	8.0	1.3	ug/Kg	☼	07/23/24 10:54	07/24/24 16:02	1
Carbon tetrachloride	ND	cn	8.0	1.3	ug/Kg	☼	07/23/24 10:54	07/24/24 16:02	1
Chlorobenzene	ND	cn	8.0	1.4	ug/Kg	☼	07/23/24 10:54	07/24/24 16:02	1
Chloroethane	ND	cn	8.0	1.6	ug/Kg	☼	07/23/24 10:54	07/24/24 16:02	1
Chloroform	ND	cn	8.0	1.3	ug/Kg	☼	07/23/24 10:54	07/24/24 16:02	1
Chloromethane	ND	cn	8.0	1.6	ug/Kg	☼	07/23/24 10:54	07/24/24 16:02	1
cis-1,2-Dichloroethene	ND	cn	8.0	1.3	ug/Kg	☼	07/23/24 10:54	07/24/24 16:02	1
cis-1,3-Dichloropropene	ND	cn	8.0	0.96	ug/Kg	☼	07/23/24 10:54	07/24/24 16:02	1
Cyclohexane	ND	cn	8.0	1.4	ug/Kg	☼	07/23/24 10:54	07/24/24 16:02	1
Dibromochloromethane	ND	cn	8.0	0.80	ug/Kg	☼	07/23/24 10:54	07/24/24 16:02	1
Dichlorodifluoromethane	ND	cn	8.0	1.6	ug/Kg	☼	07/23/24 10:54	07/24/24 16:02	1
Ethylbenzene	ND	cn	8.0	1.6	ug/Kg	☼	07/23/24 10:54	07/24/24 16:02	1
Freon 113	ND	cn	16	1.4	ug/Kg	☼	07/23/24 10:54	07/24/24 16:02	1
Isopropylbenzene	ND	cn	8.0	2.4	ug/Kg	☼	07/23/24 10:54	07/24/24 16:02	1
Methyl acetate	**14**	**cn**	8.0	1.6	ug/Kg	☼	07/23/24 10:54	07/24/24 16:02	1

Client Sample ID: DEP51-S8

Date Collected: 07/22/24 11:20
Date Received: 07/22/24 16:10

Lab Sample ID: 410-180859-9

Matrix: Solid
Percent Solids: 62.6

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Methyl tertiary butyl ether	ND	cn	8.0	1.3	ug/Kg	☼	07/23/24 10:54	07/24/24 16:02	1
Methylcyclohexane	ND	cn	8.0	1.3	ug/Kg	☼	07/23/24 10:54	07/24/24 16:02	1
Methylene Chloride	ND	cn	8.0	3.2	ug/Kg	☼	07/23/24 10:54	07/24/24 16:02	1
Styrene	ND	cn	8.0	1.4	ug/Kg	☼	07/23/24 10:54	07/24/24 16:02	1
Tetrachloroethene	ND	cn	8.0	2.4	ug/Kg	☼	07/23/24 10:54	07/24/24 16:02	1
Toluene	ND	cn	8.0	1.6	ug/Kg	☼	07/23/24 10:54	07/24/24 16:02	1
trans-1,2-Dichloroethene	ND	cn	8.0	1.3	ug/Kg	☼	07/23/24 10:54	07/24/24 16:02	1
trans-1,3-Dichloropropene	ND	cn	8.0	0.96	ug/Kg	☼	07/23/24 10:54	07/24/24 16:02	1
Trichloroethene	ND	cn	8.0	1.3	ug/Kg	☼	07/23/24 10:54	07/24/24 16:02	1
Trichlorofluoromethane	ND	cn	8.0	1.6	ug/Kg	☼	07/23/24 10:54	07/24/24 16:02	1
Vinyl chloride	ND	cn	8.0	1.3	ug/Kg	☼	07/23/24 10:54	07/24/24 16:02	1
Xylenes, Total	ND	cn	16	1.1	ug/Kg	☼	07/23/24 10:54	07/24/24 16:02	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*97*	*cn*	*54 - 135*	*07/23/24 10:54*	*07/24/24 16:02*	*1*
4-Bromofluorobenzene (Surr)	*81*	*cn*	*50 - 131*	*07/23/24 10:54*	*07/24/24 16:02*	*1*
Dibromofluoromethane (Surr)	*96*	*cn*	*50 - 141*	*07/23/24 10:54*	*07/24/24 16:02*	*1*
Toluene-d8 (Surr)	*119*	*cn*	*52 - 141*	*07/23/24 10:54*	*07/24/24 16:02*	*1*

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**12000**		23	11	mg/Kg	☼	07/23/24 06:30	07/25/24 12:26	2
Antimony	**0.92**		0.23	0.092	mg/Kg	☼	07/23/24 06:30	07/25/24 12:26	2
Arsenic	**9.9**		0.46	0.15	mg/Kg	☼	07/23/24 06:30	07/25/24 12:26	2
Barium	**130**	**B**	0.46	0.21	mg/Kg	☼	07/23/24 06:30	07/25/24 12:26	2
Beryllium	**0.64**		0.11	0.027	mg/Kg	☼	07/23/24 06:30	07/25/24 12:26	2
Cadmium	**0.43**		0.11	0.046	mg/Kg	☼	07/23/24 06:30	07/25/24 12:26	2
Calcium	**23000**		230	110	mg/Kg	☼	07/23/24 06:30	07/25/24 12:27	10
Chromium	**870**		2.3	1.1	mg/Kg	☼	07/23/24 06:30	07/25/24 12:27	10
Cobalt	**14**		0.23	0.092	mg/Kg	☼	07/23/24 06:30	07/25/24 12:26	2
Copper	**62**		0.46	0.21	mg/Kg	☼	07/23/24 06:30	07/25/24 12:26	2
Iron	**25000**		110	53	mg/Kg	☼	07/23/24 06:30	07/25/24 12:27	10
Lead	**200**		0.23	0.087	mg/Kg	☼	07/23/24 06:30	07/25/24 12:26	2
Magnesium	**6900**		11	5.6	mg/Kg	☼	07/23/24 06:30	07/25/24 12:26	2
Manganese	**560**		0.46	0.23	mg/Kg	☼	07/23/24 06:30	07/25/24 12:26	2
Nickel	**48**		0.46	0.22	mg/Kg	☼	07/23/24 06:30	07/25/24 12:26	2
Potassium	**3800**		46	18	mg/Kg	☼	07/23/24 06:30	07/25/24 12:26	2
Selenium	**0.46**		0.46	0.11	mg/Kg	☼	07/23/24 06:30	07/25/24 12:26	2
Silver	**0.12**		0.11	0.047	mg/Kg	☼	07/23/24 06:30	07/25/24 12:26	2
Sodium	**240**		57	28	mg/Kg	☼	07/23/24 06:30	07/25/24 12:26	2
Thallium	**0.27**		0.11	0.045	mg/Kg	☼	07/23/24 06:30	07/25/24 12:26	2
Vanadium	**46**		0.92	0.23	mg/Kg	☼	07/23/24 06:30	07/25/24 12:26	2
Zinc	**290**		170	23	mg/Kg	☼	07/23/24 06:30	07/25/24 12:27	10

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.15**		0.090	0.030	mg/Kg	☼	07/23/24 22:00	07/24/24 12:19	1

Client Sample ID: DEP51-S8

Date Collected: 07/22/24 11:20
Date Received: 07/22/24 16:10

Lab Sample ID: 410-180859-9

Matrix: Solid
Percent Solids: 62.6

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI) (SW846 7196A)	54		3.4	1.1	mg/Kg	☼	07/23/24 18:44	07/23/24 22:40	5
Cr (III) (SW846 7196A)	820	!	0.011	0.0035	mg/Kg	☼		08/22/24 16:11	1
Percent Moisture (EPA Moisture)	37.4	!	1.0	1.0	%			07/23/24 09:39	1

Client Sample ID: DEP51-S9

Date Collected: 07/22/24 11:25
Date Received: 07/22/24 16:10

Lab Sample ID: 410-180859-10

Matrix: Solid
Percent Solids: 74.9

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND	cn	8.5	1.4	ug/Kg	☼	07/23/24 10:54	07/24/24 16:24	1
1,1,2,2-Tetrachloroethane	ND	*3 cn	8.5	1.4	ug/Kg	☼	07/23/24 10:54	07/24/24 16:24	1
1,1,2-Trichloroethane	ND	cn	8.5	1.2	ug/Kg	☼	07/23/24 10:54	07/24/24 16:24	1
1,1-Dichloroethane	ND	cn	8.5	1.4	ug/Kg	☼	07/23/24 10:54	07/24/24 16:24	1
1,1-Dichloroethene	ND	cn	8.5	1.4	ug/Kg	☼	07/23/24 10:54	07/24/24 16:24	1
1,2,4-Trichlorobenzene	ND	*3 cn	17	8.5	ug/Kg	☼	07/23/24 10:54	07/24/24 16:24	1
1,2-Dibromo-3-Chloropropane	ND	*3 cn	8.5	1.4	ug/Kg	☼	07/23/24 10:54	07/24/24 16:24	1
1,2-Dibromoethane	ND	cn	8.5	1.2	ug/Kg	☼	07/23/24 10:54	07/24/24 16:24	1
1,2-Dichlorobenzene	ND	*3 cn	8.5	1.5	ug/Kg	☼	07/23/24 10:54	07/24/24 16:24	1
1,2-Dichloroethane	ND	cn	8.5	1.0	ug/Kg	☼	07/23/24 10:54	07/24/24 16:24	1
1,2-Dichloropropane	ND	cn	8.5	1.4	ug/Kg	☼	07/23/24 10:54	07/24/24 16:24	1
1,3-Dichlorobenzene	ND	*3 cn	8.5	1.7	ug/Kg	☼	07/23/24 10:54	07/24/24 16:24	1
1,4-Dichlorobenzene	ND	*3 cn	8.5	1.5	ug/Kg	☼	07/23/24 10:54	07/24/24 16:24	1
2-Butanone	11	J cn	17	3.4	ug/Kg	☼	07/23/24 10:54	07/24/24 16:24	1
2-Hexanone	ND	cn	17	4.3	ug/Kg	☼	07/23/24 10:54	07/24/24 16:24	1
4-Methyl-2-pentanone	ND	cn	17	3.4	ug/Kg	☼	07/23/24 10:54	07/24/24 16:24	1
Acetone	95	cn	34	10	ug/Kg	☼	07/23/24 10:54	07/24/24 16:24	1
Benzene	1.5	J cn	8.5	1.4	ug/Kg	☼	07/23/24 10:54	07/24/24 16:24	1
Bromodichloromethane	ND	cn	8.5	1.2	ug/Kg	☼	07/23/24 10:54	07/24/24 16:24	1
Bromoform	ND	cn	17	8.5	ug/Kg	☼	07/23/24 10:54	07/24/24 16:24	1
Bromomethane	ND	cn	8.5	1.7	ug/Kg	☼	07/23/24 10:54	07/24/24 16:24	1
Carbon disulfide	2.9	J cn	8.5	1.4	ug/Kg	☼	07/23/24 10:54	07/24/24 16:24	1
Carbon tetrachloride	ND	cn	8.5	1.4	ug/Kg	☼	07/23/24 10:54	07/24/24 16:24	1
Chlorobenzene	ND	cn	8.5	1.5	ug/Kg	☼	07/23/24 10:54	07/24/24 16:24	1
Chloroethane	ND	cn	8.5	1.7	ug/Kg	☼	07/23/24 10:54	07/24/24 16:24	1
Chloroform	ND	cn	8.5	1.4	ug/Kg	☼	07/23/24 10:54	07/24/24 16:24	1
Chloromethane	ND	cn	8.5	1.7	ug/Kg	☼	07/23/24 10:54	07/24/24 16:24	1
cis-1,2-Dichloroethene	ND	cn	8.5	1.4	ug/Kg	☼	07/23/24 10:54	07/24/24 16:24	1
cis-1,3-Dichloropropene	ND	cn	8.5	1.0	ug/Kg	☼	07/23/24 10:54	07/24/24 16:24	1
Cyclohexane	ND	cn	8.5	1.5	ug/Kg	☼	07/23/24 10:54	07/24/24 16:24	1
Dibromochloromethane	ND	cn	8.5	0.85	ug/Kg	☼	07/23/24 10:54	07/24/24 16:24	1
Dichlorodifluoromethane	ND	cn	8.5	1.7	ug/Kg	☼	07/23/24 10:54	07/24/24 16:24	1
Ethylbenzene	ND	cn	8.5	1.7	ug/Kg	☼	07/23/24 10:54	07/24/24 16:24	1
Freon 113	ND	cn	17	1.5	ug/Kg	☼	07/23/24 10:54	07/24/24 16:24	1
Isopropylbenzene	ND	cn	8.5	2.6	ug/Kg	☼	07/23/24 10:54	07/24/24 16:24	1
Methyl acetate	ND	cn	8.5	1.7	ug/Kg	☼	07/23/24 10:54	07/24/24 16:24	1
Methyl tertiary butyl ether	ND	cn	8.5	1.4	ug/Kg	☼	07/23/24 10:54	07/24/24 16:24	1
Methylcyclohexane	ND	cn	8.5	1.4	ug/Kg	☼	07/23/24 10:54	07/24/24 16:24	1
Methylene Chloride	ND	cn	8.5	3.4	ug/Kg	☼	07/23/24 10:54	07/24/24 16:24	1
Styrene	ND	cn	8.5	1.5	ug/Kg	☼	07/23/24 10:54	07/24/24 16:24	1

Client Sample ID: DEP51-S9

Date Collected: 07/22/24 11:25
Date Received: 07/22/24 16:10

Lab Sample ID: 410-180859-10

Matrix: Solid
Percent Solids: 74.9

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Tetrachloroethene	ND	cn	8.5	2.6	ug/Kg	☼	07/23/24 10:54	07/24/24 16:24	1
Toluene	**2.5**	**J cn**	8.5	1.7	ug/Kg	☼	07/23/24 10:54	07/24/24 16:24	1
trans-1,2-Dichloroethene	ND	cn	8.5	1.4	ug/Kg	☼	07/23/24 10:54	07/24/24 16:24	1
trans-1,3-Dichloropropene	ND	cn	8.5	1.0	ug/Kg	☼	07/23/24 10:54	07/24/24 16:24	1
Trichloroethene	ND	cn	8.5	1.4	ug/Kg	☼	07/23/24 10:54	07/24/24 16:24	1
Trichlorofluoromethane	ND	cn	8.5	1.7	ug/Kg	☼	07/23/24 10:54	07/24/24 16:24	1
Vinyl chloride	ND	cn	8.5	1.4	ug/Kg	☼	07/23/24 10:54	07/24/24 16:24	1
Xylenes, Total	ND	cn	17	1.2	ug/Kg	☼	07/23/24 10:54	07/24/24 16:24	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*101*	*cn*	*54 - 135*	*07/23/24 10:54*	*07/24/24 16:24*	*1*
4-Bromofluorobenzene (Surr)	*80*	*cn*	*50 - 131*	*07/23/24 10:54*	*07/24/24 16:24*	*1*
Dibromofluoromethane (Surr)	*96*	*cn*	*50 - 141*	*07/23/24 10:54*	*07/24/24 16:24*	*1*
Toluene-d8 (Surr)	*119*	*cn*	*52 - 141*	*07/23/24 10:54*	*07/24/24 16:24*	*1*

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**15000**		22	11	mg/Kg	☼	07/23/24 06:30	07/25/24 12:35	2
Antimony	**0.65**		0.22	0.090	mg/Kg	☼	07/23/24 06:30	07/25/24 12:35	2
Arsenic	**8.6**		0.45	0.15	mg/Kg	☼	07/23/24 06:30	07/25/24 12:35	2
Barium	**150**	**B**	0.45	0.21	mg/Kg	☼	07/23/24 06:30	07/25/24 12:35	2
Beryllium	**0.82**		0.11	0.027	mg/Kg	☼	07/23/24 06:30	07/25/24 12:35	2
Cadmium	**0.61**		0.11	0.045	mg/Kg	☼	07/23/24 06:30	07/25/24 12:35	2
Calcium	**22000**		220	110	mg/Kg	☼	07/23/24 06:30	07/25/24 12:37	10
Chromium	**820**		2.2	1.1	mg/Kg	☼	07/23/24 06:30	07/25/24 12:37	10
Cobalt	**16**	**^2**	0.22	0.090	mg/Kg	☼	07/23/24 06:30	07/25/24 12:35	2
Copper	**48**		0.45	0.20	mg/Kg	☼	07/23/24 06:30	07/25/24 12:35	2
Iron	**28000**		110	52	mg/Kg	☼	07/23/24 06:30	07/25/24 12:37	10
Lead	**380**		1.1	0.43	mg/Kg	☼	07/23/24 06:30	07/25/24 12:37	10
Magnesium	**8200**		11	5.5	mg/Kg	☼	07/23/24 06:30	07/25/24 12:35	2
Manganese	**620**		0.45	0.22	mg/Kg	☼	07/23/24 06:30	07/25/24 12:35	2
Nickel	**53**		0.45	0.21	mg/Kg	☼	07/23/24 06:30	07/25/24 12:35	2
Potassium	**4100**		45	18	mg/Kg	☼	07/23/24 06:30	07/25/24 12:35	2
Selenium	**0.46**		0.45	0.11	mg/Kg	☼	07/23/24 06:30	07/25/24 12:35	2
Silver	**0.18**		0.11	0.046	mg/Kg	☼	07/23/24 06:30	07/25/24 12:35	2
Sodium	**200**		56	27	mg/Kg	☼	07/23/24 06:30	07/25/24 12:35	2
Thallium	**0.29**		0.11	0.044	mg/Kg	☼	07/23/24 06:30	07/25/24 12:35	2
Vanadium	**47**		0.90	0.22	mg/Kg	☼	07/23/24 06:30	07/25/24 12:35	2
Zinc	**430**		170	22	mg/Kg	☼	07/23/24 06:30	07/25/24 12:37	10

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	**0.12**		0.076	0.025	mg/Kg	☼	07/23/24 22:00	07/24/24 12:21	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI) (SW846 7196A)	ND	cn	5.8	1.9	mg/Kg	☼	07/23/24 18:44	07/23/24 22:40	10
Cr (III) (SW846 7196A)	**820**	**!**	0.011	0.0035	mg/Kg	☼		08/22/24 16:11	1
Percent Moisture (EPA Moisture)	**25.1**	**!**	1.0	1.0	%			07/23/24 09:39	1

Client: Pennsylvania Dept of Env Protection
Project/Site: DEP 51st

Job ID: 410-180859-1

Client Sample ID: DEP51-S10
Date Collected: 07/22/24 11:30
Date Received: 07/22/24 16:10

Lab Sample ID: 410-180859-11
Matrix: Solid
Percent Solids: 62.7

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND	cn	8.8	1.4	ug/Kg	☼	07/23/24 10:54	07/24/24 16:47	1
1,1,2,2-Tetrachloroethane	ND	*3 cn	8.8	1.4	ug/Kg	☼	07/23/24 10:54	07/24/24 16:47	1
1,1,2-Trichloroethane	ND	cn	8.8	1.2	ug/Kg	☼	07/23/24 10:54	07/24/24 16:47	1
1,1-Dichloroethane	ND	cn	8.8	1.4	ug/Kg	☼	07/23/24 10:54	07/24/24 16:47	1
1,1-Dichloroethene	ND	cn	8.8	1.4	ug/Kg	☼	07/23/24 10:54	07/24/24 16:47	1
1,2,4-Trichlorobenzene	ND	*3 cn	18	8.8	ug/Kg	☼	07/23/24 10:54	07/24/24 16:47	1
1,2-Dibromo-3-Chloropropane	ND	*3 cn	8.8	1.4	ug/Kg	☼	07/23/24 10:54	07/24/24 16:47	1
1,2-Dibromoethane	ND	cn	8.8	1.2	ug/Kg	☼	07/23/24 10:54	07/24/24 16:47	1
1,2-Dichlorobenzene	ND	*3 cn	8.8	1.6	ug/Kg	☼	07/23/24 10:54	07/24/24 16:47	1
1,2-Dichloroethane	ND	cn	8.8	1.1	ug/Kg	☼	07/23/24 10:54	07/24/24 16:47	1
1,2-Dichloropropane	ND	cn	8.8	1.4	ug/Kg	☼	07/23/24 10:54	07/24/24 16:47	1
1,3-Dichlorobenzene	ND	*3 cn	8.8	1.8	ug/Kg	☼	07/23/24 10:54	07/24/24 16:47	1
1,4-Dichlorobenzene	ND	*3 cn	8.8	1.6	ug/Kg	☼	07/23/24 10:54	07/24/24 16:47	1
2-Butanone	**20**	**cn**	18	3.5	ug/Kg	☼	07/23/24 10:54	07/24/24 16:47	1
2-Hexanone	ND	cn	18	4.4	ug/Kg	☼	07/23/24 10:54	07/24/24 16:47	1
4-Methyl-2-pentanone	ND	cn	18	3.5	ug/Kg	☼	07/23/24 10:54	07/24/24 16:47	1
Acetone	**210**	**cn**	35	11	ug/Kg	☼	07/23/24 10:54	07/24/24 16:47	1
Benzene	ND	cn	8.8	1.4	ug/Kg	☼	07/23/24 10:54	07/24/24 16:47	1
Bromodichloromethane	ND	cn	8.8	1.2	ug/Kg	☼	07/23/24 10:54	07/24/24 16:47	1
Bromoform	ND	cn	18	8.8	ug/Kg	☼	07/23/24 10:54	07/24/24 16:47	1
Bromomethane	ND	cn	8.8	1.8	ug/Kg	☼	07/23/24 10:54	07/24/24 16:47	1
Carbon disulfide	**1.9**	**J cn**	8.8	1.4	ug/Kg	☼	07/23/24 10:54	07/24/24 16:47	1
Carbon tetrachloride	ND	cn	8.8	1.4	ug/Kg	☼	07/23/24 10:54	07/24/24 16:47	1
Chlorobenzene	ND	cn	8.8	1.6	ug/Kg	☼	07/23/24 10:54	07/24/24 16:47	1
Chloroethane	ND	cn	8.8	1.8	ug/Kg	☼	07/23/24 10:54	07/24/24 16:47	1
Chloroform	ND	cn	8.8	1.4	ug/Kg	☼	07/23/24 10:54	07/24/24 16:47	1
Chloromethane	ND	cn	8.8	1.8	ug/Kg	☼	07/23/24 10:54	07/24/24 16:47	1
cis-1,2-Dichloroethene	ND	cn	8.8	1.4	ug/Kg	☼	07/23/24 10:54	07/24/24 16:47	1
cis-1,3-Dichloropropene	ND	cn	8.8	1.1	ug/Kg	☼	07/23/24 10:54	07/24/24 16:47	1
Cyclohexane	ND	cn	8.8	1.6	ug/Kg	☼	07/23/24 10:54	07/24/24 16:47	1
Dibromochloromethane	ND	cn	8.8	0.88	ug/Kg	☼	07/23/24 10:54	07/24/24 16:47	1
Dichlorodifluoromethane	ND	cn	8.8	1.8	ug/Kg	☼	07/23/24 10:54	07/24/24 16:47	1
Ethylbenzene	ND	cn	8.8	1.8	ug/Kg	☼	07/23/24 10:54	07/24/24 16:47	1
Freon 113	ND	cn	18	1.6	ug/Kg	☼	07/23/24 10:54	07/24/24 16:47	1
Isopropylbenzene	ND	cn	8.8	2.7	ug/Kg	☼	07/23/24 10:54	07/24/24 16:47	1
Methyl acetate	ND	cn	8.8	1.8	ug/Kg	☼	07/23/24 10:54	07/24/24 16:47	1
Methyl tertiary butyl ether	ND	cn	8.8	1.4	ug/Kg	☼	07/23/24 10:54	07/24/24 16:47	1
Methylcyclohexane	ND	cn	8.8	1.4	ug/Kg	☼	07/23/24 10:54	07/24/24 16:47	1
Methylene Chloride	ND	cn	8.8	3.5	ug/Kg	☼	07/23/24 10:54	07/24/24 16:47	1
Styrene	ND	cn	8.8	1.6	ug/Kg	☼	07/23/24 10:54	07/24/24 16:47	1
Tetrachloroethene	ND	cn	8.8	2.7	ug/Kg	☼	07/23/24 10:54	07/24/24 16:47	1
Toluene	ND	cn	8.8	1.8	ug/Kg	☼	07/23/24 10:54	07/24/24 16:47	1
trans-1,2-Dichloroethene	ND	cn	8.8	1.4	ug/Kg	☼	07/23/24 10:54	07/24/24 16:47	1
trans-1,3-Dichloropropene	ND	cn	8.8	1.1	ug/Kg	☼	07/23/24 10:54	07/24/24 16:47	1
Trichloroethene	ND	cn	8.8	1.4	ug/Kg	☼	07/23/24 10:54	07/24/24 16:47	1
Trichlorofluoromethane	ND	cn	8.8	1.8	ug/Kg	☼	07/23/24 10:54	07/24/24 16:47	1
Vinyl chloride	ND	cn	8.8	1.4	ug/Kg	☼	07/23/24 10:54	07/24/24 16:47	1
Xylenes, Total	ND	cn	18	1.2	ug/Kg	☼	07/23/24 10:54	07/24/24 16:47	1

Client Sample ID: DEP51-S10

Date Collected: 07/22/24 11:30
Date Received: 07/22/24 16:10

Lab Sample ID: 410-180859-11

Matrix: Solid
Percent Solids: 62.7

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*	*cn*	*54 - 135*	*07/23/24 10:54*	*07/24/24 16:47*	*1*
4-Bromofluorobenzene (Surr)	*76*	*cn*	*50 - 131*	*07/23/24 10:54*	*07/24/24 16:47*	*1*
Dibromofluoromethane (Surr)	*98*	*cn*	*50 - 141*	*07/23/24 10:54*	*07/24/24 16:47*	*1*
Toluene-d8 (Surr)	*126*	*cn*	*52 - 141*	*07/23/24 10:54*	*07/24/24 16:47*	*1*

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	21000		27	13	mg/Kg	☼	07/23/24 06:30	07/25/24 12:39	2
Antimony	0.81		0.27	0.11	mg/Kg	☼	07/23/24 06:30	07/25/24 12:39	2
Arsenic	14		0.54	0.18	mg/Kg	☼	07/23/24 06:30	07/25/24 12:39	2
Barium	150	B	0.54	0.25	mg/Kg	☼	07/23/24 06:30	07/25/24 12:39	2
Beryllium	1.4		0.14	0.032	mg/Kg	☼	07/23/24 06:30	07/25/24 12:39	2
Cadmium	0.52		0.14	0.054	mg/Kg	☼	07/23/24 06:30	07/25/24 12:39	2
Calcium	43000		270	130	mg/Kg	☼	07/23/24 06:30	07/25/24 12:41	10
Chromium	940		2.7	1.3	mg/Kg	☼	07/23/24 06:30	07/25/24 12:41	10
Cobalt	19	^2	0.27	0.11	mg/Kg	☼	07/23/24 06:30	07/25/24 12:39	2
Copper	61		0.54	0.24	mg/Kg	☼	07/23/24 06:30	07/25/24 12:39	2
Iron	36000		140	62	mg/Kg	☼	07/23/24 06:30	07/25/24 12:41	10
Lead	170		0.27	0.10	mg/Kg	☼	07/23/24 06:30	07/25/24 12:39	2
Magnesium	24000		14	6.6	mg/Kg	☼	07/23/24 06:30	07/25/24 12:39	2
Manganese	850		0.54	0.27	mg/Kg	☼	07/23/24 06:30	07/25/24 12:39	2
Nickel	62		0.54	0.26	mg/Kg	☼	07/23/24 06:30	07/25/24 12:39	2
Potassium	5100		54	22	mg/Kg	☼	07/23/24 06:30	07/25/24 12:39	2
Selenium	0.56		0.54	0.14	mg/Kg	☼	07/23/24 06:30	07/25/24 12:39	2
Silver	0.19		0.14	0.055	mg/Kg	☼	07/23/24 06:30	07/25/24 12:39	2
Sodium	1600		68	32	mg/Kg	☼	07/23/24 06:30	07/25/24 12:39	2
Thallium	0.40		0.14	0.053	mg/Kg	☼	07/23/24 06:30	07/25/24 12:39	2
Vanadium	86		1.1	0.27	mg/Kg	☼	07/23/24 06:30	07/25/24 12:39	2
Zinc	340		200	27	mg/Kg	☼	07/23/24 06:30	07/25/24 12:41	10

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.24		0.091	0.030	mg/Kg	☼	07/23/24 22:00	07/24/24 12:16	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI) (SW846 7196A)	53		6.9	2.3	mg/Kg	☼	07/23/24 18:44	07/23/24 22:40	10
Cr (III) (SW846 7196A)	880	!	0.011	0.0035	mg/Kg	☼		08/22/24 16:11	1
Percent Moisture (EPA Moisture)	37.3	!	1.0	1.0	%			07/23/24 09:39	1

Client Sample ID: DEP51-S11

Date Collected: 07/22/24 11:40
Date Received: 07/22/24 16:10

Lab Sample ID: 410-180859-12

Matrix: Solid
Percent Solids: 85.6

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		10	1.7	ug/Kg	☼	07/23/24 10:54	07/24/24 20:10	1
1,1,2,2-Tetrachloroethane	ND		10	1.7	ug/Kg	☼	07/23/24 10:54	07/24/24 20:10	1
1,1,2-Trichloroethane	ND		10	1.5	ug/Kg	☼	07/23/24 10:54	07/24/24 20:10	1
1,1-Dichloroethane	ND		10	1.7	ug/Kg	☼	07/23/24 10:54	07/24/24 20:10	1
1,1-Dichloroethene	ND		10	1.7	ug/Kg	☼	07/23/24 10:54	07/24/24 20:10	1

Client Sample ID: DEP51-S11
Date Collected: 07/22/24 11:40
Date Received: 07/22/24 16:10

Lab Sample ID: 410-180859-12
Matrix: Solid
Percent Solids: 85.6

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,2,4-Trichlorobenzene	ND		21	10	ug/Kg	☼	07/23/24 10:54	07/24/24 20:10	1
1,2-Dibromo-3-Chloropropane	ND		10	1.7	ug/Kg	☼	07/23/24 10:54	07/24/24 20:10	1
1,2-Dibromoethane	ND		10	1.5	ug/Kg	☼	07/23/24 10:54	07/24/24 20:10	1
1,2-Dichlorobenzene	ND		10	1.9	ug/Kg	☼	07/23/24 10:54	07/24/24 20:10	1
1,2-Dichloroethane	ND		10	1.3	ug/Kg	☼	07/23/24 10:54	07/24/24 20:10	1
1,2-Dichloropropane	ND		10	1.7	ug/Kg	☼	07/23/24 10:54	07/24/24 20:10	1
1,3-Dichlorobenzene	ND		10	2.1	ug/Kg	☼	07/23/24 10:54	07/24/24 20:10	1
1,4-Dichlorobenzene	ND		10	1.9	ug/Kg	☼	07/23/24 10:54	07/24/24 20:10	1
2-Butanone	**21**		21	4.2	ug/Kg	☼	07/23/24 10:54	07/24/24 20:10	1
2-Hexanone	ND		21	5.2	ug/Kg	☼	07/23/24 10:54	07/24/24 20:10	1
4-Methyl-2-pentanone	ND		21	4.2	ug/Kg	☼	07/23/24 10:54	07/24/24 20:10	1
Acetone	**210**		42	13	ug/Kg	☼	07/23/24 10:54	07/24/24 20:10	1
Benzene	**3.1**	**J**	10	1.7	ug/Kg	☼	07/23/24 10:54	07/24/24 20:10	1
Bromodichloromethane	ND		10	1.5	ug/Kg	☼	07/23/24 10:54	07/24/24 20:10	1
Bromoform	ND		21	10	ug/Kg	☼	07/23/24 10:54	07/24/24 20:10	1
Bromomethane	ND		10	2.1	ug/Kg	☼	07/23/24 10:54	07/24/24 20:10	1
Carbon disulfide	ND		10	1.7	ug/Kg	☼	07/23/24 10:54	07/24/24 20:10	1
Carbon tetrachloride	ND		10	1.7	ug/Kg	☼	07/23/24 10:54	07/24/24 20:10	1
Chlorobenzene	ND		10	1.9	ug/Kg	☼	07/23/24 10:54	07/24/24 20:10	1
Chloroethane	ND		10	2.1	ug/Kg	☼	07/23/24 10:54	07/24/24 20:10	1
Chloroform	ND		10	1.7	ug/Kg	☼	07/23/24 10:54	07/24/24 20:10	1
Chloromethane	ND		10	2.1	ug/Kg	☼	07/23/24 10:54	07/24/24 20:10	1
cis-1,2-Dichloroethene	ND		10	1.7	ug/Kg	☼	07/23/24 10:54	07/24/24 20:10	1
cis-1,3-Dichloropropene	ND		10	1.3	ug/Kg	☼	07/23/24 10:54	07/24/24 20:10	1
Cyclohexane	ND		10	1.9	ug/Kg	☼	07/23/24 10:54	07/24/24 20:10	1
Dibromochloromethane	ND		10	1.0	ug/Kg	☼	07/23/24 10:54	07/24/24 20:10	1
Dichlorodifluoromethane	ND		10	2.1	ug/Kg	☼	07/23/24 10:54	07/24/24 20:10	1
Ethylbenzene	ND		10	2.1	ug/Kg	☼	07/23/24 10:54	07/24/24 20:10	1
Freon 113	ND		21	1.9	ug/Kg	☼	07/23/24 10:54	07/24/24 20:10	1
Isopropylbenzene	ND		10	3.1	ug/Kg	☼	07/23/24 10:54	07/24/24 20:10	1
Methyl acetate	ND		10	2.1	ug/Kg	☼	07/23/24 10:54	07/24/24 20:10	1
Methyl tertiary butyl ether	ND		10	1.7	ug/Kg	☼	07/23/24 10:54	07/24/24 20:10	1
Methylcyclohexane	ND		10	1.7	ug/Kg	☼	07/23/24 10:54	07/24/24 20:10	1
Methylene Chloride	ND		10	4.2	ug/Kg	☼	07/23/24 10:54	07/24/24 20:10	1
Styrene	ND		10	1.9	ug/Kg	☼	07/23/24 10:54	07/24/24 20:10	1
Tetrachloroethene	ND		10	3.1	ug/Kg	☼	07/23/24 10:54	07/24/24 20:10	1
Toluene	**12**		10	2.1	ug/Kg	☼	07/23/24 10:54	07/24/24 20:10	1
trans-1,2-Dichloroethene	ND		10	1.7	ug/Kg	☼	07/23/24 10:54	07/24/24 20:10	1
trans-1,3-Dichloropropene	ND		10	1.3	ug/Kg	☼	07/23/24 10:54	07/24/24 20:10	1
Trichloroethene	ND		10	1.7	ug/Kg	☼	07/23/24 10:54	07/24/24 20:10	1
Trichlorofluoromethane	ND		10	2.1	ug/Kg	☼	07/23/24 10:54	07/24/24 20:10	1
Vinyl chloride	ND		10	1.7	ug/Kg	☼	07/23/24 10:54	07/24/24 20:10	1
Xylenes, Total	ND		21	1.5	ug/Kg	☼	07/23/24 10:54	07/24/24 20:10	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*100*		*54 - 135*	*07/23/24 10:54*	*07/24/24 20:10*	*1*
4-Bromofluorobenzene (Surr)	*80*		*50 - 131*	*07/23/24 10:54*	*07/24/24 20:10*	*1*
Dibromofluoromethane (Surr)	*98*		*50 - 141*	*07/23/24 10:54*	*07/24/24 20:10*	*1*
Toluene-d8 (Surr)	*120*		*52 - 141*	*07/23/24 10:54*	*07/24/24 20:10*	*1*

Client Sample ID: DEP51-S11

Date Collected: 07/22/24 11:40
Date Received: 07/22/24 16:10

Lab Sample ID: 410-180859-12

Matrix: Solid
Percent Solids: 85.6

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	13000		23	11	mg/Kg	☼	07/23/24 06:30	07/25/24 12:43	2
Antimony	0.82		0.23	0.091	mg/Kg	☼	07/23/24 06:30	07/25/24 12:43	2
Arsenic	7.0		0.45	0.15	mg/Kg	☼	07/23/24 06:30	07/25/24 12:43	2
Barium	110	B	0.45	0.21	mg/Kg	☼	07/23/24 06:30	07/25/24 12:43	2
Beryllium	0.75		0.11	0.027	mg/Kg	☼	07/23/24 06:30	07/25/24 12:43	2
Cadmium	0.47		0.11	0.045	mg/Kg	☼	07/23/24 06:30	07/25/24 12:43	2
Calcium	7200		45	22	mg/Kg	☼	07/23/24 06:30	07/25/24 12:43	2
Chromium	100		0.45	0.22	mg/Kg	☼	07/23/24 06:30	07/25/24 12:43	2
Cobalt	10	^2	0.23	0.091	mg/Kg	☼	07/23/24 06:30	07/25/24 12:43	2
Copper	46		0.45	0.20	mg/Kg	☼	07/23/24 06:30	07/25/24 12:43	2
Iron	23000		110	52	mg/Kg	☼	07/23/24 06:30	07/25/24 12:45	10
Lead	170		0.23	0.086	mg/Kg	☼	07/23/24 06:30	07/25/24 12:43	2
Magnesium	5400		11	5.6	mg/Kg	☼	07/23/24 06:30	07/25/24 12:43	2
Manganese	420		0.45	0.23	mg/Kg	☼	07/23/24 06:30	07/25/24 12:43	2
Nickel	21		0.45	0.22	mg/Kg	☼	07/23/24 06:30	07/25/24 12:43	2
Potassium	2500		45	18	mg/Kg	☼	07/23/24 06:30	07/25/24 12:43	2
Selenium	0.50		0.45	0.11	mg/Kg	☼	07/23/24 06:30	07/25/24 12:43	2
Silver	0.26		0.11	0.046	mg/Kg	☼	07/23/24 06:30	07/25/24 12:43	2
Sodium	160		57	27	mg/Kg	☼	07/23/24 06:30	07/25/24 12:43	2
Thallium	0.25		0.11	0.044	mg/Kg	☼	07/23/24 06:30	07/25/24 12:43	2
Vanadium	42		0.91	0.23	mg/Kg	☼	07/23/24 06:30	07/25/24 12:43	2
Zinc	250		170	23	mg/Kg	☼	07/23/24 06:30	07/25/24 12:45	10

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.16		0.069	0.023	mg/Kg	☼	07/23/24 22:00	07/24/24 12:17	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI) (SW846 7196A)	ND	cn	5.0	1.7	mg/Kg	☼	07/23/24 18:44	07/23/24 22:40	10
Cr (III) (SW846 7196A)	100	!	0.011	0.0035	mg/Kg	☼		08/22/24 16:11	1
Percent Moisture (EPA Moisture)	14.4	!	1.0	1.0	%			07/23/24 09:39	1

Client Sample ID: DEP51-W1

Date Collected: 07/22/24 12:05
Date Received: 07/22/24 16:10

Lab Sample ID: 410-180859-13

Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.30	ug/L			07/23/24 12:35	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.30	ug/L			07/23/24 12:35	1
1,1,2-Trichloroethane	ND		1.0	0.30	ug/L			07/23/24 12:35	1
1,1-Dichloroethane	ND		1.0	0.30	ug/L			07/23/24 12:35	1
1,1-Dichloroethene	ND		1.0	0.30	ug/L			07/23/24 12:35	1
1,2,4-Trichlorobenzene	ND		5.0	0.30	ug/L			07/23/24 12:35	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.30	ug/L			07/23/24 12:35	1
1,2-Dibromoethane	ND		1.0	0.20	ug/L			07/23/24 12:35	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			07/23/24 12:35	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			07/23/24 12:35	1
1,2-Dichloropropane	ND		1.0	0.30	ug/L			07/23/24 12:35	1

Client: Pennsylvania Dept of Env Protection
Project/Site: DEP 51st

Job ID: 410-180859-1

Client Sample ID: DEP51-W1

Date Collected: 07/22/24 12:05
Date Received: 07/22/24 16:10

Lab Sample ID: 410-180859-13

Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,3-Dichlorobenzene	ND		5.0	0.68	ug/L			07/23/24 12:35	1
1,4-Dichlorobenzene	ND		5.0	0.30	ug/L			07/23/24 12:35	1
2-Butanone	ND	^c cn	10	0.50	ug/L			07/23/24 12:35	1
2-Hexanone	ND		10	0.85	ug/L			07/23/24 12:35	1
4-Methyl-2-pentanone	ND		10	0.50	ug/L			07/23/24 12:35	1
Acetone	ND		20	0.70	ug/L			07/23/24 12:35	1
Benzene	ND		1.0	0.30	ug/L			07/23/24 12:35	1
Bromodichloromethane	ND		1.0	0.20	ug/L			07/23/24 12:35	1
Bromoform	ND		4.0	1.0	ug/L			07/23/24 12:35	1
Bromomethane	ND		1.0	0.30	ug/L			07/23/24 12:35	1
Carbon disulfide	ND		5.0	0.30	ug/L			07/23/24 12:35	1
Carbon tetrachloride	ND		1.0	0.30	ug/L			07/23/24 12:35	1
Chlorobenzene	ND		1.0	0.30	ug/L			07/23/24 12:35	1
Chloroethane	ND		1.0	0.30	ug/L			07/23/24 12:35	1
Chloroform	ND		1.0	0.30	ug/L			07/23/24 12:35	1
Chloromethane	ND		2.0	0.55	ug/L			07/23/24 12:35	1
cis-1,2-Dichloroethene	ND		1.0	0.30	ug/L			07/23/24 12:35	1
cis-1,3-Dichloropropene	ND		1.0	0.20	ug/L			07/23/24 12:35	1
Cyclohexane	ND		5.0	1.0	ug/L			07/23/24 12:35	1
Dibromochloromethane	ND		1.0	0.20	ug/L			07/23/24 12:35	1
Dichlorodifluoromethane	ND		1.0	0.30	ug/L			07/23/24 12:35	1
Ethylbenzene	ND		1.0	0.40	ug/L			07/23/24 12:35	1
Freon 113	ND		10	0.30	ug/L			07/23/24 12:35	1
Isopropylbenzene	ND		5.0	0.30	ug/L			07/23/24 12:35	1
Methyl acetate	ND		5.0	0.30	ug/L			07/23/24 12:35	1
Methyl tertiary butyl ether	ND		1.0	0.20	ug/L			07/23/24 12:35	1
Methylcyclohexane	ND		5.0	0.50	ug/L			07/23/24 12:35	1
Methylene Chloride	ND		1.0	0.30	ug/L			07/23/24 12:35	1
Styrene	ND		5.0	0.30	ug/L			07/23/24 12:35	1
Tetrachloroethene	ND		1.0	0.30	ug/L			07/23/24 12:35	1
Toluene	ND		1.0	0.30	ug/L			07/23/24 12:35	1
trans-1,2-Dichloroethene	ND		2.0	0.70	ug/L			07/23/24 12:35	1
trans-1,3-Dichloropropene	ND		1.0	0.20	ug/L			07/23/24 12:35	1
Trichloroethene	ND		1.0	0.30	ug/L			07/23/24 12:35	1
Trichlorofluoromethane	ND		1.0	0.30	ug/L			07/23/24 12:35	1
Vinyl chloride	ND		1.0	0.30	ug/L			07/23/24 12:35	1
Xylenes, Total	ND		1.0	0.40	ug/L			07/23/24 12:35	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*80 - 120*		*07/23/24 12:35*	*1*
4-Bromofluorobenzene (Surr)	*105*		*80 - 120*		*07/23/24 12:35*	*1*
Dibromofluoromethane (Surr)	*108*		*80 - 120*		*07/23/24 12:35*	*1*
Toluene-d8 (Surr)	*103*		*80 - 120*		*07/23/24 12:35*	*1*

Method: SW846 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		26	12	ug/L		07/23/24 23:30	07/24/24 20:40	1
Antimony	**0.52**	**J**	1.0	0.21	ug/L		07/23/24 23:30	07/24/24 20:40	1
Arsenic	**1.1**	**J**	2.1	0.70	ug/L		07/23/24 23:30	07/24/24 20:40	1
Barium	**44**		2.1	0.77	ug/L		07/23/24 23:30	07/24/24 20:40	1

Client Sample ID: DEP51-W1

Date Collected: 07/22/24 12:05
Date Received: 07/22/24 16:10

Lab Sample ID: 410-180859-13
Matrix: Water

Method: SW846 6020B - Metals (ICP/MS) - Dissolved (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Beryllium	ND		0.52	0.12	ug/L		07/23/24 23:30	07/24/24 20:40	1
Cadmium	ND		0.52	0.16	ug/L		07/23/24 23:30	07/24/24 20:40	1
Calcium	**32000**		120	52	ug/L		07/23/24 23:30	07/24/24 20:40	1
Chromium	ND		2.1	0.57	ug/L		07/23/24 23:30	07/24/24 20:40	1
Cobalt	**0.24**	**J**	0.52	0.16	ug/L		07/23/24 23:30	07/24/24 21:10	1
Copper	**2.2**		1.0	0.37	ug/L		07/23/24 23:30	07/24/24 20:40	1
Iron	**36**	**J**	52	21	ug/L		07/23/24 23:30	07/24/24 20:40	1
Lead	ND		0.52	0.12	ug/L		07/23/24 23:30	07/24/24 20:40	1
Magnesium	**12000**		52	16	ug/L		07/23/24 23:30	07/24/24 20:40	1
Manganese	**6.3**		2.1	0.98	ug/L		07/23/24 23:30	07/24/24 21:10	1
Nickel	**1.4**		1.0	0.41	ug/L		07/23/24 23:30	07/24/24 20:40	1
Potassium	**4000**		210	67	ug/L		07/23/24 23:30	07/24/24 20:40	1
Selenium	ND		1.0	0.29	ug/L		07/23/24 23:30	07/24/24 20:40	1
Silver	ND		0.52	0.10	ug/L		07/23/24 23:30	07/24/24 20:40	1
Sodium	**29000**	**^2**	210	93	ug/L		07/23/24 23:30	07/24/24 20:40	1
Thallium	ND		0.52	0.13	ug/L		07/23/24 23:30	07/24/24 20:40	1
Vanadium	**1.3**	**J**	4.1	0.82	ug/L		07/23/24 23:30	07/24/24 20:40	1
Zinc	ND		10	4.1	ug/L		07/23/24 23:30	07/24/24 20:40	1

Method: SW846 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.079	ug/L		07/23/24 23:00	07/24/24 10:27	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (III) (SW846 7196A)	ND	!	0.030	0.010	mg/L			08/22/24 16:11	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI) (SW846 7196A)	ND		0.030	0.010	mg/L			07/22/24 22:46	1

Client Sample ID: DUP-W

Date Collected: 07/22/24 00:00
Date Received: 07/22/24 16:10

Lab Sample ID: 410-180859-14
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.30	ug/L			07/23/24 12:54	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.30	ug/L			07/23/24 12:54	1
1,1,2-Trichloroethane	ND		1.0	0.30	ug/L			07/23/24 12:54	1
1,1-Dichloroethane	ND		1.0	0.30	ug/L			07/23/24 12:54	1
1,1-Dichloroethene	ND		1.0	0.30	ug/L			07/23/24 12:54	1
1,2,4-Trichlorobenzene	ND		5.0	0.30	ug/L			07/23/24 12:54	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.30	ug/L			07/23/24 12:54	1
1,2-Dibromoethane	ND		1.0	0.20	ug/L			07/23/24 12:54	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			07/23/24 12:54	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			07/23/24 12:54	1
1,2-Dichloropropane	ND		1.0	0.30	ug/L			07/23/24 12:54	1
1,3-Dichlorobenzene	ND		5.0	0.68	ug/L			07/23/24 12:54	1
1,4-Dichlorobenzene	ND		5.0	0.30	ug/L			07/23/24 12:54	1
2-Butanone	ND	^c cn	10	0.50	ug/L			07/23/24 12:54	1

Client Sample ID: DUP-W
Date Collected: 07/22/24 00:00
Date Received: 07/22/24 16:10

Lab Sample ID: 410-180859-14
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Hexanone	ND		10	0.85	ug/L			07/23/24 12:54	1
4-Methyl-2-pentanone	ND		10	0.50	ug/L			07/23/24 12:54	1
Acetone	ND		20	0.70	ug/L			07/23/24 12:54	1
Benzene	ND		1.0	0.30	ug/L			07/23/24 12:54	1
Bromodichloromethane	ND		1.0	0.20	ug/L			07/23/24 12:54	1
Bromoform	ND		4.0	1.0	ug/L			07/23/24 12:54	1
Bromomethane	ND		1.0	0.30	ug/L			07/23/24 12:54	1
Carbon disulfide	ND		5.0	0.30	ug/L			07/23/24 12:54	1
Carbon tetrachloride	ND		1.0	0.30	ug/L			07/23/24 12:54	1
Chlorobenzene	ND		1.0	0.30	ug/L			07/23/24 12:54	1
Chloroethane	ND		1.0	0.30	ug/L			07/23/24 12:54	1
Chloroform	ND		1.0	0.30	ug/L			07/23/24 12:54	1
Chloromethane	ND		2.0	0.55	ug/L			07/23/24 12:54	1
cis-1,2-Dichloroethene	ND		1.0	0.30	ug/L			07/23/24 12:54	1
cis-1,3-Dichloropropene	ND		1.0	0.20	ug/L			07/23/24 12:54	1
Cyclohexane	ND		5.0	1.0	ug/L			07/23/24 12:54	1
Dibromochloromethane	ND		1.0	0.20	ug/L			07/23/24 12:54	1
Dichlorodifluoromethane	ND		1.0	0.30	ug/L			07/23/24 12:54	1
Ethylbenzene	ND		1.0	0.40	ug/L			07/23/24 12:54	1
Freon 113	ND		10	0.30	ug/L			07/23/24 12:54	1
Isopropylbenzene	ND		5.0	0.30	ug/L			07/23/24 12:54	1
Methyl acetate	ND		5.0	0.30	ug/L			07/23/24 12:54	1
Methyl tertiary butyl ether	ND		1.0	0.20	ug/L			07/23/24 12:54	1
Methylcyclohexane	ND		5.0	0.50	ug/L			07/23/24 12:54	1
Methylene Chloride	ND		1.0	0.30	ug/L			07/23/24 12:54	1
Styrene	ND		5.0	0.30	ug/L			07/23/24 12:54	1
Tetrachloroethene	ND		1.0	0.30	ug/L			07/23/24 12:54	1
Toluene	ND		1.0	0.30	ug/L			07/23/24 12:54	1
trans-1,2-Dichloroethene	ND		2.0	0.70	ug/L			07/23/24 12:54	1
trans-1,3-Dichloropropene	ND		1.0	0.20	ug/L			07/23/24 12:54	1
Trichloroethene	ND		1.0	0.30	ug/L			07/23/24 12:54	1
Trichlorofluoromethane	ND		1.0	0.30	ug/L			07/23/24 12:54	1
Vinyl chloride	ND		1.0	0.30	ug/L			07/23/24 12:54	1
Xylenes, Total	ND		1.0	0.40	ug/L			07/23/24 12:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*80 - 120*		*07/23/24 12:54*	*1*
4-Bromofluorobenzene (Surr)	*106*		*80 - 120*		*07/23/24 12:54*	*1*
Dibromofluoromethane (Surr)	*109*		*80 - 120*		*07/23/24 12:54*	*1*
Toluene-d8 (Surr)	*101*		*80 - 120*		*07/23/24 12:54*	*1*

Method: SW846 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		26	12	ug/L		07/23/24 23:30	07/24/24 20:38	1
Antimony	**0.55**	**J**	1.0	0.21	ug/L		07/23/24 23:30	07/24/24 20:38	1
Arsenic	**1.2**	**J**	2.1	0.70	ug/L		07/23/24 23:30	07/24/24 20:38	1
Barium	**44**		2.1	0.77	ug/L		07/23/24 23:30	07/24/24 20:38	1
Beryllium	ND		0.52	0.12	ug/L		07/23/24 23:30	07/24/24 20:38	1
Cadmium	ND		0.52	0.16	ug/L		07/23/24 23:30	07/24/24 20:38	1
Calcium	**32000**		120	52	ug/L		07/23/24 23:30	07/24/24 20:38	1

Client Sample ID: DUP-W

Date Collected: 07/22/24 00:00
Date Received: 07/22/24 16:10

Lab Sample ID: 410-180859-14
Matrix: Water

Method: SW846 6020B - Metals (ICP/MS) - Dissolved (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chromium	ND		2.1	0.57	ug/L		07/23/24 23:30	07/24/24 20:38	1
Cobalt	**0.43**	**J**	0.52	0.16	ug/L		07/23/24 23:30	07/24/24 21:07	1
Copper	**3.3**		1.0	0.37	ug/L		07/23/24 23:30	07/24/24 20:38	1
Iron	**33**	**J**	52	21	ug/L		07/23/24 23:30	07/24/24 20:38	1
Lead	**0.35**	**J**	0.52	0.12	ug/L		07/23/24 23:30	07/24/24 20:38	1
Magnesium	**12000**		52	16	ug/L		07/23/24 23:30	07/24/24 20:38	1
Manganese	**6.5**		2.1	0.98	ug/L		07/23/24 23:30	07/24/24 21:07	1
Nickel	**1.5**		1.0	0.41	ug/L		07/23/24 23:30	07/24/24 20:38	1
Potassium	**4000**		210	67	ug/L		07/23/24 23:30	07/24/24 20:38	1
Selenium	**0.29**	**J**	1.0	0.29	ug/L		07/23/24 23:30	07/24/24 20:38	1
Silver	ND		0.52	0.10	ug/L		07/23/24 23:30	07/24/24 20:38	1
Sodium	**29000**	**^2**	210	93	ug/L		07/23/24 23:30	07/24/24 20:38	1
Thallium	ND		0.52	0.13	ug/L		07/23/24 23:30	07/24/24 20:38	1
Vanadium	**1.3**	**J**	4.1	0.82	ug/L		07/23/24 23:30	07/24/24 20:38	1
Zinc	**8.0**	**J**	10	4.1	ug/L		07/23/24 23:30	07/24/24 20:38	1

Method: SW846 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.079	ug/L		07/23/24 23:00	07/24/24 10:25	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (III) (SW846 7196A)	ND	!	0.030	0.010	mg/L			08/22/24 16:11	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI) (SW846 7196A)	ND		0.030	0.010	mg/L			07/22/24 22:46	1

Client Sample ID: DEP51-W2

Date Collected: 07/22/24 12:10
Date Received: 07/22/24 16:10

Lab Sample ID: 410-180859-15
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.30	ug/L			07/23/24 13:14	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.30	ug/L			07/23/24 13:14	1
1,1,2-Trichloroethane	ND		1.0	0.30	ug/L			07/23/24 13:14	1
1,1-Dichloroethane	ND		1.0	0.30	ug/L			07/23/24 13:14	1
1,1-Dichloroethene	ND		1.0	0.30	ug/L			07/23/24 13:14	1
1,2,4-Trichlorobenzene	ND		5.0	0.30	ug/L			07/23/24 13:14	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.30	ug/L			07/23/24 13:14	1
1,2-Dibromoethane	ND		1.0	0.20	ug/L			07/23/24 13:14	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			07/23/24 13:14	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			07/23/24 13:14	1
1,2-Dichloropropane	ND		1.0	0.30	ug/L			07/23/24 13:14	1
1,3-Dichlorobenzene	ND		5.0	0.68	ug/L			07/23/24 13:14	1
1,4-Dichlorobenzene	ND		5.0	0.30	ug/L			07/23/24 13:14	1
2-Butanone	ND	^c cn	10	0.50	ug/L			07/23/24 13:14	1
2-Hexanone	ND		10	0.85	ug/L			07/23/24 13:14	1
4-Methyl-2-pentanone	ND		10	0.50	ug/L			07/23/24 13:14	1
Acetone	ND		20	0.70	ug/L			07/23/24 13:14	1

Client Sample ID: DEP51-W2
Date Collected: 07/22/24 12:10
Date Received: 07/22/24 16:10

Lab Sample ID: 410-180859-15
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.30	ug/L			07/23/24 13:14	1
Bromodichloromethane	ND		1.0	0.20	ug/L			07/23/24 13:14	1
Bromoform	ND		4.0	1.0	ug/L			07/23/24 13:14	1
Bromomethane	ND		1.0	0.30	ug/L			07/23/24 13:14	1
Carbon disulfide	**1.5**	**J**	5.0	0.30	ug/L			07/23/24 13:14	1
Carbon tetrachloride	ND		1.0	0.30	ug/L			07/23/24 13:14	1
Chlorobenzene	ND		1.0	0.30	ug/L			07/23/24 13:14	1
Chloroethane	ND		1.0	0.30	ug/L			07/23/24 13:14	1
Chloroform	ND		1.0	0.30	ug/L			07/23/24 13:14	1
Chloromethane	ND		2.0	0.55	ug/L			07/23/24 13:14	1
cis-1,2-Dichloroethene	ND		1.0	0.30	ug/L			07/23/24 13:14	1
cis-1,3-Dichloropropene	ND		1.0	0.20	ug/L			07/23/24 13:14	1
Cyclohexane	ND		5.0	1.0	ug/L			07/23/24 13:14	1
Dibromochloromethane	ND		1.0	0.20	ug/L			07/23/24 13:14	1
Dichlorodifluoromethane	ND		1.0	0.30	ug/L			07/23/24 13:14	1
Ethylbenzene	ND		1.0	0.40	ug/L			07/23/24 13:14	1
Freon 113	ND		10	0.30	ug/L			07/23/24 13:14	1
Isopropylbenzene	ND		5.0	0.30	ug/L			07/23/24 13:14	1
Methyl acetate	ND		5.0	0.30	ug/L			07/23/24 13:14	1
Methyl tertiary butyl ether	ND		1.0	0.20	ug/L			07/23/24 13:14	1
Methylcyclohexane	ND		5.0	0.50	ug/L			07/23/24 13:14	1
Methylene Chloride	ND		1.0	0.30	ug/L			07/23/24 13:14	1
Styrene	ND		5.0	0.30	ug/L			07/23/24 13:14	1
Tetrachloroethene	ND		1.0	0.30	ug/L			07/23/24 13:14	1
Toluene	ND		1.0	0.30	ug/L			07/23/24 13:14	1
trans-1,2-Dichloroethene	ND		2.0	0.70	ug/L			07/23/24 13:14	1
trans-1,3-Dichloropropene	ND		1.0	0.20	ug/L			07/23/24 13:14	1
Trichloroethene	ND		1.0	0.30	ug/L			07/23/24 13:14	1
Trichlorofluoromethane	ND		1.0	0.30	ug/L			07/23/24 13:14	1
Vinyl chloride	ND		1.0	0.30	ug/L			07/23/24 13:14	1
Xylenes, Total	ND		1.0	0.40	ug/L			07/23/24 13:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*103*		*80 - 120*		*07/23/24 13:14*	*1*
4-Bromofluorobenzene (Surr)	*105*		*80 - 120*		*07/23/24 13:14*	*1*
Dibromofluoromethane (Surr)	*107*		*80 - 120*		*07/23/24 13:14*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*07/23/24 13:14*	*1*

Method: SW846 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		26	12	ug/L		07/23/24 23:30	07/24/24 20:46	1
Antimony	**0.47**	**J**	1.0	0.21	ug/L		07/23/24 23:30	07/24/24 20:46	1
Arsenic	**1.0**	**J**	2.1	0.70	ug/L		07/23/24 23:30	07/24/24 20:46	1
Barium	**43**		2.1	0.77	ug/L		07/23/24 23:30	07/24/24 20:46	1
Beryllium	ND		0.52	0.12	ug/L		07/23/24 23:30	07/24/24 20:46	1
Cadmium	ND		0.52	0.16	ug/L		07/23/24 23:30	07/24/24 20:46	1
Calcium	**33000**		120	52	ug/L		07/23/24 23:30	07/24/24 20:46	1
Chromium	ND		2.1	0.57	ug/L		07/23/24 23:30	07/24/24 20:46	1
Cobalt	ND		0.52	0.16	ug/L		07/23/24 23:30	07/24/24 20:46	1
Copper	**2.0**		1.0	0.37	ug/L		07/23/24 23:30	07/24/24 20:46	1

Client Sample ID: DEP51-W2

Lab Sample ID: 410-180859-15

Date Collected: 07/22/24 12:10

Matrix: Water

Date Received: 07/22/24 16:10

Method: SW846 6020B - Metals (ICP/MS) - Dissolved (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND		52	21	ug/L		07/23/24 23:30	07/24/24 20:46	1
Lead	ND		0.52	0.12	ug/L		07/23/24 23:30	07/24/24 20:46	1
Magnesium	**13000**		52	16	ug/L		07/23/24 23:30	07/24/24 20:46	1
Manganese	**5.6**		2.1	0.98	ug/L		07/23/24 23:30	07/24/24 21:15	1
Nickel	**0.92**	**J**	1.0	0.41	ug/L		07/23/24 23:30	07/24/24 20:46	1
Potassium	**4100**		210	67	ug/L		07/23/24 23:30	07/24/24 20:46	1
Selenium	ND		1.0	0.29	ug/L		07/23/24 23:30	07/24/24 20:46	1
Silver	ND		0.52	0.10	ug/L		07/23/24 23:30	07/24/24 20:46	1
Sodium	**30000**	**^2**	210	93	ug/L		07/23/24 23:30	07/24/24 20:46	1
Thallium	ND		0.52	0.13	ug/L		07/23/24 23:30	07/24/24 20:46	1
Vanadium	**1.1**	**J**	4.1	0.82	ug/L		07/23/24 23:30	07/24/24 20:46	1
Zinc	**4.5**	**J**	10	4.1	ug/L		07/23/24 23:30	07/24/24 20:46	1

Method: SW846 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.079	ug/L		07/23/24 23:00	07/24/24 10:24	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (III) (SW846 7196A)	ND	!	0.030	0.010	mg/L			08/22/24 16:11	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI) (SW846 7196A)	ND		0.030	0.010	mg/L			07/22/24 22:46	1

Client Sample ID: DEP51-W3

Lab Sample ID: 410-180859-16

Date Collected: 07/22/24 12:15

Matrix: Water

Date Received: 07/22/24 16:10

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.30	ug/L			07/23/24 13:34	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.30	ug/L			07/23/24 13:34	1
1,1,2-Trichloroethane	ND		1.0	0.30	ug/L			07/23/24 13:34	1
1,1-Dichloroethane	ND		1.0	0.30	ug/L			07/23/24 13:34	1
1,1-Dichloroethene	ND		1.0	0.30	ug/L			07/23/24 13:34	1
1,2,4-Trichlorobenzene	ND		5.0	0.30	ug/L			07/23/24 13:34	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.30	ug/L			07/23/24 13:34	1
1,2-Dibromoethane	ND		1.0	0.20	ug/L			07/23/24 13:34	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			07/23/24 13:34	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			07/23/24 13:34	1
1,2-Dichloropropane	ND		1.0	0.30	ug/L			07/23/24 13:34	1
1,3-Dichlorobenzene	ND		5.0	0.68	ug/L			07/23/24 13:34	1
1,4-Dichlorobenzene	ND		5.0	0.30	ug/L			07/23/24 13:34	1
2-Butanone	ND	^c cn	10	0.50	ug/L			07/23/24 13:34	1
2-Hexanone	ND		10	0.85	ug/L			07/23/24 13:34	1
4-Methyl-2-pentanone	ND		10	0.50	ug/L			07/23/24 13:34	1
Acetone	ND		20	0.70	ug/L			07/23/24 13:34	1
Benzene	ND		1.0	0.30	ug/L			07/23/24 13:34	1
Bromodichloromethane	ND		1.0	0.20	ug/L			07/23/24 13:34	1
Bromoform	ND		4.0	1.0	ug/L			07/23/24 13:34	1

Client Sample ID: DEP51-W3
Date Collected: 07/22/24 12:15
Date Received: 07/22/24 16:10

Lab Sample ID: 410-180859-16
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Bromomethane	ND		1.0	0.30	ug/L			07/23/24 13:34	1
Carbon disulfide	ND		5.0	0.30	ug/L			07/23/24 13:34	1
Carbon tetrachloride	ND		1.0	0.30	ug/L			07/23/24 13:34	1
Chlorobenzene	ND		1.0	0.30	ug/L			07/23/24 13:34	1
Chloroethane	ND		1.0	0.30	ug/L			07/23/24 13:34	1
Chloroform	ND		1.0	0.30	ug/L			07/23/24 13:34	1
Chloromethane	ND		2.0	0.55	ug/L			07/23/24 13:34	1
cis-1,2-Dichloroethene	ND		1.0	0.30	ug/L			07/23/24 13:34	1
cis-1,3-Dichloropropene	ND		1.0	0.20	ug/L			07/23/24 13:34	1
Cyclohexane	ND		5.0	1.0	ug/L			07/23/24 13:34	1
Dibromochloromethane	ND		1.0	0.20	ug/L			07/23/24 13:34	1
Dichlorodifluoromethane	ND		1.0	0.30	ug/L			07/23/24 13:34	1
Ethylbenzene	ND		1.0	0.40	ug/L			07/23/24 13:34	1
Freon 113	ND		10	0.30	ug/L			07/23/24 13:34	1
Isopropylbenzene	ND		5.0	0.30	ug/L			07/23/24 13:34	1
Methyl acetate	ND		5.0	0.30	ug/L			07/23/24 13:34	1
Methyl tertiary butyl ether	ND		1.0	0.20	ug/L			07/23/24 13:34	1
Methylcyclohexane	ND		5.0	0.50	ug/L			07/23/24 13:34	1
Methylene Chloride	ND		1.0	0.30	ug/L			07/23/24 13:34	1
Styrene	ND		5.0	0.30	ug/L			07/23/24 13:34	1
Tetrachloroethene	ND		1.0	0.30	ug/L			07/23/24 13:34	1
Toluene	ND		1.0	0.30	ug/L			07/23/24 13:34	1
trans-1,2-Dichloroethene	ND		2.0	0.70	ug/L			07/23/24 13:34	1
trans-1,3-Dichloropropene	ND		1.0	0.20	ug/L			07/23/24 13:34	1
Trichloroethene	ND		1.0	0.30	ug/L			07/23/24 13:34	1
Trichlorofluoromethane	ND		1.0	0.30	ug/L			07/23/24 13:34	1
Vinyl chloride	ND		1.0	0.30	ug/L			07/23/24 13:34	1
Xylenes, Total	ND		1.0	0.40	ug/L			07/23/24 13:34	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*104*		*80 - 120*		*07/23/24 13:34*	*1*
4-Bromofluorobenzene (Surr)	*106*		*80 - 120*		*07/23/24 13:34*	*1*
Dibromofluoromethane (Surr)	*108*		*80 - 120*		*07/23/24 13:34*	*1*
Toluene-d8 (Surr)	*103*		*80 - 120*		*07/23/24 13:34*	*1*

Method: SW846 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		26	12	ug/L		07/23/24 23:30	07/24/24 20:44	1
Antimony	**0.50**	**J**	1.0	0.21	ug/L		07/23/24 23:30	07/24/24 20:44	1
Arsenic	**0.96**	**J**	2.1	0.70	ug/L		07/23/24 23:30	07/24/24 20:44	1
Barium	**45**		2.1	0.77	ug/L		07/23/24 23:30	07/24/24 20:44	1
Beryllium	ND		0.52	0.12	ug/L		07/23/24 23:30	07/24/24 20:44	1
Cadmium	ND		0.52	0.16	ug/L		07/23/24 23:30	07/24/24 20:44	1
Calcium	**32000**		120	52	ug/L		07/23/24 23:30	07/24/24 20:44	1
Chromium	ND		2.1	0.57	ug/L		07/23/24 23:30	07/24/24 20:44	1
Cobalt	ND		0.52	0.16	ug/L		07/23/24 23:30	07/24/24 20:44	1
Copper	**1.9**		1.0	0.37	ug/L		07/23/24 23:30	07/24/24 20:44	1
Iron	ND		52	21	ug/L		07/23/24 23:30	07/24/24 20:44	1
Lead	ND		0.52	0.12	ug/L		07/23/24 23:30	07/24/24 20:44	1
Magnesium	**13000**		52	16	ug/L		07/23/24 23:30	07/24/24 20:44	1

Client Sample ID: DEP51-W3

Date Collected: 07/22/24 12:15
Date Received: 07/22/24 16:10

Lab Sample ID: 410-180859-16
Matrix: Water

Method: SW846 6020B - Metals (ICP/MS) - Dissolved (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	5.7		2.1	0.98	ug/L		07/23/24 23:30	07/24/24 21:13	1
Nickel	1.3		1.0	0.41	ug/L		07/23/24 23:30	07/24/24 20:44	1
Potassium	4000		210	67	ug/L		07/23/24 23:30	07/24/24 20:44	1
Selenium	0.31	J	1.0	0.29	ug/L		07/23/24 23:30	07/24/24 20:44	1
Silver	ND		0.52	0.10	ug/L		07/23/24 23:30	07/24/24 20:44	1
Sodium	29000	^2	210	93	ug/L		07/23/24 23:30	07/24/24 20:44	1
Thallium	ND		0.52	0.13	ug/L		07/23/24 23:30	07/24/24 20:44	1
Vanadium	1.1	J	4.1	0.82	ug/L		07/23/24 23:30	07/24/24 20:44	1
Zinc	ND		10	4.1	ug/L		07/23/24 23:30	07/24/24 20:44	1

Method: SW846 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.079	ug/L		07/23/24 23:00	07/24/24 10:22	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (III) (SW846 7196A)	ND	!	0.030	0.010	mg/L			08/22/24 16:11	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI) (SW846 7196A)	ND		0.030	0.010	mg/L			07/22/24 22:46	1

Client Sample ID: DEP51-W4

Date Collected: 07/22/24 13:00
Date Received: 07/22/24 16:10

Lab Sample ID: 410-180859-17
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.30	ug/L			07/23/24 13:53	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.30	ug/L			07/23/24 13:53	1
1,1,2-Trichloroethane	ND		1.0	0.30	ug/L			07/23/24 13:53	1
1,1-Dichloroethane	ND		1.0	0.30	ug/L			07/23/24 13:53	1
1,1-Dichloroethene	ND		1.0	0.30	ug/L			07/23/24 13:53	1
1,2,4-Trichlorobenzene	ND		5.0	0.30	ug/L			07/23/24 13:53	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.30	ug/L			07/23/24 13:53	1
1,2-Dibromoethane	ND		1.0	0.20	ug/L			07/23/24 13:53	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			07/23/24 13:53	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			07/23/24 13:53	1
1,2-Dichloropropane	ND		1.0	0.30	ug/L			07/23/24 13:53	1
1,3-Dichlorobenzene	ND		5.0	0.68	ug/L			07/23/24 13:53	1
1,4-Dichlorobenzene	ND		5.0	0.30	ug/L			07/23/24 13:53	1
2-Butanone	ND	^c cn	10	0.50	ug/L			07/23/24 13:53	1
2-Hexanone	ND		10	0.85	ug/L			07/23/24 13:53	1
4-Methyl-2-pentanone	ND		10	0.50	ug/L			07/23/24 13:53	1
Acetone	ND		20	0.70	ug/L			07/23/24 13:53	1
Benzene	ND		1.0	0.30	ug/L			07/23/24 13:53	1
Bromodichloromethane	ND		1.0	0.20	ug/L			07/23/24 13:53	1
Bromoform	ND		4.0	1.0	ug/L			07/23/24 13:53	1
Bromomethane	ND		1.0	0.30	ug/L			07/23/24 13:53	1
Carbon disulfide	ND		5.0	0.30	ug/L			07/23/24 13:53	1
Carbon tetrachloride	ND		1.0	0.30	ug/L			07/23/24 13:53	1

Client Sample ID: DEP51-W4
Date Collected: 07/22/24 13:00
Date Received: 07/22/24 16:10

Lab Sample ID: 410-180859-17
Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chlorobenzene	ND		1.0	0.30	ug/L			07/23/24 13:53	1
Chloroethane	ND		1.0	0.30	ug/L			07/23/24 13:53	1
Chloroform	ND		1.0	0.30	ug/L			07/23/24 13:53	1
Chloromethane	ND		2.0	0.55	ug/L			07/23/24 13:53	1
cis-1,2-Dichloroethene	ND		1.0	0.30	ug/L			07/23/24 13:53	1
cis-1,3-Dichloropropene	ND		1.0	0.20	ug/L			07/23/24 13:53	1
Cyclohexane	ND		5.0	1.0	ug/L			07/23/24 13:53	1
Dibromochloromethane	ND		1.0	0.20	ug/L			07/23/24 13:53	1
Dichlorodifluoromethane	ND		1.0	0.30	ug/L			07/23/24 13:53	1
Ethylbenzene	ND		1.0	0.40	ug/L			07/23/24 13:53	1
Freon 113	ND		10	0.30	ug/L			07/23/24 13:53	1
Isopropylbenzene	ND		5.0	0.30	ug/L			07/23/24 13:53	1
Methyl acetate	ND		5.0	0.30	ug/L			07/23/24 13:53	1
Methyl tertiary butyl ether	ND		1.0	0.20	ug/L			07/23/24 13:53	1
Methylcyclohexane	ND		5.0	0.50	ug/L			07/23/24 13:53	1
Methylene Chloride	ND		1.0	0.30	ug/L			07/23/24 13:53	1
Styrene	ND		5.0	0.30	ug/L			07/23/24 13:53	1
Tetrachloroethene	ND		1.0	0.30	ug/L			07/23/24 13:53	1
Toluene	ND		1.0	0.30	ug/L			07/23/24 13:53	1
trans-1,2-Dichloroethene	ND		2.0	0.70	ug/L			07/23/24 13:53	1
trans-1,3-Dichloropropene	ND		1.0	0.20	ug/L			07/23/24 13:53	1
Trichloroethene	ND		1.0	0.30	ug/L			07/23/24 13:53	1
Trichlorofluoromethane	ND		1.0	0.30	ug/L			07/23/24 13:53	1
Vinyl chloride	ND		1.0	0.30	ug/L			07/23/24 13:53	1
Xylenes, Total	ND		1.0	0.40	ug/L			07/23/24 13:53	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*106*		*80 - 120*		*07/23/24 13:53*	*1*
4-Bromofluorobenzene (Surr)	*104*		*80 - 120*		*07/23/24 13:53*	*1*
Dibromofluoromethane (Surr)	*110*		*80 - 120*		*07/23/24 13:53*	*1*
Toluene-d8 (Surr)	*102*		*80 - 120*		*07/23/24 13:53*	*1*

Method: SW846 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		26	12	ug/L		07/23/24 23:30	07/24/24 20:42	1
Antimony	**0.42**	**J**	1.0	0.21	ug/L		07/23/24 23:30	07/24/24 20:42	1
Arsenic	**1.0**	**J**	2.1	0.70	ug/L		07/23/24 23:30	07/24/24 20:42	1
Barium	**44**		2.1	0.77	ug/L		07/23/24 23:30	07/24/24 20:42	1
Beryllium	ND		0.52	0.12	ug/L		07/23/24 23:30	07/24/24 20:42	1
Cadmium	ND		0.52	0.16	ug/L		07/23/24 23:30	07/24/24 20:42	1
Calcium	**32000**		120	52	ug/L		07/23/24 23:30	07/24/24 20:42	1
Chromium	ND		2.1	0.57	ug/L		07/23/24 23:30	07/24/24 20:42	1
Cobalt	ND		0.52	0.16	ug/L		07/23/24 23:30	07/24/24 20:42	1
Copper	**2.1**		1.0	0.37	ug/L		07/23/24 23:30	07/24/24 20:42	1
Iron	**22**	**J**	52	21	ug/L		07/23/24 23:30	07/24/24 20:42	1
Lead	ND		0.52	0.12	ug/L		07/23/24 23:30	07/24/24 20:42	1
Magnesium	**12000**		52	16	ug/L		07/23/24 23:30	07/24/24 20:42	1
Manganese	**5.3**		2.1	0.98	ug/L		07/23/24 23:30	07/24/24 21:11	1
Nickel	**1.4**		1.0	0.41	ug/L		07/23/24 23:30	07/24/24 20:42	1
Potassium	**4000**		210	67	ug/L		07/23/24 23:30	07/24/24 20:42	1

Client Sample ID: DEP51-W4

Lab Sample ID: 410-180859-17

Date Collected: 07/22/24 13:00

Matrix: Water

Date Received: 07/22/24 16:10

Method: SW846 6020B - Metals (ICP/MS) - Dissolved (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Selenium	ND		1.0	0.29	ug/L		07/23/24 23:30	07/24/24 20:42	1
Silver	ND		0.52	0.10	ug/L		07/23/24 23:30	07/24/24 20:42	1
Sodium	**30000**	**^2**	210	93	ug/L		07/23/24 23:30	07/24/24 20:42	1
Thallium	ND		0.52	0.13	ug/L		07/23/24 23:30	07/24/24 20:42	1
Vanadium	**1.1**	**J**	4.1	0.82	ug/L		07/23/24 23:30	07/24/24 20:42	1
Zinc	**4.3**	**J**	10	4.1	ug/L		07/23/24 23:30	07/24/24 20:42	1

Method: SW846 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.079	ug/L		07/23/24 23:00	07/24/24 10:29	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (III) (SW846 7196A)	ND	!	0.030	0.010	mg/L			08/22/24 16:11	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI) (SW846 7196A)	ND		0.030	0.010	mg/L			07/22/24 23:04	1

Client Sample ID: Trip Blank 2

Lab Sample ID: 410-180859-18

Date Collected: 07/22/24 00:00

Matrix: Water

Date Received: 07/22/24 16:10

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.30	ug/L			07/23/24 10:57	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.30	ug/L			07/23/24 10:57	1
1,1,2-Trichloroethane	ND		1.0	0.30	ug/L			07/23/24 10:57	1
1,1-Dichloroethane	ND		1.0	0.30	ug/L			07/23/24 10:57	1
1,1-Dichloroethene	ND		1.0	0.30	ug/L			07/23/24 10:57	1
1,2,4-Trichlorobenzene	ND		5.0	0.30	ug/L			07/23/24 10:57	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.30	ug/L			07/23/24 10:57	1
1,2-Dibromoethane	ND		1.0	0.20	ug/L			07/23/24 10:57	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			07/23/24 10:57	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			07/23/24 10:57	1
1,2-Dichloropropane	ND		1.0	0.30	ug/L			07/23/24 10:57	1
1,3-Dichlorobenzene	ND		5.0	0.68	ug/L			07/23/24 10:57	1
1,4-Dichlorobenzene	ND		5.0	0.30	ug/L			07/23/24 10:57	1
2-Butanone	ND	^c cn	10	0.50	ug/L			07/23/24 10:57	1
2-Hexanone	ND		10	0.85	ug/L			07/23/24 10:57	1
4-Methyl-2-pentanone	ND		10	0.50	ug/L			07/23/24 10:57	1
Acetone	ND		20	0.70	ug/L			07/23/24 10:57	1
Benzene	ND		1.0	0.30	ug/L			07/23/24 10:57	1
Bromodichloromethane	ND		1.0	0.20	ug/L			07/23/24 10:57	1
Bromoform	ND		4.0	1.0	ug/L			07/23/24 10:57	1
Bromomethane	ND		1.0	0.30	ug/L			07/23/24 10:57	1
Carbon disulfide	ND		5.0	0.30	ug/L			07/23/24 10:57	1
Carbon tetrachloride	ND		1.0	0.30	ug/L			07/23/24 10:57	1
Chlorobenzene	ND		1.0	0.30	ug/L			07/23/24 10:57	1
Chloroethane	ND		1.0	0.30	ug/L			07/23/24 10:57	1
Chloroform	ND		1.0	0.30	ug/L			07/23/24 10:57	1

Client Sample ID: Trip Blank 2

Lab Sample ID: 410-180859-18

Date Collected: 07/22/24 00:00

Matrix: Water

Date Received: 07/22/24 16:10

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		2.0	0.55	ug/L			07/23/24 10:57	1
cis-1,2-Dichloroethene	ND		1.0	0.30	ug/L			07/23/24 10:57	1
cis-1,3-Dichloropropene	ND		1.0	0.20	ug/L			07/23/24 10:57	1
Cyclohexane	ND		5.0	1.0	ug/L			07/23/24 10:57	1
Dibromochloromethane	ND		1.0	0.20	ug/L			07/23/24 10:57	1
Dichlorodifluoromethane	ND		1.0	0.30	ug/L			07/23/24 10:57	1
Ethylbenzene	ND		1.0	0.40	ug/L			07/23/24 10:57	1
Freon 113	ND		10	0.30	ug/L			07/23/24 10:57	1
Isopropylbenzene	ND		5.0	0.30	ug/L			07/23/24 10:57	1
Methyl acetate	ND		5.0	0.30	ug/L			07/23/24 10:57	1
Methyl tertiary butyl ether	ND		1.0	0.20	ug/L			07/23/24 10:57	1
Methylcyclohexane	ND		5.0	0.50	ug/L			07/23/24 10:57	1
Methylene Chloride	ND		1.0	0.30	ug/L			07/23/24 10:57	1
Styrene	ND		5.0	0.30	ug/L			07/23/24 10:57	1
Tetrachloroethene	ND		1.0	0.30	ug/L			07/23/24 10:57	1
Toluene	ND		1.0	0.30	ug/L			07/23/24 10:57	1
trans-1,2-Dichloroethene	ND		2.0	0.70	ug/L			07/23/24 10:57	1
trans-1,3-Dichloropropene	ND		1.0	0.20	ug/L			07/23/24 10:57	1
Trichloroethene	ND		1.0	0.30	ug/L			07/23/24 10:57	1
Trichlorofluoromethane	ND		1.0	0.30	ug/L			07/23/24 10:57	1
Vinyl chloride	ND		1.0	0.30	ug/L			07/23/24 10:57	1
Xylenes, Total	ND		1.0	0.40	ug/L			07/23/24 10:57	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*105*		*80 - 120*		*07/23/24 10:57*	*1*
4-Bromofluorobenzene (Surr)	*103*		*80 - 120*		*07/23/24 10:57*	*1*
Dibromofluoromethane (Surr)	*108*		*80 - 120*		*07/23/24 10:57*	*1*
Toluene-d8 (Surr)	*100*		*80 - 120*		*07/23/24 10:57*	*1*

Client Sample ID: Trip Blank 1

Lab Sample ID: 410-180859-19

Date Collected: 07/22/24 00:00

Matrix: Water

Date Received: 07/22/24 16:10

Method: SW846 8260D - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.30	ug/L			07/23/24 11:17	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.30	ug/L			07/23/24 11:17	1
1,1,2-Trichloroethane	ND		1.0	0.30	ug/L			07/23/24 11:17	1
1,1-Dichloroethane	ND		1.0	0.30	ug/L			07/23/24 11:17	1
1,1-Dichloroethene	ND		1.0	0.30	ug/L			07/23/24 11:17	1
1,2,4-Trichlorobenzene	ND		5.0	0.30	ug/L			07/23/24 11:17	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.30	ug/L			07/23/24 11:17	1
1,2-Dibromoethane	ND		1.0	0.20	ug/L			07/23/24 11:17	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			07/23/24 11:17	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			07/23/24 11:17	1
1,2-Dichloropropane	ND		1.0	0.30	ug/L			07/23/24 11:17	1
1,3-Dichlorobenzene	ND		5.0	0.68	ug/L			07/23/24 11:17	1
1,4-Dichlorobenzene	ND		5.0	0.30	ug/L			07/23/24 11:17	1
2-Butanone	ND	^c cn	10	0.50	ug/L			07/23/24 11:17	1
2-Hexanone	ND		10	0.85	ug/L			07/23/24 11:17	1

Client: Pennsylvania Dept of Env Protection
Project/Site: DEP 51st

Job ID: 410-180859-1

Client Sample ID: Trip Blank 1

Date Collected: 07/22/24 00:00
Date Received: 07/22/24 16:10

Lab Sample ID: 410-180859-19

Matrix: Water

Method: SW846 8260D - Volatile Organic Compounds by GC/MS (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4-Methyl-2-pentanone	ND		10	0.50	ug/L			07/23/24 11:17	1
Acetone	ND		20	0.70	ug/L			07/23/24 11:17	1
Benzene	ND		1.0	0.30	ug/L			07/23/24 11:17	1
Bromodichloromethane	ND		1.0	0.20	ug/L			07/23/24 11:17	1
Bromoform	ND		4.0	1.0	ug/L			07/23/24 11:17	1
Bromomethane	ND		1.0	0.30	ug/L			07/23/24 11:17	1
Carbon disulfide	ND		5.0	0.30	ug/L			07/23/24 11:17	1
Carbon tetrachloride	ND		1.0	0.30	ug/L			07/23/24 11:17	1
Chlorobenzene	ND		1.0	0.30	ug/L			07/23/24 11:17	1
Chloroethane	ND		1.0	0.30	ug/L			07/23/24 11:17	1
Chloroform	ND		1.0	0.30	ug/L			07/23/24 11:17	1
Chloromethane	ND		2.0	0.55	ug/L			07/23/24 11:17	1
cis-1,2-Dichloroethene	ND		1.0	0.30	ug/L			07/23/24 11:17	1
cis-1,3-Dichloropropene	ND		1.0	0.20	ug/L			07/23/24 11:17	1
Cyclohexane	ND		5.0	1.0	ug/L			07/23/24 11:17	1
Dibromochloromethane	ND		1.0	0.20	ug/L			07/23/24 11:17	1
Dichlorodifluoromethane	ND		1.0	0.30	ug/L			07/23/24 11:17	1
Ethylbenzene	ND		1.0	0.40	ug/L			07/23/24 11:17	1
Freon 113	ND		10	0.30	ug/L			07/23/24 11:17	1
Isopropylbenzene	ND		5.0	0.30	ug/L			07/23/24 11:17	1
Methyl acetate	ND		5.0	0.30	ug/L			07/23/24 11:17	1
Methyl tertiary butyl ether	ND		1.0	0.20	ug/L			07/23/24 11:17	1
Methylcyclohexane	ND		5.0	0.50	ug/L			07/23/24 11:17	1
Methylene Chloride	ND		1.0	0.30	ug/L			07/23/24 11:17	1
Styrene	ND		5.0	0.30	ug/L			07/23/24 11:17	1
Tetrachloroethene	ND		1.0	0.30	ug/L			07/23/24 11:17	1
Toluene	ND		1.0	0.30	ug/L			07/23/24 11:17	1
trans-1,2-Dichloroethene	ND		2.0	0.70	ug/L			07/23/24 11:17	1
trans-1,3-Dichloropropene	ND		1.0	0.20	ug/L			07/23/24 11:17	1
Trichloroethene	ND		1.0	0.30	ug/L			07/23/24 11:17	1
Trichlorofluoromethane	ND		1.0	0.30	ug/L			07/23/24 11:17	1
Vinyl chloride	ND		1.0	0.30	ug/L			07/23/24 11:17	1
Xylenes, Total	ND		1.0	0.40	ug/L			07/23/24 11:17	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*108*		*80 - 120*		*07/23/24 11:17*	*1*
4-Bromofluorobenzene (Surr)	*106*		*80 - 120*		*07/23/24 11:17*	*1*
Dibromofluoromethane (Surr)	*107*		*80 - 120*		*07/23/24 11:17*	*1*
Toluene-d8 (Surr)	*103*		*80 - 120*		*07/23/24 11:17*	*1*

Surrogate Summary

Client: Pennsylvania Dept of Env Protection
Project/Site: DEP 51st

Job ID: 410-180859-1

Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Solid — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(54-135)	(50-131)	(50-141)	(52-141)
410-180859-1	DEP51-S1	104	96	96	106
410-180859-2	DEP51-S2	106	95	95	105
410-180859-3	DEP51-S3	104	90	97	107
410-180859-4	DEP51-S4	102	87	96	112
410-180859-5	DEP51-S5	99	80	97	119
410-180859-6	DEP51-S6	102 cn	78 cn	98 cn	125 cn
410-180859-7	DEP51-S7	76 cn	69 cn	75 cn	73 cn
410-180859-8	DUP-S	70 cn	59 cn	71 cn	66 cn
410-180859-9	DEP51-S8	97 cn	81 cn	96 cn	119 cn
410-180859-10	DEP51-S9	101 cn	80 cn	96 cn	119 cn
410-180859-11	DEP51-S10	100 cn	76 cn	98 cn	126 cn
410-180859-12	DEP51-S11	100	80	98	120
LCS 410-531785/4	Lab Control Sample	97	100	94	103
LCS 410-532050/6	Lab Control Sample	101	100	103	100
LCSD 410-531785/5	Lab Control Sample Dup	99	99	95	102
LCSD 410-532050/8	Lab Control Sample Dup	95	94	97	95
MB 410-531785/7	Method Blank	98	99	95	103
MB 410-532050/7	Method Blank	102	98	101	99

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Water — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(80-120)	(80-120)	(80-120)	(80-120)
410-180859-13	DEP51-W1	106	105	108	103
410-180859-14	DUP-W	105	106	109	101
410-180859-15	DEP51-W2	103	105	107	102
410-180859-16	DEP51-W3	104	106	108	103
410-180859-17	DEP51-W4	106	104	110	102
410-180859-18	Trip Blank 2	105	103	108	100
410-180859-19	Trip Blank 1	108	106	107	103
LCS 410-531308/4	Lab Control Sample	108	103	107	103
LCSD 410-531308/5	Lab Control Sample Dup	106	102	105	101
MB 410-531308/7	Method Blank	105	104	109	101

Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)
BFB = 4-Bromofluorobenzene (Surr)
DBFM = Dibromofluoromethane (Surr)
TOL = Toluene-d8 (Surr)

Client: Pennsylvania Dept of Env Protection
Project/Site: DEP 51st

Job ID: 410-180859-1

Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 410-531308/7
Matrix: Water
Analysis Batch: 531308

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.30	ug/L			07/23/24 10:38	1
1,1,2,2-Tetrachloroethane	ND		1.0	0.30	ug/L			07/23/24 10:38	1
1,1,2-Trichloroethane	ND		1.0	0.30	ug/L			07/23/24 10:38	1
1,1-Dichloroethane	ND		1.0	0.30	ug/L			07/23/24 10:38	1
1,1-Dichloroethene	ND		1.0	0.30	ug/L			07/23/24 10:38	1
1,2,4-Trichlorobenzene	ND		5.0	0.30	ug/L			07/23/24 10:38	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.30	ug/L			07/23/24 10:38	1
1,2-Dibromoethane	ND		1.0	0.20	ug/L			07/23/24 10:38	1
1,2-Dichlorobenzene	ND		5.0	0.20	ug/L			07/23/24 10:38	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			07/23/24 10:38	1
1,2-Dichloropropane	ND		1.0	0.30	ug/L			07/23/24 10:38	1
1,3-Dichlorobenzene	ND		5.0	0.68	ug/L			07/23/24 10:38	1
1,4-Dichlorobenzene	ND		5.0	0.30	ug/L			07/23/24 10:38	1
2-Butanone	ND		10	0.50	ug/L			07/23/24 10:38	1
2-Hexanone	ND		10	0.85	ug/L			07/23/24 10:38	1
4-Methyl-2-pentanone	ND		10	0.50	ug/L			07/23/24 10:38	1
Acetone	ND		20	0.70	ug/L			07/23/24 10:38	1
Benzene	ND		1.0	0.30	ug/L			07/23/24 10:38	1
Bromodichloromethane	ND		1.0	0.20	ug/L			07/23/24 10:38	1
Bromoform	ND		4.0	1.0	ug/L			07/23/24 10:38	1
Bromomethane	ND		1.0	0.30	ug/L			07/23/24 10:38	1
Carbon disulfide	ND		5.0	0.30	ug/L			07/23/24 10:38	1
Carbon tetrachloride	ND		1.0	0.30	ug/L			07/23/24 10:38	1
Chlorobenzene	ND		1.0	0.30	ug/L			07/23/24 10:38	1
Chloroethane	ND		1.0	0.30	ug/L			07/23/24 10:38	1
Chloroform	ND		1.0	0.30	ug/L			07/23/24 10:38	1
Chloromethane	ND		2.0	0.55	ug/L			07/23/24 10:38	1
cis-1,2-Dichloroethene	ND		1.0	0.30	ug/L			07/23/24 10:38	1
cis-1,3-Dichloropropene	ND		1.0	0.20	ug/L			07/23/24 10:38	1
Cyclohexane	ND		5.0	1.0	ug/L			07/23/24 10:38	1
Dibromochloromethane	ND		1.0	0.20	ug/L			07/23/24 10:38	1
Dichlorodifluoromethane	ND		1.0	0.30	ug/L			07/23/24 10:38	1
Ethylbenzene	ND		1.0	0.40	ug/L			07/23/24 10:38	1
Freon 113	ND		10	0.30	ug/L			07/23/24 10:38	1
Isopropylbenzene	ND		5.0	0.30	ug/L			07/23/24 10:38	1
Methyl acetate	ND		5.0	0.30	ug/L			07/23/24 10:38	1
Methyl tertiary butyl ether	ND		1.0	0.20	ug/L			07/23/24 10:38	1
Methylcyclohexane	ND		5.0	0.50	ug/L			07/23/24 10:38	1
Methylene Chloride	ND		1.0	0.30	ug/L			07/23/24 10:38	1
Styrene	ND		5.0	0.30	ug/L			07/23/24 10:38	1
Tetrachloroethene	ND		1.0	0.30	ug/L			07/23/24 10:38	1
Toluene	ND		1.0	0.30	ug/L			07/23/24 10:38	1
trans-1,2-Dichloroethene	ND		2.0	0.70	ug/L			07/23/24 10:38	1
trans-1,3-Dichloropropene	ND		1.0	0.20	ug/L			07/23/24 10:38	1
Trichloroethene	ND		1.0	0.30	ug/L			07/23/24 10:38	1
Trichlorofluoromethane	ND		1.0	0.30	ug/L			07/23/24 10:38	1
Vinyl chloride	ND		1.0	0.30	ug/L			07/23/24 10:38	1
Xylenes, Total	ND		1.0	0.40	ug/L			07/23/24 10:38	1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 410-531308/7
Matrix: Water
Analysis Batch: 531308

Client Sample ID: Method Blank
Prep Type: Total/NA

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105		80 - 120		07/23/24 10:38	1
4-Bromofluorobenzene (Surr)	104		80 - 120		07/23/24 10:38	1
Dibromofluoromethane (Surr)	109		80 - 120		07/23/24 10:38	1
Toluene-d8 (Surr)	101		80 - 120		07/23/24 10:38	1

Lab Sample ID: LCS 410-531308/4
Matrix: Water
Analysis Batch: 531308

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1-Trichloroethane	20.0	20.1		ug/L		100	73 - 120
1,1,2,2-Tetrachloroethane	20.0	20.7		ug/L		103	72 - 120
1,1,2-Trichloroethane	20.0	20.7		ug/L		103	80 - 120
1,1-Dichloroethane	20.0	21.6		ug/L		108	80 - 120
1,1-Dichloroethene	20.0	21.7		ug/L		109	80 - 131
1,2,4-Trichlorobenzene	20.0	22.2		ug/L		111	63 - 120
1,2-Dibromo-3-Chloropropane	20.0	19.3		ug/L		96	60 - 120
1,2-Dibromoethane	20.0	20.1		ug/L		100	77 - 120
1,2-Dichlorobenzene	20.0	21.4		ug/L		107	80 - 120
1,2-Dichloroethane	20.0	20.8		ug/L		104	73 - 124
1,2-Dichloropropane	20.0	20.7		ug/L		103	80 - 120
1,3-Dichlorobenzene	20.0	20.5		ug/L		102	80 - 120
1,4-Dichlorobenzene	20.0	20.4		ug/L		102	80 - 120
2-Butanone	250	198		ug/L		79	59 - 135
2-Hexanone	250	266		ug/L		107	56 - 135
4-Methyl-2-pentanone	250	249		ug/L		100	62 - 133
Acetone	250	220		ug/L		88	57 - 143
Benzene	20.0	20.2		ug/L		101	80 - 120
Bromodichloromethane	20.0	19.2		ug/L		96	71 - 120
Bromoform	20.0	18.9		ug/L		95	51 - 120
Bromomethane	20.0	17.9		ug/L		90	53 - 128
Carbon disulfide	20.0	19.0		ug/L		95	65 - 128
Carbon tetrachloride	20.0	19.6		ug/L		98	64 - 134
Chlorobenzene	20.0	20.0		ug/L		100	80 - 120
Chloroethane	20.0	19.4		ug/L		97	55 - 123
Chloroform	20.0	19.9		ug/L		100	80 - 120
Chloromethane	20.0	19.2		ug/L		96	39 - 134
cis-1,2-Dichloroethene	20.0	21.8		ug/L		109	80 - 125
cis-1,3-Dichloropropene	20.0	16.5		ug/L		83	75 - 120
Cyclohexane	20.0	18.0		ug/L		90	68 - 126
Dibromochloromethane	20.0	19.9		ug/L		100	71 - 120
Dichlorodifluoromethane	20.0	18.0		ug/L		90	26 - 127
Ethylbenzene	20.0	21.0		ug/L		105	80 - 120
Freon 113	20.0	17.2		ug/L		86	57 - 122
Isopropylbenzene	20.0	23.4		ug/L		117	80 - 120
Methyl acetate	20.0	20.2		ug/L		101	48 - 168
Methyl tertiary butyl ether	20.0	21.4		ug/L		107	69 - 122
Methylcyclohexane	20.0	18.3		ug/L		91	67 - 121

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 410-531308/4
Matrix: Water
Analysis Batch: 531308

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Methylene Chloride	20.0	21.2		ug/L		106	80 - 120
Styrene	20.0	20.9		ug/L		104	80 - 120
Tetrachloroethene	20.0	20.3		ug/L		101	80 - 120
Toluene	20.0	20.4		ug/L		102	80 - 120
trans-1,2-Dichloroethene	20.0	20.9		ug/L		105	80 - 126
trans-1,3-Dichloropropene	20.0	16.8		ug/L		84	67 - 120
Trichloroethene	20.0	19.2		ug/L		96	80 - 120
Trichlorofluoromethane	20.0	18.2		ug/L		91	51 - 120
Vinyl chloride	20.0	19.2		ug/L		96	56 - 120
Xylenes, Total	60.0	62.5		ug/L		104	80 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*108*		*80 - 120*
4-Bromofluorobenzene (Surr)	*103*		*80 - 120*
Dibromofluoromethane (Surr)	*107*		*80 - 120*
Toluene-d8 (Surr)	*103*		*80 - 120*

Lab Sample ID: LCSD 410-531308/5
Matrix: Water
Analysis Batch: 531308

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,1-Trichloroethane	20.0	20.4		ug/L		102	73 - 120	1	30
1,1,2,2-Tetrachloroethane	20.0	20.2		ug/L		101	72 - 120	2	30
1,1,2-Trichloroethane	20.0	21.0		ug/L		105	80 - 120	1	30
1,1-Dichloroethane	20.0	21.7		ug/L		108	80 - 120	0	30
1,1-Dichloroethene	20.0	21.8		ug/L		109	80 - 131	0	30
1,2,4-Trichlorobenzene	20.0	21.2		ug/L		106	63 - 120	5	30
1,2-Dibromo-3-Chloropropane	20.0	18.3		ug/L		91	60 - 120	5	30
1,2-Dibromoethane	20.0	19.6		ug/L		98	77 - 120	2	30
1,2-Dichlorobenzene	20.0	20.9		ug/L		105	80 - 120	2	30
1,2-Dichloroethane	20.0	20.7		ug/L		103	73 - 124	1	30
1,2-Dichloropropane	20.0	21.0		ug/L		105	80 - 120	2	30
1,3-Dichlorobenzene	20.0	20.3		ug/L		101	80 - 120	1	30
1,4-Dichlorobenzene	20.0	20.3		ug/L		101	80 - 120	1	30
2-Butanone	250	200		ug/L		80	59 - 135	1	30
2-Hexanone	250	267		ug/L		107	56 - 135	0	30
4-Methyl-2-pentanone	250	247		ug/L		99	62 - 133	1	30
Acetone	250	237		ug/L		95	57 - 143	7	30
Benzene	20.0	20.4		ug/L		102	80 - 120	1	30
Bromodichloromethane	20.0	19.3		ug/L		96	71 - 120	0	30
Bromoform	20.0	18.7		ug/L		94	51 - 120	1	30
Bromomethane	20.0	17.9		ug/L		90	53 - 128	0	30
Carbon disulfide	20.0	18.8		ug/L		94	65 - 128	1	30
Carbon tetrachloride	20.0	19.3		ug/L		96	64 - 134	2	30
Chlorobenzene	20.0	19.9		ug/L		99	80 - 120	1	30
Chloroethane	20.0	19.9		ug/L		100	55 - 123	2	30
Chloroform	20.0	20.0		ug/L		100	80 - 120	0	30

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 410-531308/5
Matrix: Water
Analysis Batch: 531308

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Chloromethane			20.0	19.3		ug/L		96	39 - 134	0	30
cis-1,2-Dichloroethene			20.0	21.6		ug/L		108	80 - 125	1	30
cis-1,3-Dichloropropene			20.0	16.5		ug/L		82	75 - 120	0	30
Cyclohexane			20.0	18.3		ug/L		92	68 - 126	2	30
Dibromochloromethane			20.0	19.2		ug/L		96	71 - 120	4	30
Dichlorodifluoromethane			20.0	18.3		ug/L		91	26 - 127	2	30
Ethylbenzene			20.0	21.2		ug/L		106	80 - 120	1	30
Freon 113			20.0	17.2		ug/L		86	57 - 122	0	30
Isopropylbenzene			20.0	24.1		ug/L		120	80 - 120	3	30
Methyl acetate			20.0	20.9		ug/L		104	48 - 168	3	30
Methyl tertiary butyl ether			20.0	20.9		ug/L		104	69 - 122	2	30
Methylcyclohexane			20.0	18.6		ug/L		93	67 - 121	2	30
Methylene Chloride			20.0	21.4		ug/L		107	80 - 120	1	30
Styrene			20.0	21.1		ug/L		106	80 - 120	1	30
Tetrachloroethene			20.0	20.4		ug/L		102	80 - 120	1	30
Toluene			20.0	20.5		ug/L		103	80 - 120	1	30
trans-1,2-Dichloroethene			20.0	21.3		ug/L		106	80 - 126	2	30
trans-1,3-Dichloropropene			20.0	16.8		ug/L		84	67 - 120	0	30
Trichloroethene			20.0	19.5		ug/L		97	80 - 120	1	30
Trichlorofluoromethane			20.0	18.5		ug/L		92	51 - 120	2	30
Vinyl chloride			20.0	19.5		ug/L		98	56 - 120	1	30
Xylenes, Total			60.0	63.3		ug/L		106	80 - 120	1	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*106*		*80 - 120*
4-Bromofluorobenzene (Surr)	*102*		*80 - 120*
Dibromofluoromethane (Surr)	*105*		*80 - 120*
Toluene-d8 (Surr)	*101*		*80 - 120*

Lab Sample ID: MB 410-531785/7
Matrix: Solid
Analysis Batch: 531785

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		5.0	0.80	ug/Kg			07/24/24 13:05	1
1,1,2,2-Tetrachloroethane	ND		5.0	0.80	ug/Kg			07/24/24 13:05	1
1,1,2-Trichloroethane	ND		5.0	0.70	ug/Kg			07/24/24 13:05	1
1,1-Dichloroethane	ND		5.0	0.80	ug/Kg			07/24/24 13:05	1
1,1-Dichloroethene	ND		5.0	0.80	ug/Kg			07/24/24 13:05	1
1,2,4-Trichlorobenzene	ND		10	5.0	ug/Kg			07/24/24 13:05	1
1,2-Dibromo-3-Chloropropane	ND		5.0	0.80	ug/Kg			07/24/24 13:05	1
1,2-Dibromoethane	ND		5.0	0.70	ug/Kg			07/24/24 13:05	1
1,2-Dichlorobenzene	ND		5.0	0.90	ug/Kg			07/24/24 13:05	1
1,2-Dichloroethane	ND		5.0	0.60	ug/Kg			07/24/24 13:05	1
1,2-Dichloropropane	ND		5.0	0.80	ug/Kg			07/24/24 13:05	1
1,3-Dichlorobenzene	ND		5.0	1.0	ug/Kg			07/24/24 13:05	1
1,4-Dichlorobenzene	ND		5.0	0.90	ug/Kg			07/24/24 13:05	1
2-Butanone	ND		10	2.0	ug/Kg			07/24/24 13:05	1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 410-531785/7
Matrix: Solid
Analysis Batch: 531785

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
2-Hexanone	ND		10	2.5	ug/Kg			07/24/24 13:05	1
4-Methyl-2-pentanone	ND		10	2.0	ug/Kg			07/24/24 13:05	1
Acetone	ND		20	6.0	ug/Kg			07/24/24 13:05	1
Benzene	ND		5.0	0.80	ug/Kg			07/24/24 13:05	1
Bromodichloromethane	ND		5.0	0.70	ug/Kg			07/24/24 13:05	1
Bromoform	ND		10	5.0	ug/Kg			07/24/24 13:05	1
Bromomethane	ND		5.0	1.0	ug/Kg			07/24/24 13:05	1
Carbon disulfide	ND		5.0	0.80	ug/Kg			07/24/24 13:05	1
Carbon tetrachloride	ND		5.0	0.80	ug/Kg			07/24/24 13:05	1
Chlorobenzene	ND		5.0	0.90	ug/Kg			07/24/24 13:05	1
Chloroethane	ND		5.0	1.0	ug/Kg			07/24/24 13:05	1
Chloroform	ND		5.0	0.80	ug/Kg			07/24/24 13:05	1
Chloromethane	ND		5.0	1.0	ug/Kg			07/24/24 13:05	1
cis-1,2-Dichloroethene	ND		5.0	0.80	ug/Kg			07/24/24 13:05	1
cis-1,3-Dichloropropene	ND		5.0	0.60	ug/Kg			07/24/24 13:05	1
Cyclohexane	ND		5.0	0.90	ug/Kg			07/24/24 13:05	1
Dibromochloromethane	ND		5.0	0.50	ug/Kg			07/24/24 13:05	1
Dichlorodifluoromethane	ND		5.0	1.0	ug/Kg			07/24/24 13:05	1
Ethylbenzene	ND		5.0	1.0	ug/Kg			07/24/24 13:05	1
Freon 113	ND		10	0.90	ug/Kg			07/24/24 13:05	1
Isopropylbenzene	ND		5.0	1.5	ug/Kg			07/24/24 13:05	1
Methyl acetate	ND		5.0	1.0	ug/Kg			07/24/24 13:05	1
Methyl tertiary butyl ether	ND		5.0	0.80	ug/Kg			07/24/24 13:05	1
Methylcyclohexane	ND		5.0	0.80	ug/Kg			07/24/24 13:05	1
Methylene Chloride	ND		5.0	2.0	ug/Kg			07/24/24 13:05	1
Styrene	ND		5.0	0.90	ug/Kg			07/24/24 13:05	1
Tetrachloroethene	ND		5.0	1.5	ug/Kg			07/24/24 13:05	1
Toluene	ND		5.0	1.0	ug/Kg			07/24/24 13:05	1
trans-1,2-Dichloroethene	ND		5.0	0.80	ug/Kg			07/24/24 13:05	1
trans-1,3-Dichloropropene	ND		5.0	0.60	ug/Kg			07/24/24 13:05	1
Trichloroethene	ND		5.0	0.80	ug/Kg			07/24/24 13:05	1
Trichlorofluoromethane	ND		5.0	1.0	ug/Kg			07/24/24 13:05	1
Vinyl chloride	ND		5.0	0.80	ug/Kg			07/24/24 13:05	1
Xylenes, Total	ND		10	0.70	ug/Kg			07/24/24 13:05	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*98*		*54 - 135*		*07/24/24 13:05*	*1*
4-Bromofluorobenzene (Surr)	*99*		*50 - 131*		*07/24/24 13:05*	*1*
Dibromofluoromethane (Surr)	*95*		*50 - 141*		*07/24/24 13:05*	*1*
Toluene-d8 (Surr)	*103*		*52 - 141*		*07/24/24 13:05*	*1*

Lab Sample ID: LCS 410-531785/4
Matrix: Solid
Analysis Batch: 531785

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1-Trichloroethane	20.0	17.2		ug/Kg		86	69 - 123
1,1,2,2-Tetrachloroethane	20.0	18.1		ug/Kg		90	69 - 125

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 410-531785/4
Matrix: Solid
Analysis Batch: 531785

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,2-Trichloroethane	20.0	17.7		ug/Kg		89	80 - 120
1,1-Dichloroethane	20.0	17.8		ug/Kg		89	79 - 120
1,1-Dichloroethene	20.0	18.2		ug/Kg		91	73 - 129
1,2,4-Trichlorobenzene	20.0	17.4		ug/Kg		87	56 - 130
1,2-Dibromo-3-Chloropropane	20.0	16.3		ug/Kg		81	48 - 134
1,2-Dibromoethane	20.0	17.2		ug/Kg		86	76 - 120
1,2-Dichlorobenzene	20.0	18.1		ug/Kg		90	76 - 120
1,2-Dichloroethane	20.0	16.9		ug/Kg		85	71 - 128
1,2-Dichloropropane	20.0	17.7		ug/Kg		89	80 - 120
1,3-Dichlorobenzene	20.0	18.0		ug/Kg		90	75 - 120
1,4-Dichlorobenzene	20.0	17.9		ug/Kg		90	80 - 120
2-Butanone	250	234		ug/Kg		93	57 - 128
2-Hexanone	250	204		ug/Kg		82	54 - 140
4-Methyl-2-pentanone	250	201		ug/Kg		80	67 - 128
Acetone	250	220		ug/Kg		88	41 - 150
Benzene	20.0	17.1		ug/Kg		86	80 - 120
Bromodichloromethane	20.0	17.1		ug/Kg		85	70 - 120
Bromoform	20.0	17.0		ug/Kg		85	51 - 127
Bromomethane	20.0	13.2		ug/Kg		66	45 - 140
Carbon disulfide	20.0	15.9		ug/Kg		80	64 - 133
Carbon tetrachloride	20.0	17.0		ug/Kg		85	64 - 134
Chlorobenzene	20.0	17.8		ug/Kg		89	80 - 120
Chloroethane	20.0	14.5		ug/Kg		72	43 - 135
Chloroform	20.0	16.4		ug/Kg		82	80 - 120
Chloromethane	20.0	12.6		ug/Kg		63	56 - 120
cis-1,2-Dichloroethene	20.0	17.3		ug/Kg		86	80 - 125
cis-1,3-Dichloropropene	20.0	16.4		ug/Kg		82	66 - 120
Cyclohexane	20.0	15.9		ug/Kg		80	58 - 126
Dibromochloromethane	20.0	17.4		ug/Kg		87	69 - 125
Dichlorodifluoromethane	20.0	10.9		ug/Kg		54	21 - 127
Ethylbenzene	20.0	18.3		ug/Kg		92	78 - 120
Freon 113	20.0	14.5		ug/Kg		73	64 - 135
Isopropylbenzene	20.0	19.6		ug/Kg		98	77 - 120
Methyl acetate	20.0	15.9		ug/Kg		79	67 - 128
Methyl tertiary butyl ether	20.0	15.8		ug/Kg		79	72 - 120
Methylcyclohexane	20.0	15.2		ug/Kg		76	61 - 124
Methylene Chloride	20.0	17.5		ug/Kg		88	76 - 122
Styrene	20.0	17.9		ug/Kg		89	76 - 120
Tetrachloroethene	20.0	18.2		ug/Kg		91	73 - 120
Toluene	20.0	17.9		ug/Kg		90	80 - 120
trans-1,2-Dichloroethene	20.0	17.9		ug/Kg		90	80 - 126
trans-1,3-Dichloropropene	20.0	17.8		ug/Kg		89	68 - 122
Trichloroethene	20.0	16.9		ug/Kg		85	80 - 120
Trichlorofluoromethane	20.0	13.3		ug/Kg		66	55 - 134
Vinyl chloride	20.0	13.9		ug/Kg		70	52 - 120
Xylenes, Total	60.0	54.4		ug/Kg		91	75 - 120

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 410-531785/4
Matrix: Solid
Analysis Batch: 531785

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*97*		*54 - 135*
4-Bromofluorobenzene (Surr)	*100*		*50 - 131*
Dibromofluoromethane (Surr)	*94*		*50 - 141*
Toluene-d8 (Surr)	*103*		*52 - 141*

Lab Sample ID: LCSD 410-531785/5
Matrix: Solid
Analysis Batch: 531785

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,1-Trichloroethane			20.0	18.6		ug/Kg		93	69 - 123	8	30
1,1,2,2-Tetrachloroethane			20.0	19.9		ug/Kg		100	69 - 125	10	30
1,1,2-Trichloroethane			20.0	19.1		ug/Kg		96	80 - 120	7	30
1,1-Dichloroethane			20.0	19.1		ug/Kg		96	79 - 120	7	30
1,1-Dichloroethene			20.0	19.2		ug/Kg		96	73 - 129	5	30
1,2,4-Trichlorobenzene			20.0	18.2		ug/Kg		91	56 - 130	4	30
1,2-Dibromo-3-Chloropropane			20.0	18.5		ug/Kg		93	48 - 134	13	30
1,2-Dibromoethane			20.0	18.9		ug/Kg		95	76 - 120	9	30
1,2-Dichlorobenzene			20.0	18.9		ug/Kg		95	76 - 120	5	30
1,2-Dichloroethane			20.0	18.1		ug/Kg		91	71 - 128	7	30
1,2-Dichloropropane			20.0	18.7		ug/Kg		93	80 - 120	5	30
1,3-Dichlorobenzene			20.0	19.0		ug/Kg		95	75 - 120	6	30
1,4-Dichlorobenzene			20.0	18.8		ug/Kg		94	80 - 120	5	30
2-Butanone			250	238		ug/Kg		95	57 - 128	2	30
2-Hexanone			250	240		ug/Kg		96	54 - 140	16	30
4-Methyl-2-pentanone			250	233		ug/Kg		93	67 - 128	15	30
Acetone			250	221		ug/Kg		88	41 - 150	0	30
Benzene			20.0	18.4		ug/Kg		92	80 - 120	7	30
Bromodichloromethane			20.0	18.5		ug/Kg		93	70 - 120	8	30
Bromoform			20.0	18.9		ug/Kg		94	51 - 127	10	30
Bromomethane			20.0	13.6		ug/Kg		68	45 - 140	3	30
Carbon disulfide			20.0	16.8		ug/Kg		84	64 - 133	6	30
Carbon tetrachloride			20.0	17.9		ug/Kg		89	64 - 134	5	30
Chlorobenzene			20.0	19.0		ug/Kg		95	80 - 120	7	30
Chloroethane			20.0	15.5		ug/Kg		77	43 - 135	7	30
Chloroform			20.0	17.7		ug/Kg		89	80 - 120	8	30
Chloromethane			20.0	13.8		ug/Kg		69	56 - 120	9	30
cis-1,2-Dichloroethene			20.0	18.4		ug/Kg		92	80 - 125	7	30
cis-1,3-Dichloropropene			20.0	17.6		ug/Kg		88	66 - 120	7	30
Cyclohexane			20.0	16.8		ug/Kg		84	58 - 126	5	30
Dibromochloromethane			20.0	19.2		ug/Kg		96	69 - 125	10	30
Dichlorodifluoromethane			20.0	11.4		ug/Kg		57	21 - 127	4	30
Ethylbenzene			20.0	19.5		ug/Kg		98	78 - 120	6	30
Freon 113			20.0	15.1		ug/Kg		76	64 - 135	4	30
Isopropylbenzene			20.0	20.8		ug/Kg		104	77 - 120	6	30
Methyl acetate			20.0	19.4		ug/Kg		97	67 - 128	20	30
Methyl tertiary butyl ether			20.0	17.3		ug/Kg		86	72 - 120	9	30
Methylcyclohexane			20.0	16.2		ug/Kg		81	61 - 124	6	30

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 410-531785/5
Matrix: Solid
Analysis Batch: 531785

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Methylene Chloride			20.0	18.2		ug/Kg		91	76 - 122	4	30
Styrene			20.0	18.7		ug/Kg		94	76 - 120	5	30
Tetrachloroethene			20.0	19.2		ug/Kg		96	73 - 120	6	30
Toluene			20.0	19.2		ug/Kg		96	80 - 120	7	30
trans-1,2-Dichloroethene			20.0	18.6		ug/Kg		93	80 - 126	4	30
trans-1,3-Dichloropropene			20.0	19.2		ug/Kg		96	68 - 122	7	30
Trichloroethene			20.0	18.1		ug/Kg		91	80 - 120	7	30
Trichlorofluoromethane			20.0	14.0		ug/Kg		70	55 - 134	5	30
Vinyl chloride			20.0	14.9		ug/Kg		74	52 - 120	7	30
Xylenes, Total			60.0	57.6		ug/Kg		96	75 - 120	6	30

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*99*		*54 - 135*
4-Bromofluorobenzene (Surr)	*99*		*50 - 131*
Dibromofluoromethane (Surr)	*95*		*50 - 141*
Toluene-d8 (Surr)	*102*		*52 - 141*

Lab Sample ID: MB 410-532050/7
Matrix: Solid
Analysis Batch: 532050

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		250	35	ug/Kg			07/24/24 19:25	50
1,1,2,2-Tetrachloroethane	ND		250	30	ug/Kg			07/24/24 19:25	50
1,1,2-Trichloroethane	ND		250	25	ug/Kg			07/24/24 19:25	50
1,1-Dichloroethane	ND		250	25	ug/Kg			07/24/24 19:25	50
1,1-Dichloroethene	ND		250	30	ug/Kg			07/24/24 19:25	50
1,2,4-Trichlorobenzene	ND		500	250	ug/Kg			07/24/24 19:25	50
1,2-Dibromo-3-Chloropropane	ND		250	50	ug/Kg			07/24/24 19:25	50
1,2-Dibromoethane	ND		250	30	ug/Kg			07/24/24 19:25	50
1,2-Dichlorobenzene	ND		250	30	ug/Kg			07/24/24 19:25	50
1,2-Dichloroethane	ND		250	30	ug/Kg			07/24/24 19:25	50
1,2-Dichloropropane	ND		250	25	ug/Kg			07/24/24 19:25	50
1,3-Dichlorobenzene	ND		250	25	ug/Kg			07/24/24 19:25	50
1,4-Dichlorobenzene	ND		250	25	ug/Kg			07/24/24 19:25	50
2-Butanone	ND		500	100	ug/Kg			07/24/24 19:25	50
2-Hexanone	ND		500	75	ug/Kg			07/24/24 19:25	50
4-Methyl-2-pentanone	ND		500	75	ug/Kg			07/24/24 19:25	50
Acetone	ND		1000	300	ug/Kg			07/24/24 19:25	50
Benzene	ND		250	25	ug/Kg			07/24/24 19:25	50
Bromodichloromethane	ND		250	35	ug/Kg			07/24/24 19:25	50
Bromoform	ND		500	250	ug/Kg			07/24/24 19:25	50
Bromomethane	ND		250	80	ug/Kg			07/24/24 19:25	50
Carbon disulfide	ND		250	30	ug/Kg			07/24/24 19:25	50
Carbon tetrachloride	ND		250	100	ug/Kg			07/24/24 19:25	50
Chlorobenzene	ND		250	25	ug/Kg			07/24/24 19:25	50
Chloroethane	ND		250	75	ug/Kg			07/24/24 19:25	50
Chloroform	ND		250	30	ug/Kg			07/24/24 19:25	50

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: MB 410-532050/7
Matrix: Solid
Analysis Batch: 532050

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloromethane	ND		250	45	ug/Kg			07/24/24 19:25	50
cis-1,2-Dichloroethene	ND		250	30	ug/Kg			07/24/24 19:25	50
cis-1,3-Dichloropropene	ND		250	30	ug/Kg			07/24/24 19:25	50
Cyclohexane	ND		250	25	ug/Kg			07/24/24 19:25	50
Dibromochloromethane	ND		250	100	ug/Kg			07/24/24 19:25	50
Dichlorodifluoromethane	ND		250	30	ug/Kg			07/24/24 19:25	50
Ethylbenzene	ND		250	20	ug/Kg			07/24/24 19:25	50
Freon 113	ND		500	35	ug/Kg			07/24/24 19:25	50
Isopropylbenzene	ND		250	30	ug/Kg			07/24/24 19:25	50
Methyl acetate	ND		250	50	ug/Kg			07/24/24 19:25	50
Methyl tertiary butyl ether	ND		250	30	ug/Kg			07/24/24 19:25	50
Methylcyclohexane	ND		250	30	ug/Kg			07/24/24 19:25	50
Methylene Chloride	ND		250	100	ug/Kg			07/24/24 19:25	50
Styrene	ND		250	30	ug/Kg			07/24/24 19:25	50
Tetrachloroethene	ND		250	30	ug/Kg			07/24/24 19:25	50
Toluene	ND		250	30	ug/Kg			07/24/24 19:25	50
trans-1,2-Dichloroethene	ND		250	30	ug/Kg			07/24/24 19:25	50
trans-1,3-Dichloropropene	ND		250	30	ug/Kg			07/24/24 19:25	50
Trichloroethene	ND		250	30	ug/Kg			07/24/24 19:25	50
Trichlorofluoromethane	ND		250	40	ug/Kg			07/24/24 19:25	50
Vinyl chloride	ND		250	40	ug/Kg			07/24/24 19:25	50
Xylenes, Total	ND		250	70	ug/Kg			07/24/24 19:25	50

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
1,2-Dichloroethane-d4 (Surr)	*102*		*54 - 135*		*07/24/24 19:25*	*50*
4-Bromofluorobenzene (Surr)	*98*		*50 - 131*		*07/24/24 19:25*	*50*
Dibromofluoromethane (Surr)	*101*		*50 - 141*		*07/24/24 19:25*	*50*
Toluene-d8 (Surr)	*99*		*52 - 141*		*07/24/24 19:25*	*50*

Lab Sample ID: LCS 410-532050/6
Matrix: Solid
Analysis Batch: 532050

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,1-Trichloroethane	1000	1060		ug/Kg		106	69 - 123
1,1,2,2-Tetrachloroethane	1000	896		ug/Kg		90	69 - 125
1,1,2-Trichloroethane	1000	1000		ug/Kg		100	80 - 120
1,1-Dichloroethane	1000	981		ug/Kg		98	79 - 120
1,1-Dichloroethene	1000	1010		ug/Kg		101	73 - 129
1,2,4-Trichlorobenzene	1000	974		ug/Kg		97	56 - 130
1,2-Dibromo-3-Chloropropane	1000	701		ug/Kg		70	48 - 134
1,2-Dibromoethane	1000	969		ug/Kg		97	76 - 120
1,2-Dichlorobenzene	1000	998		ug/Kg		100	76 - 120
1,2-Dichloroethane	1000	932		ug/Kg		93	71 - 128
1,2-Dichloropropane	1000	1000		ug/Kg		100	80 - 120
1,3-Dichlorobenzene	1000	998		ug/Kg		100	75 - 120
1,4-Dichlorobenzene	1000	1010		ug/Kg		101	80 - 120
2-Butanone	12500	11900		ug/Kg		95	57 - 128

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 410-532050/6
Matrix: Solid
Analysis Batch: 532050

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2-Hexanone	12500	8560		ug/Kg		69	54 - 140
4-Methyl-2-pentanone	12500	9760		ug/Kg		78	67 - 128
Acetone	12500	14200		ug/Kg		113	41 - 150
Benzene	1000	994		ug/Kg		99	80 - 120
Bromodichloromethane	1000	1120		ug/Kg		112	70 - 120
Bromoform	1000	1040		ug/Kg		104	51 - 127
Bromomethane	1000	2320	*+	ug/Kg		232	45 - 140
Carbon disulfide	1000	968		ug/Kg		97	64 - 133
Carbon tetrachloride	1000	979		ug/Kg		98	64 - 134
Chlorobenzene	1000	1000		ug/Kg		100	80 - 120
Chloroethane	1000	2230	*+	ug/Kg		223	43 - 135
Chloroform	1000	994		ug/Kg		99	80 - 120
Chloromethane	1000	763		ug/Kg		76	56 - 120
cis-1,2-Dichloroethene	1000	1010		ug/Kg		101	80 - 125
cis-1,3-Dichloropropene	1000	1010		ug/Kg		101	66 - 120
Cyclohexane	1000	826		ug/Kg		83	58 - 126
Dibromochloromethane	1000	985		ug/Kg		99	69 - 125
Dichlorodifluoromethane	1000	477		ug/Kg		48	21 - 127
Ethylbenzene	1000	1010		ug/Kg		101	78 - 120
Freon 113	1000	762		ug/Kg		76	64 - 135
Isopropylbenzene	1000	1050		ug/Kg		105	77 - 120
Methyl acetate	1000	763		ug/Kg		76	67 - 128
Methyl tertiary butyl ether	1000	922		ug/Kg		92	72 - 120
Methylcyclohexane	1000	800		ug/Kg		80	61 - 124
Methylene Chloride	1000	1030		ug/Kg		103	76 - 122
Styrene	1000	1010		ug/Kg		101	76 - 120
Tetrachloroethene	1000	989		ug/Kg		99	73 - 120
Toluene	1000	998		ug/Kg		100	80 - 120
trans-1,2-Dichloroethene	1000	1000		ug/Kg		100	80 - 126
trans-1,3-Dichloropropene	1000	981		ug/Kg		98	68 - 122
Trichloroethene	1000	996		ug/Kg		100	80 - 120
Trichlorofluoromethane	1000	852		ug/Kg		85	55 - 134
Vinyl chloride	1000	847		ug/Kg		85	52 - 120
Xylenes, Total	3000	2970		ug/Kg		99	75 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
1,2-Dichloroethane-d4 (Surr)	*101*		*54 - 135*
4-Bromofluorobenzene (Surr)	*100*		*50 - 131*
Dibromofluoromethane (Surr)	*103*		*50 - 141*
Toluene-d8 (Surr)	*100*		*52 - 141*

Lab Sample ID: LCSD 410-532050/8
Matrix: Solid
Analysis Batch: 532050

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,1-Trichloroethane	1000	999		ug/Kg		100	69 - 123	6	30
1,1,2,2-Tetrachloroethane	1000	851		ug/Kg		85	69 - 125	5	30

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 410-532050/8
Matrix: Solid
Analysis Batch: 532050

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,2-Trichloroethane	1000	941		ug/Kg		94	80 - 120	6	30
1,1-Dichloroethane	1000	934		ug/Kg		93	79 - 120	5	30
1,1-Dichloroethene	1000	949		ug/Kg		95	73 - 129	6	30
1,2,4-Trichlorobenzene	1000	890		ug/Kg		89	56 - 130	9	30
1,2-Dibromo-3-Chloropropane	1000	674		ug/Kg		67	48 - 134	4	30
1,2-Dibromoethane	1000	908		ug/Kg		91	76 - 120	7	30
1,2-Dichlorobenzene	1000	937		ug/Kg		94	76 - 120	6	30
1,2-Dichloroethane	1000	871		ug/Kg		87	71 - 128	7	30
1,2-Dichloropropane	1000	943		ug/Kg		94	80 - 120	6	30
1,3-Dichlorobenzene	1000	932		ug/Kg		93	75 - 120	7	30
1,4-Dichlorobenzene	1000	946		ug/Kg		95	80 - 120	6	30
2-Butanone	12500	11600		ug/Kg		93	57 - 128	2	30
2-Hexanone	12500	8870		ug/Kg		71	54 - 140	4	30
4-Methyl-2-pentanone	12500	9420		ug/Kg		75	67 - 128	3	30
Acetone	12500	14500		ug/Kg		116	41 - 150	3	30
Benzene	1000	938		ug/Kg		94	80 - 120	6	30
Bromodichloromethane	1000	1040		ug/Kg		104	70 - 120	7	30
Bromoform	1000	985		ug/Kg		99	51 - 127	5	30
Bromomethane	1000	1930	*+	ug/Kg		193	45 - 140	18	30
Carbon disulfide	1000	916		ug/Kg		92	64 - 133	5	30
Carbon tetrachloride	1000	940		ug/Kg		94	64 - 134	4	30
Chlorobenzene	1000	947		ug/Kg		95	80 - 120	6	30
Chloroethane	1000	1830	*+	ug/Kg		183	43 - 135	20	30
Chloroform	1000	949		ug/Kg		95	80 - 120	5	30
Chloromethane	1000	720		ug/Kg		72	56 - 120	6	30
cis-1,2-Dichloroethene	1000	958		ug/Kg		96	80 - 125	6	30
cis-1,3-Dichloropropene	1000	944		ug/Kg		94	66 - 120	7	30
Cyclohexane	1000	779		ug/Kg		78	58 - 126	6	30
Dibromochloromethane	1000	929		ug/Kg		93	69 - 125	6	30
Dichlorodifluoromethane	1000	460		ug/Kg		46	21 - 127	4	30
Ethylbenzene	1000	946		ug/Kg		95	78 - 120	6	30
Freon 113	1000	727		ug/Kg		73	64 - 135	5	30
Isopropylbenzene	1000	972		ug/Kg		97	77 - 120	7	30
Methyl acetate	1000	775		ug/Kg		77	67 - 128	2	30
Methyl tertiary butyl ether	1000	863		ug/Kg		86	72 - 120	7	30
Methylcyclohexane	1000	761		ug/Kg		76	61 - 124	5	30
Methylene Chloride	1000	967		ug/Kg		97	76 - 122	6	30
Styrene	1000	944		ug/Kg		94	76 - 120	7	30
Tetrachloroethene	1000	936		ug/Kg		94	73 - 120	6	30
Toluene	1000	933		ug/Kg		93	80 - 120	7	30
trans-1,2-Dichloroethene	1000	957		ug/Kg		96	80 - 126	4	30
trans-1,3-Dichloropropene	1000	903		ug/Kg		90	68 - 122	8	30
Trichloroethene	1000	950		ug/Kg		95	80 - 120	5	30
Trichlorofluoromethane	1000	814		ug/Kg		81	55 - 134	5	30
Vinyl chloride	1000	793		ug/Kg		79	52 - 120	7	30
Xylenes, Total	3000	2780		ug/Kg		93	75 - 120	7	30

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 410-532050/8
Matrix: Solid
Analysis Batch: 532050

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Surrogate	LCSD %Recovery	LCSD Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	*95*		*54 - 135*
4-Bromofluorobenzene (Surr)	*94*		*50 - 131*
Dibromofluoromethane (Surr)	*97*		*50 - 141*
Toluene-d8 (Surr)	*95*		*52 - 141*

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 410-531189/1-A ^2
Matrix: Solid
Analysis Batch: 532452

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 531189

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		20	9.9	mg/Kg		07/23/24 06:30	07/25/24 11:52	2
Antimony	ND		0.20	0.080	mg/Kg		07/23/24 06:30	07/25/24 11:52	2
Arsenic	ND		0.40	0.13	mg/Kg		07/23/24 06:30	07/25/24 11:52	2
Barium	0.382	J B	0.40	0.18	mg/Kg		07/23/24 06:30	07/25/24 11:52	2
Beryllium	ND		0.10	0.024	mg/Kg		07/23/24 06:30	07/25/24 11:52	2
Cadmium	ND		0.10	0.040	mg/Kg		07/23/24 06:30	07/25/24 11:52	2
Calcium	ND		40	20	mg/Kg		07/23/24 06:30	07/25/24 11:52	2
Chromium	ND		0.40	0.19	mg/Kg		07/23/24 06:30	07/25/24 11:52	2
Cobalt	ND		0.20	0.080	mg/Kg		07/23/24 06:30	07/25/24 11:52	2
Copper	ND		0.40	0.18	mg/Kg		07/23/24 06:30	07/25/24 11:52	2
Iron	ND		20	9.2	mg/Kg		07/23/24 06:30	07/25/24 11:52	2
Lead	ND		0.20	0.076	mg/Kg		07/23/24 06:30	07/25/24 11:52	2
Magnesium	ND		10	4.9	mg/Kg		07/23/24 06:30	07/25/24 11:52	2
Manganese	ND		0.40	0.20	mg/Kg		07/23/24 06:30	07/25/24 11:52	2
Nickel	ND		0.40	0.19	mg/Kg		07/23/24 06:30	07/25/24 11:52	2
Potassium	ND		40	16	mg/Kg		07/23/24 06:30	07/25/24 11:52	2
Selenium	ND		0.40	0.10	mg/Kg		07/23/24 06:30	07/25/24 11:52	2
Silver	ND		0.10	0.041	mg/Kg		07/23/24 06:30	07/25/24 11:52	2
Sodium	ND		50	24	mg/Kg		07/23/24 06:30	07/25/24 11:52	2
Thallium	ND		0.10	0.039	mg/Kg		07/23/24 06:30	07/25/24 11:52	2
Vanadium	ND		0.80	0.20	mg/Kg		07/23/24 06:30	07/25/24 11:52	2
Zinc	ND		30	4.0	mg/Kg		07/23/24 06:30	07/25/24 11:52	2

Lab Sample ID: LCS 410-531189/2-A ^2
Matrix: Solid
Analysis Batch: 532452

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 531189

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	500	500		mg/Kg		100	83 - 119
Antimony	10.0	9.93		mg/Kg		99	87 - 116
Arsenic	50.0	49.2		mg/Kg		98	87 - 114
Barium	50.0	50.8		mg/Kg		102	87 - 117
Beryllium	5.00	5.12		mg/Kg		102	80 - 120
Cadmium	5.00	4.99		mg/Kg		100	88 - 117
Calcium	500	521		mg/Kg		104	84 - 119
Chromium	50.0	49.6		mg/Kg		99	86 - 116
Cobalt	50.0	48.6		mg/Kg		97	85 - 115

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 410-531189/2-A ^2
Matrix: Solid
Analysis Batch: 532452

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 531189

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Copper	50.0	48.5		mg/Kg		97	84 - 115
Iron	500	505		mg/Kg		101	87 - 117
Lead	5.00	5.22		mg/Kg		104	88 - 117
Magnesium	500	499		mg/Kg		100	83 - 119
Manganese	50.0	49.7		mg/Kg		99	87 - 116
Nickel	50.0	50.0		mg/Kg		100	87 - 115
Potassium	500	489		mg/Kg		98	83 - 118
Selenium	10.0	9.87		mg/Kg		99	87 - 115
Silver	5.00	5.16		mg/Kg		103	88 - 117
Sodium	500	474		mg/Kg		95	81 - 120
Thallium	10.0	10.1		mg/Kg		101	87 - 116
Vanadium	50.0	49.5		mg/Kg		99	86 - 115
Zinc	50.0	50.5		mg/Kg		101	86 - 116

Lab Sample ID: MB 410-531625/1-A
Matrix: Water
Analysis Batch: 532121

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 531625

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		26	12	ug/L		07/23/24 23:30	07/24/24 20:18	1
Antimony	ND		1.0	0.21	ug/L		07/23/24 23:30	07/24/24 20:18	1
Arsenic	ND		2.1	0.70	ug/L		07/23/24 23:30	07/24/24 20:18	1
Barium	ND		2.1	0.77	ug/L		07/23/24 23:30	07/24/24 20:18	1
Beryllium	ND		0.52	0.12	ug/L		07/23/24 23:30	07/24/24 20:18	1
Cadmium	ND		0.52	0.16	ug/L		07/23/24 23:30	07/24/24 20:18	1
Calcium	ND		120	52	ug/L		07/23/24 23:30	07/24/24 20:18	1
Chromium	ND		2.1	0.57	ug/L		07/23/24 23:30	07/24/24 20:18	1
Cobalt	ND		0.52	0.16	ug/L		07/23/24 23:30	07/24/24 20:18	1
Copper	ND		1.0	0.37	ug/L		07/23/24 23:30	07/24/24 20:18	1
Iron	ND		52	21	ug/L		07/23/24 23:30	07/24/24 20:18	1
Lead	ND		0.52	0.12	ug/L		07/23/24 23:30	07/24/24 20:18	1
Magnesium	ND		52	16	ug/L		07/23/24 23:30	07/24/24 20:18	1
Nickel	ND		1.0	0.41	ug/L		07/23/24 23:30	07/24/24 20:18	1
Potassium	ND		210	67	ug/L		07/23/24 23:30	07/24/24 20:18	1
Selenium	ND		1.0	0.29	ug/L		07/23/24 23:30	07/24/24 20:18	1
Silver	ND		0.52	0.10	ug/L		07/23/24 23:30	07/24/24 20:18	1
Sodium	ND		210	93	ug/L		07/23/24 23:30	07/24/24 20:18	1
Thallium	ND		0.52	0.13	ug/L		07/23/24 23:30	07/24/24 20:18	1
Vanadium	ND		4.1	0.82	ug/L		07/23/24 23:30	07/24/24 20:18	1
Zinc	ND		10	4.1	ug/L		07/23/24 23:30	07/24/24 20:18	1

Lab Sample ID: MB 410-531625/1-A
Matrix: Water
Analysis Batch: 532156

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 531625

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Manganese	ND		2.1	0.98	ug/L		07/23/24 23:30	07/24/24 21:04	1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 410-531625/2-A
Matrix: Water
Analysis Batch: 532121

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 531625

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	5000	5100		ug/L		102	90 - 110
Antimony	100	102		ug/L		102	90 - 115
Arsenic	500	513		ug/L		103	90 - 109
Barium	500	528		ug/L		106	90 - 113
Beryllium	50.0	52.0		ug/L		104	82 - 120
Cadmium	50.0	51.8		ug/L		104	90 - 112
Calcium	5000	5150		ug/L		103	90 - 112
Chromium	500	512		ug/L		102	90 - 110
Cobalt	500	523		ug/L		105	90 - 110
Copper	500	492		ug/L		98	90 - 110
Iron	5000	5200		ug/L		104	90 - 111
Lead	50.0	51.9		ug/L		104	90 - 110
Magnesium	5000	5040		ug/L		101	90 - 110
Nickel	500	499		ug/L		100	90 - 109
Potassium	5000	5010		ug/L		100	90 - 110
Selenium	100	100		ug/L		100	90 - 110
Silver	50.0	52.0		ug/L		104	90 - 112
Sodium	5000	5070		ug/L		101	89 - 114
Thallium	100	103		ug/L		103	90 - 110
Vanadium	500	512		ug/L		102	90 - 109
Zinc	500	508		ug/L		102	90 - 112

Lab Sample ID: LCS 410-531625/2-A
Matrix: Water
Analysis Batch: 532156

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 531625

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Manganese	500	503		ug/L		101	90 - 111

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 410-531596/1-A
Matrix: Water
Analysis Batch: 531877

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 531596

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.079	ug/L		07/23/24 23:00	07/24/24 10:07	1

Lab Sample ID: LCS 410-531596/2-A
Matrix: Water
Analysis Batch: 531877

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 531596

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	1.00	1.02		ug/L		102	80 - 118

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 410-531188/1-A
Matrix: Solid
Analysis Batch: 531991

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 531188

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.060	0.020	mg/Kg		07/23/24 22:00	07/24/24 11:55	1

Lab Sample ID: LCS 410-531188/2-A
Matrix: Solid
Analysis Batch: 531991

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 531188

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.167	0.163		mg/Kg		98	80 - 120

Method: 7196A - Chromium, Hexavalent

Lab Sample ID: MB 410-531170/3
Matrix: Water
Analysis Batch: 531170

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	ND		0.030	0.010	mg/L			07/22/24 22:46	1

Lab Sample ID: LCS 410-531170/4
Matrix: Water
Analysis Batch: 531170

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cr (VI)	0.200	0.198		mg/L		99	90 - 110

Lab Sample ID: LCSD 410-531170/5
Matrix: Water
Analysis Batch: 531170

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Cr (VI)	0.200	0.201		mg/L		100	90 - 110	1	5

Lab Sample ID: MB 410-531557/1-A
Matrix: Solid
Analysis Batch: 531622

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 531557

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	ND		0.42	0.14	mg/Kg		07/23/24 18:44	07/23/24 22:40	1

Lab Sample ID: LCS 410-531557/2-A
Matrix: Solid
Analysis Batch: 531622

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 531557

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cr (VI)	5.00	4.73		mg/Kg		95	80 - 120

Method: 7196A - Chromium, Hexavalent (Continued)

Lab Sample ID: LCSI 410-531557/3-A
Matrix: Solid
Analysis Batch: 531622

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 531557

Analyte			Spike Added	LCSI Result	LCSI Qualifier	Unit	D	%Rec	%Rec Limits		
Cr (VI)			753	744		mg/Kg		99	80 - 120		

Lab Sample ID: 410-180859-13 DU
Matrix: Water
Analysis Batch: 531170

Client Sample ID: DEP51-W1
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Cr (VI)	ND			ND		mg/L				NC	5

GC/MS VOA

Analysis Batch: 531308

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-180859-13	DEP51-W1	Total/NA	Water	8260D	
410-180859-14	DUP-W	Total/NA	Water	8260D	
410-180859-15	DEP51-W2	Total/NA	Water	8260D	
410-180859-16	DEP51-W3	Total/NA	Water	8260D	
410-180859-17	DEP51-W4	Total/NA	Water	8260D	
410-180859-18	Trip Blank 2	Total/NA	Water	8260D	
410-180859-19	Trip Blank 1	Total/NA	Water	8260D	
MB 410-531308/7	Method Blank	Total/NA	Water	8260D	
LCS 410-531308/4	Lab Control Sample	Total/NA	Water	8260D	
LCSD 410-531308/5	Lab Control Sample Dup	Total/NA	Water	8260D	

Prep Batch: 531394

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-180859-1	DEP51-S1	Total/NA	Solid	5035	
410-180859-2	DEP51-S2	Total/NA	Solid	5035	
410-180859-3	DEP51-S3	Total/NA	Solid	5035	
410-180859-4	DEP51-S4	Total/NA	Solid	5035	
410-180859-5	DEP51-S5	Total/NA	Solid	5035	
410-180859-6 - RA	DEP51-S6	Total/NA	Solid	5035	
410-180859-6	DEP51-S6	Total/NA	Solid	5035	
410-180859-9	DEP51-S8	Total/NA	Solid	5035	
410-180859-9 - RA	DEP51-S8	Total/NA	Solid	5035	
410-180859-10 - RA	DEP51-S9	Total/NA	Solid	5035	
410-180859-10	DEP51-S9	Total/NA	Solid	5035	
410-180859-11 - RA	DEP51-S10	Total/NA	Solid	5035	
410-180859-11	DEP51-S10	Total/NA	Solid	5035	
410-180859-12	DEP51-S11	Total/NA	Solid	5035	

Prep Batch: 531398

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-180859-7	DEP51-S7	Total/NA	Solid	5035	
410-180859-8	DUP-S	Total/NA	Solid	5035	

Analysis Batch: 531785

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-180859-1	DEP51-S1	Total/NA	Solid	8260D	531394
410-180859-2	DEP51-S2	Total/NA	Solid	8260D	531394
410-180859-3	DEP51-S3	Total/NA	Solid	8260D	531394
410-180859-4	DEP51-S4	Total/NA	Solid	8260D	531394
410-180859-5	DEP51-S5	Total/NA	Solid	8260D	531394
410-180859-6	DEP51-S6	Total/NA	Solid	8260D	531394
410-180859-6 - RA	DEP51-S6	Total/NA	Solid	8260D	531394
410-180859-9	DEP51-S8	Total/NA	Solid	8260D	531394
410-180859-9 - RA	DEP51-S8	Total/NA	Solid	8260D	531394
410-180859-10	DEP51-S9	Total/NA	Solid	8260D	531394
410-180859-10 - RA	DEP51-S9	Total/NA	Solid	8260D	531394
410-180859-11	DEP51-S10	Total/NA	Solid	8260D	531394
410-180859-11 - RA	DEP51-S10	Total/NA	Solid	8260D	531394
410-180859-12	DEP51-S11	Total/NA	Solid	8260D	531394
MB 410-531785/7	Method Blank	Total/NA	Solid	8260D	
LCS 410-531785/4	Lab Control Sample	Total/NA	Solid	8260D	

GC/MS VOA (Continued)

Analysis Batch: 531785 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCSD 410-531785/5	Lab Control Sample Dup	Total/NA	Solid	8260D	

Analysis Batch: 532050

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-180859-7	DEP51-S7	Total/NA	Solid	8260D	531398
410-180859-8	DUP-S	Total/NA	Solid	8260D	531398
MB 410-532050/7	Method Blank	Total/NA	Solid	8260D	
LCS 410-532050/6	Lab Control Sample	Total/NA	Solid	8260D	
LCSD 410-532050/8	Lab Control Sample Dup	Total/NA	Solid	8260D	

Metals

Prep Batch: 531188

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-180859-1	DEP51-S1	Total/NA	Solid	7471B	
410-180859-2	DEP51-S2	Total/NA	Solid	7471B	
410-180859-3	DEP51-S3	Total/NA	Solid	7471B	
410-180859-4	DEP51-S4	Total/NA	Solid	7471B	
410-180859-5	DEP51-S5	Total/NA	Solid	7471B	
410-180859-6	DEP51-S6	Total/NA	Solid	7471B	
410-180859-7	DEP51-S7	Total/NA	Solid	7471B	
410-180859-8	DUP-S	Total/NA	Solid	7471B	
410-180859-9	DEP51-S8	Total/NA	Solid	7471B	
410-180859-10	DEP51-S9	Total/NA	Solid	7471B	
410-180859-11	DEP51-S10	Total/NA	Solid	7471B	
410-180859-12	DEP51-S11	Total/NA	Solid	7471B	
MB 410-531188/1-A	Method Blank	Total/NA	Solid	7471B	
LCS 410-531188/2-A	Lab Control Sample	Total/NA	Solid	7471B	

Prep Batch: 531189

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-180859-1	DEP51-S1	Total/NA	Solid	3050B	
410-180859-2	DEP51-S2	Total/NA	Solid	3050B	
410-180859-3	DEP51-S3	Total/NA	Solid	3050B	
410-180859-4	DEP51-S4	Total/NA	Solid	3050B	
410-180859-5	DEP51-S5	Total/NA	Solid	3050B	
410-180859-6	DEP51-S6	Total/NA	Solid	3050B	
410-180859-7	DEP51-S7	Total/NA	Solid	3050B	
410-180859-8	DUP-S	Total/NA	Solid	3050B	
410-180859-9	DEP51-S8	Total/NA	Solid	3050B	
410-180859-10	DEP51-S9	Total/NA	Solid	3050B	
410-180859-11	DEP51-S10	Total/NA	Solid	3050B	
410-180859-12	DEP51-S11	Total/NA	Solid	3050B	
MB 410-531189/1-A ^2	Method Blank	Total/NA	Solid	3050B	
LCS 410-531189/2-A ^2	Lab Control Sample	Total/NA	Solid	3050B	

Prep Batch: 531596

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-180859-13	DEP51-W1	Dissolved	Water	7470A	
410-180859-14	DUP-W	Dissolved	Water	7470A	
410-180859-15	DEP51-W2	Dissolved	Water	7470A	

Metals (Continued)

Prep Batch: 531596 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-180859-16	DEP51-W3	Dissolved	Water	7470A	
410-180859-17	DEP51-W4	Dissolved	Water	7470A	
MB 410-531596/1-A	Method Blank	Total/NA	Water	7470A	
LCS 410-531596/2-A	Lab Control Sample	Total/NA	Water	7470A	

Prep Batch: 531625

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-180859-13	DEP51-W1	Dissolved	Water	Non-Digest Prep	
410-180859-14	DUP-W	Dissolved	Water	Non-Digest Prep	
410-180859-15	DEP51-W2	Dissolved	Water	Non-Digest Prep	
410-180859-16	DEP51-W3	Dissolved	Water	Non-Digest Prep	
410-180859-17	DEP51-W4	Dissolved	Water	Non-Digest Prep	
MB 410-531625/1-A	Method Blank	Total/NA	Water	Non-Digest Prep	
LCS 410-531625/2-A	Lab Control Sample	Total/NA	Water	Non-Digest Prep	

Analysis Batch: 531877

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-180859-13	DEP51-W1	Dissolved	Water	7470A	531596
410-180859-14	DUP-W	Dissolved	Water	7470A	531596
410-180859-15	DEP51-W2	Dissolved	Water	7470A	531596
410-180859-16	DEP51-W3	Dissolved	Water	7470A	531596
410-180859-17	DEP51-W4	Dissolved	Water	7470A	531596
MB 410-531596/1-A	Method Blank	Total/NA	Water	7470A	531596
LCS 410-531596/2-A	Lab Control Sample	Total/NA	Water	7470A	531596

Analysis Batch: 531991

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-180859-1	DEP51-S1	Total/NA	Solid	7471B	531188
410-180859-2	DEP51-S2	Total/NA	Solid	7471B	531188
410-180859-3	DEP51-S3	Total/NA	Solid	7471B	531188
410-180859-4	DEP51-S4	Total/NA	Solid	7471B	531188
410-180859-5	DEP51-S5	Total/NA	Solid	7471B	531188
410-180859-6	DEP51-S6	Total/NA	Solid	7471B	531188
410-180859-7	DEP51-S7	Total/NA	Solid	7471B	531188
410-180859-8	DUP-S	Total/NA	Solid	7471B	531188
410-180859-9	DEP51-S8	Total/NA	Solid	7471B	531188
410-180859-10	DEP51-S9	Total/NA	Solid	7471B	531188
410-180859-11	DEP51-S10	Total/NA	Solid	7471B	531188
410-180859-12	DEP51-S11	Total/NA	Solid	7471B	531188
MB 410-531188/1-A	Method Blank	Total/NA	Solid	7471B	531188
LCS 410-531188/2-A	Lab Control Sample	Total/NA	Solid	7471B	531188

Analysis Batch: 532121

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-180859-13	DEP51-W1	Dissolved	Water	6020B	531625
410-180859-14	DUP-W	Dissolved	Water	6020B	531625
410-180859-15	DEP51-W2	Dissolved	Water	6020B	531625
410-180859-16	DEP51-W3	Dissolved	Water	6020B	531625
410-180859-17	DEP51-W4	Dissolved	Water	6020B	531625
MB 410-531625/1-A	Method Blank	Total/NA	Water	6020B	531625
LCS 410-531625/2-A	Lab Control Sample	Total/NA	Water	6020B	531625

Metals

Analysis Batch: 532156

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-180859-13	DEP51-W1	Dissolved	Water	6020B	531625
410-180859-14	DUP-W	Dissolved	Water	6020B	531625
410-180859-15	DEP51-W2	Dissolved	Water	6020B	531625
410-180859-16	DEP51-W3	Dissolved	Water	6020B	531625
410-180859-17	DEP51-W4	Dissolved	Water	6020B	531625
MB 410-531625/1-A	Method Blank	Total/NA	Water	6020B	531625
LCS 410-531625/2-A	Lab Control Sample	Total/NA	Water	6020B	531625

Analysis Batch: 532452

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-180859-1	DEP51-S1	Total/NA	Solid	6020B	531189
410-180859-1	DEP51-S1	Total/NA	Solid	6020B	531189
410-180859-2	DEP51-S2	Total/NA	Solid	6020B	531189
410-180859-2	DEP51-S2	Total/NA	Solid	6020B	531189
410-180859-3	DEP51-S3	Total/NA	Solid	6020B	531189
410-180859-3	DEP51-S3	Total/NA	Solid	6020B	531189
410-180859-4	DEP51-S4	Total/NA	Solid	6020B	531189
410-180859-4	DEP51-S4	Total/NA	Solid	6020B	531189
410-180859-5	DEP51-S5	Total/NA	Solid	6020B	531189
410-180859-5	DEP51-S5	Total/NA	Solid	6020B	531189
410-180859-6	DEP51-S6	Total/NA	Solid	6020B	531189
410-180859-6	DEP51-S6	Total/NA	Solid	6020B	531189
410-180859-7	DEP51-S7	Total/NA	Solid	6020B	531189
410-180859-7	DEP51-S7	Total/NA	Solid	6020B	531189
410-180859-8	DUP-S	Total/NA	Solid	6020B	531189
410-180859-8	DUP-S	Total/NA	Solid	6020B	531189
410-180859-9	DEP51-S8	Total/NA	Solid	6020B	531189
410-180859-9	DEP51-S8	Total/NA	Solid	6020B	531189
410-180859-10	DEP51-S9	Total/NA	Solid	6020B	531189
410-180859-10	DEP51-S9	Total/NA	Solid	6020B	531189
410-180859-11	DEP51-S10	Total/NA	Solid	6020B	531189
410-180859-11	DEP51-S10	Total/NA	Solid	6020B	531189
410-180859-12	DEP51-S11	Total/NA	Solid	6020B	531189
410-180859-12	DEP51-S11	Total/NA	Solid	6020B	531189
MB 410-531189/1-A ^2	Method Blank	Total/NA	Solid	6020B	531189
LCS 410-531189/2-A ^2	Lab Control Sample	Total/NA	Solid	6020B	531189

Analysis Batch: 532609

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-180859-1	DEP51-S1	Total/NA	Solid	6020B	531189
410-180859-1	DEP51-S1	Total/NA	Solid	6020B	531189
410-180859-2	DEP51-S2	Total/NA	Solid	6020B	531189
410-180859-2	DEP51-S2	Total/NA	Solid	6020B	531189
410-180859-3	DEP51-S3	Total/NA	Solid	6020B	531189
410-180859-4	DEP51-S4	Total/NA	Solid	6020B	531189
410-180859-4	DEP51-S4	Total/NA	Solid	6020B	531189

General Chemistry

Analysis Batch: 531170

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-180859-13	DEP51-W1	Dissolved	Water	7196A	
410-180859-14	DUP-W	Dissolved	Water	7196A	
410-180859-15	DEP51-W2	Dissolved	Water	7196A	
410-180859-16	DEP51-W3	Dissolved	Water	7196A	
410-180859-17	DEP51-W4	Dissolved	Water	7196A	
MB 410-531170/3	Method Blank	Total/NA	Water	7196A	
LCS 410-531170/4	Lab Control Sample	Total/NA	Water	7196A	
LCSD 410-531170/5	Lab Control Sample Dup	Total/NA	Water	7196A	
410-180859-13 DU	DEP51-W1	Dissolved	Water	7196A	

Analysis Batch: 531340

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-180859-1	DEP51-S1	Total/NA	Solid	Moisture	
410-180859-2	DEP51-S2	Total/NA	Solid	Moisture	
410-180859-3	DEP51-S3	Total/NA	Solid	Moisture	
410-180859-4	DEP51-S4	Total/NA	Solid	Moisture	
410-180859-5	DEP51-S5	Total/NA	Solid	Moisture	
410-180859-6	DEP51-S6	Total/NA	Solid	Moisture	
410-180859-7	DEP51-S7	Total/NA	Solid	Moisture	
410-180859-8	DUP-S	Total/NA	Solid	Moisture	
410-180859-9	DEP51-S8	Total/NA	Solid	Moisture	
410-180859-10	DEP51-S9	Total/NA	Solid	Moisture	
410-180859-11	DEP51-S10	Total/NA	Solid	Moisture	
410-180859-12	DEP51-S11	Total/NA	Solid	Moisture	

Prep Batch: 531557

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-180859-1	DEP51-S1	Total/NA	Solid	3060A	
410-180859-2	DEP51-S2	Total/NA	Solid	3060A	
410-180859-3	DEP51-S3	Total/NA	Solid	3060A	
410-180859-4	DEP51-S4	Total/NA	Solid	3060A	
410-180859-5	DEP51-S5	Total/NA	Solid	3060A	
410-180859-6	DEP51-S6	Total/NA	Solid	3060A	
410-180859-7	DEP51-S7	Total/NA	Solid	3060A	
410-180859-8	DUP-S	Total/NA	Solid	3060A	
410-180859-9	DEP51-S8	Total/NA	Solid	3060A	
410-180859-10	DEP51-S9	Total/NA	Solid	3060A	
410-180859-11	DEP51-S10	Total/NA	Solid	3060A	
410-180859-12	DEP51-S11	Total/NA	Solid	3060A	
MB 410-531557/1-A	Method Blank	Total/NA	Solid	3060A	
LCS 410-531557/2-A	Lab Control Sample	Total/NA	Solid	3060A	
LCSI 410-531557/3-A	Lab Control Sample	Total/NA	Solid	3060A	

Analysis Batch: 531622

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-180859-1	DEP51-S1	Total/NA	Solid	7196A	531557
410-180859-2	DEP51-S2	Total/NA	Solid	7196A	531557
410-180859-3	DEP51-S3	Total/NA	Solid	7196A	531557
410-180859-4	DEP51-S4	Total/NA	Solid	7196A	531557
410-180859-5	DEP51-S5	Total/NA	Solid	7196A	531557
410-180859-6	DEP51-S6	Total/NA	Solid	7196A	531557

General Chemistry (Continued)

Analysis Batch: 531622 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-180859-7	DEP51-S7	Total/NA	Solid	7196A	531557
410-180859-8	DUP-S	Total/NA	Solid	7196A	531557
410-180859-9	DEP51-S8	Total/NA	Solid	7196A	531557
410-180859-10	DEP51-S9	Total/NA	Solid	7196A	531557
410-180859-11	DEP51-S10	Total/NA	Solid	7196A	531557
410-180859-12	DEP51-S11	Total/NA	Solid	7196A	531557
MB 410-531557/1-A	Method Blank	Total/NA	Solid	7196A	531557
LCS 410-531557/2-A	Lab Control Sample	Total/NA	Solid	7196A	531557
LCSI 410-531557/3-A	Lab Control Sample	Total/NA	Solid	7196A	531557

Analysis Batch: 536826

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-180859-1	DEP51-S1	Total/NA	Solid	7196A	
410-180859-2	DEP51-S2	Total/NA	Solid	7196A	
410-180859-3	DEP51-S3	Total/NA	Solid	7196A	
410-180859-4	DEP51-S4	Total/NA	Solid	7196A	
410-180859-5	DEP51-S5	Total/NA	Solid	7196A	
410-180859-6	DEP51-S6	Total/NA	Solid	7196A	
410-180859-7	DEP51-S7	Total/NA	Solid	7196A	
410-180859-8	DUP-S	Total/NA	Solid	7196A	
410-180859-9	DEP51-S8	Total/NA	Solid	7196A	
410-180859-10	DEP51-S9	Total/NA	Solid	7196A	
410-180859-11	DEP51-S10	Total/NA	Solid	7196A	
410-180859-12	DEP51-S11	Total/NA	Solid	7196A	
410-180859-13	DEP51-W1	Total/NA	Water	7196A	
410-180859-14	DUP-W	Total/NA	Water	7196A	
410-180859-15	DEP51-W2	Total/NA	Water	7196A	
410-180859-16	DEP51-W3	Total/NA	Water	7196A	
410-180859-17	DEP51-W4	Total/NA	Water	7196A	

Lab Chronicle

Client: Pennsylvania Dept of Env Protection
Project/Site: DEP 51st

Job ID: 410-180859-1

Client Sample ID: DEP51-S1
Date Collected: 07/22/24 10:30
Date Received: 07/22/24 16:10

Lab Sample ID: 410-180859-1
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	7196A		1	536826	MRD6	ELLE	08/22/24 16:11
Total/NA	Analysis	Moisture		1	531340	E5GC	ELLE	07/23/24 09:39

Client Sample ID: DEP51-S1
Date Collected: 07/22/24 10:30
Date Received: 07/22/24 16:10

Lab Sample ID: 410-180859-1
Matrix: Solid
Percent Solids: 99.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			531394	VHK6	ELLE	07/23/24 10:54
Total/NA	Analysis	8260D		1	531785	ULCP	ELLE	07/24/24 13:46
Total/NA	Prep	3050B			531189	UJL8	ELLE	07/23/24 06:30
Total/NA	Analysis	6020B		2	532452	F7JF	ELLE	07/25/24 13:27
Total/NA	Prep	3050B			531189	UJL8	ELLE	07/23/24 06:30
Total/NA	Analysis	6020B		10	532452	F7JF	ELLE	07/25/24 13:29
Total/NA	Prep	3050B			531189	UJL8	ELLE	07/23/24 06:30
Total/NA	Analysis	6020B		10	532609	T8CQ	ELLE	07/25/24 18:04
Total/NA	Prep	3050B			531189	UJL8	ELLE	07/23/24 06:30
Total/NA	Analysis	6020B		100	532609	T8CQ	ELLE	07/25/24 18:06
Total/NA	Prep	7471B			531188	UAMX	ELLE	07/23/24 22:00
Total/NA	Analysis	7471B		1	531991	X3ZX	ELLE	07/24/24 12:29
Total/NA	Prep	3060A			531557	UDS7	ELLE	07/23/24 18:44
Total/NA	Analysis	7196A		1	531622	UDS7	ELLE	07/23/24 22:40

Client Sample ID: DEP51-S2
Date Collected: 07/22/24 10:45
Date Received: 07/22/24 16:10

Lab Sample ID: 410-180859-2
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	7196A		1	536826	MRD6	ELLE	08/22/24 16:11
Total/NA	Analysis	Moisture		1	531340	E5GC	ELLE	07/23/24 09:39

Client Sample ID: DEP51-S2
Date Collected: 07/22/24 10:45
Date Received: 07/22/24 16:10

Lab Sample ID: 410-180859-2
Matrix: Solid
Percent Solids: 94.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			531394	VHK6	ELLE	07/23/24 10:54
Total/NA	Analysis	8260D		1	531785	ULCP	ELLE	07/24/24 14:09
Total/NA	Prep	3050B			531189	UJL8	ELLE	07/23/24 06:30
Total/NA	Analysis	6020B		2	532452	F7JF	ELLE	07/25/24 13:23
Total/NA	Prep	3050B			531189	UJL8	ELLE	07/23/24 06:30
Total/NA	Analysis	6020B		10	532452	F7JF	ELLE	07/25/24 13:25
Total/NA	Prep	3050B			531189	UJL8	ELLE	07/23/24 06:30
Total/NA	Analysis	6020B		10	532609	T8CQ	ELLE	07/25/24 18:00

Lab Chronicle

Client: Pennsylvania Dept of Env Protection
Project/Site: DEP 51st

Job ID: 410-180859-1

Client Sample ID: DEP51-S2

Lab Sample ID: 410-180859-2
Date Collected: 07/22/24 10:45
Matrix: Solid
Date Received: 07/22/24 16:10
Percent Solids: 94.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3050B			531189	UJL8	ELLE	07/23/24 06:30
Total/NA	Analysis	6020B		100	532609	T8CQ	ELLE	07/25/24 18:02
Total/NA	Prep	7471B			531188	UAMX	ELLE	07/23/24 22:00
Total/NA	Analysis	7471B		1	531991	X3ZX	ELLE	07/24/24 12:27
Total/NA	Prep	3060A			531557	UDS7	ELLE	07/23/24 18:44
Total/NA	Analysis	7196A		1	531622	UDS7	ELLE	07/23/24 22:40

Client Sample ID: DEP51-S3

Lab Sample ID: 410-180859-3
Date Collected: 07/22/24 10:50
Matrix: Solid
Date Received: 07/22/24 16:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	7196A		1	536826	MRD6	ELLE	08/22/24 16:11
Total/NA	Analysis	Moisture		1	531340	E5GC	ELLE	07/23/24 09:39

Client Sample ID: DEP51-S3

Lab Sample ID: 410-180859-3
Date Collected: 07/22/24 10:50
Matrix: Solid
Date Received: 07/22/24 16:10
Percent Solids: 95.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			531394	VHK6	ELLE	07/23/24 10:54
Total/NA	Analysis	8260D		1	531785	ULCP	ELLE	07/24/24 14:31
Total/NA	Prep	3050B			531189	UJL8	ELLE	07/23/24 06:30
Total/NA	Analysis	6020B		2	532452	F7JF	ELLE	07/25/24 13:09
Total/NA	Prep	3050B			531189	UJL8	ELLE	07/23/24 06:30
Total/NA	Analysis	6020B		10	532452	F7JF	ELLE	07/25/24 13:11
Total/NA	Prep	3050B			531189	UJL8	ELLE	07/23/24 06:30
Total/NA	Analysis	6020B		100	532609	T8CQ	ELLE	07/25/24 17:48
Total/NA	Prep	7471B			531188	UAMX	ELLE	07/23/24 22:00
Total/NA	Analysis	7471B		1	531991	X3ZX	ELLE	07/24/24 12:36
Total/NA	Prep	3060A			531557	UDS7	ELLE	07/23/24 18:44
Total/NA	Analysis	7196A		10	531622	UDS7	ELLE	07/23/24 22:40

Client Sample ID: DEP51-S4

Lab Sample ID: 410-180859-4
Date Collected: 07/22/24 11:00
Matrix: Solid
Date Received: 07/22/24 16:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	7196A		1	536826	MRD6	ELLE	08/22/24 16:11
Total/NA	Analysis	Moisture		1	531340	E5GC	ELLE	07/23/24 09:39

Client Sample ID: DEP51-S4

Lab Sample ID: 410-180859-4

Date Collected: 07/22/24 11:00
Matrix: Solid
Date Received: 07/22/24 16:10
Percent Solids: 97.0

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			531394	VHK6	ELLE	07/23/24 10:54
Total/NA	Analysis	8260D		1	531785	ULCP	ELLE	07/24/24 14:54
Total/NA	Prep	3050B			531189	UJL8	ELLE	07/23/24 06:30
Total/NA	Analysis	6020B		2	532452	F7JF	ELLE	07/25/24 13:19
Total/NA	Prep	3050B			531189	UJL8	ELLE	07/23/24 06:30
Total/NA	Analysis	6020B		10	532452	F7JF	ELLE	07/25/24 13:21
Total/NA	Prep	3050B			531189	UJL8	ELLE	07/23/24 06:30
Total/NA	Analysis	6020B		10	532609	T8CQ	ELLE	07/25/24 17:56
Total/NA	Prep	3050B			531189	UJL8	ELLE	07/23/24 06:30
Total/NA	Analysis	6020B		100	532609	T8CQ	ELLE	07/25/24 17:58
Total/NA	Prep	7471B			531188	UAMX	ELLE	07/23/24 22:00
Total/NA	Analysis	7471B		1	531991	X3ZX	ELLE	07/24/24 12:31
Total/NA	Prep	3060A			531557	UDS7	ELLE	07/23/24 18:44
Total/NA	Analysis	7196A		10	531622	UDS7	ELLE	07/23/24 22:40

Client Sample ID: DEP51-S5

Lab Sample ID: 410-180859-5

Date Collected: 07/22/24 11:05
Matrix: Solid
Date Received: 07/22/24 16:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	7196A		1	536826	MRD6	ELLE	08/22/24 16:11
Total/NA	Analysis	Moisture		1	531340	E5GC	ELLE	07/23/24 09:39

Client Sample ID: DEP51-S5

Lab Sample ID: 410-180859-5

Date Collected: 07/22/24 11:05
Matrix: Solid
Date Received: 07/22/24 16:10
Percent Solids: 76.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			531394	VHK6	ELLE	07/23/24 10:54
Total/NA	Analysis	8260D		1	531785	ULCP	ELLE	07/24/24 20:33
Total/NA	Prep	3050B			531189	UJL8	ELLE	07/23/24 06:30
Total/NA	Analysis	6020B		2	532452	F7JF	ELLE	07/25/24 13:05
Total/NA	Prep	3050B			531189	UJL8	ELLE	07/23/24 06:30
Total/NA	Analysis	6020B		10	532452	F7JF	ELLE	07/25/24 13:07
Total/NA	Prep	7471B			531188	UAMX	ELLE	07/23/24 22:00
Total/NA	Analysis	7471B		1	531991	X3ZX	ELLE	07/24/24 12:14
Total/NA	Prep	3060A			531557	UDS7	ELLE	07/23/24 18:44
Total/NA	Analysis	7196A		10	531622	UDS7	ELLE	07/23/24 22:40

Client Sample ID: DEP51-S6

Lab Sample ID: 410-180859-6

Date Collected: 07/22/24 11:10
Matrix: Solid
Date Received: 07/22/24 16:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	7196A		1	536826	MRD6	ELLE	08/22/24 16:11

Lab Chronicle

Client: Pennsylvania Dept of Env Protection
Project/Site: DEP 51st

Job ID: 410-180859-1

Client Sample ID: DEP51-S6
Date Collected: 07/22/24 11:10
Date Received: 07/22/24 16:10

Lab Sample ID: 410-180859-6
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	531340	E5GC	ELLE	07/23/24 09:39

Client Sample ID: DEP51-S6
Date Collected: 07/22/24 11:10
Date Received: 07/22/24 16:10

Lab Sample ID: 410-180859-6
Matrix: Solid
Percent Solids: 70.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			531394	VHK6	ELLE	07/23/24 10:54
Total/NA	Analysis	8260D		1	531785	ULCP	ELLE	07/24/24 15:39
Total/NA	Prep	5035	RA		531394	VHK6	ELLE	07/23/24 10:54
Total/NA	Analysis	8260D	RA	1	531785	ULCP	ELLE	07/24/24 20:56
Total/NA	Prep	3050B			531189	UJL8	ELLE	07/23/24 06:30
Total/NA	Analysis	6020B		2	532452	F7JF	ELLE	07/25/24 13:01
Total/NA	Prep	3050B			531189	UJL8	ELLE	07/23/24 06:30
Total/NA	Analysis	6020B		10	532452	F7JF	ELLE	07/25/24 13:03
Total/NA	Prep	7471B			531188	UAMX	ELLE	07/23/24 22:00
Total/NA	Analysis	7471B		1	531991	X3ZX	ELLE	07/24/24 12:08
Total/NA	Prep	3060A			531557	UDS7	ELLE	07/23/24 18:44
Total/NA	Analysis	7196A		10	531622	UDS7	ELLE	07/23/24 22:40

Client Sample ID: DEP51-S7
Date Collected: 07/22/24 11:15
Date Received: 07/22/24 16:10

Lab Sample ID: 410-180859-7
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	7196A		1	536826	MRD6	ELLE	08/22/24 16:11
Total/NA	Analysis	Moisture		1	531340	E5GC	ELLE	07/23/24 09:39

Client Sample ID: DEP51-S7
Date Collected: 07/22/24 11:15
Date Received: 07/22/24 16:10

Lab Sample ID: 410-180859-7
Matrix: Solid
Percent Solids: 71.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			531398	VHK6	ELLE	07/23/24 11:01
Total/NA	Analysis	8260D		50	532050	S8BP	ELLE	07/25/24 02:22
Total/NA	Prep	3050B			531189	UJL8	ELLE	07/23/24 06:30
Total/NA	Analysis	6020B		2	532452	F7JF	ELLE	07/25/24 12:57
Total/NA	Prep	3050B			531189	UJL8	ELLE	07/23/24 06:30
Total/NA	Analysis	6020B		10	532452	F7JF	ELLE	07/25/24 12:59
Total/NA	Prep	7471B			531188	UAMX	ELLE	07/23/24 22:00
Total/NA	Analysis	7471B		1	531991	X3ZX	ELLE	07/24/24 12:25
Total/NA	Prep	3060A			531557	UDS7	ELLE	07/23/24 18:44
Total/NA	Analysis	7196A		5	531622	UDS7	ELLE	07/23/24 22:40

Client Sample ID: DUP-S
Date Collected: 07/22/24 00:00
Date Received: 07/22/24 16:10

Lab Sample ID: 410-180859-8
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	7196A		1	536826	MRD6	ELLE	08/22/24 16:11
Total/NA	Analysis	Moisture		1	531340	E5GC	ELLE	07/23/24 09:39

Client Sample ID: DUP-S
Date Collected: 07/22/24 00:00
Date Received: 07/22/24 16:10

Lab Sample ID: 410-180859-8
Matrix: Solid
Percent Solids: 74.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			531398	VHK6	ELLE	07/23/24 11:01
Total/NA	Analysis	8260D		50	532050	S8BP	ELLE	07/25/24 02:43
Total/NA	Prep	3050B			531189	UJL8	ELLE	07/23/24 06:30
Total/NA	Analysis	6020B		2	532452	F7JF	ELLE	07/25/24 12:47
Total/NA	Prep	3050B			531189	UJL8	ELLE	07/23/24 06:30
Total/NA	Analysis	6020B		10	532452	F7JF	ELLE	07/25/24 12:49
Total/NA	Prep	7471B			531188	UAMX	ELLE	07/23/24 22:00
Total/NA	Analysis	7471B		1	531991	X3ZX	ELLE	07/24/24 12:23
Total/NA	Prep	3060A			531557	UDS7	ELLE	07/23/24 18:44
Total/NA	Analysis	7196A		10	531622	UDS7	ELLE	07/23/24 22:40

Client Sample ID: DEP51-S8
Date Collected: 07/22/24 11:20
Date Received: 07/22/24 16:10

Lab Sample ID: 410-180859-9
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	7196A		1	536826	MRD6	ELLE	08/22/24 16:11
Total/NA	Analysis	Moisture		1	531340	E5GC	ELLE	07/23/24 09:39

Client Sample ID: DEP51-S8
Date Collected: 07/22/24 11:20
Date Received: 07/22/24 16:10

Lab Sample ID: 410-180859-9
Matrix: Solid
Percent Solids: 62.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			531394	VHK6	ELLE	07/23/24 10:54
Total/NA	Analysis	8260D		1	531785	ULCP	ELLE	07/24/24 16:02
Total/NA	Prep	5035	RA		531394	VHK6	ELLE	07/23/24 10:54
Total/NA	Analysis	8260D	RA	1	531785	ULCP	ELLE	07/24/24 21:18
Total/NA	Prep	3050B			531189	UJL8	ELLE	07/23/24 06:30
Total/NA	Analysis	6020B		2	532452	F7JF	ELLE	07/25/24 12:26
Total/NA	Prep	3050B			531189	UJL8	ELLE	07/23/24 06:30
Total/NA	Analysis	6020B		10	532452	F7JF	ELLE	07/25/24 12:27
Total/NA	Prep	7471B			531188	UAMX	ELLE	07/23/24 22:00
Total/NA	Analysis	7471B		1	531991	X3ZX	ELLE	07/24/24 12:19
Total/NA	Prep	3060A			531557	UDS7	ELLE	07/23/24 18:44
Total/NA	Analysis	7196A		5	531622	UDS7	ELLE	07/23/24 22:40

Client Sample ID: DEP51-S9

Lab Sample ID: 410-180859-10

Date Collected: 07/22/24 11:25

Matrix: Solid

Date Received: 07/22/24 16:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	7196A		1	536826	MRD6	ELLE	08/22/24 16:11
Total/NA	Analysis	Moisture		1	531340	E5GC	ELLE	07/23/24 09:39

Client Sample ID: DEP51-S9

Lab Sample ID: 410-180859-10

Date Collected: 07/22/24 11:25

Matrix: Solid

Date Received: 07/22/24 16:10

Percent Solids: 74.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			531394	VHK6	ELLE	07/23/24 10:54
Total/NA	Analysis	8260D		1	531785	ULCP	ELLE	07/24/24 16:24
Total/NA	Prep	5035	RA		531394	VHK6	ELLE	07/23/24 10:54
Total/NA	Analysis	8260D	RA	1	531785	ULCP	ELLE	07/24/24 19:25
Total/NA	Prep	3050B			531189	UJL8	ELLE	07/23/24 06:30
Total/NA	Analysis	6020B		2	532452	F7JF	ELLE	07/25/24 12:35
Total/NA	Prep	3050B			531189	UJL8	ELLE	07/23/24 06:30
Total/NA	Analysis	6020B		10	532452	F7JF	ELLE	07/25/24 12:37
Total/NA	Prep	7471B			531188	UAMX	ELLE	07/23/24 22:00
Total/NA	Analysis	7471B		1	531991	X3ZX	ELLE	07/24/24 12:21
Total/NA	Prep	3060A			531557	UDS7	ELLE	07/23/24 18:44
Total/NA	Analysis	7196A		10	531622	UDS7	ELLE	07/23/24 22:40

Client Sample ID: DEP51-S10

Lab Sample ID: 410-180859-11

Date Collected: 07/22/24 11:30

Matrix: Solid

Date Received: 07/22/24 16:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	7196A		1	536826	MRD6	ELLE	08/22/24 16:11
Total/NA	Analysis	Moisture		1	531340	E5GC	ELLE	07/23/24 09:39

Client Sample ID: DEP51-S10

Lab Sample ID: 410-180859-11

Date Collected: 07/22/24 11:30

Matrix: Solid

Date Received: 07/22/24 16:10

Percent Solids: 62.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			531394	VHK6	ELLE	07/23/24 10:54
Total/NA	Analysis	8260D		1	531785	ULCP	ELLE	07/24/24 16:47
Total/NA	Prep	5035	RA		531394	VHK6	ELLE	07/23/24 10:54
Total/NA	Analysis	8260D	RA	1	531785	ULCP	ELLE	07/24/24 19:48
Total/NA	Prep	3050B			531189	UJL8	ELLE	07/23/24 06:30
Total/NA	Analysis	6020B		2	532452	F7JF	ELLE	07/25/24 12:39
Total/NA	Prep	3050B			531189	UJL8	ELLE	07/23/24 06:30
Total/NA	Analysis	6020B		10	532452	F7JF	ELLE	07/25/24 12:41
Total/NA	Prep	7471B			531188	UAMX	ELLE	07/23/24 22:00
Total/NA	Analysis	7471B		1	531991	X3ZX	ELLE	07/24/24 12:16

Lab Chronicle

Client: Pennsylvania Dept of Env Protection
Project/Site: DEP 51st

Job ID: 410-180859-1

Client Sample ID: DEP51-S10
Date Collected: 07/22/24 11:30
Date Received: 07/22/24 16:10

Lab Sample ID: 410-180859-11
Matrix: Solid
Percent Solids: 62.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3060A			531557	UDS7	ELLE	07/23/24 18:44
Total/NA	Analysis	7196A		10	531622	UDS7	ELLE	07/23/24 22:40

Client Sample ID: DEP51-S11
Date Collected: 07/22/24 11:40
Date Received: 07/22/24 16:10

Lab Sample ID: 410-180859-12
Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	7196A		1	536826	MRD6	ELLE	08/22/24 16:11
Total/NA	Analysis	Moisture		1	531340	E5GC	ELLE	07/23/24 09:39

Client Sample ID: DEP51-S11
Date Collected: 07/22/24 11:40
Date Received: 07/22/24 16:10

Lab Sample ID: 410-180859-12
Matrix: Solid
Percent Solids: 85.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			531394	VHK6	ELLE	07/23/24 10:54
Total/NA	Analysis	8260D		1	531785	ULCP	ELLE	07/24/24 20:10
Total/NA	Prep	3050B			531189	UJL8	ELLE	07/23/24 06:30
Total/NA	Analysis	6020B		2	532452	F7JF	ELLE	07/25/24 12:43
Total/NA	Prep	3050B			531189	UJL8	ELLE	07/23/24 06:30
Total/NA	Analysis	6020B		10	532452	F7JF	ELLE	07/25/24 12:45
Total/NA	Prep	7471B			531188	UAMX	ELLE	07/23/24 22:00
Total/NA	Analysis	7471B		1	531991	X3ZX	ELLE	07/24/24 12:17
Total/NA	Prep	3060A			531557	UDS7	ELLE	07/23/24 18:44
Total/NA	Analysis	7196A		10	531622	UDS7	ELLE	07/23/24 22:40

Client Sample ID: DEP51-W1
Date Collected: 07/22/24 12:05
Date Received: 07/22/24 16:10

Lab Sample ID: 410-180859-13
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	531308	DVW2	ELLE	07/23/24 12:35
Dissolved	Prep	Non-Digest Prep			531625	UAMX	ELLE	07/23/24 23:30
Dissolved	Analysis	6020B		1	532156	F7JF	ELLE	07/24/24 21:10
Dissolved	Prep	Non-Digest Prep			531625	UAMX	ELLE	07/23/24 23:30
Dissolved	Analysis	6020B		1	532121	T8CQ	ELLE	07/24/24 20:40
Dissolved	Prep	7470A			531596	UAMX	ELLE	07/23/24 23:00
Dissolved	Analysis	7470A		1	531877	X3ZX	ELLE	07/24/24 10:27
Dissolved	Analysis	7196A		1	531170	UDS7	ELLE	07/22/24 22:46
Total/NA	Analysis	7196A		1	536826	MRD6	ELLE	08/22/24 16:11

Lab Chronicle

Client: Pennsylvania Dept of Env Protection
Project/Site: DEP 51st

Job ID: 410-180859-1

Client Sample ID: DUP-W

Date Collected: 07/22/24 00:00
Date Received: 07/22/24 16:10

Lab Sample ID: 410-180859-14

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	531308	DVW2	ELLE	07/23/24 12:54
Dissolved	Prep	Non-Digest Prep			531625	UAMX	ELLE	07/23/24 23:30
Dissolved	Analysis	6020B		1	532156	F7JF	ELLE	07/24/24 21:07
Dissolved	Prep	Non-Digest Prep			531625	UAMX	ELLE	07/23/24 23:30
Dissolved	Analysis	6020B		1	532121	T8CQ	ELLE	07/24/24 20:38
Dissolved	Prep	7470A			531596	UAMX	ELLE	07/23/24 23:00
Dissolved	Analysis	7470A		1	531877	X3ZX	ELLE	07/24/24 10:25
Dissolved	Analysis	7196A		1	531170	UDS7	ELLE	07/22/24 22:46
Total/NA	Analysis	7196A		1	536826	MRD6	ELLE	08/22/24 16:11

Client Sample ID: DEP51-W2

Date Collected: 07/22/24 12:10
Date Received: 07/22/24 16:10

Lab Sample ID: 410-180859-15

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	531308	DVW2	ELLE	07/23/24 13:14
Dissolved	Prep	Non-Digest Prep			531625	UAMX	ELLE	07/23/24 23:30
Dissolved	Analysis	6020B		1	532156	F7JF	ELLE	07/24/24 21:15
Dissolved	Prep	Non-Digest Prep			531625	UAMX	ELLE	07/23/24 23:30
Dissolved	Analysis	6020B		1	532121	T8CQ	ELLE	07/24/24 20:46
Dissolved	Prep	7470A			531596	UAMX	ELLE	07/23/24 23:00
Dissolved	Analysis	7470A		1	531877	X3ZX	ELLE	07/24/24 10:24
Dissolved	Analysis	7196A		1	531170	UDS7	ELLE	07/22/24 22:46
Total/NA	Analysis	7196A		1	536826	MRD6	ELLE	08/22/24 16:11

Client Sample ID: DEP51-W3

Date Collected: 07/22/24 12:15
Date Received: 07/22/24 16:10

Lab Sample ID: 410-180859-16

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	531308	DVW2	ELLE	07/23/24 13:34
Dissolved	Prep	Non-Digest Prep			531625	UAMX	ELLE	07/23/24 23:30
Dissolved	Analysis	6020B		1	532156	F7JF	ELLE	07/24/24 21:13
Dissolved	Prep	Non-Digest Prep			531625	UAMX	ELLE	07/23/24 23:30
Dissolved	Analysis	6020B		1	532121	T8CQ	ELLE	07/24/24 20:44
Dissolved	Prep	7470A			531596	UAMX	ELLE	07/23/24 23:00
Dissolved	Analysis	7470A		1	531877	X3ZX	ELLE	07/24/24 10:22
Dissolved	Analysis	7196A		1	531170	UDS7	ELLE	07/22/24 22:46
Total/NA	Analysis	7196A		1	536826	MRD6	ELLE	08/22/24 16:11

Lab Chronicle

Client: Pennsylvania Dept of Env Protection
Project/Site: DEP 51st

Job ID: 410-180859-1

Client Sample ID: DEP51-W4

Lab Sample ID: 410-180859-17

Date Collected: 07/22/24 13:00

Matrix: Water

Date Received: 07/22/24 16:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	531308	DVW2	ELLE	07/23/24 13:53
Dissolved	Prep	Non-Digest Prep			531625	UAMX	ELLE	07/23/24 23:30
Dissolved	Analysis	6020B		1	532156	F7JF	ELLE	07/24/24 21:11
Dissolved	Prep	Non-Digest Prep			531625	UAMX	ELLE	07/23/24 23:30
Dissolved	Analysis	6020B		1	532121	T8CQ	ELLE	07/24/24 20:42
Dissolved	Prep	7470A			531596	UAMX	ELLE	07/23/24 23:00
Dissolved	Analysis	7470A		1	531877	X3ZX	ELLE	07/24/24 10:29
Dissolved	Analysis	7196A		1	531170	UDS7	ELLE	07/22/24 23:04
Total/NA	Analysis	7196A		1	536826	MRD6	ELLE	08/22/24 16:11

Client Sample ID: Trip Blank 2

Lab Sample ID: 410-180859-18

Date Collected: 07/22/24 00:00

Matrix: Water

Date Received: 07/22/24 16:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	531308	DVW2	ELLE	07/23/24 10:57

Client Sample ID: Trip Blank 1

Lab Sample ID: 410-180859-19

Date Collected: 07/22/24 00:00

Matrix: Water

Date Received: 07/22/24 16:10

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	8260D		1	531308	DVW2	ELLE	07/23/24 11:17

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Pennsylvania Dept of Env Protection
Job ID: 410-180859-1
Project/Site: DEP 51st

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Pennsylvania	NELAP	36-00037	01-31-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
7196A		Solid	Cr (III)
7196A		Water	Cr (III)
Moisture		Solid	Percent Moisture

Method Summary

Client: Pennsylvania Dept of Env Protection
Project/Site: DEP 51st

Job ID: 410-180859-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	ELLE
6020B	Metals (ICP/MS)	SW846	ELLE
7470A	Mercury (CVAA)	SW846	ELLE
7471B	Mercury (CVAA)	SW846	ELLE
7196A	Chromium, Hexavalent	SW846	ELLE
7196A	Chromium, Trivalent (Colorimetric)	SW846	ELLE
Moisture	Percent Moisture	EPA	ELLE
3050B	Preparation, Metals	SW846	ELLE
3060A	Alkaline Digestion (Chromium, Hexavalent)	SW846	ELLE
5030C	Purge and Trap	SW846	ELLE
5035	Closed System Purge and Trap	SW846	ELLE
7470A	Preparation, Mercury	SW846	ELLE
7471B	Preparation, Mercury	SW846	ELLE
Non-Digest Prep	Preparation, Non-Digested Aqueous Metals	EPA	ELLE

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: Pennsylvania Dept of Env Protection
Project/Site: DEP 51st

Job ID: 410-180859-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
410-180859-1	DEP51-S1	Solid	07/22/24 10:30	07/22/24 16:10
410-180859-2	DEP51-S2	Solid	07/22/24 10:45	07/22/24 16:10
410-180859-3	DEP51-S3	Solid	07/22/24 10:50	07/22/24 16:10
410-180859-4	DEP51-S4	Solid	07/22/24 11:00	07/22/24 16:10
410-180859-5	DEP51-S5	Solid	07/22/24 11:05	07/22/24 16:10
410-180859-6	DEP51-S6	Solid	07/22/24 11:10	07/22/24 16:10
410-180859-7	DEP51-S7	Solid	07/22/24 11:15	07/22/24 16:10
410-180859-8	DUP-S	Solid	07/22/24 00:00	07/22/24 16:10
410-180859-9	DEP51-S8	Solid	07/22/24 11:20	07/22/24 16:10
410-180859-10	DEP51-S9	Solid	07/22/24 11:25	07/22/24 16:10
410-180859-11	DEP51-S10	Solid	07/22/24 11:30	07/22/24 16:10
410-180859-12	DEP51-S11	Solid	07/22/24 11:40	07/22/24 16:10
410-180859-13	DEP51-W1	Water	07/22/24 12:05	07/22/24 16:10
410-180859-14	DUP-W	Water	07/22/24 00:00	07/22/24 16:10
410-180859-15	DEP51-W2	Water	07/22/24 12:10	07/22/24 16:10
410-180859-16	DEP51-W3	Water	07/22/24 12:15	07/22/24 16:10
410-180859-17	DEP51-W4	Water	07/22/24 13:00	07/22/24 16:10
410-180859-18	Trip Blank 2	Water	07/22/24 00:00	07/22/24 16:10
410-180859-19	Trip Blank 1	Water	07/22/24 00:00	07/22/24 16:10

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Chain of Custody Record

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410-180859 Chain of Custody

Client Contact: Glorinés Suárez Rivera	Sampler: Christine McCarthy	Lab PM: Sachtleben, Kerri S	Carrier Tracking No(s):	COC No: 410-127010-35441.1
	Phone: 484-250-5725	E-Mail: Kerri.Sachtleben@et.eurofinsus.com	State of Origin: PA	Page: Page 1 of 2
Company: Pennsylvania Dept of Env Protection	PWSID:	Analysis Requested		Job #
Address: 2 East Main Street	Due Date Requested:			Preservation Codes: N - Nitric Acid; H - Hydrochloric Acid; m - methanol
City: Norristown	TAT Requested (days): RUSH 3 Day TAT			
State, Zip: PA, 19401	Compliance Project: Δ Yes Δ No			
Phone: 484-250-5724(Tel)	PO #: Purchase Order Requested			
Email: gsuarezriv@pa.gov	WO #:			
Project Name: DEP 51st	Project #: 41020738			
Site: Alliance 51st street Bike Trail	SSOW#:			Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260D TCL VOC, 4.3 Add'l 8260B Total Metals TAL List	7196A Hex chrom	7199CR3 calc.	Percent moisture	Total Number of containers	Special Instructions/Note:
			Preservation Code:				M					
DEP51-S1	7/22/24	1030	G	S			X	X	X	X	5	
DEP51-S2	7/22/24	1045	G	S			X	X	X	X	5	
DEP51-S3	7/22/24	1050	G	S			X	X	X	X	5	
DEP51-S4	7/22/24	1100	G	S			X	X	X	X	5	
DEP51-S5	7/22/24	1105	G	S			X	X	X	X	5	
DEP51-S6	7/22/24	1110	G	S			X	X	X	X	5	
DEP51-S7	7/22/24	1115	G	S			X	X	X	X	5	
DUP-S	7/22/24	—	G	S			X	X	X	X	5	
DEP51-S8	7/22/24	1120	G	S			X	X	X	X	5	
DEP51-S9	7/22/24	1125	G	S			X	X	X	X	5	
DEP51-S10	7/22/24	1130	G	S			X	X	X	X	5	

Possible Hazard Identification: ☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month): ☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify) (3) 7/19/24

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date: 7/19/24	Time: 9:55	Method of Shipment:
Relinquished by	Date/Time	Company	Received by: 0955 Date/Time: 7/19/24 0955 Company: PA DEP
Relinquished by: Christine McCarthy	Date/Time: 7/22/24 1500	Company: PA DEP	Received by: Date/Time: Company:
Relinquished by:	Date/Time:	Company	Received by: Date/Time: 7/22/24 1610 Company: ELLET

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: 000108, 000109

Cooler Temperature(s) °C and Other Remarks: raw: 10.9-14.4 corr: 11.0-14.5

Eurofins Lancaster Laboratories Environme
2425 New Holland Pike
Lancaster, PA 17601
Phone: 717-656-2300 Fax: 717-656-2681

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Client Information	Sampler: Christine McCarthy		Carrier Tracking No(s):	COC No: 410-127010-35441.2
Client Contact: Glorinés Suárez Rivera	Phone: 484-250-5725	@et.eurofinsus.com	State of Origin: PA	Page: Page 2 of 2
Company: Pennsylvania Dept of Env Protection	PWS	Analysis Requested		Job #:
Address: 2 East Main Street	Due Date Requested:			Preservation Codes: N - Nitric Acid; H - Hydrochloric Acid; M - Methanol
City: Norristown	TAT Requested (days): 3 DAY RUSH TAT			
State, Zip: PA, 19401	Compliance Project: Δ Yes Δ No			
Phone: 484-250-5724(Tel)	PO #: Purchase Order Requested			
Email: gsuarezriv@pa.gov	WO #:			
Project Name: DEP 51st	Project #: 41020738			
Site: Alliance 51st Street/ Bike Trail	SSOW#:			Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260D TCL VOCs 4.3	6020B Total Metals TAL List	7196A Hex. Chrom.	7199 CP-3 CWC	Percent Moisture	8260D TCL VOCs 4.3	6020B Total Metals TALs	Total Number of containers	Special Instructions/Note:
Preservation Code:							H	N				M			
DEP51-S11	7/22/24	1140	G	S			X	X	X	X	X	X	X	5	
DEP51-W1	7/22/24	1205	G	W			X	X	X	X				5	
DUP-W2 cm 7/22/24	7/22/24	—	G	W			X	X	X	X				5	
DEP51-W2	7/22/24	1210	G	W			X	X	X	X				5	
DEP51-W3	7/22/24	1215	G	W			X	X	X	X				5	
DEP51-W4	7/22/24	~~1220~~	G	W			X	X	X	X				5	
~~Trip Blank 1~~ cm 7/22/24		1300 cm 7/22/24													
Trip Blank 2	7/22/24	—	G	W			X							3 2 cm 7/22/24	
Trip Blank 1	7/22/24	—	G	W			X							3 2 cm 7/22/24	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date: 7/19/24	Time: 9:55	Method of Shipment:	7/19/24	
Relinquished by:	Date/Time:	Company	Received by: 0955	Date/Time: 7/19/24 0955	Company: PA DEP
Relinquished by: Christine McCarthy	Date/Time: 7/22/24 1500	Company: PADEP	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 7/22/24 1610	Company: ELMT

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: 0001108, 0001109

Cooler Temperature(s) °C and Other Remarks: raw: 10.9-14.4 corr: 11.0-14.5

- empty kit
- sam

Chain of Custody Record

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410-180859 Chain of Custody

Client Contact: Glorinés Suárez Rivera	Sampler: Christine McCarthy	Lab PM: Sachtleben, Kerri S	Carrier Tracking No(s):	COC No: 410-127010-35441.1
	Phone: 484-250-5725	E-Mail: Kerri.Sachtleben@et.eurofinsus.com	State of Origin: PA	Page: Page 1 of 2
Company: Pennsylvania Dept of Env Protection	PWSID:			Job #
Address: 2 East Main Street	Due Date Requested:			
City: Norristown	TAT Requested (days): RUSH 3 Day TAT			
State, Zip: PA, 19401	Compliance Project: Δ Yes Δ No			
Phone: 484-250-5724(Tel)	PO #: Purchase Order Requested			
Email: gsuarezriv@pa.gov	WO #:			
Project Name: DEP 51st	Project #: 41020738			
Site: Alliance 51st street Bike Trail	SSOW#:			

Analysis Requested

Preservation Codes:
N - Nitric Acid
H - Hydrochloric Acid
m - methanol
Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260D TCL VOC, 4.3 Am 8020B	Total Metals TAL List 7196A Hex chrom	7199CR3 calc.	Percent moisture	Total Number of containers	Special Instructions/Note:
Preservation Code:							M					
DEP51 - S1	7/22/24	1030	G	S			X	X	X	X	5	
DEP51 - S2	7/22/24	1045	G	S			X	X	X	X	5	
DEP51 - S3	7/22/24	1050	G	S			X	X	X	X	5	
DEP51 - S4	7/22/24	1100	G	S			X	X	X	X	5	
DEP51 - S5	7/22/24	1105	G	S			X	X	X	X	5	
DEP51 - S6	7/22/24	1110	G	S			X	X	X	X	5	
DEP51 - S7	7/22/24	1115	G	S			X	X	X	X	5	
DUP - S	7/22/24	—	G	S			X	X	X	X	5	
DEP51 - S8	7/22/24	1120	G	S			X	X	X	X	5	
DEP51 - S9	7/22/24	1125	G	S			X	X	X	X	5	
DEP51 - S10	7/22/24	1130	G	S			X	X	X	X	5	

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify) ③ 7/19/24

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date: 7/19/24	Time: 9:55	Method of Shipment:
Relinquished by	Date/Time	Company	Received by: 0955 Date/Time: 7/19/24 0955 Company: PA DEP
Relinquished by: Christine McCarthy	Date/Time: 7/22/24 1500	Company: PA DEP	Received by: Date/Time: Company:
Relinquished by:	Date/Time:	Company	Received by: Date/Time: 7/22/24 1610 Company: ELLET

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: 000108, 000109

Cooler Temperature(s) °C and Other Remarks: raw: 10.9-14.4 corr: 11.0-14.5

Eurofins Lancaster Laboratories Environme
2425 New Holland Pike
Lancaster, PA 17601
Phone: 717-656-2300 Fax: 717-656-2681

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Client Information	Sampler: Christine McCarthy		Carrier Tracking No(s):	COC No: 410-127010-35441.2
Client Contact: Glorinés Suárez Rivera	Phone: 484-250-5725	@et.eurof...us.com	State of Origin: PA	Page: Page 2 of 2
Company: Pennsylvania Dept of Env Protection	PWS	Analysis Requested		Job #:
Address: 2 East Main Street	Due Date Requested:			Preservation Codes: N - Nitric Acid; H - Hydrochloric Acid; M - Methanol
City: Norristown	TAT Requested (days): 3 DAY RUSH TAT			
State, Zip: PA, 19401	Compliance Project: Δ Yes Δ No			
Phone: 484-250-5724(Tel)	PO #: Purchase Order Requested			
Email: gsuarezriv@pa.gov	WO #:			
Project Name: DEP 51st	Project #: 41020738			
Site: Alliance 51st Street/ Bike Trail	SSOW#:			Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	8260D TCL VOCs 4.3	6020B Total Metals TAL List	7196A Hex. Chrom.	7199 CR3 CWC	Percent Moisture	8260D TCL VOCs 4.3	6020B Total Metals TALs	Total Number of containers	Special Instructions/Note:
			Preservation Code:				H	N				M			
DEP51-S11	7/22/24	1140	G	S			X	X	X	X	X	X	X	5	
DEP51-W1	7/22/24	1205	G	W			X	X	X	X				5	
DUP-W2 cm 7/22/24	7/22/24	—	G	W			X	X	X	X				5	
DEP51-W2	7/22/24	1210	G	W			X	X	X	X				5	
DEP51-W3	7/22/24	1215	G	W			X	X	X	X				5	
DEP51-W4	7/22/24	~~1220~~	G	W			X	X	X	X				5	
~~Trip Blank 1~~ cm 7/22/24		1300 cm 7/22/24													
Trip Blank 2	7/22/24	—	G	W			X							3	2 cm 7/22/24
Trip Blank 1	7/22/24	—	G	W			X							3	2 cm 7/22/24

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify)

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date: 7/19/24	Time: 9:55	Method of Shipment:			
Relinquished by:	Date/Time:	Company	Received by: 0955	Date/Time: 7/19/24 0955	Company: PA DEP	empty kit
Relinquished by: Christine McCarthy	Date/Time: 7/22/24 1500	Company: PADEP	Received by:	Date/Time:	Company:	sam
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 7/22/24 1610	Company: ELMT	

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: 000108, 000109 | Cooler Temperature(s) °C and Other Remarks: raw 10.9-14.4 corr. 11.0-14.5

Login Sample Receipt Checklist

Client: Pennsylvania Dept of Env Protection

Job Number: 410-180859-1

Login Number: 180859
List Number: 1
Creator: Metzger, Katherine A

List Source: Eurofins Lancaster Laboratories Environment Testing, LLC

Question	Answer	Comment
The cooler's custody seal is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature acceptable,where thermal pres is required(</=6C, not frozen).	False	Received same day of collection; chilling process has begun.
Cooler Temperature is recorded.	True	
WV:Container Temp acceptable,where thermal pres is required (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	False	Refer to Job Narrative for details.
There are no discrepancies between the containers received and the COC.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	True	
Sample custody seals are intact.	True	
VOA sample vials do not have headspace >6mm in diameter (none, if from WV)?	True	

DEP (Eurofins) Laboratory Data Package received August 26, 2024

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1 2 3 4 5 6 7 8 9 10 11 12 13 14

ANALYTICAL REPORT

PREPARED FOR

Attn: Glorinés Suárez Rivera
Pennsylvania Dept of Env Protection
2 East Main Street
Norristown, Pennsylvania 19401

Generated 8/23/2024 4:43:26 PM

JOB DESCRIPTION

DEP 51st

JOB NUMBER

410-183955-1

Eurofins Lancaster Laboratories Environment Testing, LLC
2425 New Holland Pike
Lancaster PA 17601

See page two for job notes and contact information.

my EOL

Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

Analytical test results meet all requirements of the associated regulatory program (i.e., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis.

Authorization

Generated
8/23/2024 4:43:26 PM

Authorized for release by
Kerri Sachtleben, Client Services Group Leader
Kerri.Sachtleben@et.eurofinsus.com
(717)556-7376

Compliance Statement

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.
· QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
· Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
· Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. The foregoing express warranty is exclusive and is given in lieu of all other warranties, expressed or implied, except as otherwise agreed. We disclaim any other warranties, expressed or implied, including a warranty of fitness for particular purpose and warranty of merchantability. In no event shall Eurofins Lancaster Laboratories Environmental, LLC be liable for indirect, special, consequential, or incidental damages including, but not limited to, damages for loss of profit or goodwill regardless of (A) the negligence (either sole or concurrent) of Eurofins Lancaster Laboratories Environmental and (B) whether Eurofins Lancaster Laboratories Environmental has been informed of the possibility of such damages. We accept no legal responsibility for the purposes for which the client uses the test results. Except as otherwise agreed, no purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

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Qualifiers

Metals

Qualifier	Qualifier Description
^+	Continuing Calibration Verification (CCV) is outside acceptance limits, high biased.
^2	Calibration Blank (ICB and/or CCB) is outside acceptance limits.
^3+	Reporting Limit Check Standard is outside acceptance limits, high biased
^5-	Linear Range Check (LRC) is outside acceptance limits, low biased.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
F2	MS/MSD RPD exceeds control limits
F3	Duplicate RPD exceeds the control limit
F5	Duplicate RPD exceeds limit, and one or both sample results are less than 5 times RL, and the absolute difference between results is < the upper reporting limits for both.
FH	MS and/or MSD recovery above control limits.
FL	MS and/or MSD recovery below control limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

General Chemistry

Qualifier	Qualifier Description
!	Laboratory is not accredited for this parameter.
cn	Refer to Case Narrative for further detail

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Glossary (Continued)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
TNTC	Too Numerous To Count

Job ID: 410-183955-1 Eurofins Lancaster Laboratories Environment

Job Narrative
410-183955-1

Analytical test results meet all requirements of the associated regulatory program listed on the Accreditation/Certification Summary Page unless otherwise noted under the individual analysis. Data qualifiers and/or narrative comments are included to explain any exceptions, if applicable.

- Matrix QC may not be reported if insufficient sample is provided or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD may be performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.

Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Receipt
The samples were received on 8/13/2024 4:15 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 14.7°C.

Receipt Exceptions
The following samples were received at the laboratory outside the required temperature criteria: DEP51-S12-240813 (410-183955-1), DUP-SA-240813 (410-183955-2), DEP51-S3-240813 (410-183955-3), DEP51-S5-240813 (410-183955-4), DEP51-S6-240813 (410-183955-5), DUP-SB-240813 (410-183955-6), DEP51-S13-240813 (410-183955-7), DEP51-S7V (410-183955-8), DEP51-S8A-240813 (410-183955-9), DEP51-S10A-240813 (410-183955-10), DEP51-S14-240813 (410-183955-11), DEP51-S15-240813 (410-183955-12), DEP51-W5-240813 (410-183955-13) and DEP51-W6-240813 (410-183955-14). The sample(s) is considered acceptable since it was collected and submitted to the laboratory on the same day and there is evidence that the chilling process has begun.

Metals
No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

General Chemistry
Method 7196A: The following samples were diluted due to the nature of the sample matrix: DEP51-S12-240813 (410-183955-1) and DUP-SA-240813 (410-183955-2). Elevated reporting limits (RLs) are provided.

Method 7196A: The following sample was diluted due to the nature of the sample matrix: DEP51-S13-240813 (410-183955-7). Elevated reporting limits (RLs) are provided.

Method 7196A: The following sample was diluted due to the nature of the sample matrix: DEP51-S7V (410-183955-8). Elevated reporting limits (RLs) are provided.

Method 7196A: The following samples were diluted due to the nature of the sample matrix: DEP51-S10A-240813 (410-183955-10), DEP51-S14-240813 (410-183955-11) and DEP51-S15-240813 (410-183955-12). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Detection Summary

Client: Pennsylvania Dept of Env Protection
Project/Site: DEP 51st

Job ID: 410-183955-1

Client Sample ID: DEP51-S12-240813 — Lab Sample ID: 410-183955-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	17000	^2	26	13	mg/Kg	2	☼	6020B	Total/NA
Antimony	1.1		0.26	0.10	mg/Kg	2	☼	6020B	Total/NA
Arsenic	14		0.52	0.18	mg/Kg	2	☼	6020B	Total/NA
Barium	180		0.52	0.24	mg/Kg	2	☼	6020B	Total/NA
Beryllium	0.91		0.13	0.031	mg/Kg	2	☼	6020B	Total/NA
Cadmium	0.67		0.13	0.052	mg/Kg	2	☼	6020B	Total/NA
Calcium	27000		260	130	mg/Kg	10	☼	6020B	Total/NA
Chromium	1000		2.6	1.2	mg/Kg	10	☼	6020B	Total/NA
Cobalt	19	^5-	0.26	0.10	mg/Kg	2	☼	6020B	Total/NA
Copper	70		0.52	0.24	mg/Kg	2	☼	6020B	Total/NA
Iron	31000	^2	130	60	mg/Kg	10	☼	6020B	Total/NA
Lead	230		0.26	0.10	mg/Kg	2	☼	6020B	Total/NA
Magnesium	8100		13	6.4	mg/Kg	2	☼	6020B	Total/NA
Manganese	610	^2	0.52	0.26	mg/Kg	2	☼	6020B	Total/NA
Nickel	68		0.52	0.25	mg/Kg	2	☼	6020B	Total/NA
Potassium	5300		52	21	mg/Kg	2	☼	6020B	Total/NA
Selenium	0.57		0.52	0.13	mg/Kg	2	☼	6020B	Total/NA
Silver	0.37		0.13	0.053	mg/Kg	2	☼	6020B	Total/NA
Sodium	190		66	31	mg/Kg	2	☼	6020B	Total/NA
Thallium	0.37		0.13	0.051	mg/Kg	2	☼	6020B	Total/NA
Vanadium	68		1.0	0.26	mg/Kg	2	☼	6020B	Total/NA
Zinc	420		200	26	mg/Kg	10	☼	6020B	Total/NA
Mercury	0.23		0.073	0.024	mg/Kg	1	☼	7471B	Total/NA
Cr (III)	1000	!	0.011	0.0035	mg/Kg	1	☼	7196A	Total/NA

Client Sample ID: DUP-SA-240813 — Lab Sample ID: 410-183955-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	16000	^2	21	10	mg/Kg	2	☼	6020B	Total/NA
Antimony	0.97		0.21	0.084	mg/Kg	2	☼	6020B	Total/NA
Arsenic	13		0.42	0.14	mg/Kg	2	☼	6020B	Total/NA
Barium	180		0.42	0.19	mg/Kg	2	☼	6020B	Total/NA
Beryllium	0.82		0.10	0.025	mg/Kg	2	☼	6020B	Total/NA
Cadmium	0.63		0.10	0.042	mg/Kg	2	☼	6020B	Total/NA
Calcium	28000		210	100	mg/Kg	10	☼	6020B	Total/NA
Chromium	1100		21	9.9	mg/Kg	100	☼	6020B	Total/NA
Cobalt	18	^5-	0.21	0.084	mg/Kg	2	☼	6020B	Total/NA
Copper	64		0.42	0.19	mg/Kg	2	☼	6020B	Total/NA
Iron	31000	^2	100	48	mg/Kg	10	☼	6020B	Total/NA
Lead	220		1.0	0.40	mg/Kg	10	☼	6020B	Total/NA
Magnesium	7400		10	5.1	mg/Kg	2	☼	6020B	Total/NA
Manganese	590	^2	0.42	0.21	mg/Kg	2	☼	6020B	Total/NA
Nickel	60		0.42	0.20	mg/Kg	2	☼	6020B	Total/NA
Potassium	5000		42	17	mg/Kg	2	☼	6020B	Total/NA
Selenium	0.50		0.42	0.10	mg/Kg	2	☼	6020B	Total/NA
Silver	0.34		0.10	0.042	mg/Kg	2	☼	6020B	Total/NA
Sodium	190		52	25	mg/Kg	2	☼	6020B	Total/NA
Thallium	0.32		0.10	0.041	mg/Kg	2	☼	6020B	Total/NA
Vanadium	61		0.84	0.21	mg/Kg	2	☼	6020B	Total/NA
Zinc	410		160	21	mg/Kg	10	☼	6020B	Total/NA
Mercury	0.12		0.078	0.026	mg/Kg	1	☼	7471B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: DUP-SA-240813 (Continued)

Lab Sample ID: 410-183955-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cr (III)	1100	!	0.011	0.0035	mg/Kg	1	☼	7196A	Total/NA

Client Sample ID: DEP51-S3-240813

Lab Sample ID: 410-183955-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	15000		22	11	mg/Kg	2	☼	6020B	Total/NA
Antimony	0.74		0.22	0.087	mg/Kg	2	☼	6020B	Total/NA
Arsenic	7.5		0.43	0.15	mg/Kg	2	☼	6020B	Total/NA
Barium	130		0.43	0.20	mg/Kg	2	☼	6020B	Total/NA
Beryllium	0.63		0.11	0.026	mg/Kg	2	☼	6020B	Total/NA
Cadmium	0.34		0.11	0.043	mg/Kg	2	☼	6020B	Total/NA
Calcium	38000		220	110	mg/Kg	10	☼	6020B	Total/NA
Chromium	1300		22	10	mg/Kg	100	☼	6020B	Total/NA
Cobalt	16		0.22	0.087	mg/Kg	2	☼	6020B	Total/NA
Copper	35		0.43	0.20	mg/Kg	2	☼	6020B	Total/NA
Iron	25000		110	50	mg/Kg	10	☼	6020B	Total/NA
Lead	78		0.22	0.083	mg/Kg	2	☼	6020B	Total/NA
Magnesium	8900		11	5.3	mg/Kg	2	☼	6020B	Total/NA
Manganese	430		0.43	0.22	mg/Kg	2	☼	6020B	Total/NA
Nickel	62		0.43	0.21	mg/Kg	2	☼	6020B	Total/NA
Potassium	6000		43	17	mg/Kg	2	☼	6020B	Total/NA
Selenium	0.22	J	0.43	0.11	mg/Kg	2	☼	6020B	Total/NA
Silver	0.071	J	0.11	0.044	mg/Kg	2	☼	6020B	Total/NA
Sodium	130		54	26	mg/Kg	2	☼	6020B	Total/NA
Thallium	0.34		0.11	0.043	mg/Kg	2	☼	6020B	Total/NA
Vanadium	57		0.87	0.22	mg/Kg	2	☼	6020B	Total/NA
Zinc	240		160	22	mg/Kg	10	☼	6020B	Total/NA
Mercury	0.097		0.062	0.021	mg/Kg	1	☼	7471B	Total/NA
Cr (VI)	57		2.4	0.80	mg/Kg	5	☼	7196A	Total/NA
Cr (III)	1200	!	0.011	0.0035	mg/Kg	1	☼	7196A	Total/NA

Client Sample ID: DEP51-S5-240813

Lab Sample ID: 410-183955-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	9600		20	10	mg/Kg	2	☼	6020B	Total/NA
Antimony	0.77		0.20	0.081	mg/Kg	2	☼	6020B	Total/NA
Arsenic	4.9		0.41	0.14	mg/Kg	2	☼	6020B	Total/NA
Barium	100		0.41	0.19	mg/Kg	2	☼	6020B	Total/NA
Beryllium	0.57		0.10	0.024	mg/Kg	2	☼	6020B	Total/NA
Cadmium	0.31		0.10	0.041	mg/Kg	2	☼	6020B	Total/NA
Calcium	13000		41	20	mg/Kg	2	☼	6020B	Total/NA
Chromium	410		2.0	0.97	mg/Kg	10	☼	6020B	Total/NA
Cobalt	10		0.20	0.081	mg/Kg	2	☼	6020B	Total/NA
Copper	33		0.41	0.18	mg/Kg	2	☼	6020B	Total/NA
Iron	21000		100	47	mg/Kg	10	☼	6020B	Total/NA
Lead	610		1.0	0.39	mg/Kg	10	☼	6020B	Total/NA
Magnesium	5600		10	5.0	mg/Kg	2	☼	6020B	Total/NA
Manganese	430		0.41	0.20	mg/Kg	2	☼	6020B	Total/NA
Nickel	31		0.41	0.19	mg/Kg	2	☼	6020B	Total/NA
Potassium	3800		41	16	mg/Kg	2	☼	6020B	Total/NA
Selenium	0.23	J	0.41	0.10	mg/Kg	2	☼	6020B	Total/NA
Silver	0.090	J	0.10	0.041	mg/Kg	2	☼	6020B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: DEP51-S5-240813 (Continued)

Lab Sample ID: 410-183955-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sodium	200		51	24	mg/Kg	2	☼	6020B	Total/NA
Thallium	0.20		0.10	0.040	mg/Kg	2	☼	6020B	Total/NA
Vanadium	29		0.81	0.20	mg/Kg	2	☼	6020B	Total/NA
Zinc	390		150	20	mg/Kg	10	☼	6020B	Total/NA
Mercury	0.038	J	0.070	0.023	mg/Kg	1	☼	7471B	Total/NA
Cr (VI)	62		2.5	0.84	mg/Kg	5	☼	7196A	Total/NA
Cr (III)	350	!	0.011	0.0035	mg/Kg	1	☼	7196A	Total/NA

Client Sample ID: DEP51-S6-240813

Lab Sample ID: 410-183955-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	6700		20	9.7	mg/Kg	2	☼	6020B	Total/NA
Antimony	4.8		0.20	0.079	mg/Kg	2	☼	6020B	Total/NA
Arsenic	11		0.39	0.13	mg/Kg	2	☼	6020B	Total/NA
Barium	77		0.39	0.18	mg/Kg	2	☼	6020B	Total/NA
Beryllium	0.38		0.098	0.023	mg/Kg	2	☼	6020B	Total/NA
Cadmium	0.35		0.098	0.039	mg/Kg	2	☼	6020B	Total/NA
Calcium	13000		39	19	mg/Kg	2	☼	6020B	Total/NA
Chromium	460		2.0	0.93	mg/Kg	10	☼	6020B	Total/NA
Cobalt	14		0.20	0.079	mg/Kg	2	☼	6020B	Total/NA
Copper	72		0.39	0.18	mg/Kg	2	☼	6020B	Total/NA
Iron	110000		980	450	mg/Kg	100	☼	6020B	Total/NA
Lead	670		0.98	0.37	mg/Kg	10	☼	6020B	Total/NA
Magnesium	4600		9.8	4.8	mg/Kg	2	☼	6020B	Total/NA
Manganese	720		0.39	0.20	mg/Kg	2	☼	6020B	Total/NA
Nickel	46		0.39	0.19	mg/Kg	2	☼	6020B	Total/NA
Potassium	2200		39	16	mg/Kg	2	☼	6020B	Total/NA
Selenium	0.18	J	0.39	0.098	mg/Kg	2	☼	6020B	Total/NA
Silver	0.062	J	0.098	0.040	mg/Kg	2	☼	6020B	Total/NA
Sodium	230		49	24	mg/Kg	2	☼	6020B	Total/NA
Thallium	0.14		0.098	0.038	mg/Kg	2	☼	6020B	Total/NA
Vanadium	30		0.79	0.20	mg/Kg	2	☼	6020B	Total/NA
Zinc	300		150	20	mg/Kg	10	☼	6020B	Total/NA
Mercury	0.042	J	0.063	0.021	mg/Kg	1	☼	7471B	Total/NA
Cr (VI)	8.3		0.46	0.15	mg/Kg	1	☼	7196A	Total/NA
Cr (III)	450	!	0.011	0.0035	mg/Kg	1	☼	7196A	Total/NA

Client Sample ID: DUP-SB-240813

Lab Sample ID: 410-183955-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	6800		19	9.4	mg/Kg	2	☼	6020B	Total/NA
Antimony	5.8		0.19	0.076	mg/Kg	2	☼	6020B	Total/NA
Arsenic	10		0.38	0.13	mg/Kg	2	☼	6020B	Total/NA
Barium	77		0.38	0.17	mg/Kg	2	☼	6020B	Total/NA
Beryllium	0.49		0.095	0.023	mg/Kg	2	☼	6020B	Total/NA
Cadmium	0.32		0.095	0.038	mg/Kg	2	☼	6020B	Total/NA
Calcium	14000		38	19	mg/Kg	2	☼	6020B	Total/NA
Chromium	530		1.9	0.91	mg/Kg	10	☼	6020B	Total/NA
Cobalt	12		0.19	0.076	mg/Kg	2	☼	6020B	Total/NA
Copper	81		0.38	0.17	mg/Kg	2	☼	6020B	Total/NA
Iron	70000		95	44	mg/Kg	10	☼	6020B	Total/NA
Lead	310		0.95	0.36	mg/Kg	10	☼	6020B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: DUP-SB-240813 (Continued)

Lab Sample ID: 410-183955-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Magnesium	4200		9.5	4.7	mg/Kg	2	☼	6020B	Total/NA
Manganese	560		0.38	0.19	mg/Kg	2	☼	6020B	Total/NA
Nickel	52		0.38	0.18	mg/Kg	2	☼	6020B	Total/NA
Potassium	2200		38	15	mg/Kg	2	☼	6020B	Total/NA
Selenium	0.20	J	0.38	0.095	mg/Kg	2	☼	6020B	Total/NA
Silver	0.063	J	0.095	0.039	mg/Kg	2	☼	6020B	Total/NA
Sodium	110		48	23	mg/Kg	2	☼	6020B	Total/NA
Thallium	0.15		0.095	0.037	mg/Kg	2	☼	6020B	Total/NA
Vanadium	30		0.76	0.19	mg/Kg	2	☼	6020B	Total/NA
Zinc	440		140	19	mg/Kg	10	☼	6020B	Total/NA
Mercury	0.058	J	0.059	0.020	mg/Kg	1	☼	7471B	Total/NA
Cr (VI)	33		0.88	0.29	mg/Kg	2	☼	7196A	Total/NA
Cr (III)	500	!	0.011	0.0035	mg/Kg	1	☼	7196A	Total/NA

Client Sample ID: DEP51-S13-240813

Lab Sample ID: 410-183955-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	12000		20	10	mg/Kg	2	☼	6020B	Total/NA
Antimony	1.2		0.20	0.081	mg/Kg	2	☼	6020B	Total/NA
Arsenic	6.6		0.40	0.14	mg/Kg	2	☼	6020B	Total/NA
Barium	130		0.40	0.18	mg/Kg	2	☼	6020B	Total/NA
Beryllium	0.58		0.10	0.024	mg/Kg	2	☼	6020B	Total/NA
Cadmium	0.37		0.10	0.040	mg/Kg	2	☼	6020B	Total/NA
Calcium	42000		200	99	mg/Kg	10	☼	6020B	Total/NA
Chromium	450		2.0	0.96	mg/Kg	10	☼	6020B	Total/NA
Cobalt	12		0.20	0.081	mg/Kg	2	☼	6020B	Total/NA
Copper	36		0.40	0.18	mg/Kg	2	☼	6020B	Total/NA
Iron	27000		100	47	mg/Kg	10	☼	6020B	Total/NA
Lead	260		1.0	0.38	mg/Kg	10	☼	6020B	Total/NA
Magnesium	8800		10	5.0	mg/Kg	2	☼	6020B	Total/NA
Manganese	460		0.40	0.20	mg/Kg	2	☼	6020B	Total/NA
Nickel	34		0.40	0.19	mg/Kg	2	☼	6020B	Total/NA
Potassium	4600		40	16	mg/Kg	2	☼	6020B	Total/NA
Selenium	0.18	J	0.40	0.10	mg/Kg	2	☼	6020B	Total/NA
Silver	0.098	J	0.10	0.041	mg/Kg	2	☼	6020B	Total/NA
Sodium	290		51	24	mg/Kg	2	☼	6020B	Total/NA
Thallium	0.26		0.10	0.040	mg/Kg	2	☼	6020B	Total/NA
Vanadium	41		0.81	0.20	mg/Kg	2	☼	6020B	Total/NA
Zinc	270		150	20	mg/Kg	10	☼	6020B	Total/NA
Mercury	0.067		0.058	0.019	mg/Kg	1	☼	7471B	Total/NA
Cr (III)	450	!	0.011	0.0035	mg/Kg	1	☼	7196A	Total/NA

Client Sample ID: DEP51-S7V

Lab Sample ID: 410-183955-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	14000		25	12	mg/Kg	2	☼	6020B	Total/NA
Antimony	1.2		0.25	0.10	mg/Kg	2	☼	6020B	Total/NA
Arsenic	12		0.50	0.17	mg/Kg	2	☼	6020B	Total/NA
Barium	130		0.50	0.23	mg/Kg	2	☼	6020B	Total/NA
Beryllium	0.68		0.13	0.030	mg/Kg	2	☼	6020B	Total/NA
Cadmium	0.49		0.13	0.050	mg/Kg	2	☼	6020B	Total/NA
Calcium	18000		50	25	mg/Kg	2	☼	6020B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: DEP51-S7V (Continued)

Lab Sample ID: 410-183955-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chromium	1000		2.5	1.2	mg/Kg	10	☼	6020B	Total/NA
Cobalt	16		0.25	0.10	mg/Kg	2	☼	6020B	Total/NA
Copper	53		0.50	0.23	mg/Kg	2	☼	6020B	Total/NA
Iron	29000		130	58	mg/Kg	10	☼	6020B	Total/NA
Lead	400		1.3	0.48	mg/Kg	10	☼	6020B	Total/NA
Magnesium	7700		13	6.2	mg/Kg	2	☼	6020B	Total/NA
Manganese	560		0.50	0.25	mg/Kg	2	☼	6020B	Total/NA
Nickel	58		0.50	0.24	mg/Kg	2	☼	6020B	Total/NA
Potassium	4500		50	20	mg/Kg	2	☼	6020B	Total/NA
Selenium	0.39	J	0.50	0.13	mg/Kg	2	☼	6020B	Total/NA
Silver	0.14		0.13	0.051	mg/Kg	2	☼	6020B	Total/NA
Sodium	180		63	30	mg/Kg	2	☼	6020B	Total/NA
Thallium	0.29		0.13	0.049	mg/Kg	2	☼	6020B	Total/NA
Vanadium	57		1.0	0.25	mg/Kg	2	☼	6020B	Total/NA
Zinc	420		190	25	mg/Kg	10	☼	6020B	Total/NA
Mercury	0.091		0.071	0.024	mg/Kg	1	☼	7471B	Total/NA
Cr (III)	1000	!	0.011	0.0035	mg/Kg	1	☼	7196A	Total/NA

Client Sample ID: DEP51-S8A-240813

Lab Sample ID: 410-183955-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	7000		22	11	mg/Kg	2	☼	6020B	Total/NA
Antimony	1.0		0.22	0.089	mg/Kg	2	☼	6020B	Total/NA
Arsenic	4.1		0.45	0.15	mg/Kg	2	☼	6020B	Total/NA
Barium	68		0.45	0.20	mg/Kg	2	☼	6020B	Total/NA
Beryllium	0.36		0.11	0.027	mg/Kg	2	☼	6020B	Total/NA
Cadmium	0.15		0.11	0.045	mg/Kg	2	☼	6020B	Total/NA
Calcium	20000		45	22	mg/Kg	2	☼	6020B	Total/NA
Chromium	320		2.2	1.1	mg/Kg	10	☼	6020B	Total/NA
Cobalt	6.8		0.22	0.089	mg/Kg	2	☼	6020B	Total/NA
Copper	9900		22	10	mg/Kg	100	☼	6020B	Total/NA
Iron	20000		22	10	mg/Kg	2	☼	6020B	Total/NA
Lead	110		0.22	0.085	mg/Kg	2	☼	6020B	Total/NA
Magnesium	6100		11	5.5	mg/Kg	2	☼	6020B	Total/NA
Manganese	310		0.45	0.22	mg/Kg	2	☼	6020B	Total/NA
Nickel	22		0.45	0.21	mg/Kg	2	☼	6020B	Total/NA
Potassium	2700		45	18	mg/Kg	2	☼	6020B	Total/NA
Selenium	0.14	J	0.45	0.11	mg/Kg	2	☼	6020B	Total/NA
Silver	0.11		0.11	0.045	mg/Kg	2	☼	6020B	Total/NA
Sodium	270		56	27	mg/Kg	2	☼	6020B	Total/NA
Thallium	0.16		0.11	0.044	mg/Kg	2	☼	6020B	Total/NA
Vanadium	26		0.89	0.22	mg/Kg	2	☼	6020B	Total/NA
Zinc	130		33	4.5	mg/Kg	2	☼	6020B	Total/NA
Mercury	0.074		0.071	0.024	mg/Kg	1	☼	7471B	Total/NA
Cr (VI)	35		2.7	0.91	mg/Kg	5	☼	7196A	Total/NA
Cr (III)	280	!	0.011	0.0035	mg/Kg	1	☼	7196A	Total/NA

Client Sample ID: DEP51-S10A-240813

Lab Sample ID: 410-183955-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	14000	4	20	10	mg/Kg	2	☼	6020B	Total/NA
Antimony	1.2	FL	0.20	0.081	mg/Kg	2	☼	6020B	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: DEP51-S10A-240813 (Continued)

Lab Sample ID: 410-183955-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Arsenic	11		0.40	0.14	mg/Kg	2	☼	6020B	Total/NA
Barium	130	FL	0.40	0.18	mg/Kg	2	☼	6020B	Total/NA
Beryllium	0.78		0.10	0.024	mg/Kg	2	☼	6020B	Total/NA
Cadmium	0.53		0.10	0.040	mg/Kg	2	☼	6020B	Total/NA
Calcium	43000	4 F2	200	99	mg/Kg	10	☼	6020B	Total/NA
Chromium	720	4	2.0	0.96	mg/Kg	10	☼	6020B	Total/NA
Cobalt	15		0.20	0.081	mg/Kg	2	☼	6020B	Total/NA
Copper	61	FL	0.40	0.18	mg/Kg	2	☼	6020B	Total/NA
Iron	25000	4	100	47	mg/Kg	10	☼	6020B	Total/NA
Lead	210	4 F2	1.0	0.38	mg/Kg	10	☼	6020B	Total/NA
Magnesium	20000	4 F2	50	25	mg/Kg	10	☼	6020B	Total/NA
Manganese	580	4	0.40	0.20	mg/Kg	2	☼	6020B	Total/NA
Nickel	48	FL	0.40	0.19	mg/Kg	2	☼	6020B	Total/NA
Potassium	3700	4	40	16	mg/Kg	2	☼	6020B	Total/NA
Selenium	0.42		0.40	0.10	mg/Kg	2	☼	6020B	Total/NA
Silver	0.28		0.10	0.041	mg/Kg	2	☼	6020B	Total/NA
Sodium	200	FH	50	24	mg/Kg	2	☼	6020B	Total/NA
Thallium	0.28		0.10	0.040	mg/Kg	2	☼	6020B	Total/NA
Vanadium	54		0.81	0.20	mg/Kg	2	☼	6020B	Total/NA
Zinc	370	4	150	20	mg/Kg	10	☼	6020B	Total/NA
Mercury	0.12	FL F2	0.060	0.020	mg/Kg	1	☼	7471B	Total/NA
Cr (III)	720	!	0.011	0.0035	mg/Kg	1	☼	7196A	Total/NA

Client Sample ID: DEP51-S14-240813

Lab Sample ID: 410-183955-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	16000		23	11	mg/Kg	2	☼	6020B	Total/NA
Antimony	2.3		0.23	0.093	mg/Kg	2	☼	6020B	Total/NA
Arsenic	7.9		0.46	0.16	mg/Kg	2	☼	6020B	Total/NA
Barium	460		2.3	1.1	mg/Kg	10	☼	6020B	Total/NA
Beryllium	0.72		0.12	0.028	mg/Kg	2	☼	6020B	Total/NA
Cadmium	0.48		0.12	0.046	mg/Kg	2	☼	6020B	Total/NA
Calcium	20000		46	23	mg/Kg	2	☼	6020B	Total/NA
Chromium	640		2.3	1.1	mg/Kg	10	☼	6020B	Total/NA
Cobalt	17		0.23	0.093	mg/Kg	2	☼	6020B	Total/NA
Copper	88		0.46	0.21	mg/Kg	2	☼	6020B	Total/NA
Iron	28000		120	53	mg/Kg	10	☼	6020B	Total/NA
Lead	260		1.2	0.44	mg/Kg	10	☼	6020B	Total/NA
Magnesium	7500		12	5.7	mg/Kg	2	☼	6020B	Total/NA
Manganese	460		0.46	0.23	mg/Kg	2	☼	6020B	Total/NA
Nickel	50		0.46	0.22	mg/Kg	2	☼	6020B	Total/NA
Potassium	4500		46	19	mg/Kg	2	☼	6020B	Total/NA
Selenium	0.42	J	0.46	0.12	mg/Kg	2	☼	6020B	Total/NA
Silver	0.96		0.12	0.047	mg/Kg	2	☼	6020B	Total/NA
Sodium	130		58	28	mg/Kg	2	☼	6020B	Total/NA
Thallium	0.27		0.12	0.045	mg/Kg	2	☼	6020B	Total/NA
Vanadium	50		0.93	0.23	mg/Kg	2	☼	6020B	Total/NA
Zinc	800		170	23	mg/Kg	10	☼	6020B	Total/NA
Mercury	0.21		0.071	0.024	mg/Kg	1	☼	7471B	Total/NA
Cr (III)	640	!	0.011	0.0035	mg/Kg	1	☼	7196A	Total/NA

This Detection Summary does not include radiochemical test results.

Detection Summary

Client: Pennsylvania Dept of Env Protection
Project/Site: DEP 51st

Job ID: 410-183955-1

Client Sample ID: DEP51-S15-240813 — Lab Sample ID: 410-183955-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	14000		24	12	mg/Kg	2	☼	6020B	Total/NA
Antimony	0.97		0.24	0.098	mg/Kg	2	☼	6020B	Total/NA
Arsenic	4.4		0.49	0.16	mg/Kg	2	☼	6020B	Total/NA
Barium	100		0.49	0.22	mg/Kg	2	☼	6020B	Total/NA
Beryllium	0.48		0.12	0.029	mg/Kg	2	☼	6020B	Total/NA
Cadmium	0.50		0.12	0.049	mg/Kg	2	☼	6020B	Total/NA
Calcium	19000		49	24	mg/Kg	2	☼	6020B	Total/NA
Chromium	86		0.49	0.23	mg/Kg	2	☼	6020B	Total/NA
Cobalt	9.7		0.24	0.098	mg/Kg	2	☼	6020B	Total/NA
Copper	54		0.49	0.22	mg/Kg	2	☼	6020B	Total/NA
Iron	21000		24	11	mg/Kg	2	☼	6020B	Total/NA
Lead	190		0.24	0.093	mg/Kg	2	☼	6020B	Total/NA
Magnesium	12000		12	6.0	mg/Kg	2	☼	6020B	Total/NA
Manganese	380		0.49	0.24	mg/Kg	2	☼	6020B	Total/NA
Nickel	21		0.49	0.23	mg/Kg	2	☼	6020B	Total/NA
Potassium	3400		49	20	mg/Kg	2	☼	6020B	Total/NA
Selenium	0.38	J	0.49	0.12	mg/Kg	2	☼	6020B	Total/NA
Silver	0.14		0.12	0.050	mg/Kg	2	☼	6020B	Total/NA
Sodium	140		61	29	mg/Kg	2	☼	6020B	Total/NA
Thallium	0.24		0.12	0.048	mg/Kg	2	☼	6020B	Total/NA
Vanadium	45		0.98	0.24	mg/Kg	2	☼	6020B	Total/NA
Zinc	180		37	4.9	mg/Kg	2	☼	6020B	Total/NA
Mercury	0.21		0.074	0.025	mg/Kg	1	☼	7471B	Total/NA
Cr (III)	86	!	0.011	0.0035	mg/Kg	1	☼	7196A	Total/NA

Client Sample ID: DEP51-W5-240813 — Lab Sample ID: 410-183955-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Antimony	1.2		1.0	0.21	ug/L	1		6020B	Dissolved
Arsenic	0.86	J	2.1	0.70	ug/L	1		6020B	Dissolved
Barium	65		2.1	0.77	ug/L	1		6020B	Dissolved
Calcium	89000		120	52	ug/L	1		6020B	Dissolved
Chromium	19000		210	57	ug/L	100		6020B	Dissolved
Cobalt	0.94		0.52	0.16	ug/L	1		6020B	Dissolved
Copper	2.4		1.0	0.37	ug/L	1		6020B	Dissolved
Magnesium	8000		52	16	ug/L	1		6020B	Dissolved
Nickel	0.97	J	1.0	0.41	ug/L	1		6020B	Dissolved
Potassium	13000		210	67	ug/L	1		6020B	Dissolved
Selenium	1.0		1.0	0.29	ug/L	1		6020B	Dissolved
Sodium	47000	^2	210	93	ug/L	1		6020B	Dissolved
Vanadium	5.0		4.1	0.82	ug/L	1		6020B	Dissolved
Cr (VI)	20		3.0	1.0	mg/L	100		7196A	Dissolved

Client Sample ID: DEP51-W6-240813 — Lab Sample ID: 410-183955-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Aluminum	220		26	12	ug/L	1		6020B	Dissolved
Antimony	1.0		1.0	0.21	ug/L	1		6020B	Dissolved
Arsenic	3.9		2.1	0.70	ug/L	1		6020B	Dissolved
Barium	54		2.1	0.77	ug/L	1		6020B	Dissolved
Calcium	190000		1200	520	ug/L	10		6020B	Dissolved
Chromium	27000		210	57	ug/L	100		6020B	Dissolved

This Detection Summary does not include radiochemical test results.

Client Sample ID: DEP51-W6-240813 (Continued)

Lab Sample ID: 410-183955-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Cobalt	1.1		0.52	0.16	ug/L	1		6020B	Dissolved
Copper	9.3		1.0	0.37	ug/L	1		6020B	Dissolved
Magnesium	4100		52	16	ug/L	1		6020B	Dissolved
Nickel	2.6		1.0	0.41	ug/L	1		6020B	Dissolved
Potassium	14000		210	67	ug/L	1		6020B	Dissolved
Selenium	2.1		1.0	0.29	ug/L	1		6020B	Dissolved
Sodium	62000	^2	210	93	ug/L	1		6020B	Dissolved
Vanadium	14		4.1	0.82	ug/L	1		6020B	Dissolved
Cr (VI)	29		3.0	1.0	mg/L	100		7196A	Dissolved

This Detection Summary does not include radiochemical test results.

Client Sample ID: DEP51-S12-240813

Lab Sample ID: 410-183955-1

Date Collected: 08/13/24 10:51
Matrix: Solid
Date Received: 08/13/24 16:15
Percent Solids: 75.5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	17000	^2	26	13	mg/Kg	☼	08/14/24 07:00	08/19/24 11:42	2
Antimony	1.1		0.26	0.10	mg/Kg	☼	08/14/24 07:00	08/19/24 11:42	2
Arsenic	14		0.52	0.18	mg/Kg	☼	08/14/24 07:00	08/19/24 11:42	2
Barium	180		0.52	0.24	mg/Kg	☼	08/14/24 07:00	08/19/24 11:42	2
Beryllium	0.91		0.13	0.031	mg/Kg	☼	08/14/24 07:00	08/19/24 11:42	2
Cadmium	0.67		0.13	0.052	mg/Kg	☼	08/14/24 07:00	08/19/24 11:42	2
Calcium	27000		260	130	mg/Kg	☼	08/14/24 07:00	08/19/24 11:44	10
Chromium	1000		2.6	1.2	mg/Kg	☼	08/14/24 07:00	08/19/24 11:44	10
Cobalt	19	^5-	0.26	0.10	mg/Kg	☼	08/14/24 07:00	08/19/24 11:42	2
Copper	70		0.52	0.24	mg/Kg	☼	08/14/24 07:00	08/19/24 11:42	2
Iron	31000	^2	130	60	mg/Kg	☼	08/14/24 07:00	08/19/24 11:44	10
Lead	230		0.26	0.10	mg/Kg	☼	08/14/24 07:00	08/19/24 11:42	2
Magnesium	8100		13	6.4	mg/Kg	☼	08/14/24 07:00	08/19/24 11:42	2
Manganese	610	^2	0.52	0.26	mg/Kg	☼	08/14/24 07:00	08/19/24 11:42	2
Nickel	68		0.52	0.25	mg/Kg	☼	08/14/24 07:00	08/19/24 11:42	2
Potassium	5300		52	21	mg/Kg	☼	08/14/24 07:00	08/19/24 11:42	2
Selenium	0.57		0.52	0.13	mg/Kg	☼	08/14/24 07:00	08/19/24 11:42	2
Silver	0.37		0.13	0.053	mg/Kg	☼	08/14/24 07:00	08/19/24 11:42	2
Sodium	190		66	31	mg/Kg	☼	08/14/24 07:00	08/19/24 11:42	2
Thallium	0.37		0.13	0.051	mg/Kg	☼	08/14/24 07:00	08/19/24 11:42	2
Vanadium	68		1.0	0.26	mg/Kg	☼	08/14/24 07:00	08/19/24 11:42	2
Zinc	420		200	26	mg/Kg	☼	08/14/24 07:00	08/19/24 11:44	10

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.23		0.073	0.024	mg/Kg	☼	08/14/24 23:25	08/16/24 09:50	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI) (SW846 7196A)	ND	cn	12	3.8	mg/Kg	☼	08/13/24 18:22	08/14/24 02:58	20
Cr (III) (SW846 7196A)	1000	!	0.011	0.0035	mg/Kg	☼		08/14/24 09:06	1
Percent Moisture (EPA Moisture)	24.5	!	1.0	1.0	%			08/13/24 20:02	1

Client Sample ID: DUP-SA-240813

Lab Sample ID: 410-183955-2

Date Collected: 08/13/24 00:00
Matrix: Solid
Date Received: 08/13/24 16:15
Percent Solids: 76.5

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	16000	^2	21	10	mg/Kg	☼	08/14/24 07:00	08/19/24 11:46	2
Antimony	0.97		0.21	0.084	mg/Kg	☼	08/14/24 07:00	08/19/24 11:46	2
Arsenic	13		0.42	0.14	mg/Kg	☼	08/14/24 07:00	08/19/24 11:46	2
Barium	180		0.42	0.19	mg/Kg	☼	08/14/24 07:00	08/19/24 11:46	2
Beryllium	0.82		0.10	0.025	mg/Kg	☼	08/14/24 07:00	08/19/24 11:46	2
Cadmium	0.63		0.10	0.042	mg/Kg	☼	08/14/24 07:00	08/19/24 11:46	2
Calcium	28000		210	100	mg/Kg	☼	08/14/24 07:00	08/19/24 11:48	10
Chromium	1100		21	9.9	mg/Kg	☼	08/14/24 07:00	08/19/24 15:25	100
Cobalt	18	^5-	0.21	0.084	mg/Kg	☼	08/14/24 07:00	08/19/24 11:46	2
Copper	64		0.42	0.19	mg/Kg	☼	08/14/24 07:00	08/19/24 11:46	2
Iron	31000	^2	100	48	mg/Kg	☼	08/14/24 07:00	08/19/24 11:48	10

Client Sample ID: DUP-SA-240813

Lab Sample ID: 410-183955-2

Date Collected: 08/13/24 00:00
Matrix: Solid
Date Received: 08/13/24 16:15
Percent Solids: 76.5

Method: SW846 6020B - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	220		1.0	0.40	mg/Kg	☼	08/14/24 07:00	08/19/24 11:48	10
Magnesium	7400		10	5.1	mg/Kg	☼	08/14/24 07:00	08/19/24 11:46	2
Manganese	590	^2	0.42	0.21	mg/Kg	☼	08/14/24 07:00	08/19/24 11:46	2
Nickel	60		0.42	0.20	mg/Kg	☼	08/14/24 07:00	08/19/24 11:46	2
Potassium	5000		42	17	mg/Kg	☼	08/14/24 07:00	08/19/24 11:46	2
Selenium	0.50		0.42	0.10	mg/Kg	☼	08/14/24 07:00	08/19/24 11:46	2
Silver	0.34		0.10	0.042	mg/Kg	☼	08/14/24 07:00	08/19/24 11:46	2
Sodium	190		52	25	mg/Kg	☼	08/14/24 07:00	08/19/24 11:46	2
Thallium	0.32		0.10	0.041	mg/Kg	☼	08/14/24 07:00	08/19/24 11:46	2
Vanadium	61		0.84	0.21	mg/Kg	☼	08/14/24 07:00	08/19/24 11:46	2
Zinc	410		160	21	mg/Kg	☼	08/14/24 07:00	08/19/24 11:48	10

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.12		0.078	0.026	mg/Kg	☼	08/14/24 23:25	08/16/24 09:51	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI) (SW846 7196A)	ND	cn	5.8	1.9	mg/Kg	☼	08/13/24 18:22	08/14/24 02:58	10
Cr (III) (SW846 7196A)	1100	!	0.011	0.0035	mg/Kg	☼		08/14/24 09:06	1
Percent Moisture (EPA Moisture)	23.5	!	1.0	1.0	%			08/13/24 20:02	1

Client Sample ID: DEP51-S3-240813

Lab Sample ID: 410-183955-3

Date Collected: 08/13/24 10:55
Matrix: Solid
Date Received: 08/13/24 16:15
Percent Solids: 89.3

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	15000		22	11	mg/Kg	☼	08/14/24 21:30	08/16/24 14:03	2
Antimony	0.74		0.22	0.087	mg/Kg	☼	08/14/24 21:30	08/16/24 14:03	2
Arsenic	7.5		0.43	0.15	mg/Kg	☼	08/14/24 21:30	08/16/24 14:03	2
Barium	130		0.43	0.20	mg/Kg	☼	08/14/24 21:30	08/16/24 14:03	2
Beryllium	0.63		0.11	0.026	mg/Kg	☼	08/14/24 21:30	08/16/24 14:03	2
Cadmium	0.34		0.11	0.043	mg/Kg	☼	08/14/24 21:30	08/16/24 14:03	2
Calcium	38000		220	110	mg/Kg	☼	08/14/24 21:30	08/16/24 14:05	10
Chromium	1300		22	10	mg/Kg	☼	08/14/24 21:30	08/16/24 18:21	100
Cobalt	16		0.22	0.087	mg/Kg	☼	08/14/24 21:30	08/16/24 14:03	2
Copper	35		0.43	0.20	mg/Kg	☼	08/14/24 21:30	08/16/24 14:03	2
Iron	25000		110	50	mg/Kg	☼	08/14/24 21:30	08/16/24 14:05	10
Lead	78		0.22	0.083	mg/Kg	☼	08/14/24 21:30	08/16/24 14:03	2
Magnesium	8900		11	5.3	mg/Kg	☼	08/14/24 21:30	08/16/24 14:03	2
Manganese	430		0.43	0.22	mg/Kg	☼	08/14/24 21:30	08/16/24 14:03	2
Nickel	62		0.43	0.21	mg/Kg	☼	08/14/24 21:30	08/16/24 14:03	2
Potassium	6000		43	17	mg/Kg	☼	08/14/24 21:30	08/16/24 14:03	2
Selenium	0.22	J	0.43	0.11	mg/Kg	☼	08/14/24 21:30	08/16/24 14:03	2
Silver	0.071	J	0.11	0.044	mg/Kg	☼	08/14/24 21:30	08/16/24 14:03	2
Sodium	130		54	26	mg/Kg	☼	08/14/24 21:30	08/16/24 14:03	2
Thallium	0.34		0.11	0.043	mg/Kg	☼	08/14/24 21:30	08/16/24 14:03	2
Vanadium	57		0.87	0.22	mg/Kg	☼	08/14/24 21:30	08/16/24 14:03	2
Zinc	240		160	22	mg/Kg	☼	08/14/24 21:30	08/16/24 14:05	10

Client Sample ID: DEP51-S3-240813

Lab Sample ID: 410-183955-3

Date Collected: 08/13/24 10:55
Matrix: Solid
Date Received: 08/13/24 16:15
Percent Solids: 89.3

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.097		0.062	0.021	mg/Kg	☼	08/14/24 23:25	08/16/24 09:53	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI) (SW846 7196A)	57		2.4	0.80	mg/Kg	☼	08/13/24 18:22	08/14/24 02:58	5
Cr (III) (SW846 7196A)	1200	!	0.011	0.0035	mg/Kg	☼		08/14/24 09:06	1
Percent Moisture (EPA Moisture)	10.7	!	1.0	1.0	%			08/13/24 20:02	1

Client Sample ID: DEP51-S5-240813

Lab Sample ID: 410-183955-4

Date Collected: 08/13/24 11:10
Matrix: Solid
Date Received: 08/13/24 16:15
Percent Solids: 81.2

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	9600		20	10	mg/Kg	☼	08/14/24 21:30	08/16/24 13:59	2
Antimony	0.77		0.20	0.081	mg/Kg	☼	08/14/24 21:30	08/16/24 13:59	2
Arsenic	4.9		0.41	0.14	mg/Kg	☼	08/14/24 21:30	08/16/24 13:59	2
Barium	100		0.41	0.19	mg/Kg	☼	08/14/24 21:30	08/16/24 13:59	2
Beryllium	0.57		0.10	0.024	mg/Kg	☼	08/14/24 21:30	08/16/24 13:59	2
Cadmium	0.31		0.10	0.041	mg/Kg	☼	08/14/24 21:30	08/16/24 13:59	2
Calcium	13000		41	20	mg/Kg	☼	08/14/24 21:30	08/16/24 13:59	2
Chromium	410		2.0	0.97	mg/Kg	☼	08/14/24 21:30	08/16/24 14:01	10
Cobalt	10		0.20	0.081	mg/Kg	☼	08/14/24 21:30	08/16/24 13:59	2
Copper	33		0.41	0.18	mg/Kg	☼	08/14/24 21:30	08/16/24 13:59	2
Iron	21000		100	47	mg/Kg	☼	08/14/24 21:30	08/16/24 14:01	10
Lead	610		1.0	0.39	mg/Kg	☼	08/14/24 21:30	08/16/24 14:01	10
Magnesium	5600		10	5.0	mg/Kg	☼	08/14/24 21:30	08/16/24 13:59	2
Manganese	430		0.41	0.20	mg/Kg	☼	08/14/24 21:30	08/16/24 13:59	2
Nickel	31		0.41	0.19	mg/Kg	☼	08/14/24 21:30	08/16/24 13:59	2
Potassium	3800		41	16	mg/Kg	☼	08/14/24 21:30	08/16/24 13:59	2
Selenium	0.23	J	0.41	0.10	mg/Kg	☼	08/14/24 21:30	08/16/24 13:59	2
Silver	0.090	J	0.10	0.041	mg/Kg	☼	08/14/24 21:30	08/16/24 13:59	2
Sodium	200		51	24	mg/Kg	☼	08/14/24 21:30	08/16/24 13:59	2
Thallium	0.20		0.10	0.040	mg/Kg	☼	08/14/24 21:30	08/16/24 13:59	2
Vanadium	29		0.81	0.20	mg/Kg	☼	08/14/24 21:30	08/16/24 13:59	2
Zinc	390		150	20	mg/Kg	☼	08/14/24 21:30	08/16/24 14:01	10

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.038	J	0.070	0.023	mg/Kg	☼	08/14/24 23:25	08/16/24 07:22	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI) (SW846 7196A)	62		2.5	0.84	mg/Kg	☼	08/13/24 18:22	08/14/24 02:58	5
Cr (III) (SW846 7196A)	350	!	0.011	0.0035	mg/Kg	☼		08/14/24 09:06	1
Percent Moisture (EPA Moisture)	18.8	!	1.0	1.0	%			08/13/24 20:02	1

Client Sample ID: DEP51-S6-240813

Lab Sample ID: 410-183955-5

Date Collected: 08/13/24 11:20
Matrix: Solid
Date Received: 08/13/24 16:15
Percent Solids: 95.2

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	6700		20	9.7	mg/Kg	☼	08/14/24 21:30	08/16/24 13:55	2
Antimony	4.8		0.20	0.079	mg/Kg	☼	08/14/24 21:30	08/16/24 13:55	2
Arsenic	11		0.39	0.13	mg/Kg	☼	08/14/24 21:30	08/16/24 13:55	2
Barium	77		0.39	0.18	mg/Kg	☼	08/14/24 21:30	08/16/24 13:55	2
Beryllium	0.38		0.098	0.023	mg/Kg	☼	08/14/24 21:30	08/16/24 13:55	2
Cadmium	0.35		0.098	0.039	mg/Kg	☼	08/14/24 21:30	08/16/24 13:55	2
Calcium	13000		39	19	mg/Kg	☼	08/14/24 21:30	08/16/24 13:55	2
Chromium	460		2.0	0.93	mg/Kg	☼	08/14/24 21:30	08/16/24 13:57	10
Cobalt	14		0.20	0.079	mg/Kg	☼	08/14/24 21:30	08/16/24 13:55	2
Copper	72		0.39	0.18	mg/Kg	☼	08/14/24 21:30	08/16/24 13:55	2
Iron	110000		980	450	mg/Kg	☼	08/14/24 21:30	08/16/24 18:19	100
Lead	670		0.98	0.37	mg/Kg	☼	08/14/24 21:30	08/16/24 13:57	10
Magnesium	4600		9.8	4.8	mg/Kg	☼	08/14/24 21:30	08/16/24 13:55	2
Manganese	720		0.39	0.20	mg/Kg	☼	08/14/24 21:30	08/16/24 13:55	2
Nickel	46		0.39	0.19	mg/Kg	☼	08/14/24 21:30	08/16/24 13:55	2
Potassium	2200		39	16	mg/Kg	☼	08/14/24 21:30	08/16/24 13:55	2
Selenium	0.18	J	0.39	0.098	mg/Kg	☼	08/14/24 21:30	08/16/24 13:55	2
Silver	0.062	J	0.098	0.040	mg/Kg	☼	08/14/24 21:30	08/16/24 13:55	2
Sodium	230		49	24	mg/Kg	☼	08/14/24 21:30	08/16/24 13:55	2
Thallium	0.14		0.098	0.038	mg/Kg	☼	08/14/24 21:30	08/16/24 13:55	2
Vanadium	30		0.79	0.20	mg/Kg	☼	08/14/24 21:30	08/16/24 13:55	2
Zinc	300		150	20	mg/Kg	☼	08/14/24 21:30	08/16/24 13:57	10

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.042	J	0.063	0.021	mg/Kg	☼	08/14/24 23:25	08/16/24 07:13	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI) (SW846 7196A)	8.3		0.46	0.15	mg/Kg	☼	08/13/24 18:22	08/14/24 02:58	1
Cr (III) (SW846 7196A)	450	!	0.011	0.0035	mg/Kg	☼		08/14/24 09:06	1
Percent Moisture (EPA Moisture)	4.8	!	1.0	1.0	%			08/13/24 20:02	1

Client Sample ID: DUP-SB-240813

Lab Sample ID: 410-183955-6

Date Collected: 08/13/24 00:00
Matrix: Solid
Date Received: 08/13/24 16:15
Percent Solids: 93.7

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	6800		19	9.4	mg/Kg	☼	08/14/24 21:30	08/16/24 13:51	2
Antimony	5.8		0.19	0.076	mg/Kg	☼	08/14/24 21:30	08/16/24 13:51	2
Arsenic	10		0.38	0.13	mg/Kg	☼	08/14/24 21:30	08/16/24 13:51	2
Barium	77		0.38	0.17	mg/Kg	☼	08/14/24 21:30	08/16/24 13:51	2
Beryllium	0.49		0.095	0.023	mg/Kg	☼	08/14/24 21:30	08/16/24 13:51	2
Cadmium	0.32		0.095	0.038	mg/Kg	☼	08/14/24 21:30	08/16/24 13:51	2
Calcium	14000		38	19	mg/Kg	☼	08/14/24 21:30	08/16/24 13:51	2
Chromium	530		1.9	0.91	mg/Kg	☼	08/14/24 21:30	08/16/24 13:53	10
Cobalt	12		0.19	0.076	mg/Kg	☼	08/14/24 21:30	08/16/24 13:51	2
Copper	81		0.38	0.17	mg/Kg	☼	08/14/24 21:30	08/16/24 13:51	2
Iron	70000		95	44	mg/Kg	☼	08/14/24 21:30	08/16/24 13:53	10

Client Sample ID: DUP-SB-240813

Lab Sample ID: 410-183955-6

Date Collected: 08/13/24 00:00
Matrix: Solid
Date Received: 08/13/24 16:15
Percent Solids: 93.7

Method: SW846 6020B - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	310		0.95	0.36	mg/Kg	☼	08/14/24 21:30	08/16/24 13:53	10
Magnesium	4200		9.5	4.7	mg/Kg	☼	08/14/24 21:30	08/16/24 13:51	2
Manganese	560		0.38	0.19	mg/Kg	☼	08/14/24 21:30	08/16/24 13:51	2
Nickel	52		0.38	0.18	mg/Kg	☼	08/14/24 21:30	08/16/24 13:51	2
Potassium	2200		38	15	mg/Kg	☼	08/14/24 21:30	08/16/24 13:51	2
Selenium	0.20	J	0.38	0.095	mg/Kg	☼	08/14/24 21:30	08/16/24 13:51	2
Silver	0.063	J	0.095	0.039	mg/Kg	☼	08/14/24 21:30	08/16/24 13:51	2
Sodium	110		48	23	mg/Kg	☼	08/14/24 21:30	08/16/24 13:51	2
Thallium	0.15		0.095	0.037	mg/Kg	☼	08/14/24 21:30	08/16/24 13:51	2
Vanadium	30		0.76	0.19	mg/Kg	☼	08/14/24 21:30	08/16/24 13:51	2
Zinc	440		140	19	mg/Kg	☼	08/14/24 21:30	08/16/24 13:53	10

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.058	J	0.059	0.020	mg/Kg	☼	08/14/24 23:25	08/16/24 07:18	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI) (SW846 7196A)	33		0.88	0.29	mg/Kg	☼	08/13/24 18:22	08/14/24 02:58	2
Cr (III) (SW846 7196A)	500	!	0.011	0.0035	mg/Kg	☼		08/14/24 09:06	1
Percent Moisture (EPA Moisture)	6.3	!	1.0	1.0	%			08/13/24 20:02	1

Client Sample ID: DEP51-S13-240813

Lab Sample ID: 410-183955-7

Date Collected: 08/13/24 11:05
Matrix: Solid
Date Received: 08/13/24 16:15
Percent Solids: 98.9

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	12000		20	10	mg/Kg	☼	08/14/24 21:30	08/16/24 14:27	2
Antimony	1.2		0.20	0.081	mg/Kg	☼	08/14/24 21:30	08/16/24 14:27	2
Arsenic	6.6		0.40	0.14	mg/Kg	☼	08/14/24 21:30	08/16/24 14:27	2
Barium	130		0.40	0.18	mg/Kg	☼	08/14/24 21:30	08/16/24 14:27	2
Beryllium	0.58		0.10	0.024	mg/Kg	☼	08/14/24 21:30	08/16/24 14:27	2
Cadmium	0.37		0.10	0.040	mg/Kg	☼	08/14/24 21:30	08/16/24 14:27	2
Calcium	42000		200	99	mg/Kg	☼	08/14/24 21:30	08/16/24 14:29	10
Chromium	450		2.0	0.96	mg/Kg	☼	08/14/24 21:30	08/16/24 14:29	10
Cobalt	12		0.20	0.081	mg/Kg	☼	08/14/24 21:30	08/16/24 14:27	2
Copper	36		0.40	0.18	mg/Kg	☼	08/14/24 21:30	08/16/24 14:27	2
Iron	27000		100	47	mg/Kg	☼	08/14/24 21:30	08/16/24 14:29	10
Lead	260		1.0	0.38	mg/Kg	☼	08/14/24 21:30	08/16/24 14:29	10
Magnesium	8800		10	5.0	mg/Kg	☼	08/14/24 21:30	08/16/24 14:27	2
Manganese	460		0.40	0.20	mg/Kg	☼	08/14/24 21:30	08/16/24 14:27	2
Nickel	34		0.40	0.19	mg/Kg	☼	08/14/24 21:30	08/16/24 14:27	2
Potassium	4600		40	16	mg/Kg	☼	08/14/24 21:30	08/16/24 14:27	2
Selenium	0.18	J	0.40	0.10	mg/Kg	☼	08/14/24 21:30	08/16/24 14:27	2
Silver	0.098	J	0.10	0.041	mg/Kg	☼	08/14/24 21:30	08/16/24 14:27	2
Sodium	290		51	24	mg/Kg	☼	08/14/24 21:30	08/16/24 14:27	2
Thallium	0.26		0.10	0.040	mg/Kg	☼	08/14/24 21:30	08/16/24 14:27	2
Vanadium	41		0.81	0.20	mg/Kg	☼	08/14/24 21:30	08/16/24 14:27	2
Zinc	270		150	20	mg/Kg	☼	08/14/24 21:30	08/16/24 14:29	10

Client Sample ID: DEP51-S13-240813

Lab Sample ID: 410-183955-7

Date Collected: 08/13/24 11:05
Matrix: Solid
Date Received: 08/13/24 16:15
Percent Solids: 98.9

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.067		0.058	0.019	mg/Kg	☼	08/14/24 23:25	08/16/24 07:20	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI) (SW846 7196A)	ND	cn	4.4	1.5	mg/Kg	☼	08/13/24 18:22	08/14/24 02:58	10
Cr (III) (SW846 7196A)	450	!	0.011	0.0035	mg/Kg	☼		08/14/24 09:06	1
Percent Moisture (EPA Moisture)	1.1	!	1.0	1.0	%			08/13/24 20:02	1

Client Sample ID: DEP51-S7V

Lab Sample ID: 410-183955-8

Date Collected: 08/13/24 11:25
Matrix: Solid
Date Received: 08/13/24 16:15
Percent Solids: 79.3

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	14000		25	12	mg/Kg	☼	08/14/24 21:30	08/16/24 14:23	2
Antimony	1.2		0.25	0.10	mg/Kg	☼	08/14/24 21:30	08/16/24 14:23	2
Arsenic	12		0.50	0.17	mg/Kg	☼	08/14/24 21:30	08/16/24 14:23	2
Barium	130		0.50	0.23	mg/Kg	☼	08/14/24 21:30	08/16/24 14:23	2
Beryllium	0.68		0.13	0.030	mg/Kg	☼	08/14/24 21:30	08/16/24 14:23	2
Cadmium	0.49		0.13	0.050	mg/Kg	☼	08/14/24 21:30	08/16/24 14:23	2
Calcium	18000		50	25	mg/Kg	☼	08/14/24 21:30	08/16/24 14:23	2
Chromium	1000		2.5	1.2	mg/Kg	☼	08/14/24 21:30	08/16/24 14:25	10
Cobalt	16		0.25	0.10	mg/Kg	☼	08/14/24 21:30	08/16/24 14:23	2
Copper	53		0.50	0.23	mg/Kg	☼	08/14/24 21:30	08/16/24 14:23	2
Iron	29000		130	58	mg/Kg	☼	08/14/24 21:30	08/16/24 14:25	10
Lead	400		1.3	0.48	mg/Kg	☼	08/14/24 21:30	08/16/24 14:25	10
Magnesium	7700		13	6.2	mg/Kg	☼	08/14/24 21:30	08/16/24 14:23	2
Manganese	560		0.50	0.25	mg/Kg	☼	08/14/24 21:30	08/16/24 14:23	2
Nickel	58		0.50	0.24	mg/Kg	☼	08/14/24 21:30	08/16/24 14:23	2
Potassium	4500		50	20	mg/Kg	☼	08/14/24 21:30	08/16/24 14:23	2
Selenium	0.39	J	0.50	0.13	mg/Kg	☼	08/14/24 21:30	08/16/24 14:23	2
Silver	0.14		0.13	0.051	mg/Kg	☼	08/14/24 21:30	08/16/24 14:23	2
Sodium	180		63	30	mg/Kg	☼	08/14/24 21:30	08/16/24 14:23	2
Thallium	0.29		0.13	0.049	mg/Kg	☼	08/14/24 21:30	08/16/24 14:23	2
Vanadium	57		1.0	0.25	mg/Kg	☼	08/14/24 21:30	08/16/24 14:23	2
Zinc	420		190	25	mg/Kg	☼	08/14/24 21:30	08/16/24 14:25	10

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.091		0.071	0.024	mg/Kg	☼	08/14/24 23:25	08/16/24 07:14	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI) (SW846 7196A)	ND	cn	5.4	1.8	mg/Kg	☼	08/13/24 18:22	08/14/24 02:58	10
Cr (III) (SW846 7196A)	1000	!	0.011	0.0035	mg/Kg	☼		08/14/24 09:06	1
Percent Moisture (EPA Moisture)	20.7	!	1.0	1.0	%			08/13/24 20:02	1

Client Sample ID: DEP51-S8A-240813

Lab Sample ID: 410-183955-9

Date Collected: 08/13/24 11:30
Matrix: Solid
Date Received: 08/13/24 16:15
Percent Solids: 80.8

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	7000		22	11	mg/Kg	☼	08/14/24 21:30	08/16/24 14:19	2
Antimony	1.0		0.22	0.089	mg/Kg	☼	08/14/24 21:30	08/16/24 14:19	2
Arsenic	4.1		0.45	0.15	mg/Kg	☼	08/14/24 21:30	08/16/24 14:19	2
Barium	68		0.45	0.20	mg/Kg	☼	08/14/24 21:30	08/16/24 14:19	2
Beryllium	0.36		0.11	0.027	mg/Kg	☼	08/14/24 21:30	08/16/24 14:19	2
Cadmium	0.15		0.11	0.045	mg/Kg	☼	08/14/24 21:30	08/16/24 14:19	2
Calcium	20000		45	22	mg/Kg	☼	08/14/24 21:30	08/16/24 14:19	2
Chromium	320		2.2	1.1	mg/Kg	☼	08/14/24 21:30	08/16/24 14:21	10
Cobalt	6.8		0.22	0.089	mg/Kg	☼	08/14/24 21:30	08/16/24 14:19	2
Copper	9900		22	10	mg/Kg	☼	08/14/24 21:30	08/16/24 18:23	100
Iron	20000		22	10	mg/Kg	☼	08/14/24 21:30	08/16/24 14:19	2
Lead	110		0.22	0.085	mg/Kg	☼	08/14/24 21:30	08/16/24 14:19	2
Magnesium	6100		11	5.5	mg/Kg	☼	08/14/24 21:30	08/16/24 14:19	2
Manganese	310		0.45	0.22	mg/Kg	☼	08/14/24 21:30	08/16/24 14:19	2
Nickel	22		0.45	0.21	mg/Kg	☼	08/14/24 21:30	08/16/24 14:19	2
Potassium	2700		45	18	mg/Kg	☼	08/14/24 21:30	08/16/24 14:19	2
Selenium	0.14	J	0.45	0.11	mg/Kg	☼	08/14/24 21:30	08/16/24 14:19	2
Silver	0.11		0.11	0.045	mg/Kg	☼	08/14/24 21:30	08/16/24 14:19	2
Sodium	270		56	27	mg/Kg	☼	08/14/24 21:30	08/16/24 14:19	2
Thallium	0.16		0.11	0.044	mg/Kg	☼	08/14/24 21:30	08/16/24 14:19	2
Vanadium	26		0.89	0.22	mg/Kg	☼	08/14/24 21:30	08/16/24 14:19	2
Zinc	130		33	4.5	mg/Kg	☼	08/14/24 21:30	08/16/24 14:19	2

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.074		0.071	0.024	mg/Kg	☼	08/14/24 23:25	08/16/24 07:16	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI) (SW846 7196A)	35		2.7	0.91	mg/Kg	☼	08/13/24 18:22	08/14/24 02:58	5
Cr (III) (SW846 7196A)	280	!	0.011	0.0035	mg/Kg	☼		08/14/24 09:06	1
Percent Moisture (EPA Moisture)	19.2	!	1.0	1.0	%			08/13/24 20:02	1

Client Sample ID: DEP51-S10A-240813

Lab Sample ID: 410-183955-10

Date Collected: 08/13/24 11:35
Matrix: Solid
Date Received: 08/13/24 16:15
Percent Solids: 96.2

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	14000	4	20	10	mg/Kg	☼	08/14/24 21:30	08/16/24 12:18	2
Antimony	1.2	FL	0.20	0.081	mg/Kg	☼	08/14/24 21:30	08/16/24 12:18	2
Arsenic	11		0.40	0.14	mg/Kg	☼	08/14/24 21:30	08/16/24 12:18	2
Barium	130	FL	0.40	0.18	mg/Kg	☼	08/14/24 21:30	08/16/24 12:18	2
Beryllium	0.78		0.10	0.024	mg/Kg	☼	08/14/24 21:30	08/16/24 12:18	2
Cadmium	0.53		0.10	0.040	mg/Kg	☼	08/14/24 21:30	08/16/24 12:18	2
Calcium	43000	4 F2	200	99	mg/Kg	☼	08/14/24 21:30	08/16/24 12:20	10
Chromium	720	4	2.0	0.96	mg/Kg	☼	08/14/24 21:30	08/16/24 12:20	10
Cobalt	15		0.20	0.081	mg/Kg	☼	08/14/24 21:30	08/16/24 12:18	2
Copper	61	FL	0.40	0.18	mg/Kg	☼	08/14/24 21:30	08/16/24 12:18	2
Iron	25000	4	100	47	mg/Kg	☼	08/14/24 21:30	08/16/24 12:20	10

Client Sample ID: DEP51-S10A-240813

Lab Sample ID: 410-183955-10

Date Collected: 08/13/24 11:35
Matrix: Solid
Date Received: 08/13/24 16:15
Percent Solids: 96.2

Method: SW846 6020B - Metals (ICP/MS) (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Lead	210	4 F2	1.0	0.38	mg/Kg	☼	08/14/24 21:30	08/16/24 12:20	10
Magnesium	20000	4 F2	50	25	mg/Kg	☼	08/14/24 21:30	08/16/24 12:20	10
Manganese	580	4	0.40	0.20	mg/Kg	☼	08/14/24 21:30	08/16/24 12:18	2
Nickel	48	FL	0.40	0.19	mg/Kg	☼	08/14/24 21:30	08/16/24 12:18	2
Potassium	3700	4	40	16	mg/Kg	☼	08/14/24 21:30	08/16/24 12:18	2
Selenium	0.42		0.40	0.10	mg/Kg	☼	08/14/24 21:30	08/16/24 12:18	2
Silver	0.28		0.10	0.041	mg/Kg	☼	08/14/24 21:30	08/16/24 12:18	2
Sodium	200	FH	50	24	mg/Kg	☼	08/14/24 21:30	08/16/24 12:18	2
Thallium	0.28		0.10	0.040	mg/Kg	☼	08/14/24 21:30	08/16/24 12:18	2
Vanadium	54		0.81	0.20	mg/Kg	☼	08/14/24 21:30	08/16/24 12:18	2
Zinc	370	4	150	20	mg/Kg	☼	08/14/24 21:30	08/16/24 12:20	10

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.12	FL F2	0.060	0.020	mg/Kg	☼	08/14/24 23:25	08/16/24 06:31	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI) (SW846 7196A)	ND	cn	4.5	1.5	mg/Kg	☼	08/14/24 20:09	08/15/24 00:33	10
Cr (III) (SW846 7196A)	720	!	0.011	0.0035	mg/Kg	☼		08/14/24 09:06	1
Percent Moisture (EPA Moisture)	3.8	!	1.0	1.0	%			08/13/24 20:02	1

Client Sample ID: DEP51-S14-240813

Lab Sample ID: 410-183955-11

Date Collected: 08/13/24 11:45
Matrix: Solid
Date Received: 08/13/24 16:15
Percent Solids: 80.6

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	16000		23	11	mg/Kg	☼	08/14/24 21:30	08/16/24 14:39	2
Antimony	2.3		0.23	0.093	mg/Kg	☼	08/14/24 21:30	08/16/24 14:39	2
Arsenic	7.9		0.46	0.16	mg/Kg	☼	08/14/24 21:30	08/16/24 14:39	2
Barium	460		2.3	1.1	mg/Kg	☼	08/14/24 21:30	08/16/24 14:41	10
Beryllium	0.72		0.12	0.028	mg/Kg	☼	08/14/24 21:30	08/16/24 14:39	2
Cadmium	0.48		0.12	0.046	mg/Kg	☼	08/14/24 21:30	08/16/24 14:39	2
Calcium	20000		46	23	mg/Kg	☼	08/14/24 21:30	08/16/24 14:39	2
Chromium	640		2.3	1.1	mg/Kg	☼	08/14/24 21:30	08/16/24 14:41	10
Cobalt	17		0.23	0.093	mg/Kg	☼	08/14/24 21:30	08/16/24 14:39	2
Copper	88		0.46	0.21	mg/Kg	☼	08/14/24 21:30	08/16/24 14:39	2
Iron	28000		120	53	mg/Kg	☼	08/14/24 21:30	08/16/24 14:41	10
Lead	260		1.2	0.44	mg/Kg	☼	08/14/24 21:30	08/16/24 14:41	10
Magnesium	7500		12	5.7	mg/Kg	☼	08/14/24 21:30	08/16/24 14:39	2
Manganese	460		0.46	0.23	mg/Kg	☼	08/14/24 21:30	08/16/24 14:39	2
Nickel	50		0.46	0.22	mg/Kg	☼	08/14/24 21:30	08/16/24 14:39	2
Potassium	4500		46	19	mg/Kg	☼	08/14/24 21:30	08/16/24 14:39	2
Selenium	0.42	J	0.46	0.12	mg/Kg	☼	08/14/24 21:30	08/16/24 14:39	2
Silver	0.96		0.12	0.047	mg/Kg	☼	08/14/24 21:30	08/16/24 14:39	2
Sodium	130		58	28	mg/Kg	☼	08/14/24 21:30	08/16/24 14:39	2
Thallium	0.27		0.12	0.045	mg/Kg	☼	08/14/24 21:30	08/16/24 14:39	2
Vanadium	50		0.93	0.23	mg/Kg	☼	08/14/24 21:30	08/16/24 14:39	2
Zinc	800		170	23	mg/Kg	☼	08/14/24 21:30	08/16/24 14:41	10

Client Sample ID: DEP51-S14-240813

Lab Sample ID: 410-183955-11

Date Collected: 08/13/24 11:45
Matrix: Solid
Date Received: 08/13/24 16:15
Percent Solids: 80.6

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.21		0.071	0.024	mg/Kg	☼	08/14/24 23:25	08/16/24 07:05	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI) (SW846 7196A)	ND	cn	5.2	1.7	mg/Kg	☼	08/14/24 20:09	08/15/24 00:33	10
Cr (III) (SW846 7196A)	640	!	0.011	0.0035	mg/Kg	☼		08/14/24 09:06	1
Percent Moisture (EPA Moisture)	19.4	!	1.0	1.0	%			08/13/24 20:02	1

Client Sample ID: DEP51-S15-240813

Lab Sample ID: 410-183955-12

Date Collected: 08/13/24 11:55
Matrix: Solid
Date Received: 08/13/24 16:15
Percent Solids: 75.8

Method: SW846 6020B - Metals (ICP/MS)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	14000		24	12	mg/Kg	☼	08/14/24 21:30	08/16/24 14:15	2
Antimony	0.97		0.24	0.098	mg/Kg	☼	08/14/24 21:30	08/16/24 14:15	2
Arsenic	4.4		0.49	0.16	mg/Kg	☼	08/14/24 21:30	08/16/24 14:15	2
Barium	100		0.49	0.22	mg/Kg	☼	08/14/24 21:30	08/16/24 14:15	2
Beryllium	0.48		0.12	0.029	mg/Kg	☼	08/14/24 21:30	08/16/24 14:15	2
Cadmium	0.50		0.12	0.049	mg/Kg	☼	08/14/24 21:30	08/16/24 14:15	2
Calcium	19000		49	24	mg/Kg	☼	08/14/24 21:30	08/16/24 14:15	2
Chromium	86		0.49	0.23	mg/Kg	☼	08/14/24 21:30	08/16/24 14:15	2
Cobalt	9.7		0.24	0.098	mg/Kg	☼	08/14/24 21:30	08/16/24 14:15	2
Copper	54		0.49	0.22	mg/Kg	☼	08/14/24 21:30	08/16/24 14:15	2
Iron	21000		24	11	mg/Kg	☼	08/14/24 21:30	08/16/24 14:15	2
Lead	190		0.24	0.093	mg/Kg	☼	08/14/24 21:30	08/16/24 14:15	2
Magnesium	12000		12	6.0	mg/Kg	☼	08/14/24 21:30	08/16/24 14:15	2
Manganese	380		0.49	0.24	mg/Kg	☼	08/14/24 21:30	08/16/24 14:15	2
Nickel	21		0.49	0.23	mg/Kg	☼	08/14/24 21:30	08/16/24 14:15	2
Potassium	3400		49	20	mg/Kg	☼	08/14/24 21:30	08/16/24 14:15	2
Selenium	0.38	J	0.49	0.12	mg/Kg	☼	08/14/24 21:30	08/16/24 14:15	2
Silver	0.14		0.12	0.050	mg/Kg	☼	08/14/24 21:30	08/16/24 14:15	2
Sodium	140		61	29	mg/Kg	☼	08/14/24 21:30	08/16/24 14:15	2
Thallium	0.24		0.12	0.048	mg/Kg	☼	08/14/24 21:30	08/16/24 14:15	2
Vanadium	45		0.98	0.24	mg/Kg	☼	08/14/24 21:30	08/16/24 14:15	2
Zinc	180		37	4.9	mg/Kg	☼	08/14/24 21:30	08/16/24 14:15	2

Method: SW846 7471B - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.21		0.074	0.025	mg/Kg	☼	08/14/24 23:25	08/16/24 07:07	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI) (SW846 7196A)	ND	cn	5.8	1.9	mg/Kg	☼	08/14/24 20:09	08/15/24 00:33	10
Cr (III) (SW846 7196A)	86	!	0.011	0.0035	mg/Kg	☼		08/14/24 09:06	1
Percent Moisture (EPA Moisture)	24.2	!	1.0	1.0	%			08/13/24 20:02	1

Client Sample ID: DEP51-W5-240813

Lab Sample ID: 410-183955-13

Date Collected: 08/13/24 12:30

Matrix: Water

Date Received: 08/13/24 16:15

Method: SW846 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND	^3+	26	12	ug/L		08/14/24 13:20	08/14/24 22:28	1
Antimony	**1.2**		1.0	0.21	ug/L		08/14/24 13:20	08/14/24 22:28	1
Arsenic	**0.86**	**J**	2.1	0.70	ug/L		08/14/24 13:20	08/14/24 22:28	1
Barium	**65**		2.1	0.77	ug/L		08/14/24 13:20	08/22/24 18:51	1
Beryllium	ND	^3+ ^+	0.52	0.12	ug/L		08/14/24 13:20	08/14/24 22:28	1
Cadmium	ND	^3+	0.52	0.16	ug/L		08/14/24 13:20	08/14/24 22:28	1
Calcium	**89000**		120	52	ug/L		08/14/24 13:20	08/22/24 18:51	1
Chromium	**19000**		210	57	ug/L		08/14/24 13:20	08/22/24 19:54	100
Cobalt	**0.94**		0.52	0.16	ug/L		08/14/24 13:20	08/22/24 18:51	1
Copper	**2.4**		1.0	0.37	ug/L		08/14/24 13:20	08/22/24 18:51	1
Iron	ND	^3+	52	21	ug/L		08/14/24 13:20	08/14/24 22:28	1
Lead	ND		0.52	0.12	ug/L		08/14/24 13:20	08/14/24 22:28	1
Magnesium	**8000**		52	16	ug/L		08/14/24 13:20	08/22/24 18:51	1
Manganese	ND		2.1	0.98	ug/L		08/14/24 13:20	08/14/24 22:28	1
Nickel	**0.97**	**J**	1.0	0.41	ug/L		08/14/24 13:20	08/23/24 14:15	1
Potassium	**13000**		210	67	ug/L		08/14/24 13:20	08/14/24 22:28	1
Selenium	**1.0**		1.0	0.29	ug/L		08/14/24 13:20	08/14/24 22:28	1
Silver	ND		0.52	0.10	ug/L		08/14/24 13:20	08/14/24 22:28	1
Sodium	**47000**	**^2**	210	93	ug/L		08/14/24 13:20	08/22/24 18:51	1
Thallium	ND		0.52	0.13	ug/L		08/14/24 13:20	08/14/24 22:28	1
Vanadium	**5.0**		4.1	0.82	ug/L		08/14/24 13:20	08/14/24 22:28	1
Zinc	ND		10	4.1	ug/L		08/14/24 13:20	08/14/24 22:28	1

Method: SW846 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.079	ug/L		08/15/24 05:14	08/15/24 14:09	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (III) (SW846 7196A)	ND	!	0.030	0.010	mg/L			08/16/24 07:33	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI) (SW846 7196A)	**20**		3.0	1.0	mg/L			08/13/24 21:20	100

Client Sample ID: DEP51-W6-240813

Lab Sample ID: 410-183955-14

Date Collected: 08/13/24 12:55

Matrix: Water

Date Received: 08/13/24 16:15

Method: SW846 6020B - Metals (ICP/MS) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	**220**		26	12	ug/L		08/14/24 10:30	08/22/24 18:49	1
Antimony	**1.0**		1.0	0.21	ug/L		08/14/24 10:30	08/14/24 19:44	1
Arsenic	**3.9**		2.1	0.70	ug/L		08/14/24 10:30	08/14/24 19:44	1
Barium	**54**		2.1	0.77	ug/L		08/14/24 10:30	08/22/24 18:49	1
Beryllium	ND	^3+ ^+	0.52	0.12	ug/L		08/14/24 10:30	08/14/24 19:44	1
Cadmium	ND	^3+	0.52	0.16	ug/L		08/14/24 10:30	08/14/24 19:44	1
Calcium	**190000**		1200	520	ug/L		08/14/24 10:30	08/22/24 19:30	10
Chromium	**27000**		210	57	ug/L		08/14/24 10:30	08/22/24 19:52	100
Cobalt	**1.1**		0.52	0.16	ug/L		08/14/24 10:30	08/22/24 18:49	1
Copper	**9.3**		1.0	0.37	ug/L		08/14/24 10:30	08/22/24 18:49	1

Client: Pennsylvania Dept of Env Protection
Project/Site: DEP 51st

Job ID: 410-183955-1

Client Sample ID: DEP51-W6-240813
Date Collected: 08/13/24 12:55
Date Received: 08/13/24 16:15

Lab Sample ID: 410-183955-14
Matrix: Water

Method: SW846 6020B - Metals (ICP/MS) - Dissolved (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Iron	ND	^3+	52	21	ug/L		08/14/24 10:30	08/14/24 19:44	1
Lead	ND		0.52	0.12	ug/L		08/14/24 10:30	08/14/24 19:44	1
Magnesium	**4100**		52	16	ug/L		08/14/24 10:30	08/14/24 19:44	1
Manganese	ND		2.1	0.98	ug/L		08/14/24 10:30	08/14/24 19:44	1
Nickel	**2.6**		1.0	0.41	ug/L		08/14/24 10:30	08/23/24 14:13	1
Potassium	**14000**		210	67	ug/L		08/14/24 10:30	08/14/24 19:44	1
Selenium	**2.1**		1.0	0.29	ug/L		08/14/24 10:30	08/14/24 19:44	1
Silver	ND		0.52	0.10	ug/L		08/14/24 10:30	08/14/24 19:44	1
Sodium	**62000**	**^2**	210	93	ug/L		08/14/24 10:30	08/22/24 18:49	1
Thallium	ND		0.52	0.13	ug/L		08/14/24 10:30	08/14/24 19:44	1
Vanadium	**14**		4.1	0.82	ug/L		08/14/24 10:30	08/14/24 19:44	1
Zinc	ND		10	4.1	ug/L		08/14/24 10:30	08/14/24 19:44	1

Method: SW846 7470A - Mercury (CVAA) - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.079	ug/L		08/15/24 05:14	08/15/24 14:11	1

General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (III) (SW846 7196A)	ND	!	0.030	0.010	mg/L			08/16/24 07:33	1

General Chemistry - Dissolved

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI) (SW846 7196A)	**29**		3.0	1.0	mg/L			08/13/24 21:20	100

Method: 6020B - Metals (ICP/MS)

Lab Sample ID: MB 410-540014/1-A ^2
Matrix: Solid
Analysis Batch: 542036

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 540014

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		20	9.9	mg/Kg		08/14/24 07:00	08/19/24 09:51	2
Antimony	ND		0.20	0.080	mg/Kg		08/14/24 07:00	08/19/24 09:51	2
Arsenic	ND		0.40	0.13	mg/Kg		08/14/24 07:00	08/19/24 09:51	2
Barium	ND		0.40	0.18	mg/Kg		08/14/24 07:00	08/19/24 09:51	2
Beryllium	ND		0.10	0.024	mg/Kg		08/14/24 07:00	08/19/24 09:51	2
Cadmium	ND		0.10	0.040	mg/Kg		08/14/24 07:00	08/19/24 09:51	2
Calcium	ND		40	20	mg/Kg		08/14/24 07:00	08/19/24 09:51	2
Chromium	ND		0.40	0.19	mg/Kg		08/14/24 07:00	08/19/24 09:51	2
Cobalt	ND		0.20	0.080	mg/Kg		08/14/24 07:00	08/19/24 09:51	2
Copper	ND		0.40	0.18	mg/Kg		08/14/24 07:00	08/19/24 09:51	2
Iron	ND		20	9.2	mg/Kg		08/14/24 07:00	08/19/24 09:51	2
Lead	ND		0.20	0.076	mg/Kg		08/14/24 07:00	08/19/24 09:51	2
Magnesium	ND		10	4.9	mg/Kg		08/14/24 07:00	08/19/24 09:51	2
Manganese	ND		0.40	0.20	mg/Kg		08/14/24 07:00	08/19/24 09:51	2
Nickel	ND		0.40	0.19	mg/Kg		08/14/24 07:00	08/19/24 09:51	2
Potassium	ND		40	16	mg/Kg		08/14/24 07:00	08/19/24 09:51	2
Selenium	ND		0.40	0.10	mg/Kg		08/14/24 07:00	08/19/24 09:51	2
Silver	ND		0.10	0.041	mg/Kg		08/14/24 07:00	08/19/24 09:51	2
Sodium	ND		50	24	mg/Kg		08/14/24 07:00	08/19/24 09:51	2
Thallium	ND		0.10	0.039	mg/Kg		08/14/24 07:00	08/19/24 09:51	2
Vanadium	ND		0.80	0.20	mg/Kg		08/14/24 07:00	08/19/24 09:51	2
Zinc	ND		30	4.0	mg/Kg		08/14/24 07:00	08/19/24 09:51	2

Lab Sample ID: LCS 410-540014/2-A ^2
Matrix: Solid
Analysis Batch: 542036

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 540014

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	500	485		mg/Kg		97	83 - 119
Antimony	10.0	9.68		mg/Kg		97	87 - 116
Arsenic	50.0	48.1		mg/Kg		96	87 - 114
Barium	50.0	48.1		mg/Kg		96	87 - 117
Beryllium	5.00	4.93		mg/Kg		99	80 - 120
Cadmium	5.00	4.86		mg/Kg		97	88 - 117
Calcium	500	491		mg/Kg		98	84 - 119
Chromium	50.0	47.3		mg/Kg		95	86 - 116
Cobalt	50.0	46.8		mg/Kg		94	85 - 115
Copper	50.0	46.3		mg/Kg		93	84 - 115
Iron	500	483		mg/Kg		97	87 - 117
Lead	5.00	4.95		mg/Kg		99	88 - 117
Magnesium	500	478		mg/Kg		96	83 - 119
Manganese	50.0	47.9		mg/Kg		96	87 - 116
Nickel	50.0	47.7		mg/Kg		95	87 - 115
Potassium	500	470		mg/Kg		94	83 - 118
Selenium	10.0	9.45		mg/Kg		94	87 - 115
Silver	5.00	4.88		mg/Kg		98	88 - 117
Sodium	500	479		mg/Kg		96	81 - 120
Thallium	10.0	9.76		mg/Kg		98	87 - 116
Vanadium	50.0	47.3		mg/Kg		95	86 - 115

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 410-540014/2-A ^2
Matrix: Solid
Analysis Batch: 542036

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 540014

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Zinc	50.0	48.1		mg/Kg		96	86 - 116

Lab Sample ID: MB 410-540227/1-A
Matrix: Water
Analysis Batch: 540667

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 540227

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND	^3+	26	12	ug/L		08/14/24 10:30	08/14/24 19:20	1
Antimony	ND		1.0	0.21	ug/L		08/14/24 10:30	08/14/24 19:20	1
Arsenic	ND		2.1	0.70	ug/L		08/14/24 10:30	08/14/24 19:20	1
Beryllium	ND	^3+ ^+	0.52	0.12	ug/L		08/14/24 10:30	08/14/24 19:20	1
Cadmium	ND	^3+	0.52	0.16	ug/L		08/14/24 10:30	08/14/24 19:20	1
Chromium	ND		2.1	0.57	ug/L		08/14/24 10:30	08/14/24 19:20	1
Iron	ND	^3+	52	21	ug/L		08/14/24 10:30	08/14/24 19:20	1
Lead	ND		0.52	0.12	ug/L		08/14/24 10:30	08/14/24 19:20	1
Magnesium	ND		52	16	ug/L		08/14/24 10:30	08/14/24 19:20	1
Manganese	ND		2.1	0.98	ug/L		08/14/24 10:30	08/14/24 19:20	1
Potassium	ND		210	67	ug/L		08/14/24 10:30	08/14/24 19:20	1
Selenium	ND		1.0	0.29	ug/L		08/14/24 10:30	08/14/24 19:20	1
Silver	ND		0.52	0.10	ug/L		08/14/24 10:30	08/14/24 19:20	1
Thallium	ND		0.52	0.13	ug/L		08/14/24 10:30	08/14/24 19:20	1
Vanadium	ND		4.1	0.82	ug/L		08/14/24 10:30	08/14/24 19:20	1
Zinc	ND		10	4.1	ug/L		08/14/24 10:30	08/14/24 19:20	1

Lab Sample ID: MB 410-540227/1-A
Matrix: Water
Analysis Batch: 543667

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 540227

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	ND		2.1	0.77	ug/L		08/14/24 10:30	08/22/24 18:41	1
Calcium	ND		120	52	ug/L		08/14/24 10:30	08/22/24 18:41	1
Cobalt	ND		0.52	0.16	ug/L		08/14/24 10:30	08/22/24 18:41	1
Copper	ND		1.0	0.37	ug/L		08/14/24 10:30	08/22/24 18:41	1
Sodium	ND		210	93	ug/L		08/14/24 10:30	08/22/24 18:41	1

Lab Sample ID: MB 410-540227/1-A
Matrix: Water
Analysis Batch: 543974

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 540227

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nickel	ND		1.0	0.41	ug/L		08/14/24 10:30	08/23/24 14:05	1

Lab Sample ID: LCS 410-540227/2-A
Matrix: Water
Analysis Batch: 540667

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 540227

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	100	101		ug/L		101	90 - 115
Arsenic	500	501		ug/L		100	90 - 109
Chromium	500	477		ug/L		95	90 - 110

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 410-540227/2-A
Matrix: Water
Analysis Batch: 540667

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 540227

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Lead	50.0	49.1		ug/L		98	90 - 110
Magnesium	5000	4850		ug/L		97	90 - 110
Manganese	500	481		ug/L		96	90 - 111
Potassium	5000	4920		ug/L		98	90 - 110
Selenium	100	94.7		ug/L		95	90 - 110
Silver	50.0	49.3		ug/L		99	90 - 112
Thallium	100	98.7		ug/L		99	90 - 110
Vanadium	500	480		ug/L		96	90 - 109
Zinc	500	493		ug/L		99	90 - 112

Lab Sample ID: LCS 410-540227/2-A
Matrix: Water
Analysis Batch: 543667

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 540227

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	5000	4940		ug/L		99	90 - 110
Barium	500	497		ug/L		99	90 - 113
Beryllium	50.0	52.6		ug/L		105	82 - 120
Cadmium	50.0	50.0		ug/L		100	90 - 112
Calcium	5000	4890		ug/L		98	90 - 112
Cobalt	500	492		ug/L		98	90 - 110
Copper	500	495		ug/L		99	90 - 110
Iron	5000	4950		ug/L		99	90 - 111
Nickel	500	501		ug/L		100	90 - 109
Sodium	5000	5010		ug/L		100	89 - 114

Lab Sample ID: MB 410-540323/1-A
Matrix: Water
Analysis Batch: 540667

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 540323

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND	^3+	26	12	ug/L		08/14/24 13:20	08/14/24 22:06	1
Antimony	ND		1.0	0.21	ug/L		08/14/24 13:20	08/14/24 22:06	1
Arsenic	ND		2.1	0.70	ug/L		08/14/24 13:20	08/14/24 22:06	1
Beryllium	ND	^3+	0.52	0.12	ug/L		08/14/24 13:20	08/14/24 22:06	1
Cadmium	ND	^3+	0.52	0.16	ug/L		08/14/24 13:20	08/14/24 22:06	1
Chromium	ND		2.1	0.57	ug/L		08/14/24 13:20	08/14/24 22:06	1
Iron	ND	^3+	52	21	ug/L		08/14/24 13:20	08/14/24 22:06	1
Lead	ND		0.52	0.12	ug/L		08/14/24 13:20	08/14/24 22:06	1
Manganese	ND		2.1	0.98	ug/L		08/14/24 13:20	08/14/24 22:06	1
Potassium	ND		210	67	ug/L		08/14/24 13:20	08/14/24 22:06	1
Selenium	ND		1.0	0.29	ug/L		08/14/24 13:20	08/14/24 22:06	1
Silver	ND		0.52	0.10	ug/L		08/14/24 13:20	08/14/24 22:06	1
Thallium	ND		0.52	0.13	ug/L		08/14/24 13:20	08/14/24 22:06	1
Vanadium	ND		4.1	0.82	ug/L		08/14/24 13:20	08/14/24 22:06	1
Zinc	ND		10	4.1	ug/L		08/14/24 13:20	08/14/24 22:06	1

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 410-540323/1-A
Matrix: Water
Analysis Batch: 543667

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 540323

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Barium	ND		2.1	0.77	ug/L		08/14/24 13:20	08/22/24 18:43	1
Calcium	ND		120	52	ug/L		08/14/24 13:20	08/22/24 18:43	1
Cobalt	ND		0.52	0.16	ug/L		08/14/24 13:20	08/22/24 18:43	1
Copper	ND		1.0	0.37	ug/L		08/14/24 13:20	08/22/24 18:43	1
Magnesium	ND		52	16	ug/L		08/14/24 13:20	08/22/24 18:43	1
Sodium	ND		210	93	ug/L		08/14/24 13:20	08/22/24 18:43	1

Lab Sample ID: MB 410-540323/1-A
Matrix: Water
Analysis Batch: 543974

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 540323

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Nickel	ND		1.0	0.41	ug/L		08/14/24 13:20	08/23/24 14:07	1

Lab Sample ID: LCS 410-540323/2-A
Matrix: Water
Analysis Batch: 540667

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 540323

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Antimony	100	91.2		ug/L		91	90 - 115
Arsenic	500	483		ug/L		97	90 - 109
Chromium	500	456		ug/L		91	90 - 110
Lead	50.0	47.3		ug/L		95	90 - 110
Magnesium	5000	4530		ug/L		91	90 - 110
Manganese	500	468		ug/L		94	90 - 111
Potassium	5000	4840		ug/L		97	90 - 110
Selenium	100	89.6		ug/L		90	90 - 110
Silver	50.0	46.8		ug/L		94	90 - 112
Thallium	100	94.9		ug/L		95	90 - 110
Vanadium	500	462		ug/L		92	90 - 109
Zinc	500	469		ug/L		94	90 - 112

Lab Sample ID: LCS 410-540323/2-A
Matrix: Water
Analysis Batch: 543667

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 540323

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	5000	4780		ug/L		96	90 - 110
Barium	500	488		ug/L		98	90 - 113
Beryllium	50.0	51.2		ug/L		102	82 - 120
Cadmium	50.0	48.2		ug/L		96	90 - 112
Calcium	5000	4680		ug/L		94	90 - 112
Cobalt	500	476		ug/L		95	90 - 110
Copper	500	476		ug/L		95	90 - 110
Iron	5000	4820		ug/L		96	90 - 111
Nickel	500	481		ug/L		96	90 - 109
Sodium	5000	4790		ug/L		96	89 - 114

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: MB 410-540494/1-A ^2
Matrix: Solid
Analysis Batch: 541432

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 540494

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aluminum	ND		20	9.9	mg/Kg		08/14/24 21:30	08/16/24 12:14	2
Antimony	ND		0.20	0.080	mg/Kg		08/14/24 21:30	08/16/24 12:14	2
Arsenic	ND		0.40	0.13	mg/Kg		08/14/24 21:30	08/16/24 12:14	2
Barium	ND		0.40	0.18	mg/Kg		08/14/24 21:30	08/16/24 12:14	2
Beryllium	ND		0.10	0.024	mg/Kg		08/14/24 21:30	08/16/24 12:14	2
Cadmium	ND		0.10	0.040	mg/Kg		08/14/24 21:30	08/16/24 12:14	2
Calcium	ND		40	20	mg/Kg		08/14/24 21:30	08/16/24 12:14	2
Chromium	ND		0.40	0.19	mg/Kg		08/14/24 21:30	08/16/24 12:14	2
Cobalt	ND		0.20	0.080	mg/Kg		08/14/24 21:30	08/16/24 12:14	2
Copper	ND		0.40	0.18	mg/Kg		08/14/24 21:30	08/16/24 12:14	2
Iron	ND		20	9.2	mg/Kg		08/14/24 21:30	08/16/24 12:14	2
Lead	ND		0.20	0.076	mg/Kg		08/14/24 21:30	08/16/24 12:14	2
Magnesium	ND		10	4.9	mg/Kg		08/14/24 21:30	08/16/24 12:14	2
Manganese	ND		0.40	0.20	mg/Kg		08/14/24 21:30	08/16/24 12:14	2
Nickel	ND		0.40	0.19	mg/Kg		08/14/24 21:30	08/16/24 12:14	2
Potassium	ND		40	16	mg/Kg		08/14/24 21:30	08/16/24 12:14	2
Selenium	ND		0.40	0.10	mg/Kg		08/14/24 21:30	08/16/24 12:14	2
Silver	ND		0.10	0.041	mg/Kg		08/14/24 21:30	08/16/24 12:14	2
Sodium	ND		50	24	mg/Kg		08/14/24 21:30	08/16/24 12:14	2
Thallium	ND		0.10	0.039	mg/Kg		08/14/24 21:30	08/16/24 12:14	2
Vanadium	ND		0.80	0.20	mg/Kg		08/14/24 21:30	08/16/24 12:14	2
Zinc	ND		30	4.0	mg/Kg		08/14/24 21:30	08/16/24 12:14	2

Lab Sample ID: LCS 410-540494/2-A ^2
Matrix: Solid
Analysis Batch: 541432

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 540494

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Aluminum	500	489		mg/Kg		98	83 - 119
Antimony	10.0	9.37		mg/Kg		94	87 - 116
Arsenic	50.0	48.5		mg/Kg		97	87 - 114
Barium	50.0	48.5		mg/Kg		97	87 - 117
Beryllium	5.00	4.81		mg/Kg		96	80 - 120
Cadmium	5.00	4.75		mg/Kg		95	88 - 117
Calcium	500	501		mg/Kg		100	84 - 119
Chromium	50.0	48.7		mg/Kg		97	86 - 116
Cobalt	50.0	49.6		mg/Kg		99	85 - 115
Copper	50.0	49.4		mg/Kg		99	84 - 115
Iron	500	499		mg/Kg		100	87 - 117
Lead	5.00	4.97		mg/Kg		99	88 - 117
Magnesium	500	492		mg/Kg		98	83 - 119
Manganese	50.0	49.4		mg/Kg		99	87 - 116
Nickel	50.0	49.7		mg/Kg		99	87 - 115
Potassium	500	490		mg/Kg		98	83 - 118
Selenium	10.0	9.62		mg/Kg		96	87 - 115
Silver	5.00	4.94		mg/Kg		99	88 - 117
Sodium	500	478		mg/Kg		96	81 - 120
Thallium	10.0	10.0		mg/Kg		100	87 - 116
Vanadium	50.0	48.5		mg/Kg		97	86 - 115

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: LCS 410-540494/2-A ^2
Matrix: Solid
Analysis Batch: 541432

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 540494

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits		
Zinc			50.0	50.4		mg/Kg		101	86 - 116		

Lab Sample ID: 410-183955-10 MS
Matrix: Solid
Analysis Batch: 541432

Client Sample ID: DEP51-S10A-240813
Prep Type: Total/NA
Prep Batch: 540494

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Aluminum	14000	4	477	16700	4	mg/Kg	☼	505	75 - 125		
Antimony	1.2	FL	9.54	8.14	FL	mg/Kg	☼	73	75 - 125		
Arsenic	11		47.7	54.7		mg/Kg	☼	92	75 - 125		
Barium	130	FL	47.7	164	FL	mg/Kg	☼	65	75 - 125		
Beryllium	0.78		4.77	5.54		mg/Kg	☼	100	75 - 125		
Cadmium	0.53		4.77	4.94		mg/Kg	☼	92	75 - 125		
Cobalt	15		47.7	56.5		mg/Kg	☼	88	75 - 125		
Copper	61	FL	47.7	88.9	FL	mg/Kg	☼	59	75 - 125		
Manganese	580	4	47.7	546	4	mg/Kg	☼	-68	75 - 125		
Nickel	48	FL	47.7	81.5	FL	mg/Kg	☼	70	75 - 125		
Potassium	3700	4	477	3900	4	mg/Kg	☼	52	75 - 125		
Selenium	0.42		9.54	9.56		mg/Kg	☼	96	75 - 125		
Silver	0.28		4.77	4.74		mg/Kg	☼	93	75 - 125		
Sodium	200	FH	477	869	FH	mg/Kg	☼	140	75 - 125		
Thallium	0.28		9.54	8.86		mg/Kg	☼	90	75 - 125		
Vanadium	54		47.7	99.0		mg/Kg	☼	94	75 - 125		

Lab Sample ID: 410-183955-10 MS
Matrix: Solid
Analysis Batch: 541432

Client Sample ID: DEP51-S10A-240813
Prep Type: Total/NA
Prep Batch: 540494

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits		
Calcium	43000	4 F2	477	63800	4	mg/Kg	☼	4355	75 - 125		
Chromium	720	4	47.7	540	4	mg/Kg	☼	-374	75 - 125		
Iron	25000	4	477	21400	4	mg/Kg	☼	-778	75 - 125		
Lead	210	4 F2	4.77	143	4	mg/Kg	☼	-1362	75 - 125		
Magnesium	20000	4 F2	477	37000	4	mg/Kg	☼	3511	75 - 125		
Zinc	370	4	47.7	304	4	mg/Kg	☼	-134	75 - 125		

Lab Sample ID: 410-183955-10 MSD
Matrix: Solid
Analysis Batch: 541432

Client Sample ID: DEP51-S10A-240813
Prep Type: Total/NA
Prep Batch: 540494

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Aluminum	14000	4	520	16500	4	mg/Kg	☼	426	75 - 125	1	20
Antimony	1.2	FL	10.4	9.52		mg/Kg	☼	80	75 - 125	16	20
Arsenic	11		52.0	60.5		mg/Kg	☼	96	75 - 125	10	20
Barium	130	FL	52.0	162	FL	mg/Kg	☼	56	75 - 125	1	20
Beryllium	0.78		5.20	5.90		mg/Kg	☼	99	75 - 125	6	20
Cadmium	0.53		5.20	5.45		mg/Kg	☼	95	75 - 125	10	20
Cobalt	15		52.0	62.7		mg/Kg	☼	92	75 - 125	10	20
Copper	61	FL	52.0	98.5	FL	mg/Kg	☼	73	75 - 125	10	20

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 410-183955-10 MSD
Matrix: Solid
Analysis Batch: 541432

Client Sample ID: DEP51-S10A-240813
Prep Type: Total/NA
Prep Batch: 540494

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Manganese	580	4	52.0	528	4	mg/Kg	☼	-98	75 - 125	3	20
Nickel	48	FL	52.0	87.6		mg/Kg	☼	76	75 - 125	7	20
Potassium	3700	4	520	3990	4	mg/Kg	☼	66	75 - 125	2	20
Selenium	0.42		10.4	10.4		mg/Kg	☼	96	75 - 125	8	20
Silver	0.28		5.20	5.28		mg/Kg	☼	96	75 - 125	11	20
Sodium	200	FH	520	726		mg/Kg	☼	100	75 - 125	18	20
Thallium	0.28		10.4	9.80		mg/Kg	☼	92	75 - 125	10	20
Vanadium	54		52.0	95.6		mg/Kg	☼	79	75 - 125	4	20

Lab Sample ID: 410-183955-10 MSD
Matrix: Solid
Analysis Batch: 541432

Client Sample ID: DEP51-S10A-240813
Prep Type: Total/NA
Prep Batch: 540494

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Calcium	43000	4 F2	520	42900	4 F2	mg/Kg	☼	-20	75 - 125	39	20
Chromium	720	4	52.0	563	4	mg/Kg	☼	-300	75 - 125	4	20
Iron	25000	4	520	22000	4	mg/Kg	☼	-600	75 - 125	3	20
Lead	210	4 F2	5.20	208	4 F2	mg/Kg	☼	8	75 - 125	37	20
Magnesium	20000	4 F2	520	20600	4 F2	mg/Kg	☼	55	75 - 125	57	20
Zinc	370	4	52.0	317	4	mg/Kg	☼	-99	75 - 125	4	20

Lab Sample ID: 410-183955-10 DU
Matrix: Solid
Analysis Batch: 541432

Client Sample ID: DEP51-S10A-240813
Prep Type: Total/NA
Prep Batch: 540494

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Aluminum	14000	4		13900		mg/Kg	☼			2	20
Antimony	1.2	FL		1.05		mg/Kg	☼			13	20
Arsenic	11			10.4		mg/Kg	☼			4	20
Barium	130	FL		128		mg/Kg	☼			4	20
Beryllium	0.78			0.797		mg/Kg	☼			2	20
Cadmium	0.53			0.482		mg/Kg	☼			9	20
Cobalt	15			14.3		mg/Kg	☼			2	20
Copper	61	FL		55.5		mg/Kg	☼			9	20
Manganese	580	4		590		mg/Kg	☼			2	20
Nickel	48	FL		43.6		mg/Kg	☼			10	20
Potassium	3700	4		3700		mg/Kg	☼			1	20
Selenium	0.42			0.449		mg/Kg	☼			6	20
Silver	0.28			0.145	F3	mg/Kg	☼			63	20
Sodium	200	FH		200		mg/Kg	☼			2	20
Thallium	0.28			0.260		mg/Kg	☼			8	20
Vanadium	54			56.8		mg/Kg	☼			4	20

Lab Sample ID: 410-183955-10 DU
Matrix: Solid
Analysis Batch: 541432

Client Sample ID: DEP51-S10A-240813
Prep Type: Total/NA
Prep Batch: 540494

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Calcium	43000	4 F2		68500	F3	mg/Kg	☼			46	20

Method: 6020B - Metals (ICP/MS) (Continued)

Lab Sample ID: 410-183955-10 DU — **Client Sample ID: DEP51-S10A-240813**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 541432 — **Prep Batch: 540494**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Chromium	720	4	629		mg/Kg	☼	13	20
Iron	25000	4	23500		mg/Kg	☼	7	20
Lead	210	4 F2	157	F3	mg/Kg	☼	28	20
Magnesium	20000	4 F2	37400	F3	mg/Kg	☼	59	20
Zinc	370	4	288	F5	mg/Kg	☼	25	20

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 410-540540/1-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 540904 — **Prep Batch: 540540**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.20	0.079	ug/L		08/15/24 05:14	08/15/24 13:58	1

Lab Sample ID: LCS 410-540540/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 540904 — **Prep Batch: 540540**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	1.00	0.979		ug/L		98	80 - 118

Method: 7471B - Mercury (CVAA)

Lab Sample ID: MB 410-540013/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 541279 — **Prep Batch: 540013**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.060	0.020	mg/Kg		08/14/24 23:25	08/16/24 06:27	1

Lab Sample ID: LCS 410-540013/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 541279 — **Prep Batch: 540013**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.167	0.171		mg/Kg		103	80 - 120

Lab Sample ID: 410-183955-10 MS — **Client Sample ID: DEP51-S10A-240813**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 541279 — **Prep Batch: 540013**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.12	FL F2	0.173	0.153	FL	mg/Kg	☼	19	80 - 120

Lab Sample ID: 410-183955-10 MSD — **Client Sample ID: DEP51-S10A-240813**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 541279 — **Prep Batch: 540013**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Mercury	0.12	FL F2	0.160	0.240	FL F2	mg/Kg	☼	75	80 - 120	44	20

Method: 7471B - Mercury (CVAA)

Lab Sample ID: 410-183955-10 DU
Matrix: Solid
Analysis Batch: 541279

Client Sample ID: DEP51-S10A-240813
Prep Type: Total/NA
Prep Batch: 540013

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Mercury	0.12	FL F2	0.0790	F5	mg/Kg	☼	41	20

Lab Sample ID: MB 410-540496/1-A
Matrix: Solid
Analysis Batch: 541279

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 540496

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.060	0.020	mg/Kg		08/14/24 23:25	08/16/24 09:33	1

Lab Sample ID: LCS 410-540496/2-A
Matrix: Solid
Analysis Batch: 541279

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 540496

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.167	0.182		mg/Kg		109	80 - 120

Method: 7196A - Chromium, Hexavalent

Lab Sample ID: MB 410-539922/1-A
Matrix: Solid
Analysis Batch: 540001

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 539922

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	ND		0.42	0.14	mg/Kg		08/13/24 18:22	08/14/24 02:58	1

Lab Sample ID: LCS 410-539922/2-A
Matrix: Solid
Analysis Batch: 540001

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 539922

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cr (VI)	5.00	4.68		mg/Kg		94	80 - 120

Lab Sample ID: LCSI 410-539922/3-A
Matrix: Solid
Analysis Batch: 540001

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 539922

Analyte	Spike Added	LCSI Result	LCSI Qualifier	Unit	D	%Rec	%Rec Limits
Cr (VI)	714	679		mg/Kg		95	80 - 120

Lab Sample ID: 410-183955-7 MSI
Matrix: Solid
Analysis Batch: 540001

Client Sample ID: DEP51-S13-240813
Prep Type: Total/NA
Prep Batch: 539922

Analyte	Sample Result	Sample Qualifier	Spike Added	MSI Result	MSI Qualifier	Unit	D	%Rec	%Rec Limits
Cr (VI)	ND	cn	901	846		mg/Kg	☼	94	75 - 125

Method: 7196A - Chromium, Hexavalent (Continued)

Lab Sample ID: 410-183955-7 MSS — **Client Sample ID: DEP51-S13-240813**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 540001 — **Prep Batch: 539922**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSS Result	MSS Qualifier	Unit	D	%Rec	%Rec Limits
Cr (VI)	ND	cn	40.1	33.8		mg/Kg	☼	84	75 - 125

Lab Sample ID: 410-183955-7 DU — **Client Sample ID: DEP51-S13-240813**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 540001 — **Prep Batch: 539922**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Cr (VI)	ND	cn	ND		mg/Kg	☼	NC	20

Lab Sample ID: MB 410-539978/3 — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 539978

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	ND		0.030	0.010	mg/L			08/13/24 21:20	1

Lab Sample ID: LCS 410-539978/4 — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 539978

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cr (VI)	0.200	0.207		mg/L		103	90 - 110

Lab Sample ID: LCSD 410-539978/5 — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 539978

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
Cr (VI)	0.200	0.201		mg/L		100	90 - 110	3	5

Lab Sample ID: MB 410-540481/1-A — **Client Sample ID: Method Blank**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 540529 — **Prep Batch: 540481**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Cr (VI)	ND		0.42	0.14	mg/Kg		08/14/24 20:09	08/15/24 00:33	1

Lab Sample ID: LCS 410-540481/2-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 540529 — **Prep Batch: 540481**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Cr (VI)	5.00	4.62		mg/Kg		92	80 - 120

Lab Sample ID: LCSI 410-540481/3-A — **Client Sample ID: Lab Control Sample**
Matrix: Solid — **Prep Type: Total/NA**
Analysis Batch: 540529 — **Prep Batch: 540481**

Analyte	Spike Added	LCSI Result	LCSI Qualifier	Unit	D	%Rec	%Rec Limits
Cr (VI)	720	724		mg/Kg		101	80 - 120

Client: Pennsylvania Dept of Env Protection
Project/Site: DEP 51st

Job ID: 410-183955-1

Method: 7196A - Chromium, Hexavalent

Lab Sample ID: 410-183955-13 DU
Matrix: Water
Analysis Batch: 539978

Client Sample ID: DEP51-W5-240813
Prep Type: Dissolved

Analyte	Sample Result	Sample Qualifier		DU Result	DU Qualifier	Unit	D			RPD	RPD Limit
Cr (VI)	20			19.8		mg/L				1	5

Metals

Prep Batch: 540013

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-183955-4	DEP51-S5-240813	Total/NA	Solid	7471B	
410-183955-5	DEP51-S6-240813	Total/NA	Solid	7471B	
410-183955-6	DUP-SB-240813	Total/NA	Solid	7471B	
410-183955-7	DEP51-S13-240813	Total/NA	Solid	7471B	
410-183955-8	DEP51-S7V	Total/NA	Solid	7471B	
410-183955-9	DEP51-S8A-240813	Total/NA	Solid	7471B	
410-183955-10	DEP51-S10A-240813	Total/NA	Solid	7471B	
410-183955-11	DEP51-S14-240813	Total/NA	Solid	7471B	
410-183955-12	DEP51-S15-240813	Total/NA	Solid	7471B	
MB 410-540013/1-A	Method Blank	Total/NA	Solid	7471B	
LCS 410-540013/2-A	Lab Control Sample	Total/NA	Solid	7471B	
410-183955-10 MS	DEP51-S10A-240813	Total/NA	Solid	7471B	
410-183955-10 MSD	DEP51-S10A-240813	Total/NA	Solid	7471B	
410-183955-10 DU	DEP51-S10A-240813	Total/NA	Solid	7471B	

Prep Batch: 540014

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-183955-1	DEP51-S12-240813	Total/NA	Solid	3050B	
410-183955-2	DUP-SA-240813	Total/NA	Solid	3050B	
MB 410-540014/1-A ^2	Method Blank	Total/NA	Solid	3050B	
LCS 410-540014/2-A ^2	Lab Control Sample	Total/NA	Solid	3050B	

Prep Batch: 540227

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-183955-14	DEP51-W6-240813	Dissolved	Water	Non-Digest Prep	
MB 410-540227/1-A	Method Blank	Total/NA	Water	Non-Digest Prep	
LCS 410-540227/2-A	Lab Control Sample	Total/NA	Water	Non-Digest Prep	

Prep Batch: 540323

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-183955-13	DEP51-W5-240813	Dissolved	Water	Non-Digest Prep	
MB 410-540323/1-A	Method Blank	Total/NA	Water	Non-Digest Prep	
LCS 410-540323/2-A	Lab Control Sample	Total/NA	Water	Non-Digest Prep	

Prep Batch: 540494

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-183955-3	DEP51-S3-240813	Total/NA	Solid	3050B	
410-183955-4	DEP51-S5-240813	Total/NA	Solid	3050B	
410-183955-5	DEP51-S6-240813	Total/NA	Solid	3050B	
410-183955-6	DUP-SB-240813	Total/NA	Solid	3050B	
410-183955-7	DEP51-S13-240813	Total/NA	Solid	3050B	
410-183955-8	DEP51-S7V	Total/NA	Solid	3050B	
410-183955-9	DEP51-S8A-240813	Total/NA	Solid	3050B	
410-183955-10	DEP51-S10A-240813	Total/NA	Solid	3050B	
410-183955-11	DEP51-S14-240813	Total/NA	Solid	3050B	
410-183955-12	DEP51-S15-240813	Total/NA	Solid	3050B	
MB 410-540494/1-A ^2	Method Blank	Total/NA	Solid	3050B	
LCS 410-540494/2-A ^2	Lab Control Sample	Total/NA	Solid	3050B	
410-183955-10 MS	DEP51-S10A-240813	Total/NA	Solid	3050B	
410-183955-10 MSD	DEP51-S10A-240813	Total/NA	Solid	3050B	
410-183955-10 DU	DEP51-S10A-240813	Total/NA	Solid	3050B	

Metals

Prep Batch: 540496

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-183955-1	DEP51-S12-240813	Total/NA	Solid	7471B	
410-183955-2	DUP-SA-240813	Total/NA	Solid	7471B	
410-183955-3	DEP51-S3-240813	Total/NA	Solid	7471B	
MB 410-540496/1-A	Method Blank	Total/NA	Solid	7471B	
LCS 410-540496/2-A	Lab Control Sample	Total/NA	Solid	7471B	

Prep Batch: 540540

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-183955-13	DEP51-W5-240813	Dissolved	Water	7470A	
410-183955-14	DEP51-W6-240813	Dissolved	Water	7470A	
MB 410-540540/1-A	Method Blank	Total/NA	Water	7470A	
LCS 410-540540/2-A	Lab Control Sample	Total/NA	Water	7470A	

Analysis Batch: 540667

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-183955-13	DEP51-W5-240813	Dissolved	Water	6020B	540323
410-183955-14	DEP51-W6-240813	Dissolved	Water	6020B	540227
MB 410-540227/1-A	Method Blank	Total/NA	Water	6020B	540227
MB 410-540323/1-A	Method Blank	Total/NA	Water	6020B	540323
LCS 410-540227/2-A	Lab Control Sample	Total/NA	Water	6020B	540227
LCS 410-540323/2-A	Lab Control Sample	Total/NA	Water	6020B	540323

Analysis Batch: 540904

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-183955-13	DEP51-W5-240813	Dissolved	Water	7470A	540540
410-183955-14	DEP51-W6-240813	Dissolved	Water	7470A	540540
MB 410-540540/1-A	Method Blank	Total/NA	Water	7470A	540540
LCS 410-540540/2-A	Lab Control Sample	Total/NA	Water	7470A	540540

Analysis Batch: 541279

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-183955-1	DEP51-S12-240813	Total/NA	Solid	7471B	540496
410-183955-2	DUP-SA-240813	Total/NA	Solid	7471B	540496
410-183955-3	DEP51-S3-240813	Total/NA	Solid	7471B	540496
410-183955-4	DEP51-S5-240813	Total/NA	Solid	7471B	540013
410-183955-5	DEP51-S6-240813	Total/NA	Solid	7471B	540013
410-183955-6	DUP-SB-240813	Total/NA	Solid	7471B	540013
410-183955-7	DEP51-S13-240813	Total/NA	Solid	7471B	540013
410-183955-8	DEP51-S7V	Total/NA	Solid	7471B	540013
410-183955-9	DEP51-S8A-240813	Total/NA	Solid	7471B	540013
410-183955-10	DEP51-S10A-240813	Total/NA	Solid	7471B	540013
410-183955-11	DEP51-S14-240813	Total/NA	Solid	7471B	540013
410-183955-12	DEP51-S15-240813	Total/NA	Solid	7471B	540013
MB 410-540013/1-A	Method Blank	Total/NA	Solid	7471B	540013
MB 410-540496/1-A	Method Blank	Total/NA	Solid	7471B	540496
LCS 410-540013/2-A	Lab Control Sample	Total/NA	Solid	7471B	540013
LCS 410-540496/2-A	Lab Control Sample	Total/NA	Solid	7471B	540496
410-183955-10 MS	DEP51-S10A-240813	Total/NA	Solid	7471B	540013
410-183955-10 MSD	DEP51-S10A-240813	Total/NA	Solid	7471B	540013
410-183955-10 DU	DEP51-S10A-240813	Total/NA	Solid	7471B	540013

Metals

Analysis Batch: 541432

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-183955-3	DEP51-S3-240813	Total/NA	Solid	6020B	540494
410-183955-3	DEP51-S3-240813	Total/NA	Solid	6020B	540494
410-183955-4	DEP51-S5-240813	Total/NA	Solid	6020B	540494
410-183955-4	DEP51-S5-240813	Total/NA	Solid	6020B	540494
410-183955-5	DEP51-S6-240813	Total/NA	Solid	6020B	540494
410-183955-5	DEP51-S6-240813	Total/NA	Solid	6020B	540494
410-183955-6	DUP-SB-240813	Total/NA	Solid	6020B	540494
410-183955-6	DUP-SB-240813	Total/NA	Solid	6020B	540494
410-183955-7	DEP51-S13-240813	Total/NA	Solid	6020B	540494
410-183955-7	DEP51-S13-240813	Total/NA	Solid	6020B	540494
410-183955-8	DEP51-S7V	Total/NA	Solid	6020B	540494
410-183955-8	DEP51-S7V	Total/NA	Solid	6020B	540494
410-183955-9	DEP51-S8A-240813	Total/NA	Solid	6020B	540494
410-183955-9	DEP51-S8A-240813	Total/NA	Solid	6020B	540494
410-183955-10	DEP51-S10A-240813	Total/NA	Solid	6020B	540494
410-183955-10	DEP51-S10A-240813	Total/NA	Solid	6020B	540494
410-183955-11	DEP51-S14-240813	Total/NA	Solid	6020B	540494
410-183955-11	DEP51-S14-240813	Total/NA	Solid	6020B	540494
410-183955-12	DEP51-S15-240813	Total/NA	Solid	6020B	540494
MB 410-540494/1-A ^2	Method Blank	Total/NA	Solid	6020B	540494
LCS 410-540494/2-A ^2	Lab Control Sample	Total/NA	Solid	6020B	540494
410-183955-10 MS	DEP51-S10A-240813	Total/NA	Solid	6020B	540494
410-183955-10 MS	DEP51-S10A-240813	Total/NA	Solid	6020B	540494
410-183955-10 MSD	DEP51-S10A-240813	Total/NA	Solid	6020B	540494
410-183955-10 MSD	DEP51-S10A-240813	Total/NA	Solid	6020B	540494
410-183955-10 DU	DEP51-S10A-240813	Total/NA	Solid	6020B	540494
410-183955-10 DU	DEP51-S10A-240813	Total/NA	Solid	6020B	540494

Analysis Batch: 541547

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-183955-3	DEP51-S3-240813	Total/NA	Solid	6020B	540494
410-183955-5	DEP51-S6-240813	Total/NA	Solid	6020B	540494
410-183955-9	DEP51-S8A-240813	Total/NA	Solid	6020B	540494

Analysis Batch: 542036

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-183955-1	DEP51-S12-240813	Total/NA	Solid	6020B	540014
410-183955-1	DEP51-S12-240813	Total/NA	Solid	6020B	540014
410-183955-2	DUP-SA-240813	Total/NA	Solid	6020B	540014
410-183955-2	DUP-SA-240813	Total/NA	Solid	6020B	540014
MB 410-540014/1-A ^2	Method Blank	Total/NA	Solid	6020B	540014
LCS 410-540014/2-A ^2	Lab Control Sample	Total/NA	Solid	6020B	540014

Analysis Batch: 542240

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-183955-2	DUP-SA-240813	Total/NA	Solid	6020B	540014

Analysis Batch: 543667

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-183955-13	DEP51-W5-240813	Dissolved	Water	6020B	540323
410-183955-13	DEP51-W5-240813	Dissolved	Water	6020B	540323

Metals (Continued)

Analysis Batch: 543667 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-183955-14	DEP51-W6-240813	Dissolved	Water	6020B	540227
410-183955-14	DEP51-W6-240813	Dissolved	Water	6020B	540227
410-183955-14	DEP51-W6-240813	Dissolved	Water	6020B	540227
MB 410-540227/1-A	Method Blank	Total/NA	Water	6020B	540227
MB 410-540323/1-A	Method Blank	Total/NA	Water	6020B	540323
LCS 410-540227/2-A	Lab Control Sample	Total/NA	Water	6020B	540227
LCS 410-540323/2-A	Lab Control Sample	Total/NA	Water	6020B	540323

Analysis Batch: 543974

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-183955-13	DEP51-W5-240813	Dissolved	Water	6020B	540323
410-183955-14	DEP51-W6-240813	Dissolved	Water	6020B	540227
MB 410-540227/1-A	Method Blank	Total/NA	Water	6020B	540227
MB 410-540323/1-A	Method Blank	Total/NA	Water	6020B	540323

General Chemistry

Analysis Batch: 536826

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-183955-1	DEP51-S12-240813	Total/NA	Solid	7196A	
410-183955-2	DUP-SA-240813	Total/NA	Solid	7196A	
410-183955-3	DEP51-S3-240813	Total/NA	Solid	7196A	
410-183955-4	DEP51-S5-240813	Total/NA	Solid	7196A	
410-183955-5	DEP51-S6-240813	Total/NA	Solid	7196A	
410-183955-6	DUP-SB-240813	Total/NA	Solid	7196A	
410-183955-7	DEP51-S13-240813	Total/NA	Solid	7196A	
410-183955-8	DEP51-S7V	Total/NA	Solid	7196A	
410-183955-9	DEP51-S8A-240813	Total/NA	Solid	7196A	
410-183955-10	DEP51-S10A-240813	Total/NA	Solid	7196A	
410-183955-11	DEP51-S14-240813	Total/NA	Solid	7196A	
410-183955-12	DEP51-S15-240813	Total/NA	Solid	7196A	
410-183955-13	DEP51-W5-240813	Total/NA	Water	7196A	
410-183955-14	DEP51-W6-240813	Total/NA	Water	7196A	

Prep Batch: 539922

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-183955-1	DEP51-S12-240813	Total/NA	Solid	3060A	
410-183955-2	DUP-SA-240813	Total/NA	Solid	3060A	
410-183955-3	DEP51-S3-240813	Total/NA	Solid	3060A	
410-183955-4	DEP51-S5-240813	Total/NA	Solid	3060A	
410-183955-5	DEP51-S6-240813	Total/NA	Solid	3060A	
410-183955-6	DUP-SB-240813	Total/NA	Solid	3060A	
410-183955-7	DEP51-S13-240813	Total/NA	Solid	3060A	
410-183955-8	DEP51-S7V	Total/NA	Solid	3060A	
410-183955-9	DEP51-S8A-240813	Total/NA	Solid	3060A	
MB 410-539922/1-A	Method Blank	Total/NA	Solid	3060A	
LCS 410-539922/2-A	Lab Control Sample	Total/NA	Solid	3060A	
LCSI 410-539922/3-A	Lab Control Sample	Total/NA	Solid	3060A	
410-183955-7 MSI	DEP51-S13-240813	Total/NA	Solid	3060A	
410-183955-7 MSS	DEP51-S13-240813	Total/NA	Solid	3060A	
410-183955-7 DU	DEP51-S13-240813	Total/NA	Solid	3060A	

General Chemistry

Analysis Batch: 539954

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-183955-1	DEP51-S12-240813	Total/NA	Solid	Moisture	
410-183955-2	DUP-SA-240813	Total/NA	Solid	Moisture	
410-183955-3	DEP51-S3-240813	Total/NA	Solid	Moisture	
410-183955-4	DEP51-S5-240813	Total/NA	Solid	Moisture	
410-183955-5	DEP51-S6-240813	Total/NA	Solid	Moisture	
410-183955-6	DUP-SB-240813	Total/NA	Solid	Moisture	
410-183955-7	DEP51-S13-240813	Total/NA	Solid	Moisture	
410-183955-8	DEP51-S7V	Total/NA	Solid	Moisture	
410-183955-9	DEP51-S8A-240813	Total/NA	Solid	Moisture	
410-183955-10	DEP51-S10A-240813	Total/NA	Solid	Moisture	
410-183955-11	DEP51-S14-240813	Total/NA	Solid	Moisture	
410-183955-12	DEP51-S15-240813	Total/NA	Solid	Moisture	

Analysis Batch: 539978

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-183955-13	DEP51-W5-240813	Dissolved	Water	7196A	
410-183955-14	DEP51-W6-240813	Dissolved	Water	7196A	
MB 410-539978/3	Method Blank	Total/NA	Water	7196A	
LCS 410-539978/4	Lab Control Sample	Total/NA	Water	7196A	
LCSD 410-539978/5	Lab Control Sample Dup	Total/NA	Water	7196A	
410-183955-13 DU	DEP51-W5-240813	Dissolved	Water	7196A	

Analysis Batch: 540001

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-183955-1	DEP51-S12-240813	Total/NA	Solid	7196A	539922
410-183955-2	DUP-SA-240813	Total/NA	Solid	7196A	539922
410-183955-3	DEP51-S3-240813	Total/NA	Solid	7196A	539922
410-183955-4	DEP51-S5-240813	Total/NA	Solid	7196A	539922
410-183955-5	DEP51-S6-240813	Total/NA	Solid	7196A	539922
410-183955-6	DUP-SB-240813	Total/NA	Solid	7196A	539922
410-183955-7	DEP51-S13-240813	Total/NA	Solid	7196A	539922
410-183955-8	DEP51-S7V	Total/NA	Solid	7196A	539922
410-183955-9	DEP51-S8A-240813	Total/NA	Solid	7196A	539922
MB 410-539922/1-A	Method Blank	Total/NA	Solid	7196A	539922
LCS 410-539922/2-A	Lab Control Sample	Total/NA	Solid	7196A	539922
LCSI 410-539922/3-A	Lab Control Sample	Total/NA	Solid	7196A	539922
410-183955-7 MSI	DEP51-S13-240813	Total/NA	Solid	7196A	539922
410-183955-7 MSS	DEP51-S13-240813	Total/NA	Solid	7196A	539922
410-183955-7 DU	DEP51-S13-240813	Total/NA	Solid	7196A	539922

Prep Batch: 540481

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-183955-10	DEP51-S10A-240813	Total/NA	Solid	3060A	
410-183955-11	DEP51-S14-240813	Total/NA	Solid	3060A	
410-183955-12	DEP51-S15-240813	Total/NA	Solid	3060A	
MB 410-540481/1-A	Method Blank	Total/NA	Solid	3060A	
LCS 410-540481/2-A	Lab Control Sample	Total/NA	Solid	3060A	
LCSI 410-540481/3-A	Lab Control Sample	Total/NA	Solid	3060A	

Client: Pennsylvania Dept of Env Protection
Project/Site: DEP 51st

Job ID: 410-183955-1

General Chemistry

Analysis Batch: 540529

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-183955-10	DEP51-S10A-240813	Total/NA	Solid	7196A	540481
410-183955-11	DEP51-S14-240813	Total/NA	Solid	7196A	540481
410-183955-12	DEP51-S15-240813	Total/NA	Solid	7196A	540481
MB 410-540481/1-A	Method Blank	Total/NA	Solid	7196A	540481
LCS 410-540481/2-A	Lab Control Sample	Total/NA	Solid	7196A	540481
LCSI 410-540481/3-A	Lab Control Sample	Total/NA	Solid	7196A	540481

Client Sample ID: DEP51-S12-240813

Lab Sample ID: 410-183955-1

Date Collected: 08/13/24 10:51

Matrix: Solid

Date Received: 08/13/24 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	7196A		1	536826	MRD6	ELLE	08/14/24 09:06
Total/NA	Analysis	Moisture		1	539954	S9WT	ELLE	08/13/24 20:02

Client Sample ID: DEP51-S12-240813

Lab Sample ID: 410-183955-1

Date Collected: 08/13/24 10:51

Matrix: Solid

Date Received: 08/13/24 16:15

Percent Solids: 75.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3050B			540014	UAMX	ELLE	08/14/24 07:00
Total/NA	Analysis	6020B		2	542036	F7JF	ELLE	08/19/24 11:42
Total/NA	Prep	3050B			540014	UAMX	ELLE	08/14/24 07:00
Total/NA	Analysis	6020B		10	542036	F7JF	ELLE	08/19/24 11:44
Total/NA	Prep	7471B			540496	UAMX	ELLE	08/14/24 23:25
Total/NA	Analysis	7471B		1	541279	X3ZX	ELLE	08/16/24 09:50
Total/NA	Prep	3060A			539922	UDS7	ELLE	08/13/24 18:22
Total/NA	Analysis	7196A		20	540001	UDS7	ELLE	08/14/24 02:58

Client Sample ID: DUP-SA-240813

Lab Sample ID: 410-183955-2

Date Collected: 08/13/24 00:00

Matrix: Solid

Date Received: 08/13/24 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	7196A		1	536826	MRD6	ELLE	08/14/24 09:06
Total/NA	Analysis	Moisture		1	539954	S9WT	ELLE	08/13/24 20:02

Client Sample ID: DUP-SA-240813

Lab Sample ID: 410-183955-2

Date Collected: 08/13/24 00:00

Matrix: Solid

Date Received: 08/13/24 16:15

Percent Solids: 76.5

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3050B			540014	UAMX	ELLE	08/14/24 07:00
Total/NA	Analysis	6020B		2	542036	F7JF	ELLE	08/19/24 11:46
Total/NA	Prep	3050B			540014	UAMX	ELLE	08/14/24 07:00
Total/NA	Analysis	6020B		10	542036	F7JF	ELLE	08/19/24 11:48
Total/NA	Prep	3050B			540014	UAMX	ELLE	08/14/24 07:00
Total/NA	Analysis	6020B		100	542240	T8CQ	ELLE	08/19/24 15:25
Total/NA	Prep	7471B			540496	UAMX	ELLE	08/14/24 23:25
Total/NA	Analysis	7471B		1	541279	X3ZX	ELLE	08/16/24 09:51
Total/NA	Prep	3060A			539922	UDS7	ELLE	08/13/24 18:22
Total/NA	Analysis	7196A		10	540001	UDS7	ELLE	08/14/24 02:58

Lab Chronicle

Client: Pennsylvania Dept of Env Protection
Project/Site: DEP 51st

Job ID: 410-183955-1

Client Sample ID: DEP51-S3-240813

Lab Sample ID: 410-183955-3

Date Collected: 08/13/24 10:55

Matrix: Solid

Date Received: 08/13/24 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	7196A		1	536826	MRD6	ELLE	08/14/24 09:06
Total/NA	Analysis	Moisture		1	539954	S9WT	ELLE	08/13/24 20:02

Client Sample ID: DEP51-S3-240813

Lab Sample ID: 410-183955-3

Date Collected: 08/13/24 10:55

Matrix: Solid

Date Received: 08/13/24 16:15

Percent Solids: 89.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3050B			540494	UAMX	ELLE	08/14/24 21:30
Total/NA	Analysis	6020B		2	541432	F7JF	ELLE	08/16/24 14:03
Total/NA	Prep	3050B			540494	UAMX	ELLE	08/14/24 21:30
Total/NA	Analysis	6020B		10	541432	F7JF	ELLE	08/16/24 14:05
Total/NA	Prep	3050B			540494	UAMX	ELLE	08/14/24 21:30
Total/NA	Analysis	6020B		100	541547	T8CQ	ELLE	08/16/24 18:21
Total/NA	Prep	7471B			540496	UAMX	ELLE	08/14/24 23:25
Total/NA	Analysis	7471B		1	541279	X3ZX	ELLE	08/16/24 09:53
Total/NA	Prep	3060A			539922	UDS7	ELLE	08/13/24 18:22
Total/NA	Analysis	7196A		5	540001	UDS7	ELLE	08/14/24 02:58

Client Sample ID: DEP51-S5-240813

Lab Sample ID: 410-183955-4

Date Collected: 08/13/24 11:10

Matrix: Solid

Date Received: 08/13/24 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	7196A		1	536826	MRD6	ELLE	08/14/24 09:06
Total/NA	Analysis	Moisture		1	539954	S9WT	ELLE	08/13/24 20:02

Client Sample ID: DEP51-S5-240813

Lab Sample ID: 410-183955-4

Date Collected: 08/13/24 11:10

Matrix: Solid

Date Received: 08/13/24 16:15

Percent Solids: 81.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3050B			540494	UAMX	ELLE	08/14/24 21:30
Total/NA	Analysis	6020B		2	541432	F7JF	ELLE	08/16/24 13:59
Total/NA	Prep	3050B			540494	UAMX	ELLE	08/14/24 21:30
Total/NA	Analysis	6020B		10	541432	F7JF	ELLE	08/16/24 14:01
Total/NA	Prep	7471B			540013	UAMX	ELLE	08/14/24 23:25
Total/NA	Analysis	7471B		1	541279	X3ZX	ELLE	08/16/24 07:22
Total/NA	Prep	3060A			539922	UDS7	ELLE	08/13/24 18:22
Total/NA	Analysis	7196A		5	540001	UDS7	ELLE	08/14/24 02:58

Lab Chronicle

Client: Pennsylvania Dept of Env Protection
Project/Site: DEP 51st

Job ID: 410-183955-1

Client Sample ID: DEP51-S6-240813

Lab Sample ID: 410-183955-5

Date Collected: 08/13/24 11:20
Matrix: Solid
Date Received: 08/13/24 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	7196A		1	536826	MRD6	ELLE	08/14/24 09:06
Total/NA	Analysis	Moisture		1	539954	S9WT	ELLE	08/13/24 20:02

Client Sample ID: DEP51-S6-240813

Lab Sample ID: 410-183955-5

Date Collected: 08/13/24 11:20
Matrix: Solid
Date Received: 08/13/24 16:15
Percent Solids: 95.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3050B			540494	UAMX	ELLE	08/14/24 21:30
Total/NA	Analysis	6020B		2	541432	F7JF	ELLE	08/16/24 13:55
Total/NA	Prep	3050B			540494	UAMX	ELLE	08/14/24 21:30
Total/NA	Analysis	6020B		10	541432	F7JF	ELLE	08/16/24 13:57
Total/NA	Prep	3050B			540494	UAMX	ELLE	08/14/24 21:30
Total/NA	Analysis	6020B		100	541547	T8CQ	ELLE	08/16/24 18:19
Total/NA	Prep	7471B			540013	UAMX	ELLE	08/14/24 23:25
Total/NA	Analysis	7471B		1	541279	X3ZX	ELLE	08/16/24 07:13
Total/NA	Prep	3060A			539922	UDS7	ELLE	08/13/24 18:22
Total/NA	Analysis	7196A		1	540001	UDS7	ELLE	08/14/24 02:58

Client Sample ID: DUP-SB-240813

Lab Sample ID: 410-183955-6

Date Collected: 08/13/24 00:00
Matrix: Solid
Date Received: 08/13/24 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	7196A		1	536826	MRD6	ELLE	08/14/24 09:06
Total/NA	Analysis	Moisture		1	539954	S9WT	ELLE	08/13/24 20:02

Client Sample ID: DUP-SB-240813

Lab Sample ID: 410-183955-6

Date Collected: 08/13/24 00:00
Matrix: Solid
Date Received: 08/13/24 16:15
Percent Solids: 93.7

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3050B			540494	UAMX	ELLE	08/14/24 21:30
Total/NA	Analysis	6020B		2	541432	F7JF	ELLE	08/16/24 13:51
Total/NA	Prep	3050B			540494	UAMX	ELLE	08/14/24 21:30
Total/NA	Analysis	6020B		10	541432	F7JF	ELLE	08/16/24 13:53
Total/NA	Prep	7471B			540013	UAMX	ELLE	08/14/24 23:25
Total/NA	Analysis	7471B		1	541279	X3ZX	ELLE	08/16/24 07:18
Total/NA	Prep	3060A			539922	UDS7	ELLE	08/13/24 18:22
Total/NA	Analysis	7196A		2	540001	UDS7	ELLE	08/14/24 02:58

Client Sample ID: DEP51-S13-240813

Lab Sample ID: 410-183955-7

Date Collected: 08/13/24 11:05

Matrix: Solid

Date Received: 08/13/24 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	7196A		1	536826	MRD6	ELLE	08/14/24 09:06
Total/NA	Analysis	Moisture		1	539954	S9WT	ELLE	08/13/24 20:02

Client Sample ID: DEP51-S13-240813

Lab Sample ID: 410-183955-7

Date Collected: 08/13/24 11:05

Matrix: Solid

Date Received: 08/13/24 16:15

Percent Solids: 98.9

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3050B			540494	UAMX	ELLE	08/14/24 21:30
Total/NA	Analysis	6020B		2	541432	F7JF	ELLE	08/16/24 14:27
Total/NA	Prep	3050B			540494	UAMX	ELLE	08/14/24 21:30
Total/NA	Analysis	6020B		10	541432	F7JF	ELLE	08/16/24 14:29
Total/NA	Prep	7471B			540013	UAMX	ELLE	08/14/24 23:25
Total/NA	Analysis	7471B		1	541279	X3ZX	ELLE	08/16/24 07:20
Total/NA	Prep	3060A			539922	UDS7	ELLE	08/13/24 18:22
Total/NA	Analysis	7196A		10	540001	UDS7	ELLE	08/14/24 02:58

Client Sample ID: DEP51-S7V

Lab Sample ID: 410-183955-8

Date Collected: 08/13/24 11:25

Matrix: Solid

Date Received: 08/13/24 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	7196A		1	536826	MRD6	ELLE	08/14/24 09:06
Total/NA	Analysis	Moisture		1	539954	S9WT	ELLE	08/13/24 20:02

Client Sample ID: DEP51-S7V

Lab Sample ID: 410-183955-8

Date Collected: 08/13/24 11:25

Matrix: Solid

Date Received: 08/13/24 16:15

Percent Solids: 79.3

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3050B			540494	UAMX	ELLE	08/14/24 21:30
Total/NA	Analysis	6020B		2	541432	F7JF	ELLE	08/16/24 14:23
Total/NA	Prep	3050B			540494	UAMX	ELLE	08/14/24 21:30
Total/NA	Analysis	6020B		10	541432	F7JF	ELLE	08/16/24 14:25
Total/NA	Prep	7471B			540013	UAMX	ELLE	08/14/24 23:25
Total/NA	Analysis	7471B		1	541279	X3ZX	ELLE	08/16/24 07:14
Total/NA	Prep	3060A			539922	UDS7	ELLE	08/13/24 18:22
Total/NA	Analysis	7196A		10	540001	UDS7	ELLE	08/14/24 02:58

Client Sample ID: DEP51-S8A-240813

Lab Sample ID: 410-183955-9

Date Collected: 08/13/24 11:30

Matrix: Solid

Date Received: 08/13/24 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	7196A		1	536826	MRD6	ELLE	08/14/24 09:06

Client Sample ID: DEP51-S8A-240813

Lab Sample ID: 410-183955-9

Date Collected: 08/13/24 11:30

Matrix: Solid

Date Received: 08/13/24 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	Moisture		1	539954	S9WT	ELLE	08/13/24 20:02

Client Sample ID: DEP51-S8A-240813

Lab Sample ID: 410-183955-9

Date Collected: 08/13/24 11:30

Matrix: Solid

Date Received: 08/13/24 16:15

Percent Solids: 80.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3050B			540494	UAMX	ELLE	08/14/24 21:30
Total/NA	Analysis	6020B		2	541432	F7JF	ELLE	08/16/24 14:19
Total/NA	Prep	3050B			540494	UAMX	ELLE	08/14/24 21:30
Total/NA	Analysis	6020B		10	541432	F7JF	ELLE	08/16/24 14:21
Total/NA	Prep	3050B			540494	UAMX	ELLE	08/14/24 21:30
Total/NA	Analysis	6020B		100	541547	T8CQ	ELLE	08/16/24 18:23
Total/NA	Prep	7471B			540013	UAMX	ELLE	08/14/24 23:25
Total/NA	Analysis	7471B		1	541279	X3ZX	ELLE	08/16/24 07:16
Total/NA	Prep	3060A			539922	UDS7	ELLE	08/13/24 18:22
Total/NA	Analysis	7196A		5	540001	UDS7	ELLE	08/14/24 02:58

Client Sample ID: DEP51-S10A-240813

Lab Sample ID: 410-183955-10

Date Collected: 08/13/24 11:35

Matrix: Solid

Date Received: 08/13/24 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	7196A		1	536826	MRD6	ELLE	08/14/24 09:06
Total/NA	Analysis	Moisture		1	539954	S9WT	ELLE	08/13/24 20:02

Client Sample ID: DEP51-S10A-240813

Lab Sample ID: 410-183955-10

Date Collected: 08/13/24 11:35

Matrix: Solid

Date Received: 08/13/24 16:15

Percent Solids: 96.2

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3050B			540494	UAMX	ELLE	08/14/24 21:30
Total/NA	Analysis	6020B		2	541432	F7JF	ELLE	08/16/24 12:18
Total/NA	Prep	3050B			540494	UAMX	ELLE	08/14/24 21:30
Total/NA	Analysis	6020B		10	541432	F7JF	ELLE	08/16/24 12:20
Total/NA	Prep	7471B			540013	UAMX	ELLE	08/14/24 23:25
Total/NA	Analysis	7471B		1	541279	X3ZX	ELLE	08/16/24 06:31
Total/NA	Prep	3060A			540481	UDS7	ELLE	08/14/24 20:09
Total/NA	Analysis	7196A		10	540529	UDS7	ELLE	08/15/24 00:33

Client Sample ID: DEP51-S14-240813

Lab Sample ID: 410-183955-11

Date Collected: 08/13/24 11:45

Matrix: Solid

Date Received: 08/13/24 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	7196A		1	536826	MRD6	ELLE	08/14/24 09:06
Total/NA	Analysis	Moisture		1	539954	S9WT	ELLE	08/13/24 20:02

Client Sample ID: DEP51-S14-240813

Lab Sample ID: 410-183955-11

Date Collected: 08/13/24 11:45

Matrix: Solid

Date Received: 08/13/24 16:15

Percent Solids: 80.6

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3050B			540494	UAMX	ELLE	08/14/24 21:30
Total/NA	Analysis	6020B		2	541432	F7JF	ELLE	08/16/24 14:39
Total/NA	Prep	3050B			540494	UAMX	ELLE	08/14/24 21:30
Total/NA	Analysis	6020B		10	541432	F7JF	ELLE	08/16/24 14:41
Total/NA	Prep	7471B			540013	UAMX	ELLE	08/14/24 23:25
Total/NA	Analysis	7471B		1	541279	X3ZX	ELLE	08/16/24 07:05
Total/NA	Prep	3060A			540481	UDS7	ELLE	08/14/24 20:09
Total/NA	Analysis	7196A		10	540529	UDS7	ELLE	08/15/24 00:33

Client Sample ID: DEP51-S15-240813

Lab Sample ID: 410-183955-12

Date Collected: 08/13/24 11:55

Matrix: Solid

Date Received: 08/13/24 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	7196A		1	536826	MRD6	ELLE	08/14/24 09:06
Total/NA	Analysis	Moisture		1	539954	S9WT	ELLE	08/13/24 20:02

Client Sample ID: DEP51-S15-240813

Lab Sample ID: 410-183955-12

Date Collected: 08/13/24 11:55

Matrix: Solid

Date Received: 08/13/24 16:15

Percent Solids: 75.8

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	3050B			540494	UAMX	ELLE	08/14/24 21:30
Total/NA	Analysis	6020B		2	541432	F7JF	ELLE	08/16/24 14:15
Total/NA	Prep	7471B			540013	UAMX	ELLE	08/14/24 23:25
Total/NA	Analysis	7471B		1	541279	X3ZX	ELLE	08/16/24 07:07
Total/NA	Prep	3060A			540481	UDS7	ELLE	08/14/24 20:09
Total/NA	Analysis	7196A		10	540529	UDS7	ELLE	08/15/24 00:33

Client Sample ID: DEP51-W5-240813

Lab Sample ID: 410-183955-13

Date Collected: 08/13/24 12:30

Matrix: Water

Date Received: 08/13/24 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	Non-Digest Prep			540323	UJL8	ELLE	08/14/24 13:20
Dissolved	Analysis	6020B		1	540667	F7JF	ELLE	08/14/24 22:28

Client Sample ID: DEP51-W5-240813

Lab Sample ID: 410-183955-13

Date Collected: 08/13/24 12:30

Matrix: Water

Date Received: 08/13/24 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	Non-Digest Prep			540323	UJL8	ELLE	08/14/24 13:20
Dissolved	Analysis	6020B		1	543667	T8CQ	ELLE	08/22/24 18:51
Dissolved	Prep	Non-Digest Prep			540323	UJL8	ELLE	08/14/24 13:20
Dissolved	Analysis	6020B		100	543667	T8CQ	ELLE	08/22/24 19:54
Dissolved	Prep	Non-Digest Prep			540323	UJL8	ELLE	08/14/24 13:20
Dissolved	Analysis	6020B		1	543974	F7JF	ELLE	08/23/24 14:15
Dissolved	Prep	7470A			540540	UAMX	ELLE	08/15/24 05:14
Dissolved	Analysis	7470A		1	540904	X3ZX	ELLE	08/15/24 14:09
Dissolved	Analysis	7196A		100	539978	UDS7	ELLE	08/13/24 21:20
Total/NA	Analysis	7196A		1	536826	MRD6	ELLE	08/16/24 07:33

Client Sample ID: DEP51-W6-240813

Lab Sample ID: 410-183955-14

Date Collected: 08/13/24 12:55

Matrix: Water

Date Received: 08/13/24 16:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Dissolved	Prep	Non-Digest Prep			540227	UJL8	ELLE	08/14/24 10:30
Dissolved	Analysis	6020B		1	540667	F7JF	ELLE	08/14/24 19:44
Dissolved	Prep	Non-Digest Prep			540227	UJL8	ELLE	08/14/24 10:30
Dissolved	Analysis	6020B		1	543667	T8CQ	ELLE	08/22/24 18:49
Dissolved	Prep	Non-Digest Prep			540227	UJL8	ELLE	08/14/24 10:30
Dissolved	Analysis	6020B		10	543667	T8CQ	ELLE	08/22/24 19:30
Dissolved	Prep	Non-Digest Prep			540227	UJL8	ELLE	08/14/24 10:30
Dissolved	Analysis	6020B		100	543667	T8CQ	ELLE	08/22/24 19:52
Dissolved	Prep	Non-Digest Prep			540227	UJL8	ELLE	08/14/24 10:30
Dissolved	Analysis	6020B		1	543974	F7JF	ELLE	08/23/24 14:13
Dissolved	Prep	7470A			540540	UAMX	ELLE	08/15/24 05:14
Dissolved	Analysis	7470A		1	540904	X3ZX	ELLE	08/15/24 14:11
Dissolved	Analysis	7196A		100	539978	UDS7	ELLE	08/13/24 21:20
Total/NA	Analysis	7196A		1	536826	MRD6	ELLE	08/16/24 07:33

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Accreditation/Certification Summary

Client: Pennsylvania Dept of Env Protection
Job ID: 410-183955-1
Project/Site: DEP 51st

Laboratory: Eurofins Lancaster Laboratories Environment Testing, LLC

Unless otherwise noted, all analytes for this laboratory were covered under each accreditation/certification below.

Authority	Program	Identification Number	Expiration Date
Pennsylvania	NELAP	36-00037	01-31-25

The following analytes are included in this report, but the laboratory is not certified by the governing authority. This list may include analytes for which the agency does not offer certification.

Analysis Method	Prep Method	Matrix	Analyte
7196A		Solid	Cr (III)
7196A		Water	Cr (III)
Moisture		Solid	Percent Moisture

Method Summary

Client: Pennsylvania Dept of Env Protection
Project/Site: DEP 51st

Job ID: 410-183955-1

Method	Method Description	Protocol	Laboratory
6020B	Metals (ICP/MS)	SW846	ELLE
7470A	Mercury (CVAA)	SW846	ELLE
7471B	Mercury (CVAA)	SW846	ELLE
7196A	Chromium, Hexavalent	SW846	ELLE
7196A	Chromium, Trivalent (Colorimetric)	SW846	ELLE
Moisture	Percent Moisture	EPA	ELLE
3050B	Preparation, Metals	SW846	ELLE
3060A	Alkaline Digestion (Chromium, Hexavalent)	SW846	ELLE
7470A	Preparation, Mercury	SW846	ELLE
7471B	Preparation, Mercury	SW846	ELLE
Non-Digest Prep	Preparation, Non-Digested Aqueous Metals	EPA	ELLE

Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

ELLE = Eurofins Lancaster Laboratories Environment Testing, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

Sample Summary

Client: Pennsylvania Dept of Env Protection
Project/Site: DEP 51st

Job ID: 410-183955-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
410-183955-1	DEP51-S12-240813	Solid	08/13/24 10:51	08/13/24 16:15
410-183955-2	DUP-SA-240813	Solid	08/13/24 00:00	08/13/24 16:15
410-183955-3	DEP51-S3-240813	Solid	08/13/24 10:55	08/13/24 16:15
410-183955-4	DEP51-S5-240813	Solid	08/13/24 11:10	08/13/24 16:15
410-183955-5	DEP51-S6-240813	Solid	08/13/24 11:20	08/13/24 16:15
410-183955-6	DUP-SB-240813	Solid	08/13/24 00:00	08/13/24 16:15
410-183955-7	DEP51-S13-240813	Solid	08/13/24 11:05	08/13/24 16:15
410-183955-8	DEP51-S7V	Solid	08/13/24 11:25	08/13/24 16:15
410-183955-9	DEP51-S8A-240813	Solid	08/13/24 11:30	08/13/24 16:15
410-183955-10	DEP51-S10A-240813	Solid	08/13/24 11:35	08/13/24 16:15
410-183955-11	DEP51-S14-240813	Solid	08/13/24 11:45	08/13/24 16:15
410-183955-12	DEP51-S15-240813	Solid	08/13/24 11:55	08/13/24 16:15
410-183955-13	DEP51-W5-240813	Water	08/13/24 12:30	08/13/24 16:15
410-183955-14	DEP51-W6-240813	Water	08/13/24 12:55	08/13/24 16:15

410-183955 Chain of Custody

ıvironme

Chain of Custody Record

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Client Contact: Glorinés Suárez Rivera	Sampler: Christine McCarthy	Lab PM: Sachtleben, Kerri S	Carrier Tracking No(s):	COC No: 410-128513-35441.1
Company: Pennsylvania Dept of Env Protection	Phone: 484-250-5725	E-Mail: Kerri.Sachtleben@et.eurofinsus.com	State of Origin: PA	Page: Page 1 of 2
Address: 2 East Main Street	PWSID:	Analysis Requested		Job #:
City: Norristown	Due Date Requested:			Preservation Codes: U=unpreserved
State, Zip: PA, 19401	TAT Requested (days): 3 DAY RUSH			
Phone: 484-250-5724(Tel)	Compliance Project: Δ Yes Δ No			
Email: gsuarezriv@pa.gov	PO #: 188260			
Project Name: DEP 51st	WO #:			
Site: Alliance 51st St | Bartram's Trail	Project #: 41020738			Other:
	SSOW#:			

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020B Total Metals	7196A Hexavalent Chromium	7196A Trivalent Chromium Calc	Total Number of containers	Special Instructions/Note:
			Preservation Code:				U	U	U		
DEP51-S12-240813	8|13|24	1051	G	S			X	X	X	1	
DUP-SA-240813	8|13|24	—	G	S			X	X	X	1	
DEP51-S3-240813	8|13|24	1055	G	S			X	X	X	1	
DEP51-S5-240813	8|13|24	1110	G	S			X	X	X	1	
DEP51-S6-240813	8|13|24	1120	G	S			X	X	X	1	
DUP-SB-240813	8|13|24	—	G	S			X	X	X	1	
DEP51-S13-240813	8|13|24	1105	G	S			X	X	X	1	
DEP51-S7-240813	8|13|24	1125	G	S			X	X	X	1	
DEP51-S8A-240813	8|13|24	1130	G	S			X	X	X	1	
DEP51-S10A-240813	8|13|24	1135	G	S			X	X	X	1	
DEP51-S14-240813	8|13|24	1145	G	S			X	X	X	1	

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify) II

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Christine McCarthy	8|13|24 1445	PA DEP			
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 8|13|24 1605	Company: TestAm

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.:

Cooler Temperature(s) °C and Other Remarks: 2 - 15.1 C 14.7

Eurofins Lancaster Laboratories Environme
2425 New Holland Pike
Lancaster, PA 17601
Phone: 717-656-2300 Fax: 717-656-2681

Chain of Custody Record

eurofins | Environment Testing

Client Information	Sampler: Christine McCarthy	Lab PM: Sachtleben, Kerri S	Carrier Tracking No(s):	COC No: 410-128513-35441.2
Client Contact: Glorinés Suárez Rivera	Phone: 484-250-5725	E-Mail: Kerri.Sachtleben@et.eurofinsus.com	State of Origin: PA	Page: Page 2 of 2
Company: Pennsylvania Dept of Env Protection	PWSID:			Job #:

Address: 2 East Main Street	Due Date Requested:	Analysis Requested	Preservation Codes: U=unpreserved N=nitric acid
City: Norristown	TAT Requested (days): 3 DAY RUSH		
State, Zip: PA, 19401	Compliance Project: Δ Yes Δ No		
Phone: 484-250-5724(Tel)	PO #: 188260		
Email: gsuarezriv@pa.gov	WO #:		
Project Name: DEP 51st	Project #: 41020738		
Site: Alliance 51st St/ Bartram's Trail	SSOW#:		Other:

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	6020B Total Metals	7196A Hexavalent Chromium	7196A Trivalent Chromium Calc	6020B Dissolved Metals	7196A Hexavalent Chromium	7196A Trivalent Chromium Calc	Total Number of containers	Special Instructions/Note:
			Preservation Code:				U	U	U	N	U	U		
DEP51-S15-240813	8/13/24	1155	G	S			X	X	X				1	
DEP51-WS-240813	8/13/24	1230	G	W	X					X	X	X	2	Field Filtered
DEP51-WL-240813	8/13/24	1255	G	W	X					X	X	X	2	Field Filtered

Possible Hazard Identification
☒ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown ☐ Radiological

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ Return To Client ☒ Disposal By Lab ☐ Archive For _____ Months

Deliverable Requested: I, II, III, IV, Other (specify) II

Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Christine McCarthy	8/13/24 1445	PADEP			
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 8/13/24 1615	Company

Custody Seals Intact: Δ Yes Δ No | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks: R 5.1 C 14.7

Ver: 04/02/2024

8/23/2024

Login Sample Receipt Checklist

Client: Pennsylvania Dept of Env Protection

Job Number: 410-183955-1

Login Number: 183955

List Source: Eurofins Lancaster Laboratories Environment Testing, LLC

List Number: 1

Creator: Kanagy, Nicholas

Question	Answer	Comment
The cooler's custody seal is intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature acceptable,where thermal pres is required(</=6C, not frozen).	False	Received same day of collection; chilling process has begun.
Cooler Temperature is recorded.	True	
WV:Container Temp acceptable,where thermal pres is required (</=6C, not frozen).	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	True	
Sample custody seals are intact.	N/A	
VOA sample vials do not have headspace >6mm in diameter (none, if from WV)?	N/A	

Appendix D

Arcadis Analytical Results Summary Tables dated July 22, 2024

Table 1
Summary of PADEP Split Soil Sampling Results- July 22, 2024
Alliance 51st Street LLC
1646 South 51st Street
Philadelphia, Pennsylvania

SAMPLE ID:	Pennsylvania Residential Direct Contact Soil MSCs Criteria	DEP51-S1				DEP51-S2				DEP51-S3				DEP51-S4			
LAB ID:		L2441149-01				L2441149-02				L2441149-03				L2441149-04			
COLLECTION DATE:		7/22/2024				7/22/2024				7/22/2024				7/22/2024			
SAMPLE MATRIX:		SOIL				SOIL				SOIL				SOIL			
ANALYTE	(mg/kg)	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL
GENERAL CHEMISTRY																	
Chromium, Trivalent	190000	332	J	0.809	0.162	830		0.851	0.17	1240		0.826	0.165	890		0.827	0.165
Chromium, Hexavalent	37	0.212	J	0.809	0.162	3.73		0.851	0.17	0.165	U	0.826	0.165	0.165	U	0.827	0.165
Solids, Total	NS	98.9		0.1	NA	94		0.1	NA	96.8		0.1	NA	96.7		0.1	NA
TOTAL METALS																	
Aluminum, Total	NS	4600		7.78	2.1	8440		8.18	2.21	13400		8.06	2.18	10900		7.86	2.12
Antimony, Total	88	0.296	U	3.89	0.296	0.311	U	4.09	0.311	0.306	U	4.03	0.306	0.767	J	3.93	0.299
Arsenic, Total	12	3.62		0.778	0.162	5.7		0.818	0.17	9.04		0.806	0.168	9.5		0.786	0.164
Barium, Total	44000	65.3		0.778	0.135	88		0.818	0.142	137		0.806	0.14	118		0.786	0.137
Beryllium, Total	440	0.295	J	0.389	0.026	0.37	J	0.409	0.027	0.57		0.403	0.027	0.518		0.393	0.026
Cadmium, Total	110	0.113	J	0.778	0.076	0.206	J	0.818	0.08	0.289	J	0.806	0.079	0.389	J	0.786	0.077
Calcium, Total	NS	30400		7.78	2.72	32300		8.18	2.86	42800		8.06	2.82	24400		7.86	2.75
Chromium, Total	NS	332		0.778	0.075	834		0.818	0.079	1240		0.806	0.077	890		0.786	0.076
Cobalt, Total	66	5.95		1.56	0.129	10.2		1.64	0.136	14.3		1.61	0.134	13.4		1.57	0.13
Copper, Total	7200	17.9		0.778	0.201	20.6		0.818	0.211	40.5		0.806	0.208	44.9		0.786	0.203
Iron, Total	150000	11400		3.89	0.702	17900		4.09	0.739	23500		4.03	0.728	24700		3.93	0.71
Lead, Total	500	66.1		3.89	0.208	59.4		4.09	0.219	110		4.03	0.216	201		3.93	0.211
Magnesium, Total	NS	3580		7.78	1.2	5640		8.18	1.26	8260		8.06	1.24	7410		7.86	1.21
Manganese, Total	31000	203		0.778	0.124	301		0.818	0.13	437		0.806	0.128	496		0.786	0.125
Mercury, Total	35	0.065		0.065	0.042	0.063	J	0.067	0.043	0.137		0.066	0.043	0.121		0.065	0.042
Nickel, Total	4400	20.4		1.94	0.188	38.6		2.04	0.198	55.8		2.01	0.195	48.4		1.97	0.19
Potassium, Total	NS	2100		194	11.2	3810		204	11.8	6180		201	11.6	4460		197	11.3
Selenium, Total	1100	0.201	U	1.56	0.201	0.212	J	1.64	0.211	0.328	J	1.61	0.208	0.45	J	1.57	0.203
Silver, Total	1100	0.22	U	0.389	0.22	0.232	U	0.409	0.232	0.228	U	0.403	0.228	0.234	J	0.393	0.222
Sodium, Total	NS	69.5	J	156	2.45	114	J	164	2.58	176		161	2.54	169		157	2.48
Thallium, Total	2	0.605	J	1.56	0.245	1	J	1.64	0.258	1.58	J	1.61	0.254	1.1	J	1.57	0.248
Vanadium, Total	1100	21.1		0.778	0.158	35.4		0.818	0.166	54.2		0.806	0.164	43.8		0.786	0.16
Zinc, Total	66000	114		3.89	0.228	162		4.09	0.24	252		4.03	0.236	299		3.93	0.23

NOTES:
MSC - Medium Specific Concentration
PADEP - Pennsylvania Department of Environmental Protection
Q - Qualifier
Conc - Concentration
RL - Reporting Limit
MDL - Minimum Detection Limit
GW - Groundwater
U - Compound was undetected at the listed laboratory method detection limit.
J = The compound was detected; however, the concentration is below the laboratory method detection limit. Accordingly, this concentration is estimated.
Concentrations reported in miligrams per kilogram (mg/kg)
Highlighted concentrations exceed the PADEP Residential Direct Contact Soil MSC

Table 1
Summary of PADEP Split Soil Sampling Results- July 22, 2024
Alliance 51st Street LLC
1646 South 51st Street
Philadelphia, Pennsylvania

SAMPLE ID:	Pennsylvania Residential Direct Contact Soil MSCs Criteria	DEP51-S5				DEP51-S6				DEP51-S7				DEP51-S8			
LAB ID:		L2441149-05				L2441149-06				L2441149-07				L2441149-08			
COLLECTION DATE:		7/22/2024				7/22/2024				7/22/2024				7/22/2024			
SAMPLE MATRIX:		SOIL				SOIL				SOIL				SOIL			
ANALYTE	(mg/kg)	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL
GENERAL CHEMISTRY																	
Chromium, Trivalent	190000	559		1.08	0.217	311		0.99	0.198	433	J	1.09	0.218	1110		1.33	0.265
Chromium, Hexavalent	37	0.217	U	1.08	0.217	0.198	U	0.99	0.198	0.273	J	1.09	0.218	0.265	U	1.33	0.265
Solids, Total	NS	73.8		0.1	NA	80.8		0.1	NA	73.3		0.1	NA	60.3		0.1	NA
TOTAL METALS																	
Aluminum, Total	NS	8300		10.2	2.76	6380		9.65	2.6	10900		10.4	2.8	12500		12.6	3.4
Antimony, Total	88	1.68	J	5.12	0.389	4	J	4.82	0.366	0.464	J	5.18	0.394	20.8		6.3	0.479
Arsenic, Total	12	6.8		1.02	0.213	12.9		0.965	0.201	8.85		1.04	0.215	13.9		1.26	0.262
Barium, Total	44000	121		1.02	0.178	115		0.965	0.168	117		1.04	0.18	146		1.26	0.219
Beryllium, Total	440	0.411	J	0.512	0.034	0.372	J	0.482	0.032	0.531		0.518	0.034	0.622	J	0.63	0.042
Cadmium, Total	110	0.379	J	1.02	0.1	0.517	J	0.965	0.095	0.304	J	1.04	0.102	0.469	J	1.26	0.124
Calcium, Total	NS	9870		10.2	3.58	12800		9.65	3.38	11600		10.4	3.62	37700		12.6	4.41
Chromium, Total	NS	559		1.02	0.098	311		0.965	0.093	433		1.04	0.099	1110		1.26	0.121
Cobalt, Total	66	9.38		2.05	0.17	8.7		1.93	0.16	12.2		2.07	0.172	16		2.52	0.209
Copper, Total	7200	54.8		1.02	0.264	93.9		0.965	0.249	41.5		1.04	0.267	59.7		1.26	0.325
Iron, Total	150000	21600		5.12	0.924	36800		4.82	0.871	22600		5.18	0.935	28000		6.3	1.14
Lead, Total	500	2330		5.12	0.274	290		4.82	0.258	140		5.18	0.278	474		6.3	0.338
Magnesium, Total	NS	5450		10.2	1.58	3390		9.65	1.48	6740		10.4	1.6	8690		12.6	1.94
Manganese, Total	31000	371		1.02	0.163	394		0.965	0.153	526		1.04	0.165	575		1.26	0.2
Mercury, Total	35	0.059	J	0.086	0.056	0.225		0.079	0.051	0.09		0.086	0.056	0.155		0.105	0.069
Nickel, Total	4400	29.6		2.56	0.248	31.3		2.41	0.233	35.1		2.59	0.251	59.1		3.15	0.305
Potassium, Total	NS	4200		256	14.7	2040		241	13.9	5090		259	14.9	5120		315	18.2
Selenium, Total	1100	0.587	J	2.05	0.264	0.971	J	1.93	0.249	0.448	J	2.07	0.267	0.862	J	2.52	0.325
Silver, Total	1100	0.29	U	0.512	0.29	0.369	J	0.482	0.273	0.293	U	0.518	0.293	0.357	U	0.63	0.357
Sodium, Total	NS	146	J	205	3.22	148	J	193	3.04	178	J	207	3.26	233	J	252	3.97
Thallium, Total	2	0.685	J	2.05	0.322	0.594	J	1.93	0.304	1.04	J	2.07	0.326	1.26	J	2.52	0.397
Vanadium, Total	1100	29.8		1.02	0.208	27.2		0.965	0.196	38.4		1.04	0.21	52.2		1.26	0.256
Zinc, Total	66000	387		5.12	0.3	210		4.82	0.283	230		5.18	0.304	407		6.3	0.37

NOTES:
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U - Compound was undetected at the listed laboratory method det
J = The compound was detected; however, the concentration is be
Concentrations reported in miligrams per kilogram (mg/kg)
Highlighted concentrations exceed the PADEP Residential Direct C

Table 1
Summary of PADEP Split Soil Sampling Results- July 22, 2024
Alliance 51st Street LLC
1646 South 51st Street
Philadelphia, Pennsylvania

SAMPLE ID:	Pennsylvania Residential Direct Contact Soil MSCs Criteria	DEP51-S9				DEP51-S10				DEP51-S11				DUP-S			
LAB ID:		L2441149-09				L2441149-10				L2441149-11				L2441149-12			
COLLECTION DATE:		7/22/2024				7/22/2024				7/22/2024				7/22/2024			
SAMPLE MATRIX:		SOIL				SOIL				SOIL				SOIL			
ANALYTE	(mg/kg)	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL
GENERAL CHEMISTRY																	
Chromium, Trivalent	190000	491		0.99	0.198	1030		1.33	0.267	101		0.928	0.186	305		1.04	0.208
Chromium, Hexavalent	37	0.198	U	0.99	0.198	0.267	U	1.33	0.267	0.186	U	0.928	0.186	0.208	U	1.04	0.208
Solids, Total	NS	80.8		0.1	NA	60		0.1	NA	86.2		0.1	NA	77		0.1	NA
TOTAL METALS																	
Aluminum, Total	NS	10200		9.46	2.55	11200		13.1	3.54	9980		8.99	2.43	6280		9.76	2.63
Antimony, Total	88	0.698	J	4.73	0.36	0.777	J	6.56	0.499	1.09	J	4.5	0.342	4.16	J	4.88	0.371
Arsenic, Total	12	10.3		0.946	0.197	13.8		1.31	0.273	7.01		0.899	0.187	16.9		0.976	0.203
Barium, Total	44000	110		0.946	0.165	119		1.31	0.228	104		0.899	0.156	122		0.976	0.17
Beryllium, Total	440	0.592		0.473	0.031	0.668		0.656	0.043	0.619		0.45	0.03	0.409	J	0.488	0.032
Cadmium, Total	110	0.452	J	0.946	0.093	0.481	J	1.31	0.129	0.425	J	0.899	0.088	0.488	J	0.976	0.096
Calcium, Total	NS	14800		9.46	3.31	19900		13.1	4.59	8320		8.99	3.15	11600		9.76	3.42
Chromium, Total	NS	491		0.946	0.091	1030		1.31	0.126	101		0.899	0.086	305		0.976	0.094
Cobalt, Total	66	13		1.89	0.157	16		2.62	0.218	9.09		1.8	0.149	7.75		1.95	0.162
Copper, Total	7200	50		0.946	0.244	60.7		1.31	0.338	50.9		0.899	0.232	83.2		0.976	0.252
Iron, Total	150000	33900		4.73	0.854	24900		6.56	1.18	20700		4.5	0.812	28400		4.88	0.881
Lead, Total	500	1120		4.73	0.254	242		6.56	0.352	185		4.5	0.241	236		4.88	0.261
Magnesium, Total	NS	7190		9.46	1.46	9220		13.1	2.02	5450		8.99	1.38	3150		9.76	1.5
Manganese, Total	31000	558		0.946	0.15	656		1.31	0.209	412		0.899	0.143	316		0.976	0.155
Mercury, Total	35	0.102		0.079	0.052	0.219		0.107	0.07	0.202		0.074	0.048	0.249		0.082	0.053
Nickel, Total	4400	35.6		2.36	0.229	52.2		3.28	0.318	18.6		2.25	0.218	28.1		2.44	0.236
Potassium, Total	NS	3670		236	13.6	3410		328	18.9	1830		225	12.9	1840		244	14
Selenium, Total	1100	0.669	J	1.89	0.244	0.754	J	2.62	0.338	0.291	J	1.8	0.232	0.546	J	1.95	0.252
Silver, Total	1100	0.286	J	0.473	0.268	0.371	U	0.656	0.371	0.448	J	0.45	0.254	0.335	J	0.488	0.276
Sodium, Total	NS	172	J	189	2.98	227	J	262	4.13	221		180	2.83	152	J	195	3.07
Thallium, Total	2	0.9	J	1.89	0.298	0.819	J	2.62	0.413	0.538	J	1.8	0.283	0.617	J	1.95	0.307
Vanadium, Total	1100	35.7		0.946	0.192	50.5		1.31	0.266	33.9		0.899	0.182	25.3		0.976	0.198
Zinc, Total	66000	363		4.73	0.277	343		6.56	0.384	222		4.5	0.263	192		4.88	0.286

NOTES:
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J = The compound was detected; however, the concentration is be
Concentrations reported in miligrams per kilogram (mg/kg)
Highlighted concentrations exceed the PADEP Residential Direct C

Table 2
Summary of PADEP Split Soil Sampling Results- July 22, 2024
Alliance 51st Street LLC
1646 South 51st Street
Philadelphia, Pennsylvania

SAMPLE ID:	Pennsylvania Residential Direct Contact Soil MSCs	DEP51-S1				DEP51-S2				DEP51-S3				DEP51-S4				DEP51-S5				DEP51-S6			
LAB ID:		L2441149-01				L2441149-02				L2441149-03				L2441149-04				L2441149-05				L2441149-06			
COLLECTION DATE:		7/22/2024				7/22/2024				7/22/2024				7/22/2024				7/22/2024				7/22/2024			
SAMPLE MATRIX:		SOIL				SOIL				SOIL				SOIL				SOIL				SOIL			
ANALYTE	(mg/kg)	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL
VOLATILE ORGANICS BY EPA 5035																									
1,1,1-Trichloroethane	10000	0.00019	U	0.00058	0.00019	0.00026	U	0.00078	0.00026	0.0004	U	0.0012	0.0004	0.00033	U	0.00099	0.00033	0.00026	U	0.00077	0.00026	0.00023	U	0.0007	0.00023
1,1,2,2-Tetrachloroethane	7.6	0.00019	U	0.00058	0.00019	0.00026	U	0.00078	0.00026	0.00039	U	0.0012	0.00039	0.00033	U	0.00099	0.00033	0.00026	U	0.00077	0.00026	0.00023	U	0.0007	0.00023
1,1,2-Trichloro-1,2,2-Trifluoroethane	10000	0.0008	U	0.0046	0.0008	0.0011	U	0.0062	0.0011	0.0016	U	0.0095	0.0016	0.0014	U	0.0079	0.0014	0.0011	U	0.0062	0.0011	0.00096	U	0.0056	0.00096
1,1,2-Trichloroethane	3.8	0.00031	U	0.0012	0.00031	0.00042	U	0.0016	0.00042	0.00063	U	0.0024	0.00063	0.00053	U	0.002	0.00053	0.00041	U	0.0015	0.00041	0.00037	U	0.0014	0.00037
1,1-Dichloroethane	280	0.00017	U	0.0012	0.00017	0.00022	U	0.0016	0.00022	0.00034	U	0.0024	0.00034	0.00029	U	0.002	0.00029	0.00022	U	0.0015	0.00022	0.0002	U	0.0014	0.0002
1,1-Dichloroethene	3800	0.00027	U	0.0012	0.00027	0.00037	U	0.0016	0.00037	0.00056	U	0.0024	0.00056	0.00047	U	0.002	0.00047	0.00037	U	0.0015	0.00037	0.00033	U	0.0014	0.00033
1,2,3-Trichlorobenzene	NS	0.00037	U	0.0023	0.00037	0.0005	U	0.0031	0.0005	0.00076	U	0.0047	0.00076	0.00064	U	0.0039	0.00064	0.0005	U	0.0031	0.0005	0.00045	U	0.0028	0.00045
1,2,4-Trichlorobenzene	39	0.00031	U	0.0023	0.00031	0.00042	U	0.0031	0.00042	0.00064	U	0.0047	0.00064	0.00054	U	0.0039	0.00054	0.00042	U	0.0031	0.00042	0.00038	U	0.0028	0.00038
1,2-Dibromo-3-chloropropane	0.029	0.0012	U	0.0035	0.0012	0.0016	U	0.0047	0.0016	0.0024	U	0.0071	0.0024	0.002	U	0.0059	0.002	0.0015	U	0.0046	0.0015	0.0014	U	0.0042	0.0014
1,2-Dibromoethane	0.74	0.00034	U	0.00058	0.00034	0.00046	U	0.00078	0.00046	0.00069	U	0.0012	0.00069	0.00058	U	0.00099	0.00058	0.00045	U	0.00077	0.00045	0.00041	U	0.0007	0.00041
1,2-Dichlorobenzene	3800	0.00017	U	0.0023	0.00017	0.00022	U	0.0031	0.00022	0.00034	U	0.0047	0.00034	0.00028	U	0.0039	0.00028	0.00022	U	0.0031	0.00022	0.0002	U	0.0028	0.0002
1,2-Dichloroethane	17	0.0003	U	0.0012	0.0003	0.0004	U	0.0016	0.0004	0.00061	U	0.0024	0.00061	0.00051	U	0.002	0.00051	0.0004	U	0.0015	0.0004	0.00036	U	0.0014	0.00036
1,2-Dichloroethene, Total	NS	0.00016	U	0.0012	0.00016	0.00021	U	0.0016	0.00021	0.00032	U	0.0024	0.00032	0.00027	U	0.002	0.00027	0.00021	U	0.0015	0.00021	0.00019	U	0.0014	0.00019
1,2-Dichloropropane	0.12	0.00014	U	0.0012	0.00014	0.00019	U	0.0016	0.00019	0.0003	U	0.0024	0.0003	0.00025	U	0.002	0.00025	0.00019	U	0.0015	0.00019	0.00017	U	0.0014	0.00017
1,3-Dichlorobenzene	10000	0.00017	U	0.0023	0.00017	0.00023	U	0.0031	0.00023	0.00035	U	0.0047	0.00035	0.00029	U	0.0039	0.00029	0.00023	U	0.0031	0.00023	0.0002	U	0.0028	0.0002
1,3-Dichloropropene, Total	110	0.00018	U	0.00058	0.00018	0.00024	U	0.00078	0.00024	0.00037	U	0.0012	0.00037	0.00031	U	0.00099	0.00031	0.00024	U	0.00077	0.00024	0.00022	U	0.0007	0.00022
1,4-Dichlorobenzene	40	0.0002	U	0.0023	0.0002	0.00026	U	0.0031	0.00026	0.0004	U	0.0047	0.0004	0.00034	U	0.0039	0.00034	0.00026	U	0.0031	0.00026	0.00024	U	0.0028	0.00024
1,4-Dioxane	89	0.04	U	0.092	0.04	0.054	U	0.12	0.054	0.083	U	0.19	0.083	0.069	U	0.16	0.069	0.054	U	0.12	0.054	0.049	U	0.11	0.049
2-Butanone	10000	0.0026	U	0.012	0.0026	0.0034	U	0.016	0.0034	0.0053	U	0.024	0.0053	0.0044	U	0.02	0.0044	0.0034	U	0.015	0.0034	0.0031	U	0.014	0.0031
2-Hexanone	570	0.0014	U	0.012	0.0014	0.0018	U	0.016	0.0018	0.0028	U	0.024	0.0028	0.0023	U	0.02	0.0023	0.0018	U	0.015	0.0018	0.0016	U	0.014	0.0016
4-Methyl-2-pentanone	10000	0.0015	U	0.012	0.0015	0.002	U	0.016	0.002	0.003	U	0.024	0.003	0.0025	U	0.02	0.0025	0.002	U	0.015	0.002	0.0018	U	0.014	0.0018
Acetone	10000	0.012	U	0.029	0.012	0.016	U	0.039	0.016	0.024	U	0.059	0.024	0.02	U	0.049	0.02	0.015	U	0.038	0.015	0.014	U	0.035	0.014
Benzene	57	0.00019	U	0.00058	0.00019	0.00026	U	0.00078	0.00026	0.00039	U	0.0012	0.00039	0.00033	U	0.00099	0.00033	0.00026	U	0.00077	0.00026	0.00023	U	0.0007	0.00023
Bromochloromethane	760	0.00024	U	0.0023	0.00024	0.00032	U	0.0031	0.00032	0.00048	U	0.0047	0.00048	0.0004	U	0.0039	0.0004	0.00032	U	0.0031	0.00032	0.00028	U	0.0028	0.00028
Bromodichloromethane	12	0.00012	U	0.00058	0.00012	0.00017	U	0.00078	0.00017	0.00026	U	0.0012	0.00026	0.00022	U	0.00099	0.00022	0.00017	U	0.00077	0.00017	0.00015	U	0.0007	0.00015
Bromoform	400	0.00028	U	0.0046	0.00028	0.00038	U	0.0062	0.00038	0.00058	U	0.0095	0.00058	0.00048	U	0.0079	0.00048	0.00038	U	0.0062	0.00038	0.00034	U	0.0056	0.00034
Bromomethane	95	0.00067	U	0.0023	0.00067	0.0009	U	0.0031	0.0009	0.0014	U	0.0047	0.0014	0.0011	U	0.0039	0.0011	0.0009	U	0.0031	0.0009	0.00081	U	0.0028	0.00081
Carbon disulfide	10000	0.0052	U	0.012	0.0052	0.0071	U	0.016	0.0071	0.011	U	0.024	0.011	0.009	U	0.02	0.009	0.007	U	0.015	0.007	0.0063	U	0.014	0.0063
Carbon tetrachloride	75	0.00026	U	0.0012	0.00026	0.00036	U	0.0016	0.00036	0.00054	U	0.0024	0.00054	0.00045	U	0.002	0.00045	0.00035	U	0.0015	0.00035	0.00032	U	0.0014	0.00032
Chlorobenzene	950	0.00015	U	0.00058	0.00015	0.0002	U	0.00078	0.0002	0.0003	U	0.0012	0.0003	0.00025	U	0.00099	0.00025	0.0002	U	0.00077	0.0002	0.00018	U	0.0007	0.00018
Chloroethane	10000	0.00052	U	0.0023	0.00052	0.0007	U	0.0031	0.0007	0.0011	U	0.0047	0.0011	0.00089	U	0.0039	0.00089	0.0007	U	0.0031	0.0007	0.00063	U	0.0028	0.00063
Chloroform	19	0.00016	U	0.0017	0.00016	0.00022	U	0.0023	0.00022	0.00033	U	0.0036	0.00033	0.00028	U	0.003	0.00028	0.00022	U	0.0023	0.00022	0.00019	U	0.0021	0.00019
Chloromethane	250	0.0011	U	0.0046	0.0011	0.0014	U	0.0062	0.0014	0.0022	U	0.0095	0.0022	0.0018	U	0.0079	0.0018	0.0014	U	0.0062	0.0014	0.0013	U	0.0056	0.0013
cis-1,2-Dichloroethene	440	0.0002	U	0.0012	0.0002	0.00027	U	0.0016	0.00027	0.00041	U	0.0024	0.00041	0.00034	U	0.002	0.00034	0.00027	U	0.0015	0.00027	0.00024	U	0.0014	0.00024
cis-1,3-Dichloropropene	110	0.00018	U	0.00058	0.00018	0.00024	U	0.00078	0.00024	0.00037	U	0.0012	0.00037	0.00031	U	0.00099	0.00031	0.00024	U	0.00077	0.00024	0.00022	U	0.0007	0.00022
Cyclohexane	10000	0.00063	U	0.012	0.00063	0.00085	U	0.016	0.00085	0.0013	U	0.024	0.0013	0.0011	U	0.02	0.0011	0.00084	U	0.015	0.00084	0.00076	U	0.014	0.00076
Dibromochloromethane	220	0.00016	U	0.0012	0.00016	0.00022	U	0.0016	0.00022	0.00033	U	0.0024	0.00033	0.00028	U	0.002	0.00028	0.00022	U	0.0015	0.00022	0.00019	U	0.0014	0.00019
Dichlorodifluoromethane	1900	0.001	U	0.012	0.001	0.0014	U	0.016	0.0014	0.0022	U	0.024	0.0022	0.0018	U	0.02	0.0018	0.0014	U	0.015	0.0014	0.0013	U	0.014	0.0013
Ethylbenzene	180	0.00016	U	0.0012	0.00016	0.00022	U	0.0016	0.00022	0.00033	U	0.0024	0.00033	0.00028	U	0.002	0.00028	0.00022	U	0.0015	0.00022	0.0002	U	0.0014	0.0002
Isopropylbenzene	7600	0.00012	U	0.0012	0.00012	0.00017	U	0.0016	0.00017	0.00026	U	0.0024	0.00026	0.00022	U	0.002	0.00022	0.00017	U	0.0015	0.00017	0.00015	U	0.0014	0.00015
Methyl Acetate	10000	0.0011	U	0.0046	0.0011	0.0015	U	0.0062	0.0015	0.0022	U	0.0095	0.0022	0.0019	U	0.0079	0.0019	0.0015	U	0.0062	0.0015	0.0044	J	0.0056	0.0013
Methyl cyclohexane	NS	0.0007	U	0.0046	0.0007	0.00094	U	0.0062	0.00094	0.0014	U	0.0095	0.0014	0.0012	U	0.0079	0.0012	0.00093	U	0.0062	0.00093	0.00084	U	0.0056	0.00084
Methyl tert butyl ether	1700	0.00023	U	0.0023	0.00023	0.00031	U	0.0031	0.00031	0.00048	U	0.0047	0.00048	0.0004	U	0.0039	0.0004	0.00031	U	0.0031	0.00031	0.00028	U	0.0028	0.00028
Methylene chloride	1300	0.0026	U	0.0058	0.0026	0.0036	U	0.0078	0.0036	0.0054	U	0.012	0.0054	0.0045	U	0.0099	0.0045	0.0035	U	0.0077	0.0035	0.0032	U	0.007	0.0032
o-Xylene	1900	0.00034	U	0.0012	0.00034	0.00045	U	0.0016	0.00045	0.00069	U	0.0024	0.00069	0.00057	U	0.002	0.00057	0.00045	U	0.0015	0.00045	0.0004	U	0.0014	0.0004
p/m-Xylene	1900	0.00065	U	0.0023	0.00065	0.00087	U	0.0031	0.00087	0.0013	U	0.0047	0.0013	0.0011	U	0.0039	0.0011	0.00086	U	0.0031	0.00086	0.00078	U	0.0028	0.00078
Styrene	10000	0.00023	U	0.0012	0.00023	0.0003	U	0.0016	0.0003	0.00046	U	0.0024	0.00046	0.00039	U	0.002	0.00039	0.0003	U	0.0015	0.0003	0.00027	U	0.0014	0.00027
Tetrachloroethene	760	0.00023	U	0.00058	0.00023	0.0003	U	0.00078	0.0003	0.00046	U	0.0012	0.00046	0.00039	U	0.00099	0.00039	0.0003	U	0.00077	0.0003	0.00027	U	0.0007	0.00027
Toluene	10000	0.00063	U	0.0012	0.00063	0.00084	U	0.0016	0.00084	0.0013	U	0.0024	0.0013	0.0011	U	0.002	0.0011	0.00084	U	0.0015	0.00084	0.00076	U	0.0014	0.00076
trans-1,2-Dichloroethene	4400	0.00016	U	0.0017	0.00016	0.00021	U	0.0023	0.00021	0.00032	U	0.0036	0.00032	0.00027	U	0.003	0.00027	0.00021	U	0.0023	0.00021	0.00019	U	0.0021	0.00019
trans-1,3-Dichloropropene	110	0.00032	U	0.0012	0.00032	0.00042	U	0.0016	0.00042	0.00065	U	0.0024	0.00065	0.00054	U	0.002	0.00054	0.00042	U	0.0015	0.00042	0.00038	U	0.0014	0.00038
Trichloroethene	38	0.00016	U	0.00058	0.00016	0.00021	U	0.00078	0.00021	0.00032	U	0.0012	0.00032	0.00027	U	0.00099	0.00027	0.00021	U	0.00077	0.00021	0.00019	U	0.0007	0.00019
Trichlorofluoromethane	10000	0.0008	U	0.0046	0.0008	0.0011	U	0.0062	0.0011	0.0016	U	0.0095	0.0016	0.0014	U	0.0079	0.0014	0.0011	U	0.0062	0.0011	0.00097	U	0.0056	0.00097
Vinyl chloride	0.93	0.00039	U	0.0012	0.00039	0.00052	U	0.0016	0.00052	0.00079	U	0.0024	0.00079	0.00066	U	0.002	0.00066	0.00052	U	0.0015	0.00052	0.00046	U	0.0014	0.00046
Xylenes, Total	1900	0.00034	U	0.0012	0.00034	0.00045	U	0.0016	0.00045	0.00069	U	0.0024	0.00069	0.00057	U	0.002	0.00057	0.00045	U	0.0015	0.00045	0.0004	U	0.0014	0.0004
Total VOCs	NS	0.08251	-	-	-	0.11106	-	-	-	0.16966	-	-	-	0.1412	-	-	-	0.1097	-	-	-	0.10281	-	-	-
Total TIC Compounds	NS	0.00432	J	0	0	-		-	-	0.0181	J	0	0	0.00965	J	0	0	0.012	J	0	0	0.00572	J	0	0

NOTES:
MSC - Medium Specific Concentration
PADEP - Pennsylvania Department of Environmental Protection
Q - Qualifier
Conc - Concentration
RL - Reporting Limit
MDL - Minimum Detection Limit
U - Compound was undetected at the listed laboratory method detection limit.
J = The compound was detected; however, the concentration is below the laboratory method detection limit. Accordingly, this concentration is estimated.
Concentrations reported in miligrams per kilogram (mg/kg)

Table 2
Summary of PADEP Split Soil Sampling Results- July 22, 2024
Alliance 51st Street LLC
1646 South 51st Street
Philadelphia, Pennsylvania

SAMPLE ID:	Pennsylvania Residential Direct Contact Soil MSCs	DEP51-S7				DEP51-S8				DEP51-S9				DEP51-S10				DEP51-S11				DUP-S			
LAB ID:		L2441149-07				L2441149-08				L2441149-09				L2441149-10				L2441149-11				L2441149-12			
COLLECTION DATE:		7/22/2024				7/22/2024				7/22/2024				7/22/2024				7/22/2024				7/22/2024			
SAMPLE MATRIX:		SOIL				SOIL				SOIL				SOIL				SOIL				SOIL			
ANALYTE	(mg/kg)	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL
VOLATILE ORGANICS BY EPA 5035																									
1,1,1-Trichloroethane	10000	0.00028	U	0.00082	0.00028	0.00033	U	0.00099	0.00033	0.00035	U	0.001	0.00035	0.00041	U	0.0012	0.00041	0.00038	U	0.0011	0.00038	0.00027	U	0.0008	0.00027
1,1,2,2-Tetrachloroethane	7.6	0.00027	U	0.00082	0.00027	0.00033	U	0.00099	0.00033	0.00034	U	0.001	0.00034	0.0004	U	0.0012	0.0004	0.00037	U	0.0011	0.00037	0.00026	U	0.0008	0.00026
1,1,2-Trichloro-1,2,2-Trifluoroethane	10000	0.0011	U	0.0066	0.0011	0.0014	U	0.0079	0.0014	0.0014	U	0.0083	0.0014	0.0017	U	0.0097	0.0017	0.0016	U	0.009	0.0016	0.0011	U	0.0064	0.0011
1,1,2-Trichloroethane	3.8	0.00044	U	0.0016	0.00044	0.00053	U	0.002	0.00053	0.00056	U	0.0021	0.00056	0.00065	U	0.0024	0.00065	0.0006	U	0.0022	0.0006	0.00043	U	0.0016	0.00043
1,1-Dichloroethane	280	0.00024	U	0.0016	0.00024	0.00029	U	0.002	0.00029	0.0003	U	0.0021	0.0003	0.00035	U	0.0024	0.00035	0.00032	U	0.0022	0.00032	0.00023	U	0.0016	0.00023
1,1-Dichloroethene	3800	0.00039	U	0.0016	0.00039	0.00047	U	0.002	0.00047	0.0005	U	0.0021	0.0005	0.00058	U	0.0024	0.00058	0.00054	U	0.0022	0.00054	0.00038	U	0.0016	0.00038
1,2,3-Trichlorobenzene	NS	0.00053	U	0.0033	0.00053	0.00064	U	0.004	0.00064	0.00067	U	0.0042	0.00067	0.00078	U	0.0049	0.00078	0.00072	U	0.0045	0.00072	0.00052	U	0.0032	0.00052
1,2,4-Trichlorobenzene	39	0.00045	U	0.0033	0.00045	0.00054	U	0.004	0.00054	0.00057	U	0.0042	0.00057	0.00066	U	0.0049	0.00066	0.00061	U	0.0045	0.00061	0.00044	U	0.0032	0.00044
1,2-Dibromo-3-chloropropane	0.029	0.0016	U	0.005	0.0016	0.002	U	0.0059	0.002	0.0021	U	0.0062	0.0021	0.0024	U	0.0073	0.0024	0.0022	U	0.0067	0.0022	0.0016	U	0.0048	0.0016
1,2-Dibromoethane	0.74	0.00048	U	0.00082	0.00048	0.00058	U	0.00099	0.00058	0.00061	U	0.001	0.00061	0.00071	U	0.0012	0.00071	0.00066	U	0.0011	0.00066	0.00047	U	0.0008	0.00047
1,2-Dichlorobenzene	3800	0.00024	U	0.0033	0.00024	0.00028	U	0.004	0.00028	0.0003	U	0.0042	0.0003	0.00035	U	0.0049	0.00035	0.00032	U	0.0045	0.00032	0.00023	U	0.0032	0.00023
1,2-Dichloroethane	17	0.00042	U	0.0016	0.00042	0.00051	U	0.002	0.00051	0.00054	U	0.0021	0.00054	0.00063	U	0.0024	0.00063	0.00058	U	0.0022	0.00058	0.00041	U	0.0016	0.00041
1,2-Dichloroethene, Total	NS	0.00023	U	0.0016	0.00023	0.00027	U	0.002	0.00027	0.00028	U	0.0021	0.00028	0.00033	U	0.0024	0.00033	0.00031	U	0.0022	0.00031	0.00022	U	0.0016	0.00022
1,2-Dichloropropane	0.12	0.00021	U	0.0016	0.00021	0.00025	U	0.002	0.00025	0.00026	U	0.0021	0.00026	0.0003	U	0.0024	0.0003	0.00028	U	0.0022	0.00028	0.0002	U	0.0016	0.0002
1,3-Dichlorobenzene	10000	0.00024	U	0.0033	0.00024	0.00029	U	0.004	0.00029	0.00031	U	0.0042	0.00031	0.00036	U	0.0049	0.00036	0.00033	U	0.0045	0.00033	0.00024	U	0.0032	0.00024
1,3-Dichloropropene, Total	110	0.00026	U	0.00082	0.00026	0.00031	U	0.00099	0.00031	0.00033	U	0.001	0.00033	0.00038	U	0.0012	0.00038	0.00036	U	0.0011	0.00036	0.00025	U	0.0008	0.00025
1,4-Dichlorobenzene	40	0.00028	U	0.0033	0.00028	0.00034	U	0.004	0.00034	0.00036	U	0.0042	0.00036	0.00042	U	0.0049	0.00042	0.00038	U	0.0045	0.00038	0.00027	U	0.0032	0.00027
1,4-Dioxane	89	0.058	U	0.13	0.058	0.069	U	0.16	0.069	0.073	U	0.17	0.073	0.086	U	0.19	0.086	0.079	U	0.18	0.079	0.056	U	0.13	0.056
2-Butanone	10000	0.0037	U	0.016	0.0037	0.0044	U	0.02	0.0044	0.0046	U	0.021	0.0046	0.0054	U	0.024	0.0054	0.14		0.022	0.005	0.0036	U	0.016	0.0036
2-Hexanone	570	0.0019	U	0.016	0.0019	0.0023	U	0.02	0.0023	0.0024	U	0.021	0.0024	0.0029	U	0.024	0.0029	0.0026	U	0.022	0.0026	0.0019	U	0.016	0.0019
4-Methyl-2-pentanone	10000	0.0021	U	0.016	0.0021	0.0025	U	0.02	0.0025	0.0027	U	0.021	0.0027	0.0031	U	0.024	0.0031	0.0029	U	0.022	0.0029	0.002	U	0.016	0.002
Acetone	10000	0.016	U	0.041	0.016	0.02	U	0.049	0.02	0.021	U	0.052	0.021	0.024	U	0.061	0.024	0.23		0.056	0.022	0.016	U	0.04	0.016
Benzene	57	0.00027	U	0.00082	0.00027	0.00033	U	0.00099	0.00033	0.00034	U	0.001	0.00034	0.0004	U	0.0012	0.0004	0.00037	U	0.0011	0.00037	0.00026	U	0.0008	0.00026
Bromochloromethane	760	0.00034	U	0.0033	0.00034	0.0004	U	0.004	0.0004	0.00043	U	0.0042	0.00043	0.0005	U	0.0049	0.0005	0.00046	U	0.0045	0.00046	0.00033	U	0.0032	0.00033
Bromodichloromethane	12	0.00018	U	0.00082	0.00018	0.00022	U	0.00099	0.00022	0.00023	U	0.001	0.00023	0.00026	U	0.0012	0.00026	0.00024	U	0.0011	0.00024	0.00017	U	0.0008	0.00017
Bromoform	400	0.00041	U	0.0066	0.00041	0.00049	U	0.0079	0.00049	0.00051	U	0.0083	0.00051	0.0006	U	0.0097	0.0006	0.00055	U	0.009	0.00055	0.00039	U	0.0064	0.00039
Bromomethane	95	0.00096	U	0.0033	0.00096	0.0011	U	0.004	0.0011	0.0012	U	0.0042	0.0012	0.0014	U	0.0049	0.0014	0.0013	U	0.0045	0.0013	0.00093	U	0.0032	0.00093
Carbon disulfide	10000	0.0075	U	0.016	0.0075	0.009	U	0.02	0.009	0.0095	U	0.021	0.0095	0.011	U	0.024	0.011	0.01	U	0.022	0.01	0.0073	U	0.016	0.0073
Carbon tetrachloride	75	0.00038	U	0.0016	0.00038	0.00046	U	0.002	0.00046	0.00048	U	0.0021	0.00048	0.00056	U	0.0024	0.00056	0.00052	U	0.0022	0.00052	0.00037	U	0.0016	0.00037
Chlorobenzene	950	0.00021	U	0.00082	0.00021	0.00025	U	0.00099	0.00025	0.00026	U	0.001	0.00026	0.00031	U	0.0012	0.00031	0.00028	U	0.0011	0.00028	0.0002	U	0.0008	0.0002
Chloroethane	10000	0.00075	U	0.0033	0.00075	0.00089	U	0.004	0.00089	0.00094	U	0.0042	0.00094	0.0011	U	0.0049	0.0011	0.001	U	0.0045	0.001	0.00072	U	0.0032	0.00072
Chloroform	19	0.00023	U	0.0025	0.00023	0.00028	U	0.003	0.00028	0.00029	U	0.0031	0.00029	0.00034	U	0.0036	0.00034	0.00031	U	0.0034	0.00031	0.00022	U	0.0024	0.00022
Chloromethane	250	0.0015	U	0.0066	0.0015	0.0018	U	0.0079	0.0018	0.0019	U	0.0083	0.0019	0.0023	U	0.0097	0.0023	0.0021	U	0.009	0.0021	0.0015	U	0.0064	0.0015
cis-1,2-Dichloroethene	440	0.00029	U	0.0016	0.00029	0.00035	U	0.002	0.00035	0.00036	U	0.0021	0.00036	0.00043	U	0.0024	0.00043	0.00039	U	0.0022	0.00039	0.00028	U	0.0016	0.00028
cis-1,3-Dichloropropene	110	0.00026	U	0.00082	0.00026	0.00031	U	0.00099	0.00031	0.00033	U	0.001	0.00033	0.00038	U	0.0012	0.00038	0.00036	U	0.0011	0.00036	0.00025	U	0.0008	0.00025
Cyclohexane	10000	0.0009	U	0.016	0.0009	0.0011	U	0.02	0.0011	0.0011	U	0.021	0.0011	0.0013	U	0.024	0.0013	0.0012	U	0.022	0.0012	0.00087	U	0.016	0.00087
Dibromochloromethane	220	0.00023	U	0.0016	0.00023	0.00028	U	0.002	0.00028	0.00029	U	0.0021	0.00029	0.00034	U	0.0024	0.00034	0.00031	U	0.0022	0.00031	0.00022	U	0.0016	0.00022
Dichlorodifluoromethane	1900	0.0015	U	0.016	0.0015	0.0018	U	0.02	0.0018	0.0019	U	0.021	0.0019	0.0022	U	0.024	0.0022	0.002	U	0.022	0.002	0.0015	U	0.016	0.0015
Ethylbenzene	180	0.00023	U	0.0016	0.00023	0.00028	U	0.002	0.00028	0.00029	U	0.0021	0.00029	0.00034	U	0.0024	0.00034	0.00032	U	0.0022	0.00032	0.00022	U	0.0016	0.00022
Isopropylbenzene	7600	0.00018	U	0.0016	0.00018	0.00022	U	0.002	0.00022	0.00023	U	0.0021	0.00023	0.00026	U	0.0024	0.00026	0.00024	U	0.0022	0.00024	0.00017	U	0.0016	0.00017
Methyl Acetate	10000	0.0016	U	0.0066	0.0016	0.0019	U	0.0079	0.0019	0.002	U	0.0083	0.002	0.0023	U	0.0097	0.0023	0.0021	U	0.009	0.0021	0.0015	U	0.0064	0.0015
Methyl cyclohexane	NS	0.001	U	0.0066	0.001	0.0012	U	0.0079	0.0012	0.0012	U	0.0083	0.0012	0.0015	U	0.0097	0.0015	0.0014	U	0.009	0.0014	0.00096	U	0.0064	0.00096
Methyl tert butyl ether	1700	0.00033	U	0.0033	0.00033	0.0004	U	0.004	0.0004	0.00042	U	0.0042	0.00042	0.00049	U	0.0049	0.00049	0.00045	U	0.0045	0.00045	0.00032	U	0.0032	0.00032
Methylene chloride	1300	0.0038	U	0.0082	0.0038	0.0045	U	0.0099	0.0045	0.0048	U	0.01	0.0048	0.0056	U	0.012	0.0056	0.0051	U	0.011	0.0051	0.0037	U	0.008	0.0037
o-Xylene	1900	0.00048	U	0.0016	0.00048	0.00058	U	0.002	0.00058	0.00061	U	0.0021	0.00061	0.00071	U	0.0024	0.00071	0.00065	U	0.0022	0.00065	0.00046	U	0.0016	0.00046
p/m-Xylene	1900	0.00092	U	0.0033	0.00092	0.0011	U	0.004	0.0011	0.0012	U	0.0042	0.0012	0.0014	U	0.0049	0.0014	0.0012	U	0.0045	0.0012	0.0009	U	0.0032	0.0009
Styrene	10000	0.00032	U	0.0016	0.00032	0.00039	U	0.002	0.00039	0.00041	U	0.0021	0.00041	0.00048	U	0.0024	0.00048	0.00044	U	0.0022	0.00044	0.00031	U	0.0016	0.00031
Tetrachloroethene	760	0.00032	U	0.00082	0.00032	0.00039	U	0.00099	0.00039	0.00041	U	0.001	0.00041	0.00048	U	0.0012	0.00048	0.00044	U	0.0011	0.00044	0.00031	U	0.0008	0.00031
Toluene	10000	0.0009	U	0.0016	0.0009	0.0011	U	0.002	0.0011	0.0011	U	0.0021	0.0011	0.0013	U	0.0024	0.0013	0.0012	U	0.0022	0.0012	0.00087	U	0.0016	0.00087
trans-1,2-Dichloroethene	4400	0.00023	U	0.0025	0.00023	0.00027	U	0.003	0.00027	0.00028	U	0.0031	0.00028	0.00033	U	0.0036	0.00033	0.00031	U	0.0034	0.00031	0.00022	U	0.0024	0.00022
trans-1,3-Dichloropropene	110	0.00045	U	0.0016	0.00045	0.00054	U	0.002	0.00054	0.00057	U	0.0021	0.00057	0.00066	U	0.0024	0.00066	0.00061	U	0.0022	0.00061	0.00044	U	0.0016	0.00044
Trichloroethene	38	0.00023	U	0.00082	0.00023	0.00027	U	0.00099	0.00027	0.00028	U	0.001	0.00028	0.00033	U	0.0012	0.00033	0.00031	U	0.0011	0.00031	0.00022	U	0.0008	0.00022
Trichlorofluoromethane	10000	0.0011	U	0.0066	0.0011	0.0014	U	0.0079	0.0014	0.0014	U	0.0083	0.0014	0.0017	U	0.0097	0.0017	0.0016	U	0.009	0.0016	0.0011	U	0.0064	0.0011
Vinyl chloride	0.93	0.00055	U	0.0016	0.00055	0.00066	U	0.002	0.00066	0.0007	U	0.0021	0.0007	0.00082	U	0.0024	0.00082	0.00075	U	0.0022	0.00075	0.00054	U	0.0016	0.00054
Xylenes, Total	1900	0.00048	U	0.0016	0.00048	0.00058	U	0.002	0.00058	0.00061	U	0.0021	0.00061	0.00071	U	0.0024	0.00071	0.00065	U	0.0022	0.00065	0.00046	U	0.0016	0.00046
Total VOCs	NS	0.11742	-	-	-	0.14124	-	-	-	0.14883	-	-	-	0.17422	-	-	-	0.5029	-	-	-	0.1143	-	-	-
Total TIC Compounds	NS	0.00761	J	0	0	0.0121	J	0	0	-		-	-	-		-	-	0.14	J	0	0	0.00542	J	0	0

NOTES:
MSC - Medium Specific Concentration
PADEP - Pennsylvania Department of Environmental Protectior
Q - Qualifier
Conc - Concentration
RL - Reporting Limit
MDL - Minimum Detection Limit
U - Compound was undetected at the listed laboratory method
J = The compound was detected; however, the concentration is
Concentrations reported in miligrams per kilogram (mg/kg)

Table 3
Summary of PADEP Surface Water Sampling Results- July 22, 2024
Alliance 51st Street LLC
1646 South 51st Street
Philadelphia, Pennsylvania

SAMPLE ID:	DEP51-W1				DEP51-W2				DEP51-W3				DEP51-W4				DUP-W			
LAB ID:	L2441149-13				L2441149-14				L2441149-15				L2441149-16				L2441149-17			
COLLECTION DATE:	7/22/2024				7/22/2024				7/22/2024				7/22/2024				7/22/2024			
SAMPLE MATRIX:	WATER				WATER				WATER				WATER				WATER			
ANALYTE	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL
DISSOLVED METALS																				
Aluminum, Dissolved	8.49	J	10	3.27	8.44	J	10	3.27	8.42	J	10	3.27	8.57	J	10	3.27	6.2	J	10	3.27
Antimony, Dissolved	0.6591	J	4	0.429	1.2	J	4	0.429	0.7665	J	4	0.429	0.8044	J	4	0.429	0.7301	J	4	0.429
Arsenic, Dissolved	0.9911		0.5	0.165	1.043		0.5	0.165	0.9474		0.5	0.165	0.9409		0.5	0.165	0.9913		0.5	0.165
Barium, Dissolved	43		0.5	0.173	41.81		0.5	0.173	41.3		0.5	0.173	41.26		0.5	0.173	43.75		0.5	0.173
Beryllium, Dissolved	0.107	U	0.5	0.107	0.107	U	0.5	0.107	0.107	U	0.5	0.107	0.107	U	0.5	0.107	0.107	U	0.5	0.107
Cadmium, Dissolved	0.0599	U	0.2	0.0599	0.0599	U	0.2	0.0599	0.0599	U	0.2	0.0599	0.0599	U	0.2	0.0599	0.0599	U	0.2	0.0599
Calcium, Dissolved	31500		100	39.4	30400		100	39.4	29700		100	39.4	29700		100	39.4	30100		100	39.4
Chromium, Dissolved	0.2748	J	1	0.178	0.2298	J	1	0.178	0.2059	J	1	0.178	0.2308	J	1	0.178	0.2487	J	1	0.178
Cobalt, Dissolved	0.2237	J	0.5	0.163	0.1692	J	0.5	0.163	0.1663	J	0.5	0.163	0.1872	J	0.5	0.163	0.1669	J	0.5	0.163
Copper, Dissolved	2.925		1	0.384	2.313		1	0.384	2.164		1	0.384	2.307		1	0.384	2.374		1	0.384
Iron, Dissolved	50.1		50	19.1	31.4	J	50	19.1	28.9	J	50	19.1	30.2	J	50	19.1	20.6	J	50	19.1
Lead, Dissolved	0.343	U	1	0.343	0.343	U	1	0.343	0.343	U	1	0.343	0.343	U	1	0.343	0.343	U	1	0.343
Magnesium, Dissolved	12000		70	24.2	11600		70	24.2	11400		70	24.2	11600		70	24.2	11700		70	24.2
Manganese, Dissolved	4.75		1	0.44	5.665		1	0.44	5.916		1	0.44	5.98		1	0.44	1.94		1	0.44
Mercury, Dissolved	0.0915	U	0.2	0.0915	0.0915	U	0.2	0.0915	0.0915	U	0.2	0.0915	0.0915	U	0.2	0.0915	0.0915	U	0.2	0.0915
Nickel, Dissolved	2.39		2	0.556	1.705	J	2	0.556	1.638	J	2	0.556	1.725	J	2	0.556	1.904	J	2	0.556
Potassium, Dissolved	3890		100	30.9	3900		100	30.9	3690		100	30.9	3720		100	30.9	3810		100	30.9
Selenium, Dissolved	1.73	U	5	1.73	1.73	U	5	1.73	1.73	U	5	1.73	1.73	U	5	1.73	1.73	U	5	1.73
Silver, Dissolved	0.163	U	0.4	0.163	0.163	U	0.4	0.163	0.163	U	0.4	0.163	0.163	U	0.4	0.163	0.163	U	0.4	0.163
Sodium, Dissolved	28000		100	29.3	27100		100	29.3	26400		100	29.3	27100		100	29.3	27600		100	29.3
Thallium, Dissolved	0.143	U	1	0.143	0.1919	J	1	0.143	0.143	U	1	0.143	0.143	U	1	0.143	0.143	U	1	0.143
Vanadium, Dissolved	1.57	U	5	1.57	1.57	U	5	1.57	1.57	U	5	1.57	1.57	U	5	1.57	1.57	U	5	1.57
Zinc, Dissolved	3.552	J	10	3.41	3.568	J	10	3.41	3.439	J	10	3.41	3.95	J	10	3.41	3.462	J	10	3.41
GENERAL CHEMISTRY																				
Chromium, Trivalent	3	U	10	3	3	U	10	3	3	U	10	3	3	U	10	3	3	U	10	3
Chromium, Hexavalent	3	U	10	3	3	U	10	3	3	U	10	3	3	U	10	3	3	U	10	3
TOTAL METALS																				
Aluminum, Total	60.9		10	3.27	36.1		10	3.27	41		10	3.27	44.3		10	3.27	41		10	3.27
Antimony, Total	1.215	J	4	0.429	0.5472	J	4	0.429	0.4983	J	4	0.429	0.4872	J	4	0.429	0.481	J	4	0.429
Arsenic, Total	0.9562		0.5	0.165	0.9875		0.5	0.165	0.909		0.5	0.165	0.9654		0.5	0.165	0.9336		0.5	0.165
Barium, Total	45.7		0.5	0.173	44.09		0.5	0.173	42.13		0.5	0.173	44.53		0.5	0.173	44.93		0.5	0.173
Beryllium, Total	0.107	U	0.5	0.107	0.107	U	0.5	0.107	0.107	U	0.5	0.107	0.107	U	0.5	0.107	0.107	U	0.5	0.107
Cadmium, Total	0.0599	U	0.2	0.0599	0.0599	U	0.2	0.0599	0.0599	U	0.2	0.0599	0.0599	U	0.2	0.0599	0.0599	U	0.2	0.0599
Calcium, Total	31100		100	39.4	30500		100	39.4	30000		100	39.4	30200		100	39.4	31600		100	39.4
Chromium, Total	0.3406	J	1	0.178	0.2938	J	1	0.178	0.27	J	1	0.178	0.2745	J	1	0.178	0.2831	J	1	0.178
Cobalt, Total	0.3777	J	0.5	0.163	0.3086	J	0.5	0.163	0.31	J	0.5	0.163	0.3318	J	0.5	0.163	0.3182	J	0.5	0.163
Copper, Total	3.167		1	0.384	2.672		1	0.384	2.474		1	0.384	2.706		1	0.384	2.737		1	0.384
Iron, Total	169		50	19.1	112		50	19.1	129		50	19.1	143		50	19.1	141		50	19.1
Lead, Total	1.069		1	0.343	0.5946	J	1	0.343	0.615	J	1	0.343	0.7412	J	1	0.343	0.6885	J	1	0.343
Magnesium, Total	12100		70	24.2	12000		70	24.2	11500		70	24.2	11600		70	24.2	12100		70	24.2
Manganese, Total	45.85		1	0.44	38.67		1	0.44	41.98		1	0.44	44.83		1	0.44	43.03		1	0.44
Mercury, Total	0.105	J	0.2	0.0915	0.249		0.2	0.0915	0.092	J	0.2	0.0915	0.0915	U	0.2	0.0915	0.0915	U	0.2	0.0915
Nickel, Total	1.761	J	2	0.556	1.719	J	2	0.556	1.577	J	2	0.556	1.63	J	2	0.556	1.73	J	2	0.556
Potassium, Total	3820		100	30.9	3740		100	30.9	3680		100	30.9	3730		100	30.9	3820		100	30.9
Selenium, Total	1.73	U	5	1.73	1.73	U	5	1.73	1.73	U	5	1.73	1.73	U	5	1.73	1.73	U	5	1.73
Silver, Total	0.163	U	0.4	0.163	0.163	U	0.4	0.163	0.163	U	0.4	0.163	0.163	U	0.4	0.163	0.163	U	0.4	0.163
Sodium, Total	28800		100	29.3	28500		100	29.3	26800		100	29.3	27900		100	29.3	28900		100	29.3
Thallium, Total	0.143	U	1	0.143	0.143	U	1	0.143	0.143	U	1	0.143	0.143	U	1	0.143	0.143	U	1	0.143
Vanadium, Total	1.57	U	5	1.57	1.57	U	5	1.57	1.57	U	5	1.57	1.57	U	5	1.57	1.57	U	5	1.57
Zinc, Total	7.52	J	10	3.41	5.536	J	10	3.41	7.01	J	10	3.41	5.595	J	10	3.41	5.687	J	10	3.41

NOTES:
Units are in ug/L
Q - Qualifier
Conc - Concentration
RL - Reporting Limit
MDL - Minimum Detection Limit
U - Compound was undetected at the listed laboratory method detection limit.
Concentrations reported in miligrams per kilogram (mg/kg)
J = The compound was detected; however, the concentration is below the laboratory method detection limit. Accordingly, this concentration is estimated.

Table 4
Summary of PADEP Surface Water Sampling Results- July 22, 2024
Alliance 51st Street LLC
1646 South 51st Street
Philadelphia, Pennsylvania

SAMPLE ID:	DEP51-W1				DEP51-W2				DEP51-W3				DEP51-W4				DUP-W			
LAB ID:	L2441149-13				L2441149-14				L2441149-15				L2441149-16				L2441149-17			
COLLECTION DATE:	7/22/2024				7/22/2024				7/22/2024				7/22/2024				7/22/2024			
SAMPLE MATRIX:	WATER				WATER				WATER				WATER				WATER			
ANALYTE	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL
VOLATILE ORGANICS BY GC/MS																				
1,1,1-Trichloroethane	0.16	U	0.5	0.16	0.16	U	0.5	0.16	0.16	U	0.5	0.16	0.16	U	0.5	0.16	0.16	U	0.5	0.16
1,1,2-Trichloro-1,2,2-Trifluoroethane	0.15	U	2.5	0.15	0.15	U	2.5	0.15	0.15	U	2.5	0.15	0.15	U	2.5	0.15	0.15	U	2.5	0.15
1,1,2-Trichloroethane	0.14	U	0.75	0.14	0.14	U	0.75	0.14	0.14	U	0.75	0.14	0.14	U	0.75	0.14	0.14	U	0.75	0.14
1,1-Dichloroethane	0.21	U	0.75	0.21	0.21	U	0.75	0.21	0.21	U	0.75	0.21	0.21	U	0.75	0.21	0.21	U	0.75	0.21
1,1-Dichloroethene	0.17	U	0.5	0.17	0.17	U	0.5	0.17	0.17	U	0.5	0.17	0.17	U	0.5	0.17	0.17	U	0.5	0.17
1,2,3-Trichlorobenzene	0.23	U	2.5	0.23	0.23	U	2.5	0.23	0.23	U	2.5	0.23	0.23	U	2.5	0.23	0.23	U	2.5	0.23
1,2,4-Trichlorobenzene	0.22	U	2.5	0.22	0.22	U	2.5	0.22	0.22	U	2.5	0.22	0.22	U	2.5	0.22	0.22	U	2.5	0.22
1,2-Dibromo-3-chloropropane	0.35	U	2.5	0.35	0.35	U	2.5	0.35	0.35	U	2.5	0.35	0.35	U	2.5	0.35	0.35	U	2.5	0.35
1,2-Dibromoethane	0.19	U	2	0.19	0.19	U	2	0.19	0.19	U	2	0.19	0.19	U	2	0.19	0.19	U	2	0.19
1,2-Dichlorobenzene	0.18	U	2.5	0.18	0.18	U	2.5	0.18	0.18	U	2.5	0.18	0.18	U	2.5	0.18	0.18	U	2.5	0.18
1,2-Dichloroethane	0.13	U	0.5	0.13	0.13	U	0.5	0.13	0.13	U	0.5	0.13	0.13	U	0.5	0.13	0.13	U	0.5	0.13
1,2-Dichloroethene, Total	0.16	U	0.5	0.16	0.16	U	0.5	0.16	0.16	U	0.5	0.16	0.16	U	0.5	0.16	0.16	U	0.5	0.16
1,2-Dichloropropane	0.14	U	1	0.14	0.14	U	1	0.14	0.14	U	1	0.14	0.14	U	1	0.14	0.14	U	1	0.14
1,3-Dichlorobenzene	0.19	U	2.5	0.19	0.19	U	2.5	0.19	0.19	U	2.5	0.19	0.19	U	2.5	0.19	0.19	U	2.5	0.19
1,3-Dichloropropene, Total	0.14	U	0.5	0.14	0.14	U	0.5	0.14	0.14	U	0.5	0.14	0.14	U	0.5	0.14	0.14	U	0.5	0.14
1,4-Dichlorobenzene	0.19	U	2.5	0.19	0.19	U	2.5	0.19	0.19	U	2.5	0.19	0.19	U	2.5	0.19	0.19	U	2.5	0.19
2-Butanone	1.9	U	5	1.9	1.9	U	5	1.9	1.9	U	5	1.9	1.9	U	5	1.9	1.9	U	5	1.9
2-Hexanone	0.52	U	5	0.52	0.52	U	5	0.52	0.52	U	5	0.52	0.52	U	5	0.52	0.52	U	5	0.52
4-Methyl-2-pentanone	0.42	U	5	0.42	0.42	U	5	0.42	0.42	U	5	0.42	0.42	U	5	0.42	0.42	U	5	0.42
Acetone	1.8	J	5	1.5	1.7	J	5	1.5	1.5	U	5	1.5	1.6	J	5	1.5	1.7	J	5	1.5
Benzene	0.16	U	0.5	0.16	0.16	U	0.5	0.16	0.16	U	0.5	0.16	0.16	U	0.5	0.16	0.16	U	0.5	0.16
Bromochloromethane	0.15	U	2.5	0.15	0.15	U	2.5	0.15	0.15	U	2.5	0.15	0.15	U	2.5	0.15	0.15	U	2.5	0.15
Bromodichloromethane	0.19	U	0.5	0.19	0.19	U	0.5	0.19	0.19	U	0.5	0.19	0.19	U	0.5	0.19	0.19	U	0.5	0.19
Bromoform	0.25	U	2	0.25	0.25	U	2	0.25	0.25	U	2	0.25	0.25	U	2	0.25	0.25	U	2	0.25
Bromomethane	0.26	U	1	0.26	0.26	U	1	0.26	0.26	U	1	0.26	0.26	U	1	0.26	0.26	U	1	0.26
Carbon disulfide	0.3	U	5	0.3	0.3	U	5	0.3	0.3	U	5	0.3	0.3	U	5	0.3	0.3	U	5	0.3
Carbon tetrachloride	0.13	U	0.5	0.13	0.13	U	0.5	0.13	0.13	U	0.5	0.13	0.13	U	0.5	0.13	0.13	U	0.5	0.13
Chlorobenzene	0.18	U	0.5	0.18	0.18	U	0.5	0.18	0.18	U	0.5	0.18	0.18	U	0.5	0.18	0.18	U	0.5	0.18
Chloroethane	0.13	U	1	0.13	0.13	U	1	0.13	0.13	U	1	0.13	0.13	U	1	0.13	0.13	U	1	0.13
Chloroform	0.22	U	0.75	0.22	0.22	U	0.75	0.22	0.22	U	0.75	0.22	0.22	U	0.75	0.22	0.22	U	0.75	0.22
Chloromethane	0.2	U	2.5	0.2	0.2	U	2.5	0.2	0.2	U	2.5	0.2	0.2	U	2.5	0.2	0.2	U	2.5	0.2
cis-1,2-Dichloroethene	0.19	U	0.5	0.19	0.19	U	0.5	0.19	0.19	U	0.5	0.19	0.19	U	0.5	0.19	0.19	U	0.5	0.19
cis-1,3-Dichloropropene	0.14	U	0.5	0.14	0.14	U	0.5	0.14	0.14	U	0.5	0.14	0.14	U	0.5	0.14	0.14	U	0.5	0.14
Cyclohexane	0.27	U	10	0.27	0.27	U	10	0.27	0.27	U	10	0.27	0.27	U	10	0.27	0.27	U	10	0.27
Dibromochloromethane	0.15	U	0.5	0.15	0.15	U	0.5	0.15	0.15	U	0.5	0.15	0.15	U	0.5	0.15	0.15	U	0.5	0.15
Dichlorodifluoromethane	0.24	U	5	0.24	0.24	U	5	0.24	0.24	U	5	0.24	0.24	U	5	0.24	0.24	U	5	0.24
Ethylbenzene	0.17	U	0.5	0.17	0.17	U	0.5	0.17	0.17	U	0.5	0.17	0.17	U	0.5	0.17	0.17	U	0.5	0.17
Isopropylbenzene	0.19	U	0.5	0.19	0.19	U	0.5	0.19	0.19	U	0.5	0.19	0.19	U	0.5	0.19	0.19	U	0.5	0.19
Methyl Acetate	0.23	U	2	0.23	0.23	U	2	0.23	0.23	U	2	0.23	0.23	U	2	0.23	0.23	U	2	0.23
Methyl cyclohexane	0.4	U	10	0.4	0.4	U	10	0.4	0.4	U	10	0.4	0.4	U	10	0.4	0.4	U	10	0.4
Methyl tert butyl ether	0.17	U	1	0.17	0.17	U	1	0.17	0.17	U	1	0.17	0.17	U	1	0.17	0.17	U	1	0.17
Methylene chloride	0.68	U	2.5	0.68	0.68	U	2.5	0.68	0.68	U	2.5	0.68	0.68	U	2.5	0.68	0.68	U	2.5	0.68
o-Xylene	0.39	U	1	0.39	0.39	U	1	0.39	0.39	U	1	0.39	0.39	U	1	0.39	0.39	U	1	0.39
p/m-Xylene	0.33	U	1	0.33	0.33	U	1	0.33	0.33	U	1	0.33	0.33	U	1	0.33	0.33	U	1	0.33
Styrene	0.36	U	1	0.36	0.36	U	1	0.36	0.36	U	1	0.36	0.36	U	1	0.36	0.36	U	1	0.36
Tetrachloroethene	0.18	U	0.5	0.18	0.18	U	0.5	0.18	0.18	U	0.5	0.18	0.18	U	0.5	0.18	0.18	U	0.5	0.18
Toluene	0.2	U	0.75	0.2	0.2	U	0.75	0.2	0.2	U	0.75	0.2	0.2	U	0.75	0.2	0.2	U	0.75	0.2
trans-1,2-Dichloroethene	0.16	U	0.75	0.16	0.16	U	0.75	0.16	0.16	U	0.75	0.16	0.16	U	0.75	0.16	0.16	U	0.75	0.16
trans-1,3-Dichloropropene	0.16	U	0.5	0.16	0.16	U	0.5	0.16	0.16	U	0.5	0.16	0.16	U	0.5	0.16	0.16	U	0.5	0.16
Trichloroethene	0.18	U	0.5	0.18	0.18	U	0.5	0.18	0.18	U	0.5	0.18	0.18	U	0.5	0.18	0.18	U	0.5	0.18
Trichlorofluoromethane	0.16	U	2.5	0.16	0.16	U	2.5	0.16	0.16	U	2.5	0.16	0.16	U	2.5	0.16	0.16	U	2.5	0.16
Vinyl chloride	0.07	U	1	0.07	0.07	U	1	0.07	0.07	U	1	0.07	0.07	U	1	0.07	0.07	U	1	0.07
Xylenes, Total	0.33	U	1	0.33	0.33	U	1	0.33	0.33	U	1	0.33	0.33	U	1	0.33	0.33	U	1	0.33
Total VOCs	14.48	-	-	-	14.38	-	-	-	14.18	-	-	-	14.28	-	-	-	14.38	-	-	-
VOLATILE ORGANICS BY GC/MS-SIM																				
1,1,2,2-Tetrachloroethane	0.006	U	0.05	0.006	0.006	U	0.05	0.006	0.006	U	0.05	0.006	0.006	U	0.05	0.006	0.006	U	0.05	0.006
1,4-Dioxane	1.1	U	3	1.1	1.1	U	3	1.1	1.1	U	3	1.1	1.1	U	3	1.1	1.1	U	3	1.1
Total VOCs	1.106	-	-	-	1.106	-	-	-	1.106	-	-	-	1.106	-	-	-	1.106	-	-	-

NOTES:
Units are in ug/L
Q - Qualifier
Conc - Concentration
RL - Reporting Limit
MDL - Minimum Detection Limit
U - Compound was undetected at the listed laboratory method detection limit.
Concentrations reported in miligrams per kilogram (mg/kg)
J = The compound was detected; however, the concentration is below the laboratory method detection limit. Accordingly, this concentration is estimated.

Arcadis Analytical Results Summary Tables dated August 6, 2024

Table 1
Summary of Soil Sampling Results- August 6, 2024
Alliance 51st Street LLC
1646 South 51st Street
Philadelphia, Pennsylvania

SAMPLE ID:	Pennsylvania Residential Direct Contact Soil MSCs Criteria	DEP51-S3				DEP51-S8				DEP51-S10			
LAB ID:		L2444177-01				L2444177-02				L2444177-03			
COLLECTION DATE:		8/6/2024				8/6/2024				8/6/2024			
SAMPLE MATRIX:		SOIL				SOIL				SOIL			
ANALYTE	(mg/kg)	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL
GENERAL CHEMISTRY													
Chromium, Trivalent*	190000	266				163				1000			
Chromium, Hexavalent	37	0.198	U	0.992	0.198	0.246	U	1.23	0.246	0.238	U	1.19	0.238
Solids, Total	NS	80.6		0.1	NA	64.9		0.1	NA	67.1		0.1	NA
TOTAL METALS													
Chromium, Total	NS	266		0.947	0.091	163		1.19	0.114	1000		1.17	0.112

NOTES:
MSC - Medium Specific Concentration
PADEP - Pennsylvania Department of Environmental Protection
Q - Qualifier
Conc - Concentration
RL - Reporting Limit
MDL - Minimum Detection Limit
GW - Groundwater
* calculated based on the difference between detected total chromium and hexavalent chromium concentrations
U - Compound was undetected at the listed laboratory method detection limit.
Concentrations reported in miligrams per kilogram (mg/kg)

Arcadis Analytical Results Summary Tables dated August 13, 2024

Table X
Summary of PADEP Split Soil Sampling Results- August 13, 2024
Alliance 51st Street LLC
1646 South 51st Street
Philadelphia, Pennsylvania

SAMPLE ID:	Pennsylvania Residential Direct Contact Soil MSCs Criteria	DEP51-S3-240813				DEP51-S5-240813				DEP51-S6-240813				DEP51-S7-240813				DEP51-S8A-240813				DEP51-S10A-240813			
LAB ID:		L2445674-01				L2445674-02				L2445674-03				L2445674-10				L2445674-04				L2445674-05			
COLLECTION DATE:		8/13/2024				8/13/2024				8/13/2024				8/13/2024				8/13/2024				8/13/2024			
SAMPLE MATRIX:		SOIL				SOIL				SOIL				SOIL				SOIL				SOIL			
ANALYTE	(mg/kg)	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL
GENERAL CHEMISTRY																									
Chromium, Trivalent*	190000	823.73				238.94				516.96				660				196.7				535			
Chromium, Hexavalent	37	4.27		0.908	0.182	7.06		1	0.2	5.04		0.894	0.179	0.466	J	1.01	0.202	7.3		1.25	0.25	0.222	U	1.11	0.222
Solids, Total	NS	88.1		0.1	NA	80		0.1	NA	89.5		0.1	NA	79.4		0.1	NA	64		0.1	NA	71.9		0.1	NA
TOTAL METALS																									
Aluminum, Total	NS	11000		8.74	2.36	6320		9.8	2.65	5690		17.8	4.8	10600		9.55	2.58	3840		11.8	3.19	7860		11	2.98
Antimony, Total	88	0.332	U	4.37	0.332	0.372	U	4.9	0.372	5.88	J	8.9	0.676	0.614	J	4.77	0.363	0.449	U	5.9	0.449	0.893	J	5.51	0.419
Arsenic, Total	12	6.46		0.874	0.182	3.99		0.98	0.204	8.96		1.78	0.37	8.89		0.955	0.199	5.93		1.18	0.246	8.72		1.1	0.229
Barium, Total	44000	120		0.874	0.152	77.5		0.98	0.17	74.5		1.78	0.31	119		0.955	0.166	44.1		1.18	0.205	92.5		1.1	0.192
Beryllium, Total	440	0.542		0.437	0.029	0.372	J	0.49	0.032	0.529	J	0.89	0.059	0.574		0.477	0.032	0.22	J	0.59	0.039	0.514	J	0.551	0.036
Cadmium, Total	110	0.34	J	0.874	0.086	0.301	J	0.98	0.096	0.875	J	1.78	0.174	0.566	J	0.955	0.094	0.392	J	1.18	0.116	0.477	J	1.1	0.108
Calcium, Total	NS	36100		8.74	3.06	10700		9.8	3.43	13300		17.8	6.23	16000		9.55	3.34	12800		11.8	4.13	23100		11	3.86
Chromium, Total	NS	828		0.874	0.084	246		0.98	0.094	522		1.78	0.171	660		0.955	0.092	204		1.18	0.113	535		1.1	0.106
Cobalt, Total	66	12.3		1.75	0.145	7.32		1.96	0.163	11.7		3.56	0.295	14.3		1.91	0.158	6.04		2.36	0.196	11.5		2.2	0.183
Copper, Total	7200	32.7		0.874	0.226	27.2		0.98	0.253	81.3		1.78	0.459	45.7		0.955	0.246	25.3		1.18	0.305	50.7		1.1	0.284
Iron, Total	150000	18400		4.37	0.79	18300		4.9	0.885	51900		8.9	1.61	20500		4.77	0.862	34600		5.9	1.07	16700		5.51	0.996
Lead, Total	500	68.5		4.37	0.234	132		4.9	0.263	1060		8.9	0.477	154		4.77	0.256	80.3		5.9	0.316	223		5.51	0.296
Magnesium, Total	NS	7140		8.74	1.35	4300		9.8	1.51	4210		17.8	2.74	7600		9.55	1.47	3840		11.8	1.82	10600		11	1.7
Manganese, Total	31000	401		0.874	0.139	274		0.98	0.156	483		1.78	0.283	508		0.955	0.152	267		1.18	0.188	411		1.1	0.175
Mercury, Total	35	0.089		0.08	0.052	0.058	U	0.089	0.058	0.048	U	0.074	0.048	0.092		0.087	0.057	0.064	U	0.098	0.064	0.11		0.087	0.057
Nickel, Total	4400	42.3		2.19	0.212	22.4		2.45	0.237	40.9		4.45	0.43	46.6		2.39	0.231	15.1		2.95	0.286	34.7		2.76	0.267
Potassium, Total	NS	5760		219	12.6	3450		245	14.1	2420		445	25.6	4730		239	13.7	1710		295	17	2820		276	15.9
Selenium, Total	1100	0.226	U	1.75	0.226	0.253	U	1.96	0.253	0.734	J	3.56	0.459	0.293	J	1.91	0.246	0.305	U	2.36	0.305	0.297	J	2.2	0.284
Silver, Total	1100	0.247	U	0.437	0.247	0.277	U	0.49	0.277	0.504	U	0.89	0.504	0.27	U	0.477	0.27	0.334	U	0.59	0.334	0.312	U	0.551	0.312
Sodium, Total	NS	149	J	175	2.75	169	J	196	3.09	141	J	356	5.6	157	J	191	3.01	94	J	236	3.72	180	J	220	3.47
Thallium, Total	2	0.275	U	1.75	0.275	0.309	U	1.96	0.309	0.56	U	3.56	0.56	0.301	U	1.91	0.301	0.372	U	2.36	0.372	0.347	U	2.2	0.347
Vanadium, Total	1100	42.6		0.874	0.178	22.7		0.98	0.199	29		1.78	0.361	42.8		0.955	0.194	16		1.18	0.24	35.2		1.1	0.224
Zinc, Total	66000	184		4.37	0.256	164		4.9	0.287	311		8.9	0.521	276		4.77	0.28	86.2		5.9	0.346	244		5.51	0.323

NOTES:
MSC - Medium Specific Concentration
PADEP - Pennsylvania Department of Environmental Protection
Q - Qualifier
Conc - Concentration
RL - Reporting Limit
MDL - Minimum Detection Limit
GW - Groundwater
* calculated based on the difference between detected total chromium and hexavalent chromium concentrations
U - Compound was undetected at the listed laboratory method detection limit.
Concentrations reported in miligrams per kilogram (mg/kg)
Exceedes the PADEP Residential Direct Contact Soil MSC

Table X
Summary of PADEP Split Soil Sampling Results- August 13, 2024
Alliance 51st Street LLC
1646 South 51st Street
Philadelphia, Pennsylvania

SAMPLE ID:	Pennsylvania Residential Direct Contact Soil MSCs Criteria	DEP51-S12-240813				DEP51-S13-240813				DEP51-S14-240813				DEP51-S15-240813				DUP-S 240813			
LAB ID:		L2445674-06				L2445674-07				L2445674-08				L2445674-09				L2445674-11			
COLLECTION DATE:		8/13/2024				8/13/2024				8/13/2024				8/13/2024				8/13/2024			
SAMPLE MATRIX:		SOIL				SOIL				SOIL				SOIL				SOIL			
ANALYTE	(mg/kg)	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL	Conc	Q	RL	MDL
GENERAL CHEMISTRY																					
Chromium, Trivalent*	190000	822				393.2				292				57.1				1040			
Chromium, Hexavalent	37	0.218	U	1.09	0.218	18.8		0.82	0.164	1.13	J	1.29	0.258	0.226	U	1.13	0.226	0.216	U	1.08	0.216
Solids, Total	NS	73.4		0.1	NA	97.6		0.1	NA	61.9		0.1	NA	70.8		0.1	NA	74.2		0.1	NA
TOTAL METALS																					
Aluminum, Total	NS	9440		10.8	2.91	8390		7.83	2.11	12500		11.9	3.23	6080		11	2.97	11900		10.7	2.89
Antimony, Total	88	0.783	J	5.38	0.409	0.646	J	3.92	0.298	2.05	J	5.97	0.454	0.545	J	5.51	0.419	0.891	J	5.36	0.407
Arsenic, Total	12	9.93		1.08	0.224	6.25		0.783	0.163	6.8		1.19	0.248	3.6		1.1	0.229	11.6		1.07	0.223
Barium, Total	44000	126		1.08	0.187	107		0.783	0.136	491		1.19	0.208	65.6		1.1	0.192	150		1.07	0.186
Beryllium, Total	440	0.536	J	0.538	0.036	0.451		0.392	0.026	0.725		0.597	0.039	0.383	J	0.551	0.036	0.678		0.536	0.035
Cadmium, Total	110	0.546	J	1.08	0.106	0.401	J	0.783	0.077	0.631	J	1.19	0.117	0.396	J	1.1	0.108	0.709	J	1.07	0.105
Calcium, Total	NS	26500		10.8	3.77	35600		7.83	2.74	18800		11.9	4.18	19900		11	3.86	25900		10.7	3.75
Chromium, Total	NS	822		1.08	0.103	412		0.783	0.075	292		1.19	0.115	57.1		1.1	0.106	1040		1.07	0.103
Cobalt, Total	66	12.9		2.15	0.179	9.7		1.57	0.13	18.6		2.39	0.198	6.54		2.2	0.183	16.4		2.14	0.178
Copper, Total	7200	59		1.08	0.278	39.1		0.783	0.202	121		1.19	0.308	38.3		1.1	0.284	63.9		1.07	0.277
Iron, Total	150000	18100		5.38	0.972	20200		3.92	0.707	27000		5.97	1.08	12100		5.51	0.995	22200		5.36	0.968
Lead, Total	500	145		5.38	0.289	1290		3.92	0.21	253		5.97	0.32	139		5.51	0.295	220		5.36	0.287
Magnesium, Total	NS	5630		10.8	1.66	7150		7.83	1.21	9510		11.9	1.84	12100		11	1.7	7370		10.7	1.65
Manganese, Total	31000	391		1.08	0.171	386		0.783	0.124	456		1.19	0.19	257		1.1	0.175	505		1.07	0.17
Mercury, Total	35	0.173		0.095	0.062	0.057	J	0.072	0.047	0.174		0.105	0.068	0.101		0.089	0.058	0.206		0.095	0.062
Nickel, Total	4400	46.3		2.69	0.261	29.9		1.96	0.19	38.3		2.99	0.289	12.8		2.75	0.267	60.4		2.68	0.259
Potassium, Total	NS	3740		269	15.5	4260		196	11.3	4670		299	17.2	2230		275	15.9	4870		268	15.4
Selenium, Total	1100	0.394	J	2.15	0.278	0.202	U	1.57	0.202	0.326	J	2.39	0.308	0.411	J	2.2	0.284	0.487	J	2.14	0.277
Silver, Total	1100	0.305	U	0.538	0.305	0.222	U	0.392	0.222	0.731		0.597	0.338	0.312	U	0.551	0.312	0.433	J	0.536	0.303
Sodium, Total	NS	170	J	215	3.39	309		157	2.47	115	J	239	3.76	99.1	J	220	3.47	165	J	214	3.38
Thallium, Total	2	0.339	U	2.15	0.339	0.247	U	1.57	0.247	0.376	U	2.39	0.376	0.347	U	2.2	0.347	0.338	U	2.14	0.338
Vanadium, Total	1100	44		1.08	0.219	32.1		0.783	0.159	41.6		1.19	0.242	23.7		1.1	0.224	54.2		1.07	0.218
Zinc, Total	66000	278		5.38	0.316	197		3.92	0.23	740		5.97	0.35	118		5.51	0.323	352		5.36	0.314

NOTES:
MSC - Medium Specific Concentration
PADEP - Pennsylvania Department of Environmental
Q - Qualifier
Conc - Concentration
RL - Reporting Limit
MDL - Minimum Detection Limit
GW - Groundwater
* calculated based on the difference between detected
U - Compound was undetected at the listed laboratory
Concentrations reported in miligrams per kilogram (mg/
Exceedes the PADEP Residential Direct Contact Soil MSC

Table X
Summary of PADEP Surface Water Sampling Results- August 13, 2024
Alliance 51st Street LLC
1646 South 51st Street
Philadelphia, Pennsylvania

SAMPLE ID:	DEP51-W5-240813				DEP51-W6-240813			
LAB ID:	L2445674-12				L2445674-13			
COLLECTION DATE:	8/13/2024				8/13/2024			
SAMPLE MATRIX:	WATER				WATER			
ANALYTE	Conc	Q	RL	MDL	Conc	Q	RL	MDL
GENERAL CHEMISTRY								
Chromium, Hexavalent	19600		500	150	28000		1000	300
TOTAL METALS								
Aluminum, Total	16.4	U	50	16.4	224		50	16.4
Antimony, Total	2.145	U	20	2.145	2.145	U	20	2.145
Arsenic, Total	1.31	J	2.5	0.825	4.636		2.5	0.825
Barium, Total	69.37		2.5	0.865	57.45		2.5	0.865
Beryllium, Total	0.535	U	2.5	0.535	0.535	U	2.5	0.535
Cadmium, Total	0.2995	U	1	0.2995	0.2995	U	1	0.2995
Calcium, Total	94600		500	197	200000		500	197
Chromium, Total	23850		500	89	33610		500	89
Cobalt, Total	0.8738	J	2.5	0.815	1.016	J	2.5	0.815
Copper, Total	2.974	J	5	1.92	6.866		5	1.92
Iron, Total	95.5	U	250	95.5	95.5	U	250	95.5
Lead, Total	1.715	U	5	1.715	1.715	U	5	1.715
Magnesium, Total	8980		350	121	4530		350	121
Manganese, Total	2.2	U	5	2.2	2.2	U	5	2.2
Mercury, Total	0.0915	U	0.2	0.0915	0.092	J	0.2	0.0915
Nickel, Total	2.78	U	10	2.78	2.78	U	10	2.78
Potassium, Total	14600		500	154	16100		500	154
Selenium, Total	8.65	U	25	8.65	8.65	U	25	8.65
Silver, Total	0.815	U	2	0.815	0.815	U	2	0.815
Sodium, Total	46400		500	146	60000		500	146
Thallium, Total	1.018	J	5	0.715	0.715	U	5	0.715
Vanadium, Total	7.85	U	25	7.85	15.5	J	25	7.85
Zinc, Total	17.05	U	50	17.05	17.05	U	50	17.05

NOTES:
Units are in ug/L
Q - Qualifier
Conc - Concentration
RL - Reporting Limit
MDL - Minimum Detection Limit
U - Compound was undetected at the listed laboratory method detection limit.
Concentrations reported in miligrams per kilogram (mg/kg)
J = The compound was detected; however, the concentration is below the laboratory method detection limit. Accordingly, this concentration is estimated.

Appendix E

Arcadis (Alpha) Laboratory Data Package for July 22, 2024 Sampling

ANALYTICAL REPORT

Lab Number:	L2441149
Client:	Arcadis U.S., Inc 1 Harvard Way Suite 5 Hillsborough, NJ 08844
ATTN:	Larry Brunt
Phone:	(908) 526-1000
Project Name:	ALLIANCE 51ST
Project Number:	30108678.07
Report Date:	07/29/24

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Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0826), IL (200077), IN (C-MA-03), KY (KY98045), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), OR (MA-1316), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #525-23-122-91930A1).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: ALLIANCE 51ST
Project Number: 30108678.07

Lab Number: L2441149
Report Date: 07/29/24

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2441149-01	DEP51-S1	SOIL	51ST ST. PHILA PA	07/22/24 10:30	07/22/24
L2441149-02	DEP51-S2	SOIL	51ST ST. PHILA PA	07/22/24 10:45	07/22/24
L2441149-03	DEP51-S3	SOIL	51ST ST. PHILA PA	07/22/24 10:50	07/22/24
L2441149-04	DEP51-S4	SOIL	51ST ST. PHILA PA	07/22/24 11:00	07/22/24
L2441149-05	DEP51-S5	SOIL	51ST ST. PHILA PA	07/22/24 11:05	07/22/24
L2441149-06	DEP51-S6	SOIL	51ST ST. PHILA PA	07/22/24 11:10	07/22/24
L2441149-07	DEP51-S7	SOIL	51ST ST. PHILA PA	07/22/24 11:15	07/22/24
L2441149-08	DEP51-S8	SOIL	51ST ST. PHILA PA	07/22/24 11:20	07/22/24
L2441149-09	DEP51-S9	SOIL	51ST ST. PHILA PA	07/22/24 11:25	07/22/24
L2441149-10	DEP51-S10	SOIL	51ST ST. PHILA PA	07/22/24 11:30	07/22/24
L2441149-11	DEP51-S11	SOIL	51ST ST. PHILA PA	07/22/24 11:40	07/22/24
L2441149-12	DUP-S	SOIL	51ST ST. PHILA PA	07/22/24 00:00	07/22/24
L2441149-13	DEP51-W1	WATER	51ST ST. PHILA PA	07/22/24 12:05	07/22/24
L2441149-14	DEP51-W2	WATER	51ST ST. PHILA PA	07/22/24 12:10	07/22/24
L2441149-15	DEP51-W3	WATER	51ST ST. PHILA PA	07/22/24 12:15	07/22/24
L2441149-16	DEP51-W4	WATER	51ST ST. PHILA PA	07/22/24 13:00	07/22/24
L2441149-17	DUP-W	WATER	51ST ST. PHILA PA	07/22/24 00:00	07/22/24

Project Name:	ALLIANCE 51ST	**Lab Number:**	L2441149
Project Number:	30108678.07	**Report Date:**	07/29/24

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments and solids are reported on a dry weight basis unless otherwise noted. Tissues are reported "as received" or on a wet weight basis, unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name:	ALLIANCE 51ST	**Lab Number:**	L2441149
Project Number:	30108678.07	**Report Date:**	07/29/24

Case Narrative (continued)

Report Submission

July 29, 2024: This final report includes the results of all requested analyses.

July 24, 2024: This is a preliminary report.

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Total Metals

L2441149-01 through -12: The sample has elevated detection limits for all elements, with the exception of mercury, due to the dilution required by the sample matrix.

The WG1950093-3 MS recovery, performed on L2441149-13, is outside the acceptance criteria for calcium (65%). A post digestion spike was performed and was within acceptance criteria.

Dissolved Metals

The WG1950096-3 MS recovery, performed on L2441149-13, is outside the acceptance criteria for calcium (54%). A post digestion spike was performed and was within acceptance criteria.

Hexavalent Chromium

The WG1950129-4 Insoluble MS recovery for chromium, hexavalent (45%), performed on L2441149-11, is outside the acceptance criteria. The Soluble MS recovery for chromium, hexavalent (48%) was also outside criteria. This has been attributed to matrix interference. A post-spike was performed with a recovery of 91%.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Melissa Sturgis Melissa Sturgis

Title: Technical Director/Representative Date: 07/29/24

ORGANICS

VOLATILES

Project Name: ALLIANCE 51ST
Project Number: 30108678.07
Lab Number: L2441149
Report Date: 07/29/24

SAMPLE RESULTS

Lab ID: L2441149-01
Client ID: DEP51-S1
Sample Location: 51ST ST. PHILA PA
Date Collected: 07/22/24 10:30
Date Received: 07/22/24
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8260D
Analytical Date: 07/24/24 19:52
Analyst: AJK
Percent Solids: 99%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Dichlorodifluoromethane	ND		mg/kg	0.012	0.0010	1
Chloromethane	ND		mg/kg	0.0046	0.0011	1
Vinyl chloride	ND		mg/kg	0.0012	0.00039	1
Bromomethane	ND		mg/kg	0.0023	0.00067	1
Chloroethane	ND		mg/kg	0.0023	0.00052	1
Trichlorofluoromethane	ND		mg/kg	0.0046	0.00080	1
1,1-Dichloroethene	ND		mg/kg	0.0012	0.00027	1
Carbon disulfide	ND		mg/kg	0.012	0.0052	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		mg/kg	0.0046	0.00080	1
Methylene chloride	ND		mg/kg	0.0058	0.0026	1
Acetone	ND		mg/kg	0.029	0.012	1
trans-1,2-Dichloroethene	ND		mg/kg	0.0017	0.00016	1
Methyl Acetate	ND		mg/kg	0.0046	0.0011	1
Methyl tert butyl ether	ND		mg/kg	0.0023	0.00023	1
1,1-Dichloroethane	ND		mg/kg	0.0012	0.00017	1
cis-1,2-Dichloroethene	ND		mg/kg	0.0012	0.00020	1
1,2-Dichloroethene, Total	ND		mg/kg	0.0012	0.00016	1
Cyclohexane	ND		mg/kg	0.012	0.00063	1
Bromochloromethane	ND		mg/kg	0.0023	0.00024	1
Chloroform	ND		mg/kg	0.0017	0.00016	1
Carbon tetrachloride	ND		mg/kg	0.0012	0.00026	1
1,1,1-Trichloroethane	ND		mg/kg	0.00058	0.00019	1
2-Butanone	ND		mg/kg	0.012	0.0026	1
Benzene	ND		mg/kg	0.00058	0.00019	1
1,2-Dichloroethane	ND		mg/kg	0.0012	0.00030	1
Methyl cyclohexane	ND		mg/kg	0.0046	0.00070	1
Trichloroethene	ND		mg/kg	0.00058	0.00016	1
1,2-Dichloropropane	ND		mg/kg	0.0012	0.00014	1

Project Name: ALLIANCE 51ST
Project Number: 30108678.07
Lab Number: L2441149
Report Date: 07/29/24

SAMPLE RESULTS

Lab ID: L2441149-01
Client ID: DEP51-S1
Sample Location: 51ST ST. PHILA PA
Date Collected: 07/22/24 10:30
Date Received: 07/22/24
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Bromodichloromethane	ND		mg/kg	0.00058	0.00012	1
1,4-Dioxane	ND		mg/kg	0.092	0.040	1
cis-1,3-Dichloropropene	ND		mg/kg	0.00058	0.00018	1
Toluene	ND		mg/kg	0.0012	0.00063	1
4-Methyl-2-pentanone	ND		mg/kg	0.012	0.0015	1
Tetrachloroethene	ND		mg/kg	0.00058	0.00023	1
trans-1,3-Dichloropropene	ND		mg/kg	0.0012	0.00032	1
1,3-Dichloropropene, Total	ND		mg/kg	0.00058	0.00018	1
1,1,2-Trichloroethane	ND		mg/kg	0.0012	0.00031	1
Dibromochloromethane	ND		mg/kg	0.0012	0.00016	1
1,2-Dibromoethane	ND		mg/kg	0.00058	0.00034	1
2-Hexanone	ND		mg/kg	0.012	0.0014	1
Chlorobenzene	ND		mg/kg	0.00058	0.00015	1
Ethylbenzene	ND		mg/kg	0.0012	0.00016	1
p/m-Xylene	ND		mg/kg	0.0023	0.00065	1
o-Xylene	ND		mg/kg	0.0012	0.00034	1
Xylenes, Total	ND		mg/kg	0.0012	0.00034	1
Styrene	ND		mg/kg	0.0012	0.00023	1
Bromoform	ND		mg/kg	0.0046	0.00028	1
Isopropylbenzene	ND		mg/kg	0.0012	0.00012	1
1,1,2,2-Tetrachloroethane	ND		mg/kg	0.00058	0.00019	1
1,3-Dichlorobenzene	ND		mg/kg	0.0023	0.00017	1
1,4-Dichlorobenzene	ND		mg/kg	0.0023	0.00020	1
1,2-Dichlorobenzene	ND		mg/kg	0.0023	0.00017	1
1,2-Dibromo-3-chloropropane	ND		mg/kg	0.0035	0.0012	1
1,2,4-Trichlorobenzene	ND		mg/kg	0.0023	0.00031	1
1,2,3-Trichlorobenzene	ND		mg/kg	0.0023	0.00037	1

Tentatively Identified Compounds				
Total TIC Compounds	0.00432	J	mg/kg	1
Unknown Cycloalkane	0.00432	J	mg/kg	1

Project Name: ALLIANCE 51ST
Lab Number: L2441149
Project Number: 30108678.07
Report Date: 07/29/24

SAMPLE RESULTS

Lab ID: L2441149-01
Client ID: DEP51-S1
Sample Location: 51ST ST. PHILA PA

Date Collected: 07/22/24 10:30
Date Received: 07/22/24
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	92		70-130
Dibromofluoromethane	102		70-130

Project Name: ALLIANCE 51ST
Project Number: 30108678.07
Lab Number: L2441149
Report Date: 07/29/24

SAMPLE RESULTS

Lab ID: L2441149-02
Client ID: DEP51-S2
Sample Location: 51ST ST. PHILA PA
Date Collected: 07/22/24 10:45
Date Received: 07/22/24
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8260D
Analytical Date: 07/24/24 20:18
Analyst: AJK
Percent Solids: 94%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Dichlorodifluoromethane	ND		mg/kg	0.016	0.0014	1
Chloromethane	ND		mg/kg	0.0062	0.0014	1
Vinyl chloride	ND		mg/kg	0.0016	0.00052	1
Bromomethane	ND		mg/kg	0.0031	0.00090	1
Chloroethane	ND		mg/kg	0.0031	0.00070	1
Trichlorofluoromethane	ND		mg/kg	0.0062	0.0011	1
1,1-Dichloroethene	ND		mg/kg	0.0016	0.00037	1
Carbon disulfide	ND		mg/kg	0.016	0.0071	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		mg/kg	0.0062	0.0011	1
Methylene chloride	ND		mg/kg	0.0078	0.0036	1
Acetone	ND		mg/kg	0.039	0.016	1
trans-1,2-Dichloroethene	ND		mg/kg	0.0023	0.00021	1
Methyl Acetate	ND		mg/kg	0.0062	0.0015	1
Methyl tert butyl ether	ND		mg/kg	0.0031	0.00031	1
1,1-Dichloroethane	ND		mg/kg	0.0016	0.00022	1
cis-1,2-Dichloroethene	ND		mg/kg	0.0016	0.00027	1
1,2-Dichloroethene, Total	ND		mg/kg	0.0016	0.00021	1
Cyclohexane	ND		mg/kg	0.016	0.00085	1
Bromochloromethane	ND		mg/kg	0.0031	0.00032	1
Chloroform	ND		mg/kg	0.0023	0.00022	1
Carbon tetrachloride	ND		mg/kg	0.0016	0.00036	1
1,1,1-Trichloroethane	ND		mg/kg	0.00078	0.00026	1
2-Butanone	ND		mg/kg	0.016	0.0034	1
Benzene	ND		mg/kg	0.00078	0.00026	1
1,2-Dichloroethane	ND		mg/kg	0.0016	0.00040	1
Methyl cyclohexane	ND		mg/kg	0.0062	0.00094	1
Trichloroethene	ND		mg/kg	0.00078	0.00021	1
1,2-Dichloropropane	ND		mg/kg	0.0016	0.00019	1

Project Name: ALLIANCE 51ST
Project Number: 30108678.07
Lab Number: L2441149
Report Date: 07/29/24

SAMPLE RESULTS

Lab ID: L2441149-02
Client ID: DEP51-S2
Sample Location: 51ST ST. PHILA PA
Date Collected: 07/22/24 10:45
Date Received: 07/22/24
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Bromodichloromethane	ND		mg/kg	0.00078	0.00017	1
1,4-Dioxane	ND		mg/kg	0.12	0.054	1
cis-1,3-Dichloropropene	ND		mg/kg	0.00078	0.00024	1
Toluene	ND		mg/kg	0.0016	0.00084	1
4-Methyl-2-pentanone	ND		mg/kg	0.016	0.0020	1
Tetrachloroethene	ND		mg/kg	0.00078	0.00030	1
trans-1,3-Dichloropropene	ND		mg/kg	0.0016	0.00042	1
1,3-Dichloropropene, Total	ND		mg/kg	0.00078	0.00024	1
1,1,2-Trichloroethane	ND		mg/kg	0.0016	0.00042	1
Dibromochloromethane	ND		mg/kg	0.0016	0.00022	1
1,2-Dibromoethane	ND		mg/kg	0.00078	0.00046	1
2-Hexanone	ND		mg/kg	0.016	0.0018	1
Chlorobenzene	ND		mg/kg	0.00078	0.00020	1
Ethylbenzene	ND		mg/kg	0.0016	0.00022	1
p/m-Xylene	ND		mg/kg	0.0031	0.00087	1
o-Xylene	ND		mg/kg	0.0016	0.00045	1
Xylenes, Total	ND		mg/kg	0.0016	0.00045	1
Styrene	ND		mg/kg	0.0016	0.00030	1
Bromoform	ND		mg/kg	0.0062	0.00038	1
Isopropylbenzene	ND		mg/kg	0.0016	0.00017	1
1,1,2,2-Tetrachloroethane	ND		mg/kg	0.00078	0.00026	1
1,3-Dichlorobenzene	ND		mg/kg	0.0031	0.00023	1
1,4-Dichlorobenzene	ND		mg/kg	0.0031	0.00026	1
1,2-Dichlorobenzene	ND		mg/kg	0.0031	0.00022	1
1,2-Dibromo-3-chloropropane	ND		mg/kg	0.0047	0.0016	1
1,2,4-Trichlorobenzene	ND		mg/kg	0.0031	0.00042	1
1,2,3-Trichlorobenzene	ND		mg/kg	0.0031	0.00050	1

Tentatively Identified Compounds			
No Tentatively Identified Compounds	ND	mg/kg	1

Project Name: ALLIANCE 51ST **Lab Number:** L2441149

Project Number: 30108678.07 **Report Date:** 07/29/24

SAMPLE RESULTS

Lab ID: L2441149-02 Date Collected: 07/22/24 10:45

Client ID: DEP51-S2 Date Received: 07/22/24

Sample Location: 51ST ST. PHILA PA Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	97		70-130
Toluene-d8	107		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	103		70-130

Project Name: ALLIANCE 51ST
Project Number: 30108678.07
Lab Number: L2441149
Report Date: 07/29/24

SAMPLE RESULTS

Lab ID: L2441149-03
Client ID: DEP51-S3
Sample Location: 51ST ST. PHILA PA
Date Collected: 07/22/24 10:50
Date Received: 07/22/24
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8260D
Analytical Date: 07/24/24 20:44
Analyst: AJK
Percent Solids: 97%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Dichlorodifluoromethane	ND		mg/kg	0.024	0.0022	1
Chloromethane	ND		mg/kg	0.0095	0.0022	1
Vinyl chloride	ND		mg/kg	0.0024	0.00079	1
Bromomethane	ND		mg/kg	0.0047	0.0014	1
Chloroethane	ND		mg/kg	0.0047	0.0011	1
Trichlorofluoromethane	ND		mg/kg	0.0095	0.0016	1
1,1-Dichloroethene	ND		mg/kg	0.0024	0.00056	1
Carbon disulfide	ND		mg/kg	0.024	0.011	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		mg/kg	0.0095	0.0016	1
Methylene chloride	ND		mg/kg	0.012	0.0054	1
Acetone	ND		mg/kg	0.059	0.024	1
trans-1,2-Dichloroethene	ND		mg/kg	0.0036	0.00032	1
Methyl Acetate	ND		mg/kg	0.0095	0.0022	1
Methyl tert butyl ether	ND		mg/kg	0.0047	0.00048	1
1,1-Dichloroethane	ND		mg/kg	0.0024	0.00034	1
cis-1,2-Dichloroethene	ND		mg/kg	0.0024	0.00041	1
1,2-Dichloroethene, Total	ND		mg/kg	0.0024	0.00032	1
Cyclohexane	ND		mg/kg	0.024	0.0013	1
Bromochloromethane	ND		mg/kg	0.0047	0.00048	1
Chloroform	ND		mg/kg	0.0036	0.00033	1
Carbon tetrachloride	ND		mg/kg	0.0024	0.00054	1
1,1,1-Trichloroethane	ND		mg/kg	0.0012	0.00040	1
2-Butanone	ND		mg/kg	0.024	0.0053	1
Benzene	ND		mg/kg	0.0012	0.00039	1
1,2-Dichloroethane	ND		mg/kg	0.0024	0.00061	1
Methyl cyclohexane	ND		mg/kg	0.0095	0.0014	1
Trichloroethene	ND		mg/kg	0.0012	0.00032	1
1,2-Dichloropropane	ND		mg/kg	0.0024	0.00030	1

Project Name: ALLIANCE 51ST
Project Number: 30108678.07
Lab Number: L2441149
Report Date: 07/29/24

SAMPLE RESULTS

Lab ID: L2441149-03
Client ID: DEP51-S3
Sample Location: 51ST ST. PHILA PA
Date Collected: 07/22/24 10:50
Date Received: 07/22/24
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Bromodichloromethane	ND		mg/kg	0.0012	0.00026	1
1,4-Dioxane	ND		mg/kg	0.19	0.083	1
cis-1,3-Dichloropropene	ND		mg/kg	0.0012	0.00037	1
Toluene	ND		mg/kg	0.0024	0.0013	1
4-Methyl-2-pentanone	ND		mg/kg	0.024	0.0030	1
Tetrachloroethene	ND		mg/kg	0.0012	0.00046	1
trans-1,3-Dichloropropene	ND		mg/kg	0.0024	0.00065	1
1,3-Dichloropropene, Total	ND		mg/kg	0.0012	0.00037	1
1,1,2-Trichloroethane	ND		mg/kg	0.0024	0.00063	1
Dibromochloromethane	ND		mg/kg	0.0024	0.00033	1
1,2-Dibromoethane	ND		mg/kg	0.0012	0.00069	1
2-Hexanone	ND		mg/kg	0.024	0.0028	1
Chlorobenzene	ND		mg/kg	0.0012	0.00030	1
Ethylbenzene	ND		mg/kg	0.0024	0.00033	1
p/m-Xylene	ND		mg/kg	0.0047	0.0013	1
o-Xylene	ND		mg/kg	0.0024	0.00069	1
Xylenes, Total	ND		mg/kg	0.0024	0.00069	1
Styrene	ND		mg/kg	0.0024	0.00046	1
Bromoform	ND		mg/kg	0.0095	0.00058	1
Isopropylbenzene	ND		mg/kg	0.0024	0.00026	1
1,1,2,2-Tetrachloroethane	ND		mg/kg	0.0012	0.00039	1
1,3-Dichlorobenzene	ND		mg/kg	0.0047	0.00035	1
1,4-Dichlorobenzene	ND		mg/kg	0.0047	0.00040	1
1,2-Dichlorobenzene	ND		mg/kg	0.0047	0.00034	1
1,2-Dibromo-3-chloropropane	ND		mg/kg	0.0071	0.0024	1
1,2,4-Trichlorobenzene	ND		mg/kg	0.0047	0.00064	1
1,2,3-Trichlorobenzene	ND		mg/kg	0.0047	0.00076	1

Tentatively Identified Compounds				
Total TIC Compounds	0.0181	J	mg/kg	1
Unknown	0.0181	J	mg/kg	1

Project Name: ALLIANCE 51ST
Lab Number: L2441149
Project Number: 30108678.07
Report Date: 07/29/24

SAMPLE RESULTS

Lab ID: L2441149-03
Client ID: DEP51-S3
Sample Location: 51ST ST. PHILA PA
Date Collected: 07/22/24 10:50
Date Received: 07/22/24
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	112		70-130
4-Bromofluorobenzene	88		70-130
Dibromofluoromethane	104		70-130

Project Name: ALLIANCE 51ST
Project Number: 30108678.07
Lab Number: L2441149
Report Date: 07/29/24

SAMPLE RESULTS

Lab ID: L2441149-04
Client ID: DEP51-S4
Sample Location: 51ST ST. PHILA PA
Date Collected: 07/22/24 11:00
Date Received: 07/22/24
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8260D
Analytical Date: 07/24/24 21:10
Analyst: AJK
Percent Solids: 97%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Dichlorodifluoromethane	ND		mg/kg	0.020	0.0018	1
Chloromethane	ND		mg/kg	0.0079	0.0018	1
Vinyl chloride	ND		mg/kg	0.0020	0.00066	1
Bromomethane	ND		mg/kg	0.0039	0.0011	1
Chloroethane	ND		mg/kg	0.0039	0.00089	1
Trichlorofluoromethane	ND		mg/kg	0.0079	0.0014	1
1,1-Dichloroethene	ND		mg/kg	0.0020	0.00047	1
Carbon disulfide	ND		mg/kg	0.020	0.0090	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		mg/kg	0.0079	0.0014	1
Methylene chloride	ND		mg/kg	0.0099	0.0045	1
Acetone	ND		mg/kg	0.049	0.020	1
trans-1,2-Dichloroethene	ND		mg/kg	0.0030	0.00027	1
Methyl Acetate	ND		mg/kg	0.0079	0.0019	1
Methyl tert butyl ether	ND		mg/kg	0.0039	0.00040	1
1,1-Dichloroethane	ND		mg/kg	0.0020	0.00029	1
cis-1,2-Dichloroethene	ND		mg/kg	0.0020	0.00034	1
1,2-Dichloroethene, Total	ND		mg/kg	0.0020	0.00027	1
Cyclohexane	ND		mg/kg	0.020	0.0011	1
Bromochloromethane	ND		mg/kg	0.0039	0.00040	1
Chloroform	ND		mg/kg	0.0030	0.00028	1
Carbon tetrachloride	ND		mg/kg	0.0020	0.00045	1
1,1,1-Trichloroethane	ND		mg/kg	0.00099	0.00033	1
2-Butanone	ND		mg/kg	0.020	0.0044	1
Benzene	ND		mg/kg	0.00099	0.00033	1
1,2-Dichloroethane	ND		mg/kg	0.0020	0.00051	1
Methyl cyclohexane	ND		mg/kg	0.0079	0.0012	1
Trichloroethene	ND		mg/kg	0.00099	0.00027	1
1,2-Dichloropropane	ND		mg/kg	0.0020	0.00025	1

Project Name: ALLIANCE 51ST
Project Number: 30108678.07
Lab Number: L2441149
Report Date: 07/29/24

SAMPLE RESULTS

Lab ID: L2441149-04
Client ID: DEP51-S4
Sample Location: 51ST ST. PHILA PA
Date Collected: 07/22/24 11:00
Date Received: 07/22/24
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Bromodichloromethane	ND		mg/kg	0.00099	0.00022	1
1,4-Dioxane	ND		mg/kg	0.16	0.069	1
cis-1,3-Dichloropropene	ND		mg/kg	0.00099	0.00031	1
Toluene	ND		mg/kg	0.0020	0.0011	1
4-Methyl-2-pentanone	ND		mg/kg	0.020	0.0025	1
Tetrachloroethene	ND		mg/kg	0.00099	0.00039	1
trans-1,3-Dichloropropene	ND		mg/kg	0.0020	0.00054	1
1,3-Dichloropropene, Total	ND		mg/kg	0.00099	0.00031	1
1,1,2-Trichloroethane	ND		mg/kg	0.0020	0.00053	1
Dibromochloromethane	ND		mg/kg	0.0020	0.00028	1
1,2-Dibromoethane	ND		mg/kg	0.00099	0.00058	1
2-Hexanone	ND		mg/kg	0.020	0.0023	1
Chlorobenzene	ND		mg/kg	0.00099	0.00025	1
Ethylbenzene	ND		mg/kg	0.0020	0.00028	1
p/m-Xylene	ND		mg/kg	0.0039	0.0011	1
o-Xylene	ND		mg/kg	0.0020	0.00057	1
Xylenes, Total	ND		mg/kg	0.0020	0.00057	1
Styrene	ND		mg/kg	0.0020	0.00039	1
Bromoform	ND		mg/kg	0.0079	0.00048	1
Isopropylbenzene	ND		mg/kg	0.0020	0.00022	1
1,1,2,2-Tetrachloroethane	ND		mg/kg	0.00099	0.00033	1
1,3-Dichlorobenzene	ND		mg/kg	0.0039	0.00029	1
1,4-Dichlorobenzene	ND		mg/kg	0.0039	0.00034	1
1,2-Dichlorobenzene	ND		mg/kg	0.0039	0.00028	1
1,2-Dibromo-3-chloropropane	ND		mg/kg	0.0059	0.0020	1
1,2,4-Trichlorobenzene	ND		mg/kg	0.0039	0.00054	1
1,2,3-Trichlorobenzene	ND		mg/kg	0.0039	0.00064	1

Tentatively Identified Compounds				
Total TIC Compounds	0.00965	J	mg/kg	1
Cyclopentane	0.00965	NJ	mg/kg	1

Project Name: ALLIANCE 51ST
Lab Number: L2441149
Project Number: 30108678.07
Report Date: 07/29/24

SAMPLE RESULTS

Lab ID: L2441149-04
Client ID: DEP51-S4
Sample Location: 51ST ST. PHILA PA
Date Collected: 07/22/24 11:00
Date Received: 07/22/24
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	101		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	104		70-130

Project Name: ALLIANCE 51ST
Project Number: 30108678.07
Lab Number: L2441149
Report Date: 07/29/24

SAMPLE RESULTS

Lab ID: L2441149-05
Client ID: DEP51-S5
Sample Location: 51ST ST. PHILA PA
Date Collected: 07/22/24 11:05
Date Received: 07/22/24
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8260D
Analytical Date: 07/24/24 21:36
Analyst: AJK
Percent Solids: 74%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Dichlorodifluoromethane	ND		mg/kg	0.015	0.0014	1
Chloromethane	ND		mg/kg	0.0062	0.0014	1
Vinyl chloride	ND		mg/kg	0.0015	0.00052	1
Bromomethane	ND		mg/kg	0.0031	0.00090	1
Chloroethane	ND		mg/kg	0.0031	0.00070	1
Trichlorofluoromethane	ND		mg/kg	0.0062	0.0011	1
1,1-Dichloroethene	ND		mg/kg	0.0015	0.00037	1
Carbon disulfide	ND		mg/kg	0.015	0.0070	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		mg/kg	0.0062	0.0011	1
Methylene chloride	ND		mg/kg	0.0077	0.0035	1
Acetone	ND		mg/kg	0.038	0.015	1
trans-1,2-Dichloroethene	ND		mg/kg	0.0023	0.00021	1
Methyl Acetate	ND		mg/kg	0.0062	0.0015	1
Methyl tert butyl ether	ND		mg/kg	0.0031	0.00031	1
1,1-Dichloroethane	ND		mg/kg	0.0015	0.00022	1
cis-1,2-Dichloroethene	ND		mg/kg	0.0015	0.00027	1
1,2-Dichloroethene, Total	ND		mg/kg	0.0015	0.00021	1
Cyclohexane	ND		mg/kg	0.015	0.00084	1
Bromochloromethane	ND		mg/kg	0.0031	0.00032	1
Chloroform	ND		mg/kg	0.0023	0.00022	1
Carbon tetrachloride	ND		mg/kg	0.0015	0.00035	1
1,1,1-Trichloroethane	ND		mg/kg	0.00077	0.00026	1
2-Butanone	ND		mg/kg	0.015	0.0034	1
Benzene	ND		mg/kg	0.00077	0.00026	1
1,2-Dichloroethane	ND		mg/kg	0.0015	0.00040	1
Methyl cyclohexane	ND		mg/kg	0.0062	0.00093	1
Trichloroethene	ND		mg/kg	0.00077	0.00021	1
1,2-Dichloropropane	ND		mg/kg	0.0015	0.00019	1

Project Name: ALLIANCE 51ST
Project Number: 30108678.07
Lab Number: L2441149
Report Date: 07/29/24

SAMPLE RESULTS

Lab ID: L2441149-05
Client ID: DEP51-S5
Sample Location: 51ST ST. PHILA PA
Date Collected: 07/22/24 11:05
Date Received: 07/22/24
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Bromodichloromethane	ND		mg/kg	0.00077	0.00017	1
1,4-Dioxane	ND		mg/kg	0.12	0.054	1
cis-1,3-Dichloropropene	ND		mg/kg	0.00077	0.00024	1
Toluene	ND		mg/kg	0.0015	0.00084	1
4-Methyl-2-pentanone	ND		mg/kg	0.015	0.0020	1
Tetrachloroethene	ND		mg/kg	0.00077	0.00030	1
trans-1,3-Dichloropropene	ND		mg/kg	0.0015	0.00042	1
1,3-Dichloropropene, Total	ND		mg/kg	0.00077	0.00024	1
1,1,2-Trichloroethane	ND		mg/kg	0.0015	0.00041	1
Dibromochloromethane	ND		mg/kg	0.0015	0.00022	1
1,2-Dibromoethane	ND		mg/kg	0.00077	0.00045	1
2-Hexanone	ND		mg/kg	0.015	0.0018	1
Chlorobenzene	ND		mg/kg	0.00077	0.00020	1
Ethylbenzene	ND		mg/kg	0.0015	0.00022	1
p/m-Xylene	ND		mg/kg	0.0031	0.00086	1
o-Xylene	ND		mg/kg	0.0015	0.00045	1
Xylenes, Total	ND		mg/kg	0.0015	0.00045	1
Styrene	ND		mg/kg	0.0015	0.00030	1
Bromoform	ND		mg/kg	0.0062	0.00038	1
Isopropylbenzene	ND		mg/kg	0.0015	0.00017	1
1,1,2,2-Tetrachloroethane	ND		mg/kg	0.00077	0.00026	1
1,3-Dichlorobenzene	ND		mg/kg	0.0031	0.00023	1
1,4-Dichlorobenzene	ND		mg/kg	0.0031	0.00026	1
1,2-Dichlorobenzene	ND		mg/kg	0.0031	0.00022	1
1,2-Dibromo-3-chloropropane	ND		mg/kg	0.0046	0.0015	1
1,2,4-Trichlorobenzene	ND		mg/kg	0.0031	0.00042	1
1,2,3-Trichlorobenzene	ND		mg/kg	0.0031	0.00050	1

Tentatively Identified Compounds					
Total TIC Compounds	0.0120	J	mg/kg		1
Unknown	0.0120	J	mg/kg		1

Project Name: ALLIANCE 51ST
Lab Number: L2441149
Project Number: 30108678.07
Report Date: 07/29/24

SAMPLE RESULTS

Lab ID: L2441149-05
Client ID: DEP51-S5
Sample Location: 51ST ST. PHILA PA
Date Collected: 07/22/24 11:05
Date Received: 07/22/24
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	98		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	91		70-130
Dibromofluoromethane	102		70-130

Project Name: ALLIANCE 51ST
Project Number: 30108678.07
Lab Number: L2441149
Report Date: 07/29/24

SAMPLE RESULTS

Lab ID: L2441149-06
Client ID: DEP51-S6
Sample Location: 51ST ST. PHILA PA
Date Collected: 07/22/24 11:10
Date Received: 07/22/24
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8260D
Analytical Date: 07/24/24 22:02
Analyst: AJK
Percent Solids: 81%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Dichlorodifluoromethane	ND		mg/kg	0.014	0.0013	1
Chloromethane	ND		mg/kg	0.0056	0.0013	1
Vinyl chloride	ND		mg/kg	0.0014	0.00046	1
Bromomethane	ND		mg/kg	0.0028	0.00081	1
Chloroethane	ND		mg/kg	0.0028	0.00063	1
Trichlorofluoromethane	ND		mg/kg	0.0056	0.00097	1
1,1-Dichloroethene	ND		mg/kg	0.0014	0.00033	1
Carbon disulfide	ND		mg/kg	0.014	0.0063	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		mg/kg	0.0056	0.00096	1
Methylene chloride	ND		mg/kg	0.0070	0.0032	1
Acetone	ND		mg/kg	0.035	0.014	1
trans-1,2-Dichloroethene	ND		mg/kg	0.0021	0.00019	1
Methyl Acetate	0.0044	J	mg/kg	0.0056	0.0013	1
Methyl tert butyl ether	ND		mg/kg	0.0028	0.00028	1
1,1-Dichloroethane	ND		mg/kg	0.0014	0.00020	1
cis-1,2-Dichloroethene	ND		mg/kg	0.0014	0.00024	1
1,2-Dichloroethene, Total	ND		mg/kg	0.0014	0.00019	1
Cyclohexane	ND		mg/kg	0.014	0.00076	1
Bromochloromethane	ND		mg/kg	0.0028	0.00028	1
Chloroform	ND		mg/kg	0.0021	0.00019	1
Carbon tetrachloride	ND		mg/kg	0.0014	0.00032	1
1,1,1-Trichloroethane	ND		mg/kg	0.00070	0.00023	1
2-Butanone	ND		mg/kg	0.014	0.0031	1
Benzene	ND		mg/kg	0.00070	0.00023	1
1,2-Dichloroethane	ND		mg/kg	0.0014	0.00036	1
Methyl cyclohexane	ND		mg/kg	0.0056	0.00084	1
Trichloroethene	ND		mg/kg	0.00070	0.00019	1
1,2-Dichloropropane	ND		mg/kg	0.0014	0.00017	1

Project Name: ALLIANCE 51ST
Project Number: 30108678.07
Lab Number: L2441149
Report Date: 07/29/24

SAMPLE RESULTS

Lab ID: L2441149-06
Client ID: DEP51-S6
Sample Location: 51ST ST. PHILA PA
Date Collected: 07/22/24 11:10
Date Received: 07/22/24
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Bromodichloromethane	ND		mg/kg	0.00070	0.00015	1
1,4-Dioxane	ND		mg/kg	0.11	0.049	1
cis-1,3-Dichloropropene	ND		mg/kg	0.00070	0.00022	1
Toluene	ND		mg/kg	0.0014	0.00076	1
4-Methyl-2-pentanone	ND		mg/kg	0.014	0.0018	1
Tetrachloroethene	ND		mg/kg	0.00070	0.00027	1
trans-1,3-Dichloropropene	ND		mg/kg	0.0014	0.00038	1
1,3-Dichloropropene, Total	ND		mg/kg	0.00070	0.00022	1
1,1,2-Trichloroethane	ND		mg/kg	0.0014	0.00037	1
Dibromochloromethane	ND		mg/kg	0.0014	0.00019	1
1,2-Dibromoethane	ND		mg/kg	0.00070	0.00041	1
2-Hexanone	ND		mg/kg	0.014	0.0016	1
Chlorobenzene	ND		mg/kg	0.00070	0.00018	1
Ethylbenzene	ND		mg/kg	0.0014	0.00020	1
p/m-Xylene	ND		mg/kg	0.0028	0.00078	1
o-Xylene	ND		mg/kg	0.0014	0.00040	1
Xylenes, Total	ND		mg/kg	0.0014	0.00040	1
Styrene	ND		mg/kg	0.0014	0.00027	1
Bromoform	ND		mg/kg	0.0056	0.00034	1
Isopropylbenzene	ND		mg/kg	0.0014	0.00015	1
1,1,2,2-Tetrachloroethane	ND		mg/kg	0.00070	0.00023	1
1,3-Dichlorobenzene	ND		mg/kg	0.0028	0.00020	1
1,4-Dichlorobenzene	ND		mg/kg	0.0028	0.00024	1
1,2-Dichlorobenzene	ND		mg/kg	0.0028	0.00020	1
1,2-Dibromo-3-chloropropane	ND		mg/kg	0.0042	0.0014	1
1,2,4-Trichlorobenzene	ND		mg/kg	0.0028	0.00038	1
1,2,3-Trichlorobenzene	ND		mg/kg	0.0028	0.00045	1

Tentatively Identified Compounds				
Total TIC Compounds	0.00572	J	mg/kg	1
Cyclopentane	0.00572	NJ	mg/kg	1

Project Name: ALLIANCE 51ST
Lab Number: L2441149
Project Number: 30108678.07
Report Date: 07/29/24

SAMPLE RESULTS

Lab ID: L2441149-06
Client ID: DEP51-S6
Sample Location: 51ST ST. PHILA PA
Date Collected: 07/22/24 11:10
Date Received: 07/22/24
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	100		70-130
Toluene-d8	94		70-130
4-Bromofluorobenzene	98		70-130
Dibromofluoromethane	101		70-130

Project Name: ALLIANCE 51ST
Project Number: 30108678.07
Lab Number: L2441149
Report Date: 07/29/24

SAMPLE RESULTS

Lab ID: L2441149-07
Client ID: DEP51-S7
Sample Location: 51ST ST. PHILA PA
Date Collected: 07/22/24 11:15
Date Received: 07/22/24
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8260D
Analytical Date: 07/24/24 22:28
Analyst: AJK
Percent Solids: 73%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Dichlorodifluoromethane	ND		mg/kg	0.016	0.0015	1
Chloromethane	ND		mg/kg	0.0066	0.0015	1
Vinyl chloride	ND		mg/kg	0.0016	0.00055	1
Bromomethane	ND		mg/kg	0.0033	0.00096	1
Chloroethane	ND		mg/kg	0.0033	0.00075	1
Trichlorofluoromethane	ND		mg/kg	0.0066	0.0011	1
1,1-Dichloroethene	ND		mg/kg	0.0016	0.00039	1
Carbon disulfide	ND		mg/kg	0.016	0.0075	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		mg/kg	0.0066	0.0011	1
Methylene chloride	ND		mg/kg	0.0082	0.0038	1
Acetone	ND		mg/kg	0.041	0.016	1
trans-1,2-Dichloroethene	ND		mg/kg	0.0025	0.00023	1
Methyl Acetate	ND		mg/kg	0.0066	0.0016	1
Methyl tert butyl ether	ND		mg/kg	0.0033	0.00033	1
1,1-Dichloroethane	ND		mg/kg	0.0016	0.00024	1
cis-1,2-Dichloroethene	ND		mg/kg	0.0016	0.00029	1
1,2-Dichloroethene, Total	ND		mg/kg	0.0016	0.00023	1
Cyclohexane	ND		mg/kg	0.016	0.00090	1
Bromochloromethane	ND		mg/kg	0.0033	0.00034	1
Chloroform	ND		mg/kg	0.0025	0.00023	1
Carbon tetrachloride	ND		mg/kg	0.0016	0.00038	1
1,1,1-Trichloroethane	ND		mg/kg	0.00082	0.00028	1
2-Butanone	ND		mg/kg	0.016	0.0037	1
Benzene	ND		mg/kg	0.00082	0.00027	1
1,2-Dichloroethane	ND		mg/kg	0.0016	0.00042	1
Methyl cyclohexane	ND		mg/kg	0.0066	0.0010	1
Trichloroethene	ND		mg/kg	0.00082	0.00023	1
1,2-Dichloropropane	ND		mg/kg	0.0016	0.00021	1

Project Name: ALLIANCE 51ST
Project Number: 30108678.07
Lab Number: L2441149
Report Date: 07/29/24

SAMPLE RESULTS

Lab ID: L2441149-07
Client ID: DEP51-S7
Sample Location: 51ST ST. PHILA PA
Date Collected: 07/22/24 11:15
Date Received: 07/22/24
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Bromodichloromethane	ND		mg/kg	0.00082	0.00018	1
1,4-Dioxane	ND		mg/kg	0.13	0.058	1
cis-1,3-Dichloropropene	ND		mg/kg	0.00082	0.00026	1
Toluene	ND		mg/kg	0.0016	0.00090	1
4-Methyl-2-pentanone	ND		mg/kg	0.016	0.0021	1
Tetrachloroethene	ND		mg/kg	0.00082	0.00032	1
trans-1,3-Dichloropropene	ND		mg/kg	0.0016	0.00045	1
1,3-Dichloropropene, Total	ND		mg/kg	0.00082	0.00026	1
1,1,2-Trichloroethane	ND		mg/kg	0.0016	0.00044	1
Dibromochloromethane	ND		mg/kg	0.0016	0.00023	1
1,2-Dibromoethane	ND		mg/kg	0.00082	0.00048	1
2-Hexanone	ND		mg/kg	0.016	0.0019	1
Chlorobenzene	ND		mg/kg	0.00082	0.00021	1
Ethylbenzene	ND		mg/kg	0.0016	0.00023	1
p/m-Xylene	ND		mg/kg	0.0033	0.00092	1
o-Xylene	ND		mg/kg	0.0016	0.00048	1
Xylenes, Total	ND		mg/kg	0.0016	0.00048	1
Styrene	ND		mg/kg	0.0016	0.00032	1
Bromoform	ND		mg/kg	0.0066	0.00041	1
Isopropylbenzene	ND		mg/kg	0.0016	0.00018	1
1,1,2,2-Tetrachloroethane	ND		mg/kg	0.00082	0.00027	1
1,3-Dichlorobenzene	ND		mg/kg	0.0033	0.00024	1
1,4-Dichlorobenzene	ND		mg/kg	0.0033	0.00028	1
1,2-Dichlorobenzene	ND		mg/kg	0.0033	0.00024	1
1,2-Dibromo-3-chloropropane	ND		mg/kg	0.0050	0.0016	1
1,2,4-Trichlorobenzene	ND		mg/kg	0.0033	0.00045	1
1,2,3-Trichlorobenzene	ND		mg/kg	0.0033	0.00053	1

Tentatively Identified Compounds				
Total TIC Compounds	0.00761	J	mg/kg	1
Unknown	0.00761	J	mg/kg	1

Project Name: ALLIANCE 51ST
Lab Number: L2441149
Project Number: 30108678.07
Report Date: 07/29/24

SAMPLE RESULTS

Lab ID: L2441149-07
Client ID: DEP51-S7
Sample Location: 51ST ST. PHILA PA
Date Collected: 07/22/24 11:15
Date Received: 07/22/24
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	99		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	91		70-130
Dibromofluoromethane	104		70-130

Project Name: ALLIANCE 51ST
Project Number: 30108678.07
Lab Number: L2441149
Report Date: 07/29/24

SAMPLE RESULTS

Lab ID: L2441149-08
Client ID: DEP51-S8
Sample Location: 51ST ST. PHILA PA
Date Collected: 07/22/24 11:20
Date Received: 07/22/24
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8260D
Analytical Date: 07/24/24 22:54
Analyst: AJK
Percent Solids: 60%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Dichlorodifluoromethane	ND		mg/kg	0.020	0.0018	1
Chloromethane	ND		mg/kg	0.0079	0.0018	1
Vinyl chloride	ND		mg/kg	0.0020	0.00066	1
Bromomethane	ND		mg/kg	0.0040	0.0011	1
Chloroethane	ND		mg/kg	0.0040	0.00089	1
Trichlorofluoromethane	ND		mg/kg	0.0079	0.0014	1
1,1-Dichloroethene	ND		mg/kg	0.0020	0.00047	1
Carbon disulfide	ND		mg/kg	0.020	0.0090	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		mg/kg	0.0079	0.0014	1
Methylene chloride	ND		mg/kg	0.0099	0.0045	1
Acetone	ND		mg/kg	0.049	0.020	1
trans-1,2-Dichloroethene	ND		mg/kg	0.0030	0.00027	1
Methyl Acetate	ND		mg/kg	0.0079	0.0019	1
Methyl tert butyl ether	ND		mg/kg	0.0040	0.00040	1
1,1-Dichloroethane	ND		mg/kg	0.0020	0.00029	1
cis-1,2-Dichloroethene	ND		mg/kg	0.0020	0.00035	1
1,2-Dichloroethene, Total	ND		mg/kg	0.0020	0.00027	1
Cyclohexane	ND		mg/kg	0.020	0.0011	1
Bromochloromethane	ND		mg/kg	0.0040	0.00040	1
Chloroform	ND		mg/kg	0.0030	0.00028	1
Carbon tetrachloride	ND		mg/kg	0.0020	0.00046	1
1,1,1-Trichloroethane	ND		mg/kg	0.00099	0.00033	1
2-Butanone	ND		mg/kg	0.020	0.0044	1
Benzene	ND		mg/kg	0.00099	0.00033	1
1,2-Dichloroethane	ND		mg/kg	0.0020	0.00051	1
Methyl cyclohexane	ND		mg/kg	0.0079	0.0012	1
Trichloroethene	ND		mg/kg	0.00099	0.00027	1
1,2-Dichloropropane	ND		mg/kg	0.0020	0.00025	1

Project Name: ALLIANCE 51ST
Project Number: 30108678.07
Lab Number: L2441149
Report Date: 07/29/24

SAMPLE RESULTS

Lab ID: L2441149-08
Client ID: DEP51-S8
Sample Location: 51ST ST. PHILA PA
Date Collected: 07/22/24 11:20
Date Received: 07/22/24
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Bromodichloromethane	ND		mg/kg	0.00099	0.00022	1
1,4-Dioxane	ND		mg/kg	0.16	0.069	1
cis-1,3-Dichloropropene	ND		mg/kg	0.00099	0.00031	1
Toluene	ND		mg/kg	0.0020	0.0011	1
4-Methyl-2-pentanone	ND		mg/kg	0.020	0.0025	1
Tetrachloroethene	ND		mg/kg	0.00099	0.00039	1
trans-1,3-Dichloropropene	ND		mg/kg	0.0020	0.00054	1
1,3-Dichloropropene, Total	ND		mg/kg	0.00099	0.00031	1
1,1,2-Trichloroethane	ND		mg/kg	0.0020	0.00053	1
Dibromochloromethane	ND		mg/kg	0.0020	0.00028	1
1,2-Dibromoethane	ND		mg/kg	0.00099	0.00058	1
2-Hexanone	ND		mg/kg	0.020	0.0023	1
Chlorobenzene	ND		mg/kg	0.00099	0.00025	1
Ethylbenzene	ND		mg/kg	0.0020	0.00028	1
p/m-Xylene	ND		mg/kg	0.0040	0.0011	1
o-Xylene	ND		mg/kg	0.0020	0.00058	1
Xylenes, Total	ND		mg/kg	0.0020	0.00058	1
Styrene	ND		mg/kg	0.0020	0.00039	1
Bromoform	ND		mg/kg	0.0079	0.00049	1
Isopropylbenzene	ND		mg/kg	0.0020	0.00022	1
1,1,2,2-Tetrachloroethane	ND		mg/kg	0.00099	0.00033	1
1,3-Dichlorobenzene	ND		mg/kg	0.0040	0.00029	1
1,4-Dichlorobenzene	ND		mg/kg	0.0040	0.00034	1
1,2-Dichlorobenzene	ND		mg/kg	0.0040	0.00028	1
1,2-Dibromo-3-chloropropane	ND		mg/kg	0.0059	0.0020	1
1,2,4-Trichlorobenzene	ND		mg/kg	0.0040	0.00054	1
1,2,3-Trichlorobenzene	ND		mg/kg	0.0040	0.00064	1

Tentatively Identified Compounds				
Total TIC Compounds	0.0121	J	mg/kg	1
Unknown	0.0121	J	mg/kg	1

Project Name: ALLIANCE 51ST
Lab Number: L2441149
Project Number: 30108678.07
Report Date: 07/29/24

SAMPLE RESULTS

Lab ID: L2441149-08
Client ID: DEP51-S8
Sample Location: 51ST ST. PHILA PA
Date Collected: 07/22/24 11:20
Date Received: 07/22/24
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	99		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	89		70-130
Dibromofluoromethane	105		70-130

Project Name: ALLIANCE 51ST
Project Number: 30108678.07
Lab Number: L2441149
Report Date: 07/29/24

SAMPLE RESULTS

Lab ID: L2441149-09
Client ID: DEP51-S9
Sample Location: 51ST ST. PHILA PA
Date Collected: 07/22/24 11:25
Date Received: 07/22/24
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8260D
Analytical Date: 07/24/24 23:20
Analyst: AJK
Percent Solids: 81%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Dichlorodifluoromethane	ND		mg/kg	0.021	0.0019	1
Chloromethane	ND		mg/kg	0.0083	0.0019	1
Vinyl chloride	ND		mg/kg	0.0021	0.00070	1
Bromomethane	ND		mg/kg	0.0042	0.0012	1
Chloroethane	ND		mg/kg	0.0042	0.00094	1
Trichlorofluoromethane	ND		mg/kg	0.0083	0.0014	1
1,1-Dichloroethene	ND		mg/kg	0.0021	0.00050	1
Carbon disulfide	ND		mg/kg	0.021	0.0095	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		mg/kg	0.0083	0.0014	1
Methylene chloride	ND		mg/kg	0.010	0.0048	1
Acetone	ND		mg/kg	0.052	0.021	1
trans-1,2-Dichloroethene	ND		mg/kg	0.0031	0.00028	1
Methyl Acetate	ND		mg/kg	0.0083	0.0020	1
Methyl tert butyl ether	ND		mg/kg	0.0042	0.00042	1
1,1-Dichloroethane	ND		mg/kg	0.0021	0.00030	1
cis-1,2-Dichloroethene	ND		mg/kg	0.0021	0.00036	1
1,2-Dichloroethene, Total	ND		mg/kg	0.0021	0.00028	1
Cyclohexane	ND		mg/kg	0.021	0.0011	1
Bromochloromethane	ND		mg/kg	0.0042	0.00043	1
Chloroform	ND		mg/kg	0.0031	0.00029	1
Carbon tetrachloride	ND		mg/kg	0.0021	0.00048	1
1,1,1-Trichloroethane	ND		mg/kg	0.0010	0.00035	1
2-Butanone	ND		mg/kg	0.021	0.0046	1
Benzene	ND		mg/kg	0.0010	0.00034	1
1,2-Dichloroethane	ND		mg/kg	0.0021	0.00054	1
Methyl cyclohexane	ND		mg/kg	0.0083	0.0012	1
Trichloroethene	ND		mg/kg	0.0010	0.00028	1
1,2-Dichloropropane	ND		mg/kg	0.0021	0.00026	1

Project Name: ALLIANCE 51ST
Project Number: 30108678.07
Lab Number: L2441149
Report Date: 07/29/24

SAMPLE RESULTS

Lab ID: L2441149-09
Client ID: DEP51-S9
Sample Location: 51ST ST. PHILA PA
Date Collected: 07/22/24 11:25
Date Received: 07/22/24
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Bromodichloromethane	ND		mg/kg	0.0010	0.00023	1
1,4-Dioxane	ND		mg/kg	0.17	0.073	1
cis-1,3-Dichloropropene	ND		mg/kg	0.0010	0.00033	1
Toluene	ND		mg/kg	0.0021	0.0011	1
4-Methyl-2-pentanone	ND		mg/kg	0.021	0.0027	1
Tetrachloroethene	ND		mg/kg	0.0010	0.00041	1
trans-1,3-Dichloropropene	ND		mg/kg	0.0021	0.00057	1
1,3-Dichloropropene, Total	ND		mg/kg	0.0010	0.00033	1
1,1,2-Trichloroethane	ND		mg/kg	0.0021	0.00056	1
Dibromochloromethane	ND		mg/kg	0.0021	0.00029	1
1,2-Dibromoethane	ND		mg/kg	0.0010	0.00061	1
2-Hexanone	ND		mg/kg	0.021	0.0024	1
Chlorobenzene	ND		mg/kg	0.0010	0.00026	1
Ethylbenzene	ND		mg/kg	0.0021	0.00029	1
p/m-Xylene	ND		mg/kg	0.0042	0.0012	1
o-Xylene	ND		mg/kg	0.0021	0.00061	1
Xylenes, Total	ND		mg/kg	0.0021	0.00061	1
Styrene	ND		mg/kg	0.0021	0.00041	1
Bromoform	ND		mg/kg	0.0083	0.00051	1
Isopropylbenzene	ND		mg/kg	0.0021	0.00023	1
1,1,2,2-Tetrachloroethane	ND		mg/kg	0.0010	0.00034	1
1,3-Dichlorobenzene	ND		mg/kg	0.0042	0.00031	1
1,4-Dichlorobenzene	ND		mg/kg	0.0042	0.00036	1
1,2-Dichlorobenzene	ND		mg/kg	0.0042	0.00030	1
1,2-Dibromo-3-chloropropane	ND		mg/kg	0.0062	0.0021	1
1,2,4-Trichlorobenzene	ND		mg/kg	0.0042	0.00057	1
1,2,3-Trichlorobenzene	ND		mg/kg	0.0042	0.00067	1

Tentatively Identified Compounds			
No Tentatively Identified Compounds	ND	mg/kg	1

Project Name: ALLIANCE 51ST
Lab Number: L2441149
Project Number: 30108678.07
Report Date: 07/29/24

SAMPLE RESULTS

Lab ID: L2441149-09
Client ID: DEP51-S9
Sample Location: 51ST ST. PHILA PA
Date Collected: 07/22/24 11:25
Date Received: 07/22/24
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	103		70-130
Toluene-d8	111		70-130
4-Bromofluorobenzene	93		70-130
Dibromofluoromethane	106		70-130

Project Name: ALLIANCE 51ST
Project Number: 30108678.07
Lab Number: L2441149
Report Date: 07/29/24

SAMPLE RESULTS

Lab ID: L2441149-10
Client ID: DEP51-S10
Sample Location: 51ST ST. PHILA PA
Date Collected: 07/22/24 11:30
Date Received: 07/22/24
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8260D
Analytical Date: 07/24/24 23:46
Analyst: AJK
Percent Solids: 60%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Dichlorodifluoromethane	ND		mg/kg	0.024	0.0022	1
Chloromethane	ND		mg/kg	0.0097	0.0023	1
Vinyl chloride	ND		mg/kg	0.0024	0.00082	1
Bromomethane	ND		mg/kg	0.0049	0.0014	1
Chloroethane	ND		mg/kg	0.0049	0.0011	1
Trichlorofluoromethane	ND		mg/kg	0.0097	0.0017	1
1,1-Dichloroethene	ND		mg/kg	0.0024	0.00058	1
Carbon disulfide	ND		mg/kg	0.024	0.011	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		mg/kg	0.0097	0.0017	1
Methylene chloride	ND		mg/kg	0.012	0.0056	1
Acetone	ND		mg/kg	0.061	0.024	1
trans-1,2-Dichloroethene	ND		mg/kg	0.0036	0.00033	1
Methyl Acetate	ND		mg/kg	0.0097	0.0023	1
Methyl tert butyl ether	ND		mg/kg	0.0049	0.00049	1
1,1-Dichloroethane	ND		mg/kg	0.0024	0.00035	1
cis-1,2-Dichloroethene	ND		mg/kg	0.0024	0.00043	1
1,2-Dichloroethene, Total	ND		mg/kg	0.0024	0.00033	1
Cyclohexane	ND		mg/kg	0.024	0.0013	1
Bromochloromethane	ND		mg/kg	0.0049	0.00050	1
Chloroform	ND		mg/kg	0.0036	0.00034	1
Carbon tetrachloride	ND		mg/kg	0.0024	0.00056	1
1,1,1-Trichloroethane	ND		mg/kg	0.0012	0.00041	1
2-Butanone	ND		mg/kg	0.024	0.0054	1
Benzene	ND		mg/kg	0.0012	0.00040	1
1,2-Dichloroethane	ND		mg/kg	0.0024	0.00063	1
Methyl cyclohexane	ND		mg/kg	0.0097	0.0015	1
Trichloroethene	ND		mg/kg	0.0012	0.00033	1
1,2-Dichloropropane	ND		mg/kg	0.0024	0.00030	1

Project Name: ALLIANCE 51ST
Lab Number: L2441149
Project Number: 30108678.07
Report Date: 07/29/24

SAMPLE RESULTS

Lab ID: L2441149-10
Client ID: DEP51-S10
Sample Location: 51ST ST. PHILA PA
Date Collected: 07/22/24 11:30
Date Received: 07/22/24
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Bromodichloromethane	ND		mg/kg	0.0012	0.00026	1
1,4-Dioxane	ND		mg/kg	0.19	0.086	1
cis-1,3-Dichloropropene	ND		mg/kg	0.0012	0.00038	1
Toluene	ND		mg/kg	0.0024	0.0013	1
4-Methyl-2-pentanone	ND		mg/kg	0.024	0.0031	1
Tetrachloroethene	ND		mg/kg	0.0012	0.00048	1
trans-1,3-Dichloropropene	ND		mg/kg	0.0024	0.00066	1
1,3-Dichloropropene, Total	ND		mg/kg	0.0012	0.00038	1
1,1,2-Trichloroethane	ND		mg/kg	0.0024	0.00065	1
Dibromochloromethane	ND		mg/kg	0.0024	0.00034	1
1,2-Dibromoethane	ND		mg/kg	0.0012	0.00071	1
2-Hexanone	ND		mg/kg	0.024	0.0029	1
Chlorobenzene	ND		mg/kg	0.0012	0.00031	1
Ethylbenzene	ND		mg/kg	0.0024	0.00034	1
p/m-Xylene	ND		mg/kg	0.0049	0.0014	1
o-Xylene	ND		mg/kg	0.0024	0.00071	1
Xylenes, Total	ND		mg/kg	0.0024	0.00071	1
Styrene	ND		mg/kg	0.0024	0.00048	1
Bromoform	ND		mg/kg	0.0097	0.00060	1
Isopropylbenzene	ND		mg/kg	0.0024	0.00026	1
1,1,2,2-Tetrachloroethane	ND		mg/kg	0.0012	0.00040	1
1,3-Dichlorobenzene	ND		mg/kg	0.0049	0.00036	1
1,4-Dichlorobenzene	ND		mg/kg	0.0049	0.00042	1
1,2-Dichlorobenzene	ND		mg/kg	0.0049	0.00035	1
1,2-Dibromo-3-chloropropane	ND		mg/kg	0.0073	0.0024	1
1,2,4-Trichlorobenzene	ND		mg/kg	0.0049	0.00066	1
1,2,3-Trichlorobenzene	ND		mg/kg	0.0049	0.00078	1

Tentatively Identified Compounds			
No Tentatively Identified Compounds	ND	mg/kg	1

Project Name: ALLIANCE 51ST
Lab Number: L2441149
Project Number: 30108678.07
Report Date: 07/29/24

SAMPLE RESULTS

Lab ID: L2441149-10
Client ID: DEP51-S10
Sample Location: 51ST ST. PHILA PA
Date Collected: 07/22/24 11:30
Date Received: 07/22/24
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	102		70-130
Toluene-d8	98		70-130
4-Bromofluorobenzene	89		70-130
Dibromofluoromethane	105		70-130

Project Name: ALLIANCE 51ST
Project Number: 30108678.07
Lab Number: L2441149
Report Date: 07/29/24

SAMPLE RESULTS

Lab ID: L2441149-11
Client ID: DEP51-S11
Sample Location: 51ST ST. PHILA PA
Date Collected: 07/22/24 11:40
Date Received: 07/22/24
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8260D
Analytical Date: 07/25/24 00:12
Analyst: AJK
Percent Solids: 86%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Dichlorodifluoromethane	ND		mg/kg	0.022	0.0020	1
Chloromethane	ND		mg/kg	0.0090	0.0021	1
Vinyl chloride	ND		mg/kg	0.0022	0.00075	1
Bromomethane	ND		mg/kg	0.0045	0.0013	1
Chloroethane	ND		mg/kg	0.0045	0.0010	1
Trichlorofluoromethane	ND		mg/kg	0.0090	0.0016	1
1,1-Dichloroethene	ND		mg/kg	0.0022	0.00054	1
Carbon disulfide	ND		mg/kg	0.022	0.010	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		mg/kg	0.0090	0.0016	1
Methylene chloride	ND		mg/kg	0.011	0.0051	1
Acetone	0.23		mg/kg	0.056	0.022	1
trans-1,2-Dichloroethene	ND		mg/kg	0.0034	0.00031	1
Methyl Acetate	ND		mg/kg	0.0090	0.0021	1
Methyl tert butyl ether	ND		mg/kg	0.0045	0.00045	1
1,1-Dichloroethane	ND		mg/kg	0.0022	0.00032	1
cis-1,2-Dichloroethene	ND		mg/kg	0.0022	0.00039	1
1,2-Dichloroethene, Total	ND		mg/kg	0.0022	0.00031	1
Cyclohexane	ND		mg/kg	0.022	0.0012	1
Bromochloromethane	ND		mg/kg	0.0045	0.00046	1
Chloroform	ND		mg/kg	0.0034	0.00031	1
Carbon tetrachloride	ND		mg/kg	0.0022	0.00052	1
1,1,1-Trichloroethane	ND		mg/kg	0.0011	0.00038	1
2-Butanone	0.14		mg/kg	0.022	0.0050	1
Benzene	ND		mg/kg	0.0011	0.00037	1
1,2-Dichloroethane	ND		mg/kg	0.0022	0.00058	1
Methyl cyclohexane	ND		mg/kg	0.0090	0.0014	1
Trichloroethene	ND		mg/kg	0.0011	0.00031	1
1,2-Dichloropropane	ND		mg/kg	0.0022	0.00028	1

Project Name: ALLIANCE 51ST
Project Number: 30108678.07
Lab Number: L2441149
Report Date: 07/29/24

SAMPLE RESULTS

Lab ID: L2441149-11
Client ID: DEP51-S11
Sample Location: 51ST ST. PHILA PA
Date Collected: 07/22/24 11:40
Date Received: 07/22/24
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Bromodichloromethane	ND		mg/kg	0.0011	0.00024	1
1,4-Dioxane	ND		mg/kg	0.18	0.079	1
cis-1,3-Dichloropropene	ND		mg/kg	0.0011	0.00036	1
Toluene	ND		mg/kg	0.0022	0.0012	1
4-Methyl-2-pentanone	ND		mg/kg	0.022	0.0029	1
Tetrachloroethene	ND		mg/kg	0.0011	0.00044	1
trans-1,3-Dichloropropene	ND		mg/kg	0.0022	0.00061	1
1,3-Dichloropropene, Total	ND		mg/kg	0.0011	0.00036	1
1,1,2-Trichloroethane	ND		mg/kg	0.0022	0.00060	1
Dibromochloromethane	ND		mg/kg	0.0022	0.00031	1
1,2-Dibromoethane	ND		mg/kg	0.0011	0.00066	1
2-Hexanone	ND		mg/kg	0.022	0.0026	1
Chlorobenzene	ND		mg/kg	0.0011	0.00028	1
Ethylbenzene	ND		mg/kg	0.0022	0.00032	1
p/m-Xylene	ND		mg/kg	0.0045	0.0012	1
o-Xylene	ND		mg/kg	0.0022	0.00065	1
Xylenes, Total	ND		mg/kg	0.0022	0.00065	1
Styrene	ND		mg/kg	0.0022	0.00044	1
Bromoform	ND		mg/kg	0.0090	0.00055	1
Isopropylbenzene	ND		mg/kg	0.0022	0.00024	1
1,1,2,2-Tetrachloroethane	ND		mg/kg	0.0011	0.00037	1
1,3-Dichlorobenzene	ND		mg/kg	0.0045	0.00033	1
1,4-Dichlorobenzene	ND		mg/kg	0.0045	0.00038	1
1,2-Dichlorobenzene	ND		mg/kg	0.0045	0.00032	1
1,2-Dibromo-3-chloropropane	ND		mg/kg	0.0067	0.0022	1
1,2,4-Trichlorobenzene	ND		mg/kg	0.0045	0.00061	1
1,2,3-Trichlorobenzene	ND		mg/kg	0.0045	0.00072	1

Tentatively Identified Compounds				
Total TIC Compounds	0.140	J	mg/kg	1
Unknown	0.00742	J	mg/kg	1
Unknown	0.0766	J	mg/kg	1
Unknown	0.0565	J	mg/kg	1

Project Name: ALLIANCE 51ST
Lab Number: L2441149
Project Number: 30108678.07
Report Date: 07/29/24

SAMPLE RESULTS

Lab ID: L2441149-11
Client ID: DEP51-S11
Sample Location: 51ST ST. PHILA PA
Date Collected: 07/22/24 11:40
Date Received: 07/22/24
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	103		70-130
Toluene-d8	111		70-130
4-Bromofluorobenzene	95		70-130
Dibromofluoromethane	106		70-130

Project Name: ALLIANCE 51ST
Project Number: 30108678.07
Lab Number: L2441149
Report Date: 07/29/24

SAMPLE RESULTS

Lab ID: L2441149-12
Client ID: DUP-S
Sample Location: 51ST ST. PHILA PA
Date Collected: 07/22/24 00:00
Date Received: 07/22/24
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Analytical Method: 1,8260D
Analytical Date: 07/25/24 00:39
Analyst: AJK
Percent Solids: 77%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Dichlorodifluoromethane	ND		mg/kg	0.016	0.0015	1
Chloromethane	ND		mg/kg	0.0064	0.0015	1
Vinyl chloride	ND		mg/kg	0.0016	0.00054	1
Bromomethane	ND		mg/kg	0.0032	0.00093	1
Chloroethane	ND		mg/kg	0.0032	0.00072	1
Trichlorofluoromethane	ND		mg/kg	0.0064	0.0011	1
1,1-Dichloroethene	ND		mg/kg	0.0016	0.00038	1
Carbon disulfide	ND		mg/kg	0.016	0.0073	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		mg/kg	0.0064	0.0011	1
Methylene chloride	ND		mg/kg	0.0080	0.0037	1
Acetone	ND		mg/kg	0.040	0.016	1
trans-1,2-Dichloroethene	ND		mg/kg	0.0024	0.00022	1
Methyl Acetate	ND		mg/kg	0.0064	0.0015	1
Methyl tert butyl ether	ND		mg/kg	0.0032	0.00032	1
1,1-Dichloroethane	ND		mg/kg	0.0016	0.00023	1
cis-1,2-Dichloroethene	ND		mg/kg	0.0016	0.00028	1
1,2-Dichloroethene, Total	ND		mg/kg	0.0016	0.00022	1
Cyclohexane	ND		mg/kg	0.016	0.00087	1
Bromochloromethane	ND		mg/kg	0.0032	0.00033	1
Chloroform	ND		mg/kg	0.0024	0.00022	1
Carbon tetrachloride	ND		mg/kg	0.0016	0.00037	1
1,1,1-Trichloroethane	ND		mg/kg	0.00080	0.00027	1
2-Butanone	ND		mg/kg	0.016	0.0036	1
Benzene	ND		mg/kg	0.00080	0.00026	1
1,2-Dichloroethane	ND		mg/kg	0.0016	0.00041	1
Methyl cyclohexane	ND		mg/kg	0.0064	0.00096	1
Trichloroethene	ND		mg/kg	0.00080	0.00022	1
1,2-Dichloropropane	ND		mg/kg	0.0016	0.00020	1

Project Name: ALLIANCE 51ST
Project Number: 30108678.07
Lab Number: L2441149
Report Date: 07/29/24

SAMPLE RESULTS

Lab ID: L2441149-12
Client ID: DUP-S
Sample Location: 51ST ST. PHILA PA
Date Collected: 07/22/24 00:00
Date Received: 07/22/24
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						
Bromodichloromethane	ND		mg/kg	0.00080	0.00017	1
1,4-Dioxane	ND		mg/kg	0.13	0.056	1
cis-1,3-Dichloropropene	ND		mg/kg	0.00080	0.00025	1
Toluene	ND		mg/kg	0.0016	0.00087	1
4-Methyl-2-pentanone	ND		mg/kg	0.016	0.0020	1
Tetrachloroethene	ND		mg/kg	0.00080	0.00031	1
trans-1,3-Dichloropropene	ND		mg/kg	0.0016	0.00044	1
1,3-Dichloropropene, Total	ND		mg/kg	0.00080	0.00025	1
1,1,2-Trichloroethane	ND		mg/kg	0.0016	0.00043	1
Dibromochloromethane	ND		mg/kg	0.0016	0.00022	1
1,2-Dibromoethane	ND		mg/kg	0.00080	0.00047	1
2-Hexanone	ND		mg/kg	0.016	0.0019	1
Chlorobenzene	ND		mg/kg	0.00080	0.00020	1
Ethylbenzene	ND		mg/kg	0.0016	0.00022	1
p/m-Xylene	ND		mg/kg	0.0032	0.00090	1
o-Xylene	ND		mg/kg	0.0016	0.00046	1
Xylenes, Total	ND		mg/kg	0.0016	0.00046	1
Styrene	ND		mg/kg	0.0016	0.00031	1
Bromoform	ND		mg/kg	0.0064	0.00039	1
Isopropylbenzene	ND		mg/kg	0.0016	0.00017	1
1,1,2,2-Tetrachloroethane	ND		mg/kg	0.00080	0.00026	1
1,3-Dichlorobenzene	ND		mg/kg	0.0032	0.00024	1
1,4-Dichlorobenzene	ND		mg/kg	0.0032	0.00027	1
1,2-Dichlorobenzene	ND		mg/kg	0.0032	0.00023	1
1,2-Dibromo-3-chloropropane	ND		mg/kg	0.0048	0.0016	1
1,2,4-Trichlorobenzene	ND		mg/kg	0.0032	0.00044	1
1,2,3-Trichlorobenzene	ND		mg/kg	0.0032	0.00052	1

Tentatively Identified Compounds				
Total TIC Compounds	0.00542	J	mg/kg	1
Cyclopentane	0.00542	NJ	mg/kg	1

Project Name: ALLIANCE 51ST **Lab Number:** L2441149

Project Number: 30108678.07 **Report Date:** 07/29/24

SAMPLE RESULTS

Lab ID: L2441149-12 Date Collected: 07/22/24 00:00

Client ID: DUP-S Date Received: 07/22/24

Sample Location: 51ST ST. PHILA PA Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by EPA 5035 Low - Westborough Lab						

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	96		70-130
Toluene-d8	101		70-130
4-Bromofluorobenzene	100		70-130
Dibromofluoromethane	103		70-130

Project Name: ALLIANCE 51ST
Project Number: 30108678.07
Lab Number: L2441149
Report Date: 07/29/24

SAMPLE RESULTS

Lab ID: L2441149-13
Client ID: DEP51-W1
Sample Location: 51ST ST. PHILA PA

Date Collected: 07/22/24 12:05
Date Received: 07/22/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 07/26/24 08:49
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Dichlorodifluoromethane	ND		ug/l	5.0	0.24	1
Chloromethane	ND		ug/l	2.5	0.20	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Bromomethane	ND		ug/l	1.0	0.26	1
Chloroethane	ND		ug/l	1.0	0.13	1
Trichlorofluoromethane	ND		ug/l	2.5	0.16	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
Carbon disulfide	ND		ug/l	5.0	0.30	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		ug/l	2.5	0.15	1
Methylene chloride	ND		ug/l	2.5	0.68	1
Acetone	1.8	J	ug/l	5.0	1.5	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	0.16	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Methyl tert butyl ether	ND		ug/l	1.0	0.17	1
1,1-Dichloroethane	ND		ug/l	0.75	0.21	1
cis-1,2-Dichloroethene	ND		ug/l	0.50	0.19	1
1,2-Dichloroethene, Total	ND		ug/l	0.50	0.16	1
Cyclohexane	ND		ug/l	10	0.27	1
Bromochloromethane	ND		ug/l	2.5	0.15	1
Chloroform	ND		ug/l	0.75	0.22	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	0.50	0.16	1
2-Butanone	ND		ug/l	5.0	1.9	1
Benzene	ND		ug/l	0.50	0.16	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
Methyl cyclohexane	ND		ug/l	10	0.40	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1

Project Name: ALLIANCE 51ST
Lab Number: L2441149
Project Number: 30108678.07
Report Date: 07/29/24

SAMPLE RESULTS

Lab ID: L2441149-13
Client ID: DEP51-W1
Sample Location: 51ST ST. PHILA PA
Date Collected: 07/22/24 12:05
Date Received: 07/22/24
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Bromodichloromethane	ND		ug/l	0.50	0.19	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Toluene	ND		ug/l	0.75	0.20	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
4-Methyl-2-pentanone	ND		ug/l	5.0	0.42	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1,2-Trichloroethane	ND		ug/l	0.75	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,2-Dibromoethane	ND		ug/l	2.0	0.19	1
2-Hexanone	ND		ug/l	5.0	0.52	1
Chlorobenzene	ND		ug/l	0.50	0.18	1
Ethylbenzene	ND		ug/l	0.50	0.17	1
p/m-Xylene	ND		ug/l	1.0	0.33	1
o-Xylene	ND		ug/l	1.0	0.39	1
Xylenes, Total	ND		ug/l	1.0	0.33	1
Styrene	ND		ug/l	1.0	0.36	1
Bromoform	ND		ug/l	2.0	0.25	1
Isopropylbenzene	ND		ug/l	0.50	0.19	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.19	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.19	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.18	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.35	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.22	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.23	1

Tentatively Identified Compounds

No Tentatively Identified Compounds	ND	ug/l	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	122		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	123		70-130

Project Name: ALLIANCE 51ST
Project Number: 30108678.07
Lab Number: L2441149
Report Date: 07/29/24

SAMPLE RESULTS

Lab ID: L2441149-13
Client ID: DEP51-W1
Sample Location: 51ST ST. PHILA PA
Date Collected: 07/22/24 12:05
Date Received: 07/22/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D-SIM(M)
Analytical Date: 07/26/24 08:49
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-SIM - Westborough Lab						
1,4-Dioxane	ND		ug/l	3.0	1.1	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.050	0.006	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	111		70-130
4-Bromofluorobenzene	89		70-130

Project Name: ALLIANCE 51ST
Project Number: 30108678.07
Lab Number: L2441149
Report Date: 07/29/24

SAMPLE RESULTS

Lab ID: L2441149-14
Client ID: DEP51-W2
Sample Location: 51ST ST. PHILA PA
Date Collected: 07/22/24 12:10
Date Received: 07/22/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 07/26/24 09:12
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Dichlorodifluoromethane	ND		ug/l	5.0	0.24	1
Chloromethane	ND		ug/l	2.5	0.20	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Bromomethane	ND		ug/l	1.0	0.26	1
Chloroethane	ND		ug/l	1.0	0.13	1
Trichlorofluoromethane	ND		ug/l	2.5	0.16	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
Carbon disulfide	ND		ug/l	5.0	0.30	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		ug/l	2.5	0.15	1
Methylene chloride	ND		ug/l	2.5	0.68	1
Acetone	1.7	J	ug/l	5.0	1.5	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	0.16	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Methyl tert butyl ether	ND		ug/l	1.0	0.17	1
1,1-Dichloroethane	ND		ug/l	0.75	0.21	1
cis-1,2-Dichloroethene	ND		ug/l	0.50	0.19	1
1,2-Dichloroethene, Total	ND		ug/l	0.50	0.16	1
Cyclohexane	ND		ug/l	10	0.27	1
Bromochloromethane	ND		ug/l	2.5	0.15	1
Chloroform	ND		ug/l	0.75	0.22	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	0.50	0.16	1
2-Butanone	ND		ug/l	5.0	1.9	1
Benzene	ND		ug/l	0.50	0.16	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
Methyl cyclohexane	ND		ug/l	10	0.40	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1

Project Name: ALLIANCE 51ST
Project Number: 30108678.07
Lab Number: L2441149
Report Date: 07/29/24

SAMPLE RESULTS

Lab ID: L2441149-14
Client ID: DEP51-W2
Sample Location: 51ST ST. PHILA PA
Date Collected: 07/22/24 12:10
Date Received: 07/22/24
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Bromodichloromethane	ND		ug/l	0.50	0.19	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Toluene	ND		ug/l	0.75	0.20	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
4-Methyl-2-pentanone	ND		ug/l	5.0	0.42	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1,2-Trichloroethane	ND		ug/l	0.75	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,2-Dibromoethane	ND		ug/l	2.0	0.19	1
2-Hexanone	ND		ug/l	5.0	0.52	1
Chlorobenzene	ND		ug/l	0.50	0.18	1
Ethylbenzene	ND		ug/l	0.50	0.17	1
p/m-Xylene	ND		ug/l	1.0	0.33	1
o-Xylene	ND		ug/l	1.0	0.39	1
Xylenes, Total	ND		ug/l	1.0	0.33	1
Styrene	ND		ug/l	1.0	0.36	1
Bromoform	ND		ug/l	2.0	0.25	1
Isopropylbenzene	ND		ug/l	0.50	0.19	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.19	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.19	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.18	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.35	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.22	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.23	1

Tentatively Identified Compounds

No Tentatively Identified Compounds	ND	ug/l	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	124		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	124		70-130

Project Name: ALLIANCE 51ST
Project Number: 30108678.07
Lab Number: L2441149
Report Date: 07/29/24

SAMPLE RESULTS

Lab ID: L2441149-14
Client ID: DEP51-W2
Sample Location: 51ST ST. PHILA PA
Date Collected: 07/22/24 12:10
Date Received: 07/22/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D-SIM(M)
Analytical Date: 07/26/24 09:12
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-SIM - Westborough Lab						
1,4-Dioxane	ND		ug/l	3.0	1.1	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.050	0.006	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	110		70-130
4-Bromofluorobenzene	89		70-130

Project Name: ALLIANCE 51ST
Project Number: 30108678.07
Lab Number: L2441149
Report Date: 07/29/24

SAMPLE RESULTS

Lab ID: L2441149-15
Client ID: DEP51-W3
Sample Location: 51ST ST. PHILA PA
Date Collected: 07/22/24 12:15
Date Received: 07/22/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 07/26/24 09:36
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Dichlorodifluoromethane	ND		ug/l	5.0	0.24	1
Chloromethane	ND		ug/l	2.5	0.20	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Bromomethane	ND		ug/l	1.0	0.26	1
Chloroethane	ND		ug/l	1.0	0.13	1
Trichlorofluoromethane	ND		ug/l	2.5	0.16	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
Carbon disulfide	ND		ug/l	5.0	0.30	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		ug/l	2.5	0.15	1
Methylene chloride	ND		ug/l	2.5	0.68	1
Acetone	ND		ug/l	5.0	1.5	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	0.16	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Methyl tert butyl ether	ND		ug/l	1.0	0.17	1
1,1-Dichloroethane	ND		ug/l	0.75	0.21	1
cis-1,2-Dichloroethene	ND		ug/l	0.50	0.19	1
1,2-Dichloroethene, Total	ND		ug/l	0.50	0.16	1
Cyclohexane	ND		ug/l	10	0.27	1
Bromochloromethane	ND		ug/l	2.5	0.15	1
Chloroform	ND		ug/l	0.75	0.22	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	0.50	0.16	1
2-Butanone	ND		ug/l	5.0	1.9	1
Benzene	ND		ug/l	0.50	0.16	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
Methyl cyclohexane	ND		ug/l	10	0.40	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1

Project Name: ALLIANCE 51ST **Lab Number:** L2441149

Project Number: 30108678.07 **Report Date:** 07/29/24

SAMPLE RESULTS

Lab ID: L2441149-15 Date Collected: 07/22/24 12:15

Client ID: DEP51-W3 Date Received: 07/22/24

Sample Location: 51ST ST. PHILA PA Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Bromodichloromethane	ND		ug/l	0.50	0.19	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Toluene	ND		ug/l	0.75	0.20	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
4-Methyl-2-pentanone	ND		ug/l	5.0	0.42	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1,2-Trichloroethane	ND		ug/l	0.75	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,2-Dibromoethane	ND		ug/l	2.0	0.19	1
2-Hexanone	ND		ug/l	5.0	0.52	1
Chlorobenzene	ND		ug/l	0.50	0.18	1
Ethylbenzene	ND		ug/l	0.50	0.17	1
p/m-Xylene	ND		ug/l	1.0	0.33	1
o-Xylene	ND		ug/l	1.0	0.39	1
Xylenes, Total	ND		ug/l	1.0	0.33	1
Styrene	ND		ug/l	1.0	0.36	1
Bromoform	ND		ug/l	2.0	0.25	1
Isopropylbenzene	ND		ug/l	0.50	0.19	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.19	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.19	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.18	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.35	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.22	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.23	1

Tentatively Identified Compounds

No Tentatively Identified Compounds	ND	ug/l	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	118		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	103		70-130
Dibromofluoromethane	121		70-130

Project Name: ALLIANCE 51ST
Project Number: 30108678.07
Lab Number: L2441149
Report Date: 07/29/24

SAMPLE RESULTS

Lab ID: L2441149-15
Client ID: DEP51-W3
Sample Location: 51ST ST. PHILA PA
Date Collected: 07/22/24 12:15
Date Received: 07/22/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D-SIM(M)
Analytical Date: 07/26/24 09:36
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-SIM - Westborough Lab						
1,4-Dioxane	ND		ug/l	3.0	1.1	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.050	0.006	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	110		70-130
4-Bromofluorobenzene	90		70-130

Project Name: ALLIANCE 51ST
Project Number: 30108678.07
Lab Number: L2441149
Report Date: 07/29/24

SAMPLE RESULTS

Lab ID: L2441149-16
Client ID: DEP51-W4
Sample Location: 51ST ST. PHILA PA

Date Collected: 07/22/24 13:00
Date Received: 07/22/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 07/26/24 10:00
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Dichlorodifluoromethane	ND		ug/l	5.0	0.24	1
Chloromethane	ND		ug/l	2.5	0.20	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Bromomethane	ND		ug/l	1.0	0.26	1
Chloroethane	ND		ug/l	1.0	0.13	1
Trichlorofluoromethane	ND		ug/l	2.5	0.16	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
Carbon disulfide	ND		ug/l	5.0	0.30	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		ug/l	2.5	0.15	1
Methylene chloride	ND		ug/l	2.5	0.68	1
Acetone	1.6	J	ug/l	5.0	1.5	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	0.16	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Methyl tert butyl ether	ND		ug/l	1.0	0.17	1
1,1-Dichloroethane	ND		ug/l	0.75	0.21	1
cis-1,2-Dichloroethene	ND		ug/l	0.50	0.19	1
1,2-Dichloroethene, Total	ND		ug/l	0.50	0.16	1
Cyclohexane	ND		ug/l	10	0.27	1
Bromochloromethane	ND		ug/l	2.5	0.15	1
Chloroform	ND		ug/l	0.75	0.22	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	0.50	0.16	1
2-Butanone	ND		ug/l	5.0	1.9	1
Benzene	ND		ug/l	0.50	0.16	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
Methyl cyclohexane	ND		ug/l	10	0.40	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1

Project Name: ALLIANCE 51ST
Lab Number: L2441149
Project Number: 30108678.07
Report Date: 07/29/24

SAMPLE RESULTS

Lab ID: L2441149-16
Client ID: DEP51-W4
Sample Location: 51ST ST. PHILA PA
Date Collected: 07/22/24 13:00
Date Received: 07/22/24
Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Bromodichloromethane	ND		ug/l	0.50	0.19	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Toluene	ND		ug/l	0.75	0.20	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
4-Methyl-2-pentanone	ND		ug/l	5.0	0.42	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1,2-Trichloroethane	ND		ug/l	0.75	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,2-Dibromoethane	ND		ug/l	2.0	0.19	1
2-Hexanone	ND		ug/l	5.0	0.52	1
Chlorobenzene	ND		ug/l	0.50	0.18	1
Ethylbenzene	ND		ug/l	0.50	0.17	1
p/m-Xylene	ND		ug/l	1.0	0.33	1
o-Xylene	ND		ug/l	1.0	0.39	1
Xylenes, Total	ND		ug/l	1.0	0.33	1
Styrene	ND		ug/l	1.0	0.36	1
Bromoform	ND		ug/l	2.0	0.25	1
Isopropylbenzene	ND		ug/l	0.50	0.19	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.19	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.19	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.18	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.35	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.22	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.23	1

Tentatively Identified Compounds

No Tentatively Identified Compounds	ND	ug/l	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	124		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	123		70-130

Project Name: ALLIANCE 51ST
Project Number: 30108678.07
Lab Number: L2441149
Report Date: 07/29/24

SAMPLE RESULTS

Lab ID: L2441149-16
Client ID: DEP51-W4
Sample Location: 51ST ST. PHILA PA
Date Collected: 07/22/24 13:00
Date Received: 07/22/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D-SIM(M)
Analytical Date: 07/26/24 10:00
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-SIM - Westborough Lab						
1,4-Dioxane	ND		ug/l	3.0	1.1	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.050	0.006	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	112		70-130
4-Bromofluorobenzene	89		70-130

Project Name: ALLIANCE 51ST
Project Number: 30108678.07
Lab Number: L2441149
Report Date: 07/29/24

SAMPLE RESULTS

Lab ID: L2441149-17
Client ID: DUP-W
Sample Location: 51ST ST. PHILA PA
Date Collected: 07/22/24 00:00
Date Received: 07/22/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D
Analytical Date: 07/26/24 10:24
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Dichlorodifluoromethane	ND		ug/l	5.0	0.24	1
Chloromethane	ND		ug/l	2.5	0.20	1
Vinyl chloride	ND		ug/l	1.0	0.07	1
Bromomethane	ND		ug/l	1.0	0.26	1
Chloroethane	ND		ug/l	1.0	0.13	1
Trichlorofluoromethane	ND		ug/l	2.5	0.16	1
1,1-Dichloroethene	ND		ug/l	0.50	0.17	1
Carbon disulfide	ND		ug/l	5.0	0.30	1
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		ug/l	2.5	0.15	1
Methylene chloride	ND		ug/l	2.5	0.68	1
Acetone	1.7	J	ug/l	5.0	1.5	1
trans-1,2-Dichloroethene	ND		ug/l	0.75	0.16	1
Methyl Acetate	ND		ug/l	2.0	0.23	1
Methyl tert butyl ether	ND		ug/l	1.0	0.17	1
1,1-Dichloroethane	ND		ug/l	0.75	0.21	1
cis-1,2-Dichloroethene	ND		ug/l	0.50	0.19	1
1,2-Dichloroethene, Total	ND		ug/l	0.50	0.16	1
Cyclohexane	ND		ug/l	10	0.27	1
Bromochloromethane	ND		ug/l	2.5	0.15	1
Chloroform	ND		ug/l	0.75	0.22	1
Carbon tetrachloride	ND		ug/l	0.50	0.13	1
1,1,1-Trichloroethane	ND		ug/l	0.50	0.16	1
2-Butanone	ND		ug/l	5.0	1.9	1
Benzene	ND		ug/l	0.50	0.16	1
1,2-Dichloroethane	ND		ug/l	0.50	0.13	1
Methyl cyclohexane	ND		ug/l	10	0.40	1
Trichloroethene	ND		ug/l	0.50	0.18	1
1,2-Dichloropropane	ND		ug/l	1.0	0.14	1

Project Name: ALLIANCE 51ST **Lab Number:** L2441149

Project Number: 30108678.07 **Report Date:** 07/29/24

SAMPLE RESULTS

Lab ID: L2441149-17 Date Collected: 07/22/24 00:00

Client ID: DUP-W Date Received: 07/22/24

Sample Location: 51ST ST. PHILA PA Field Prep: Not Specified

Sample Depth:

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS - Westborough Lab						
Bromodichloromethane	ND		ug/l	0.50	0.19	1
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14	1
Toluene	ND		ug/l	0.75	0.20	1
Tetrachloroethene	ND		ug/l	0.50	0.18	1
4-Methyl-2-pentanone	ND		ug/l	5.0	0.42	1
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16	1
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14	1
1,1,2-Trichloroethane	ND		ug/l	0.75	0.14	1
Dibromochloromethane	ND		ug/l	0.50	0.15	1
1,2-Dibromoethane	ND		ug/l	2.0	0.19	1
2-Hexanone	ND		ug/l	5.0	0.52	1
Chlorobenzene	ND		ug/l	0.50	0.18	1
Ethylbenzene	ND		ug/l	0.50	0.17	1
p/m-Xylene	ND		ug/l	1.0	0.33	1
o-Xylene	ND		ug/l	1.0	0.39	1
Xylenes, Total	ND		ug/l	1.0	0.33	1
Styrene	ND		ug/l	1.0	0.36	1
Bromoform	ND		ug/l	2.0	0.25	1
Isopropylbenzene	ND		ug/l	0.50	0.19	1
1,3-Dichlorobenzene	ND		ug/l	2.5	0.19	1
1,4-Dichlorobenzene	ND		ug/l	2.5	0.19	1
1,2-Dichlorobenzene	ND		ug/l	2.5	0.18	1
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.35	1
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.22	1
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.23	1

Tentatively Identified Compounds

No Tentatively Identified Compounds	ND	ug/l	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	127		70-130
Toluene-d8	95		70-130
4-Bromofluorobenzene	102		70-130
Dibromofluoromethane	121		70-130

Project Name: ALLIANCE 51ST
Project Number: 30108678.07
Lab Number: L2441149
Report Date: 07/29/24

SAMPLE RESULTS

Lab ID: L2441149-17
Client ID: DUP-W
Sample Location: 51ST ST. PHILA PA
Date Collected: 07/22/24 00:00
Date Received: 07/22/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water
Analytical Method: 1,8260D-SIM(M)
Analytical Date: 07/26/24 10:24
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor
Volatile Organics by GC/MS-SIM - Westborough Lab						
1,4-Dioxane	ND		ug/l	3.0	1.1	1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.050	0.006	1

Surrogate	% Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	112		70-130
4-Bromofluorobenzene	89		70-130

Project Name: ALLIANCE 51ST
Project Number: 30108678.07
Lab Number: L2441149
Report Date: 07/29/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 07/24/24 16:50
Analyst: MAG

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 01-12 Batch: WG1951348-5					
Dichlorodifluoromethane	ND		mg/kg	0.010	0.00092
Chloromethane	ND		mg/kg	0.0040	0.00093
Vinyl chloride	ND		mg/kg	0.0010	0.00034
Bromomethane	ND		mg/kg	0.0020	0.00058
Chloroethane	ND		mg/kg	0.0020	0.00045
Trichlorofluoromethane	ND		mg/kg	0.0040	0.00070
1,1-Dichloroethene	ND		mg/kg	0.0010	0.00024
Carbon disulfide	ND		mg/kg	0.010	0.0046
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		mg/kg	0.0040	0.00069
Methylene chloride	ND		mg/kg	0.0050	0.0023
Acetone	ND		mg/kg	0.025	0.010
trans-1,2-Dichloroethene	ND		mg/kg	0.0015	0.00014
Methyl Acetate	ND		mg/kg	0.0040	0.00095
Methyl tert butyl ether	ND		mg/kg	0.0020	0.00020
1,1-Dichloroethane	ND		mg/kg	0.0010	0.00014
cis-1,2-Dichloroethene	ND		mg/kg	0.0010	0.00018
1,2-Dichloroethene, Total	ND		mg/kg	0.0010	0.00014
Cyclohexane	ND		mg/kg	0.010	0.00054
Bromochloromethane	ND		mg/kg	0.0020	0.00020
Chloroform	ND		mg/kg	0.0015	0.00014
Carbon tetrachloride	ND		mg/kg	0.0010	0.00023
1,1,1-Trichloroethane	ND		mg/kg	0.00050	0.00017
2-Butanone	ND		mg/kg	0.010	0.0022
Benzene	ND		mg/kg	0.00050	0.00017
1,2-Dichloroethane	ND		mg/kg	0.0010	0.00026
Methyl cyclohexane	ND		mg/kg	0.0040	0.00060
Trichloroethene	ND		mg/kg	0.00050	0.00014
1,2-Dichloropropane	ND		mg/kg	0.0010	0.00012
Bromodichloromethane	ND		mg/kg	0.00050	0.00011

Project Name: ALLIANCE 51ST
Project Number: 30108678.07
Lab Number: L2441149
Report Date: 07/29/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 07/24/24 16:50
Analyst: MAG

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 01-12 Batch: WG1951348-5					
1,4-Dioxane	ND		mg/kg	0.080	0.035
cis-1,3-Dichloropropene	ND		mg/kg	0.00050	0.00016
Toluene	ND		mg/kg	0.0010	0.00054
4-Methyl-2-pentanone	ND		mg/kg	0.010	0.0013
Tetrachloroethene	ND		mg/kg	0.00050	0.00020
trans-1,3-Dichloropropene	ND		mg/kg	0.0010	0.00027
1,3-Dichloropropene, Total	ND		mg/kg	0.00050	0.00016
1,1,2-Trichloroethane	ND		mg/kg	0.0010	0.00027
Dibromochloromethane	ND		mg/kg	0.0010	0.00014
1,2-Dibromoethane	ND		mg/kg	0.00050	0.00029
2-Hexanone	ND		mg/kg	0.010	0.0012
Chlorobenzene	ND		mg/kg	0.00050	0.00013
Ethylbenzene	ND		mg/kg	0.0010	0.00014
p/m-Xylene	ND		mg/kg	0.0020	0.00056
o-Xylene	ND		mg/kg	0.0010	0.00029
Xylenes, Total	ND		mg/kg	0.0010	0.00029
Styrene	ND		mg/kg	0.0010	0.00020
Bromoform	ND		mg/kg	0.0040	0.00025
Isopropylbenzene	ND		mg/kg	0.0010	0.00011
1,1,2,2-Tetrachloroethane	ND		mg/kg	0.00050	0.00017
1,3-Dichlorobenzene	ND		mg/kg	0.0020	0.00015
1,4-Dichlorobenzene	ND		mg/kg	0.0020	0.00017
1,2-Dichlorobenzene	ND		mg/kg	0.0020	0.00014
1,2-Dibromo-3-chloropropane	ND		mg/kg	0.0030	0.0010
1,2,4-Trichlorobenzene	ND		mg/kg	0.0020	0.00027
1,2,3-Trichlorobenzene	ND		mg/kg	0.0020	0.00032

Project Name:	ALLIANCE 51ST	**Lab Number:**	L2441149
Project Number:	30108678.07	**Report Date:**	07/29/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 07/24/24 16:50
Analyst: MAG

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by EPA 5035 Low - Westborough Lab for sample(s): 01-12 Batch: WG1951348-5					
Tentatively Identified Compounds					
Total TIC Compounds	0.00370	J	mg/kg		
Unknown	0.00370	J	mg/kg		

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	99		70-130
Toluene-d8	89		70-130
4-Bromofluorobenzene	92		70-130
Dibromofluoromethane	100		70-130

Project Name: ALLIANCE 51ST
Project Number: 30108678.07
Lab Number: L2441149
Report Date: 07/29/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 07/26/24 07:37
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 13-17 Batch: WG1952468-5					
Dichlorodifluoromethane	ND		ug/l	5.0	0.24
Chloromethane	ND		ug/l	2.5	0.20
Vinyl chloride	ND		ug/l	1.0	0.07
Bromomethane	ND		ug/l	1.0	0.26
Chloroethane	ND		ug/l	1.0	0.13
Trichlorofluoromethane	ND		ug/l	2.5	0.16
1,1-Dichloroethene	ND		ug/l	0.50	0.17
Carbon disulfide	ND		ug/l	5.0	0.30
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		ug/l	2.5	0.15
Methylene chloride	ND		ug/l	2.5	0.68
Acetone	ND		ug/l	5.0	1.5
trans-1,2-Dichloroethene	ND		ug/l	0.75	0.16
Methyl Acetate	ND		ug/l	2.0	0.23
Methyl tert butyl ether	ND		ug/l	1.0	0.17
1,1-Dichloroethane	ND		ug/l	0.75	0.21
cis-1,2-Dichloroethene	ND		ug/l	0.50	0.19
1,2-Dichloroethene, Total	ND		ug/l	0.50	0.16
Cyclohexane	ND		ug/l	10	0.27
Bromochloromethane	ND		ug/l	2.5	0.15
Chloroform	ND		ug/l	0.75	0.22
Carbon tetrachloride	ND		ug/l	0.50	0.13
1,1,1-Trichloroethane	ND		ug/l	0.50	0.16
2-Butanone	ND		ug/l	5.0	1.9
Benzene	ND		ug/l	0.50	0.16
1,2-Dichloroethane	ND		ug/l	0.50	0.13
Methyl cyclohexane	ND		ug/l	10	0.40
Trichloroethene	ND		ug/l	0.50	0.18
1,2-Dichloropropane	ND		ug/l	1.0	0.14
Bromodichloromethane	ND		ug/l	0.50	0.19

Project Name: ALLIANCE 51ST
Project Number: 30108678.07
Lab Number: L2441149
Report Date: 07/29/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 07/26/24 07:37
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 13-17 Batch: WG1952468-5					
cis-1,3-Dichloropropene	ND		ug/l	0.50	0.14
Toluene	ND		ug/l	0.75	0.20
Tetrachloroethene	ND		ug/l	0.50	0.18
4-Methyl-2-pentanone	ND		ug/l	5.0	0.42
trans-1,3-Dichloropropene	ND		ug/l	0.50	0.16
1,3-Dichloropropene, Total	ND		ug/l	0.50	0.14
1,1,2-Trichloroethane	ND		ug/l	0.75	0.14
Dibromochloromethane	ND		ug/l	0.50	0.15
1,2-Dibromoethane	ND		ug/l	2.0	0.19
2-Hexanone	ND		ug/l	5.0	0.52
Chlorobenzene	ND		ug/l	0.50	0.18
Ethylbenzene	ND		ug/l	0.50	0.17
p/m-Xylene	ND		ug/l	1.0	0.33
o-Xylene	ND		ug/l	1.0	0.39
Xylenes, Total	ND		ug/l	1.0	0.33
Styrene	ND		ug/l	1.0	0.36
Bromoform	ND		ug/l	2.0	0.25
Isopropylbenzene	ND		ug/l	0.50	0.19
1,3-Dichlorobenzene	ND		ug/l	2.5	0.19
1,4-Dichlorobenzene	ND		ug/l	2.5	0.19
1,2-Dichlorobenzene	ND		ug/l	2.5	0.18
1,2-Dibromo-3-chloropropane	ND		ug/l	2.5	0.35
1,2,4-Trichlorobenzene	ND		ug/l	2.5	0.22
1,2,3-Trichlorobenzene	ND		ug/l	2.5	0.23

Project Name: ALLIANCE 51ST
Project Number: 30108678.07
Lab Number: L2441149
Report Date: 07/29/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D
Analytical Date: 07/26/24 07:37
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS - Westborough Lab for sample(s): 13-17 Batch: WG1952468-5					
Tentatively Identified Compounds					
No Tentatively Identified Compounds	ND		ug/l		

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	118		70-130
Toluene-d8	96		70-130
4-Bromofluorobenzene	105		70-130
Dibromofluoromethane	120		70-130

Project Name: ALLIANCE 51ST
Project Number: 30108678.07
Lab Number: L2441149
Report Date: 07/29/24

Method Blank Analysis
Batch Quality Control

Analytical Method: 1,8260D-SIM(M)
Analytical Date: 07/26/24 07:37
Analyst: MCM

Parameter	Result	Qualifier	Units	RL	MDL
Volatile Organics by GC/MS-SIM - Westborough Lab for sample(s): 13-17 Batch: WG1952470-5					
1,4-Dioxane	ND		ug/l	3.0	1.1
1,1,2,2-Tetrachloroethane	ND		ug/l	0.050	0.006

Surrogate	%Recovery	Qualifier	Acceptance Criteria
1,2-Dichloroethane-d4	107		70-130
4-Bromofluorobenzene	90		70-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: ALLIANCE 51ST
Project Number: 30108678.07

Lab Number: L2441149
Report Date: 07/29/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01-12 Batch: WG1951348-3 WG1951348-4								
Dichlorodifluoromethane	84		81		30-146	4		30
Chloromethane	79		77		52-130	3		30
Vinyl chloride	110		106		67-130	4		30
Bromomethane	114		117		57-147	3		30
Chloroethane	95		98		50-151	3		30
Trichlorofluoromethane	111		109		70-139	2		30
1,1-Dichloroethene	105		102		65-135	3		30
Carbon disulfide	101		98		59-130	3		30
1,1,2-Trichloro-1,2,2-Trifluoroethane	111		109		50-139	2		30
Methylene chloride	94		92		70-130	2		30
Acetone	75		74		54-140	1		30
trans-1,2-Dichloroethene	95		100		70-130	5		30
Methyl Acetate	70		75		51-146	7		30
Methyl tert butyl ether	100		105		66-130	5		30
1,1-Dichloroethane	96		94		70-130	2		30
cis-1,2-Dichloroethene	94		92		70-130	2		30
Cyclohexane	105		95		59-142	10		30
Bromochloromethane	99		91		70-130	8		30
Chloroform	97		90		70-130	7		30
Carbon tetrachloride	100		93		70-130	7		30
1,1,1-Trichloroethane	101		95		70-130	6		30
2-Butanone	80		73		70-130	9		30
Benzene	107		95		70-130	12		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: ALLIANCE 51ST
Project Number: 30108678.07

Lab Number: L2441149
Report Date: 07/29/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01-12 Batch: WG1951348-3 WG1951348-4								
1,2-Dichloroethane	92		86		70-130	7		30
Methyl cyclohexane	106		105		70-130	1		30
Trichloroethene	99		98		70-130	1		30
1,2-Dichloropropane	103		104		70-130	1		30
Bromodichloromethane	95		94		70-130	1		30
1,4-Dioxane	110		108		65-136	2		30
cis-1,3-Dichloropropene	101		99		70-130	2		30
Toluene	113		106		70-130	6		30
4-Methyl-2-pentanone	106		101		70-130	5		30
Tetrachloroethene	112		111		70-130	1		30
trans-1,3-Dichloropropene	106		103		70-130	3		30
1,1,2-Trichloroethane	99		97		70-130	2		30
Dibromochloromethane	104		103		70-130	1		30
1,2-Dibromoethane	100		97		70-130	3		30
2-Hexanone	84		79		70-130	6		30
Chlorobenzene	109		106		70-130	3		30
Ethylbenzene	111		104		70-130	7		30
p/m-Xylene	114		104		70-130	9		30
o-Xylene	111		94		70-130	17		30
Styrene	112		98		70-130	13		30
Bromoform	105		98		70-130	7		30
Isopropylbenzene	116		109		70-130	6		30
1,1,2,2-Tetrachloroethane	106		81		70-130	27		30

Lab Control Sample Analysis
Batch Quality Control

Project Name: ALLIANCE 51ST
Project Number: 30108678.07

Lab Number: L2441149
Report Date: 07/29/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by EPA 5035 Low - Westborough Lab Associated sample(s): 01-12 Batch: WG1951348-3 WG1951348-4								
1,3-Dichlorobenzene	111		108		70-130	3		30
1,4-Dichlorobenzene	108		107		70-130	1		30
1,2-Dichlorobenzene	106		105		70-130	1		30
1,2-Dibromo-3-chloropropane	100		97		68-130	3		30
1,2,4-Trichlorobenzene	127		129		70-130	2		30
1,2,3-Trichlorobenzene	119		117		70-130	2		30

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	88		84		70-130
Toluene-d8	103		100		70-130
4-Bromofluorobenzene	102		80		70-130
Dibromofluoromethane	94		88		70-130

Lab Control Sample Analysis
Batch Quality Control

Project Name: ALLIANCE 51ST
Project Number: 30108678.07

Lab Number: L2441149
Report Date: 07/29/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 13-17 Batch: WG1952468-3 WG1952468-4								
Dichlorodifluoromethane	65		64		36-147	2		20
Chloromethane	91		89		64-130	2		20
Vinyl chloride	80		79		55-140	1		20
Bromomethane	60		60		39-139	0		20
Chloroethane	84		81		55-138	4		20
Trichlorofluoromethane	100		100		62-150	0		20
1,1-Dichloroethene	99		100		61-145	1		20
Carbon disulfide	99		96		51-130	3		20
1,1,2-Trichloro-1,2,2-Trifluoroethane	110		110		70-130	0		20
Methylene chloride	99		98		70-130	1		20
Acetone	120		120		58-148	0		20
trans-1,2-Dichloroethene	99		99		70-130	0		20
Methyl Acetate	120		120		70-130	0		20
Methyl tert butyl ether	120		120		63-130	0		20
1,1-Dichloroethane	110		110		70-130	0		20
cis-1,2-Dichloroethene	100		100		70-130	0		20
Cyclohexane	98		97		70-130	1		20
Bromochloromethane	110		110		70-130	0		20
Chloroform	110		110		70-130	0		20
Carbon tetrachloride	100		100		63-132	0		20
1,1,1-Trichloroethane	110		100		67-130	10		20
2-Butanone	110		130		63-138	17		20
Benzene	100		100		70-130	0		20

Lab Control Sample Analysis
Batch Quality Control

Project Name: ALLIANCE 51ST
Project Number: 30108678.07

Lab Number: L2441149
Report Date: 07/29/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 13-17 Batch: WG1952468-3 WG1952468-4								
1,2-Dichloroethane	110		110		70-130	0		20
Methyl cyclohexane	99		97		70-130	2		20
Trichloroethene	100		100		70-130	0		20
1,2-Dichloropropane	98		98		70-130	0		20
Bromodichloromethane	100		100		67-130	0		20
cis-1,3-Dichloropropene	100		100		70-130	0		20
Toluene	93		92		70-130	1		20
Tetrachloroethene	90		88		70-130	2		20
4-Methyl-2-pentanone	88		90		59-130	2		20
trans-1,3-Dichloropropene	96		98		70-130	2		20
1,1,2-Trichloroethane	97		94		70-130	3		20
Dibromochloromethane	92		91		63-130	1		20
1,2-Dibromoethane	98		99		70-130	1		20
2-Hexanone	89		94		57-130	5		20
Chlorobenzene	93		93		75-130	0		20
Ethylbenzene	87		88		70-130	1		20
p/m-Xylene	90		90		70-130	0		20
o-Xylene	80		80		70-130	0		20
Styrene	80		80		70-130	0		20
Bromoform	76		75		54-136	1		20
Isopropylbenzene	72		72		70-130	0		20
1,3-Dichlorobenzene	92		88		70-130	4		20
1,4-Dichlorobenzene	81		83		70-130	2		20

Lab Control Sample Analysis
Batch Quality Control

Project Name: ALLIANCE 51ST
Project Number: 30108678.07

Lab Number: L2441149
Report Date: 07/29/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS - Westborough Lab Associated sample(s): 13-17 Batch: WG1952468-3 WG1952468-4								
1,2-Dichlorobenzene	83		82		70-130	1		20
1,2-Dibromo-3-chloropropane	81		85		41-144	5		20
1,2,4-Trichlorobenzene	72		72		70-130	0		20
1,2,3-Trichlorobenzene	77		75		70-130	3		20

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	106		104		70-130
Toluene-d8	98		100		70-130
4-Bromofluorobenzene	98		97		70-130
Dibromofluoromethane	108		107		70-130

Lab Control Sample Analysis

Batch Quality Control

Project Name: ALLIANCE 51ST

Project Number: 30108678.07

Lab Number: L2441149

Report Date: 07/29/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Volatile Organics by GC/MS-SIM - Westborough Lab Associated sample(s): 13-17 Batch: WG1952470-3 WG1952470-4								
1,4-Dioxane	120		120		70-130	0		25
1,1,2,2-Tetrachloroethane	108		112		70-130	4		25

Surrogate	LCS %Recovery	Qual	LCSD %Recovery	Qual	Acceptance Criteria
1,2-Dichloroethane-d4	108		110		70-130
4-Bromofluorobenzene	91		89		70-130

METALS

Project Name: ALLIANCE 51ST
Lab Number: L2441149
Project Number: 30108678.07
Report Date: 07/29/24

SAMPLE RESULTS

Lab ID: L2441149-01
Client ID: DEP51-S1
Sample Location: 51ST ST. PHILA PA
Date Collected: 07/22/24 10:30
Date Received: 07/22/24
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 99%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	4600		mg/kg	7.78	2.10	2	07/23/24 08:55	07/23/24 13:52	EPA 3050B	1,6010D	DHL
Antimony, Total	ND		mg/kg	3.89	0.296	2	07/23/24 08:55	07/23/24 13:52	EPA 3050B	1,6010D	DHL
Arsenic, Total	3.62		mg/kg	0.778	0.162	2	07/23/24 08:55	07/23/24 13:52	EPA 3050B	1,6010D	DHL
Barium, Total	65.3		mg/kg	0.778	0.135	2	07/23/24 08:55	07/23/24 13:52	EPA 3050B	1,6010D	DHL
Beryllium, Total	0.295	J	mg/kg	0.389	0.026	2	07/23/24 08:55	07/23/24 13:52	EPA 3050B	1,6010D	DHL
Cadmium, Total	0.113	J	mg/kg	0.778	0.076	2	07/23/24 08:55	07/23/24 13:52	EPA 3050B	1,6010D	DHL
Calcium, Total	30400		mg/kg	7.78	2.72	2	07/23/24 08:55	07/23/24 13:52	EPA 3050B	1,6010D	DHL
Chromium, Total	332		mg/kg	0.778	0.075	2	07/23/24 08:55	07/23/24 13:52	EPA 3050B	1,6010D	DHL
Cobalt, Total	5.95		mg/kg	1.56	0.129	2	07/23/24 08:55	07/23/24 13:52	EPA 3050B	1,6010D	DHL
Copper, Total	17.9		mg/kg	0.778	0.201	2	07/23/24 08:55	07/23/24 13:52	EPA 3050B	1,6010D	DHL
Iron, Total	11400		mg/kg	3.89	0.702	2	07/23/24 08:55	07/23/24 13:52	EPA 3050B	1,6010D	DHL
Lead, Total	66.1		mg/kg	3.89	0.208	2	07/23/24 08:55	07/23/24 13:52	EPA 3050B	1,6010D	DHL
Magnesium, Total	3580		mg/kg	7.78	1.20	2	07/23/24 08:55	07/23/24 13:52	EPA 3050B	1,6010D	DHL
Manganese, Total	203		mg/kg	0.778	0.124	2	07/23/24 08:55	07/23/24 13:52	EPA 3050B	1,6010D	DHL
Mercury, Total	0.065		mg/kg	0.065	0.042	1	07/23/24 09:30	07/23/24 10:51	EPA 7471B	1,7471B	MJR
Nickel, Total	20.4		mg/kg	1.94	0.188	2	07/23/24 08:55	07/23/24 13:52	EPA 3050B	1,6010D	DHL
Potassium, Total	2100		mg/kg	194	11.2	2	07/23/24 08:55	07/23/24 13:52	EPA 3050B	1,6010D	DHL
Selenium, Total	ND		mg/kg	1.56	0.201	2	07/23/24 08:55	07/23/24 13:52	EPA 3050B	1,6010D	DHL
Silver, Total	ND		mg/kg	0.389	0.220	2	07/23/24 08:55	07/23/24 13:52	EPA 3050B	1,6010D	DHL
Sodium, Total	69.5	J	mg/kg	156	2.45	2	07/23/24 08:55	07/23/24 13:52	EPA 3050B	1,6010D	DHL
Thallium, Total	0.605	J	mg/kg	1.56	0.245	2	07/23/24 08:55	07/23/24 13:52	EPA 3050B	1,6010D	DHL
Vanadium, Total	21.1		mg/kg	0.778	0.158	2	07/23/24 08:55	07/23/24 13:52	EPA 3050B	1,6010D	DHL
Zinc, Total	114		mg/kg	3.89	0.228	2	07/23/24 08:55	07/23/24 13:52	EPA 3050B	1,6010D	DHL
General Chemistry - Mansfield Lab											
Chromium, Trivalent	332	J	mg/kg	0.809	0.162	1		07/24/24 03:52	NA	107,-	

Project Name: ALLIANCE 51ST
Lab Number: L2441149
Project Number: 30108678.07
Report Date: 07/29/24

SAMPLE RESULTS

Lab ID: L2441149-02
Client ID: DEP51-S2
Sample Location: 51ST ST. PHILA PA
Date Collected: 07/22/24 10:45
Date Received: 07/22/24
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 94%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	8440		mg/kg	8.18	2.21	2	07/23/24 08:55	07/23/24 13:55	EPA 3050B	1,6010D	DHL
Antimony, Total	ND		mg/kg	4.09	0.311	2	07/23/24 08:55	07/23/24 13:55	EPA 3050B	1,6010D	DHL
Arsenic, Total	5.70		mg/kg	0.818	0.170	2	07/23/24 08:55	07/23/24 13:55	EPA 3050B	1,6010D	DHL
Barium, Total	88.0		mg/kg	0.818	0.142	2	07/23/24 08:55	07/23/24 13:55	EPA 3050B	1,6010D	DHL
Beryllium, Total	0.370	J	mg/kg	0.409	0.027	2	07/23/24 08:55	07/23/24 13:55	EPA 3050B	1,6010D	DHL
Cadmium, Total	0.206	J	mg/kg	0.818	0.080	2	07/23/24 08:55	07/23/24 13:55	EPA 3050B	1,6010D	DHL
Calcium, Total	32300		mg/kg	8.18	2.86	2	07/23/24 08:55	07/23/24 13:55	EPA 3050B	1,6010D	DHL
Chromium, Total	834		mg/kg	0.818	0.079	2	07/23/24 08:55	07/23/24 13:55	EPA 3050B	1,6010D	DHL
Cobalt, Total	10.2		mg/kg	1.64	0.136	2	07/23/24 08:55	07/23/24 13:55	EPA 3050B	1,6010D	DHL
Copper, Total	20.6		mg/kg	0.818	0.211	2	07/23/24 08:55	07/23/24 13:55	EPA 3050B	1,6010D	DHL
Iron, Total	17900		mg/kg	4.09	0.739	2	07/23/24 08:55	07/23/24 13:55	EPA 3050B	1,6010D	DHL
Lead, Total	59.4		mg/kg	4.09	0.219	2	07/23/24 08:55	07/23/24 13:55	EPA 3050B	1,6010D	DHL
Magnesium, Total	5640		mg/kg	8.18	1.26	2	07/23/24 08:55	07/23/24 13:55	EPA 3050B	1,6010D	DHL
Manganese, Total	301		mg/kg	0.818	0.130	2	07/23/24 08:55	07/23/24 13:55	EPA 3050B	1,6010D	DHL
Mercury, Total	0.063	J	mg/kg	0.067	0.043	1	07/23/24 09:30	07/23/24 10:55	EPA 7471B	1,7471B	MJR
Nickel, Total	38.6		mg/kg	2.04	0.198	2	07/23/24 08:55	07/23/24 13:55	EPA 3050B	1,6010D	DHL
Potassium, Total	3810		mg/kg	204	11.8	2	07/23/24 08:55	07/23/24 13:55	EPA 3050B	1,6010D	DHL
Selenium, Total	0.212	J	mg/kg	1.64	0.211	2	07/23/24 08:55	07/23/24 13:55	EPA 3050B	1,6010D	DHL
Silver, Total	ND		mg/kg	0.409	0.232	2	07/23/24 08:55	07/23/24 13:55	EPA 3050B	1,6010D	DHL
Sodium, Total	114	J	mg/kg	164	2.58	2	07/23/24 08:55	07/23/24 13:55	EPA 3050B	1,6010D	DHL
Thallium, Total	1.00	J	mg/kg	1.64	0.258	2	07/23/24 08:55	07/23/24 13:55	EPA 3050B	1,6010D	DHL
Vanadium, Total	35.4		mg/kg	0.818	0.166	2	07/23/24 08:55	07/23/24 13:55	EPA 3050B	1,6010D	DHL
Zinc, Total	162		mg/kg	4.09	0.240	2	07/23/24 08:55	07/23/24 13:55	EPA 3050B	1,6010D	DHL
General Chemistry - Mansfield Lab											
Chromium, Trivalent	830		mg/kg	0.851	0.170	1		07/24/24 03:52	NA	107,-	

Project Name: ALLIANCE 51ST
Lab Number: L2441149
Project Number: 30108678.07
Report Date: 07/29/24

SAMPLE RESULTS

Lab ID: L2441149-03
Client ID: DEP51-S3
Sample Location: 51ST ST. PHILA PA
Date Collected: 07/22/24 10:50
Date Received: 07/22/24
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 97%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	13400		mg/kg	8.06	2.18	2	07/23/24 08:55	07/23/24 13:59	EPA 3050B	1,6010D	DHL
Antimony, Total	ND		mg/kg	4.03	0.306	2	07/23/24 08:55	07/23/24 13:59	EPA 3050B	1,6010D	DHL
Arsenic, Total	9.04		mg/kg	0.806	0.168	2	07/23/24 08:55	07/23/24 13:59	EPA 3050B	1,6010D	DHL
Barium, Total	137		mg/kg	0.806	0.140	2	07/23/24 08:55	07/23/24 13:59	EPA 3050B	1,6010D	DHL
Beryllium, Total	0.570		mg/kg	0.403	0.027	2	07/23/24 08:55	07/23/24 13:59	EPA 3050B	1,6010D	DHL
Cadmium, Total	0.289	J	mg/kg	0.806	0.079	2	07/23/24 08:55	07/23/24 13:59	EPA 3050B	1,6010D	DHL
Calcium, Total	42800		mg/kg	8.06	2.82	2	07/23/24 08:55	07/23/24 13:59	EPA 3050B	1,6010D	DHL
Chromium, Total	1240		mg/kg	0.806	0.077	2	07/23/24 08:55	07/23/24 13:59	EPA 3050B	1,6010D	DHL
Cobalt, Total	14.3		mg/kg	1.61	0.134	2	07/23/24 08:55	07/23/24 13:59	EPA 3050B	1,6010D	DHL
Copper, Total	40.5		mg/kg	0.806	0.208	2	07/23/24 08:55	07/23/24 13:59	EPA 3050B	1,6010D	DHL
Iron, Total	23500		mg/kg	4.03	0.728	2	07/23/24 08:55	07/23/24 13:59	EPA 3050B	1,6010D	DHL
Lead, Total	110		mg/kg	4.03	0.216	2	07/23/24 08:55	07/23/24 13:59	EPA 3050B	1,6010D	DHL
Magnesium, Total	8260		mg/kg	8.06	1.24	2	07/23/24 08:55	07/23/24 13:59	EPA 3050B	1,6010D	DHL
Manganese, Total	437		mg/kg	0.806	0.128	2	07/23/24 08:55	07/23/24 13:59	EPA 3050B	1,6010D	DHL
Mercury, Total	0.137		mg/kg	0.066	0.043	1	07/23/24 09:30	07/23/24 10:58	EPA 7471B	1,7471B	MJR
Nickel, Total	55.8		mg/kg	2.01	0.195	2	07/23/24 08:55	07/23/24 13:59	EPA 3050B	1,6010D	DHL
Potassium, Total	6180		mg/kg	201	11.6	2	07/23/24 08:55	07/23/24 13:59	EPA 3050B	1,6010D	DHL
Selenium, Total	0.328	J	mg/kg	1.61	0.208	2	07/23/24 08:55	07/23/24 13:59	EPA 3050B	1,6010D	DHL
Silver, Total	ND		mg/kg	0.403	0.228	2	07/23/24 08:55	07/23/24 13:59	EPA 3050B	1,6010D	DHL
Sodium, Total	176		mg/kg	161	2.54	2	07/23/24 08:55	07/23/24 13:59	EPA 3050B	1,6010D	DHL
Thallium, Total	1.58	J	mg/kg	1.61	0.254	2	07/23/24 08:55	07/23/24 13:59	EPA 3050B	1,6010D	DHL
Vanadium, Total	54.2		mg/kg	0.806	0.164	2	07/23/24 08:55	07/23/24 13:59	EPA 3050B	1,6010D	DHL
Zinc, Total	252		mg/kg	4.03	0.236	2	07/23/24 08:55	07/23/24 13:59	EPA 3050B	1,6010D	DHL
General Chemistry - Mansfield Lab											
Chromium, Trivalent	1240		mg/kg	0.826	0.165	1		07/24/24 03:52	NA	107,-	

Project Name: ALLIANCE 51ST
Lab Number: L2441149
Project Number: 30108678.07
Report Date: 07/29/24

SAMPLE RESULTS

Lab ID: L2441149-04
Client ID: DEP51-S4
Sample Location: 51ST ST. PHILA PA
Date Collected: 07/22/24 11:00
Date Received: 07/22/24
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 97%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	10900		mg/kg	7.86	2.12	2	07/23/24 08:55	07/23/24 14:02	EPA 3050B	1,6010D	DHL
Antimony, Total	0.767	J	mg/kg	3.93	0.299	2	07/23/24 08:55	07/23/24 14:02	EPA 3050B	1,6010D	DHL
Arsenic, Total	9.50		mg/kg	0.786	0.164	2	07/23/24 08:55	07/23/24 14:02	EPA 3050B	1,6010D	DHL
Barium, Total	118		mg/kg	0.786	0.137	2	07/23/24 08:55	07/23/24 14:02	EPA 3050B	1,6010D	DHL
Beryllium, Total	0.518		mg/kg	0.393	0.026	2	07/23/24 08:55	07/23/24 14:02	EPA 3050B	1,6010D	DHL
Cadmium, Total	0.389	J	mg/kg	0.786	0.077	2	07/23/24 08:55	07/23/24 14:02	EPA 3050B	1,6010D	DHL
Calcium, Total	24400		mg/kg	7.86	2.75	2	07/23/24 08:55	07/23/24 14:02	EPA 3050B	1,6010D	DHL
Chromium, Total	890		mg/kg	0.786	0.076	2	07/23/24 08:55	07/23/24 14:02	EPA 3050B	1,6010D	DHL
Cobalt, Total	13.4		mg/kg	1.57	0.130	2	07/23/24 08:55	07/23/24 14:02	EPA 3050B	1,6010D	DHL
Copper, Total	44.9		mg/kg	0.786	0.203	2	07/23/24 08:55	07/23/24 14:02	EPA 3050B	1,6010D	DHL
Iron, Total	24700		mg/kg	3.93	0.710	2	07/23/24 08:55	07/23/24 14:02	EPA 3050B	1,6010D	DHL
Lead, Total	201		mg/kg	3.93	0.211	2	07/23/24 08:55	07/23/24 14:02	EPA 3050B	1,6010D	DHL
Magnesium, Total	7410		mg/kg	7.86	1.21	2	07/23/24 08:55	07/23/24 14:02	EPA 3050B	1,6010D	DHL
Manganese, Total	496		mg/kg	0.786	0.125	2	07/23/24 08:55	07/23/24 14:02	EPA 3050B	1,6010D	DHL
Mercury, Total	0.121		mg/kg	0.065	0.042	1	07/23/24 09:30	07/23/24 11:08	EPA 7471B	1,7471B	MJR
Nickel, Total	48.4		mg/kg	1.97	0.190	2	07/23/24 08:55	07/23/24 14:02	EPA 3050B	1,6010D	DHL
Potassium, Total	4460		mg/kg	197	11.3	2	07/23/24 08:55	07/23/24 14:02	EPA 3050B	1,6010D	DHL
Selenium, Total	0.450	J	mg/kg	1.57	0.203	2	07/23/24 08:55	07/23/24 14:02	EPA 3050B	1,6010D	DHL
Silver, Total	0.234	J	mg/kg	0.393	0.222	2	07/23/24 08:55	07/23/24 14:02	EPA 3050B	1,6010D	DHL
Sodium, Total	169		mg/kg	157	2.48	2	07/23/24 08:55	07/23/24 14:02	EPA 3050B	1,6010D	DHL
Thallium, Total	1.10	J	mg/kg	1.57	0.248	2	07/23/24 08:55	07/23/24 14:02	EPA 3050B	1,6010D	DHL
Vanadium, Total	43.8		mg/kg	0.786	0.160	2	07/23/24 08:55	07/23/24 14:02	EPA 3050B	1,6010D	DHL
Zinc, Total	299		mg/kg	3.93	0.230	2	07/23/24 08:55	07/23/24 14:02	EPA 3050B	1,6010D	DHL
General Chemistry - Mansfield Lab											
Chromium, Trivalent	890		mg/kg	0.827	0.165	1		07/24/24 03:52	NA	107,-	

Project Name: ALLIANCE 51ST
Lab Number: L2441149
Project Number: 30108678.07
Report Date: 07/29/24

SAMPLE RESULTS

Lab ID: L2441149-05
Client ID: DEP51-S5
Sample Location: 51ST ST. PHILA PA
Date Collected: 07/22/24 11:05
Date Received: 07/22/24
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 74%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	8300		mg/kg	10.2	2.76	2	07/23/24 08:55	07/23/24 14:06	EPA 3050B	1,6010D	DHL
Antimony, Total	1.68	J	mg/kg	5.12	0.389	2	07/23/24 08:55	07/23/24 14:06	EPA 3050B	1,6010D	DHL
Arsenic, Total	6.80		mg/kg	1.02	0.213	2	07/23/24 08:55	07/23/24 14:06	EPA 3050B	1,6010D	DHL
Barium, Total	121		mg/kg	1.02	0.178	2	07/23/24 08:55	07/23/24 14:06	EPA 3050B	1,6010D	DHL
Beryllium, Total	0.411	J	mg/kg	0.512	0.034	2	07/23/24 08:55	07/23/24 14:06	EPA 3050B	1,6010D	DHL
Cadmium, Total	0.379	J	mg/kg	1.02	0.100	2	07/23/24 08:55	07/23/24 14:06	EPA 3050B	1,6010D	DHL
Calcium, Total	9870		mg/kg	10.2	3.58	2	07/23/24 08:55	07/23/24 14:06	EPA 3050B	1,6010D	DHL
Chromium, Total	559		mg/kg	1.02	0.098	2	07/23/24 08:55	07/23/24 14:06	EPA 3050B	1,6010D	DHL
Cobalt, Total	9.38		mg/kg	2.05	0.170	2	07/23/24 08:55	07/23/24 14:06	EPA 3050B	1,6010D	DHL
Copper, Total	54.8		mg/kg	1.02	0.264	2	07/23/24 08:55	07/23/24 14:06	EPA 3050B	1,6010D	DHL
Iron, Total	21600		mg/kg	5.12	0.924	2	07/23/24 08:55	07/23/24 14:06	EPA 3050B	1,6010D	DHL
Lead, Total	2330		mg/kg	5.12	0.274	2	07/23/24 08:55	07/23/24 14:06	EPA 3050B	1,6010D	DHL
Magnesium, Total	5450		mg/kg	10.2	1.58	2	07/23/24 08:55	07/23/24 14:06	EPA 3050B	1,6010D	DHL
Manganese, Total	371		mg/kg	1.02	0.163	2	07/23/24 08:55	07/23/24 14:06	EPA 3050B	1,6010D	DHL
Mercury, Total	0.059	J	mg/kg	0.086	0.056	1	07/23/24 09:30	07/23/24 11:11	EPA 7471B	1,7471B	MJR
Nickel, Total	29.6		mg/kg	2.56	0.248	2	07/23/24 08:55	07/23/24 14:06	EPA 3050B	1,6010D	DHL
Potassium, Total	4200		mg/kg	256	14.7	2	07/23/24 08:55	07/23/24 14:06	EPA 3050B	1,6010D	DHL
Selenium, Total	0.587	J	mg/kg	2.05	0.264	2	07/23/24 08:55	07/23/24 14:06	EPA 3050B	1,6010D	DHL
Silver, Total	ND		mg/kg	0.512	0.290	2	07/23/24 08:55	07/23/24 14:06	EPA 3050B	1,6010D	DHL
Sodium, Total	146	J	mg/kg	205	3.22	2	07/23/24 08:55	07/23/24 14:06	EPA 3050B	1,6010D	DHL
Thallium, Total	0.685	J	mg/kg	2.05	0.322	2	07/23/24 08:55	07/23/24 14:06	EPA 3050B	1,6010D	DHL
Vanadium, Total	29.8		mg/kg	1.02	0.208	2	07/23/24 08:55	07/23/24 14:06	EPA 3050B	1,6010D	DHL
Zinc, Total	387		mg/kg	5.12	0.300	2	07/23/24 08:55	07/23/24 14:06	EPA 3050B	1,6010D	DHL
General Chemistry - Mansfield Lab											
Chromium, Trivalent	559		mg/kg	1.08	0.217	1		07/24/24 03:52	NA	107,-	

Project Name: ALLIANCE 51ST
Lab Number: L2441149
Project Number: 30108678.07
Report Date: 07/29/24

SAMPLE RESULTS

Lab ID: L2441149-06
Client ID: DEP51-S6
Sample Location: 51ST ST. PHILA PA
Date Collected: 07/22/24 11:10
Date Received: 07/22/24
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 81%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	6380		mg/kg	9.65	2.60	2	07/23/24 08:55	07/23/24 14:09	EPA 3050B	1,6010D	DHL
Antimony, Total	4.00	J	mg/kg	4.82	0.366	2	07/23/24 08:55	07/23/24 14:09	EPA 3050B	1,6010D	DHL
Arsenic, Total	12.9		mg/kg	0.965	0.201	2	07/23/24 08:55	07/23/24 14:09	EPA 3050B	1,6010D	DHL
Barium, Total	115		mg/kg	0.965	0.168	2	07/23/24 08:55	07/23/24 14:09	EPA 3050B	1,6010D	DHL
Beryllium, Total	0.372	J	mg/kg	0.482	0.032	2	07/23/24 08:55	07/23/24 14:09	EPA 3050B	1,6010D	DHL
Cadmium, Total	0.517	J	mg/kg	0.965	0.095	2	07/23/24 08:55	07/23/24 14:09	EPA 3050B	1,6010D	DHL
Calcium, Total	12800		mg/kg	9.65	3.38	2	07/23/24 08:55	07/23/24 14:09	EPA 3050B	1,6010D	DHL
Chromium, Total	311		mg/kg	0.965	0.093	2	07/23/24 08:55	07/23/24 14:09	EPA 3050B	1,6010D	DHL
Cobalt, Total	8.70		mg/kg	1.93	0.160	2	07/23/24 08:55	07/23/24 14:09	EPA 3050B	1,6010D	DHL
Copper, Total	93.9		mg/kg	0.965	0.249	2	07/23/24 08:55	07/23/24 14:09	EPA 3050B	1,6010D	DHL
Iron, Total	36800		mg/kg	4.82	0.871	2	07/23/24 08:55	07/23/24 14:09	EPA 3050B	1,6010D	DHL
Lead, Total	290		mg/kg	4.82	0.258	2	07/23/24 08:55	07/23/24 14:09	EPA 3050B	1,6010D	DHL
Magnesium, Total	3390		mg/kg	9.65	1.48	2	07/23/24 08:55	07/23/24 14:09	EPA 3050B	1,6010D	DHL
Manganese, Total	394		mg/kg	0.965	0.153	2	07/23/24 08:55	07/23/24 14:09	EPA 3050B	1,6010D	DHL
Mercury, Total	0.225		mg/kg	0.079	0.051	1	07/23/24 09:30	07/23/24 11:15	EPA 7471B	1,7471B	MJR
Nickel, Total	31.3		mg/kg	2.41	0.233	2	07/23/24 08:55	07/23/24 14:09	EPA 3050B	1,6010D	DHL
Potassium, Total	2040		mg/kg	241	13.9	2	07/23/24 08:55	07/23/24 14:09	EPA 3050B	1,6010D	DHL
Selenium, Total	0.971	J	mg/kg	1.93	0.249	2	07/23/24 08:55	07/23/24 14:09	EPA 3050B	1,6010D	DHL
Silver, Total	0.369	J	mg/kg	0.482	0.273	2	07/23/24 08:55	07/23/24 14:09	EPA 3050B	1,6010D	DHL
Sodium, Total	148	J	mg/kg	193	3.04	2	07/23/24 08:55	07/23/24 14:09	EPA 3050B	1,6010D	DHL
Thallium, Total	0.594	J	mg/kg	1.93	0.304	2	07/23/24 08:55	07/23/24 14:09	EPA 3050B	1,6010D	DHL
Vanadium, Total	27.2		mg/kg	0.965	0.196	2	07/23/24 08:55	07/23/24 14:09	EPA 3050B	1,6010D	DHL
Zinc, Total	210		mg/kg	4.82	0.283	2	07/23/24 08:55	07/23/24 14:09	EPA 3050B	1,6010D	DHL
General Chemistry - Mansfield Lab											
Chromium, Trivalent	311		mg/kg	0.990	0.198	1		07/24/24 03:52	NA	107,-	

Project Name: ALLIANCE 51ST
Lab Number: L2441149
Project Number: 30108678.07
Report Date: 07/29/24

SAMPLE RESULTS

Lab ID: L2441149-07
Client ID: DEP51-S7
Sample Location: 51ST ST. PHILA PA
Date Collected: 07/22/24 11:15
Date Received: 07/22/24
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 73%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	10900		mg/kg	10.4	2.80	2	07/23/24 08:55	07/23/24 14:20	EPA 3050B	1,6010D	DHL
Antimony, Total	0.464	J	mg/kg	5.18	0.394	2	07/23/24 08:55	07/23/24 14:20	EPA 3050B	1,6010D	DHL
Arsenic, Total	8.85		mg/kg	1.04	0.215	2	07/23/24 08:55	07/23/24 14:20	EPA 3050B	1,6010D	DHL
Barium, Total	117		mg/kg	1.04	0.180	2	07/23/24 08:55	07/23/24 14:20	EPA 3050B	1,6010D	DHL
Beryllium, Total	0.531		mg/kg	0.518	0.034	2	07/23/24 08:55	07/23/24 14:20	EPA 3050B	1,6010D	DHL
Cadmium, Total	0.304	J	mg/kg	1.04	0.102	2	07/23/24 08:55	07/23/24 14:20	EPA 3050B	1,6010D	DHL
Calcium, Total	11600		mg/kg	10.4	3.62	2	07/23/24 08:55	07/23/24 14:20	EPA 3050B	1,6010D	DHL
Chromium, Total	433		mg/kg	1.04	0.099	2	07/23/24 08:55	07/23/24 14:20	EPA 3050B	1,6010D	DHL
Cobalt, Total	12.2		mg/kg	2.07	0.172	2	07/23/24 08:55	07/23/24 14:20	EPA 3050B	1,6010D	DHL
Copper, Total	41.5		mg/kg	1.04	0.267	2	07/23/24 08:55	07/23/24 14:20	EPA 3050B	1,6010D	DHL
Iron, Total	22600		mg/kg	5.18	0.935	2	07/23/24 08:55	07/23/24 14:20	EPA 3050B	1,6010D	DHL
Lead, Total	140		mg/kg	5.18	0.278	2	07/23/24 08:55	07/23/24 14:20	EPA 3050B	1,6010D	DHL
Magnesium, Total	6740		mg/kg	10.4	1.60	2	07/23/24 08:55	07/23/24 14:20	EPA 3050B	1,6010D	DHL
Manganese, Total	526		mg/kg	1.04	0.165	2	07/23/24 08:55	07/23/24 14:20	EPA 3050B	1,6010D	DHL
Mercury, Total	0.090		mg/kg	0.086	0.056	1	07/23/24 09:30	07/23/24 11:18	EPA 7471B	1,7471B	MJR
Nickel, Total	35.1		mg/kg	2.59	0.251	2	07/23/24 08:55	07/23/24 14:20	EPA 3050B	1,6010D	DHL
Potassium, Total	5090		mg/kg	259	14.9	2	07/23/24 08:55	07/23/24 14:20	EPA 3050B	1,6010D	DHL
Selenium, Total	0.448	J	mg/kg	2.07	0.267	2	07/23/24 08:55	07/23/24 14:20	EPA 3050B	1,6010D	DHL
Silver, Total	ND		mg/kg	0.518	0.293	2	07/23/24 08:55	07/23/24 14:20	EPA 3050B	1,6010D	DHL
Sodium, Total	178	J	mg/kg	207	3.26	2	07/23/24 08:55	07/23/24 14:20	EPA 3050B	1,6010D	DHL
Thallium, Total	1.04	J	mg/kg	2.07	0.326	2	07/23/24 08:55	07/23/24 14:20	EPA 3050B	1,6010D	DHL
Vanadium, Total	38.4		mg/kg	1.04	0.210	2	07/23/24 08:55	07/23/24 14:20	EPA 3050B	1,6010D	DHL
Zinc, Total	230		mg/kg	5.18	0.304	2	07/23/24 08:55	07/23/24 14:20	EPA 3050B	1,6010D	DHL
General Chemistry - Mansfield Lab											
Chromium, Trivalent	433	J	mg/kg	1.09	0.218	1		07/24/24 03:52	NA	107,-	

Project Name: ALLIANCE 51ST
Lab Number: L2441149
Project Number: 30108678.07
Report Date: 07/29/24

SAMPLE RESULTS

Lab ID: L2441149-08
Client ID: DEP51-S8
Sample Location: 51ST ST. PHILA PA
Date Collected: 07/22/24 11:20
Date Received: 07/22/24
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 60%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	12500		mg/kg	12.6	3.40	2	07/23/24 08:55	07/23/24 14:24	EPA 3050B	1,6010D	DHL
Antimony, Total	20.8		mg/kg	6.30	0.479	2	07/23/24 08:55	07/23/24 14:24	EPA 3050B	1,6010D	DHL
Arsenic, Total	13.9		mg/kg	1.26	0.262	2	07/23/24 08:55	07/23/24 14:24	EPA 3050B	1,6010D	DHL
Barium, Total	146		mg/kg	1.26	0.219	2	07/23/24 08:55	07/23/24 14:24	EPA 3050B	1,6010D	DHL
Beryllium, Total	0.622	J	mg/kg	0.630	0.042	2	07/23/24 08:55	07/23/24 14:24	EPA 3050B	1,6010D	DHL
Cadmium, Total	0.469	J	mg/kg	1.26	0.124	2	07/23/24 08:55	07/23/24 14:24	EPA 3050B	1,6010D	DHL
Calcium, Total	37700		mg/kg	12.6	4.41	2	07/23/24 08:55	07/23/24 14:24	EPA 3050B	1,6010D	DHL
Chromium, Total	1110		mg/kg	1.26	0.121	2	07/23/24 08:55	07/23/24 14:24	EPA 3050B	1,6010D	DHL
Cobalt, Total	16.0		mg/kg	2.52	0.209	2	07/23/24 08:55	07/23/24 14:24	EPA 3050B	1,6010D	DHL
Copper, Total	59.7		mg/kg	1.26	0.325	2	07/23/24 08:55	07/23/24 14:24	EPA 3050B	1,6010D	DHL
Iron, Total	28000		mg/kg	6.30	1.14	2	07/23/24 08:55	07/23/24 14:24	EPA 3050B	1,6010D	DHL
Lead, Total	474		mg/kg	6.30	0.338	2	07/23/24 08:55	07/23/24 14:24	EPA 3050B	1,6010D	DHL
Magnesium, Total	8690		mg/kg	12.6	1.94	2	07/23/24 08:55	07/23/24 14:24	EPA 3050B	1,6010D	DHL
Manganese, Total	575		mg/kg	1.26	0.200	2	07/23/24 08:55	07/23/24 14:24	EPA 3050B	1,6010D	DHL
Mercury, Total	0.155		mg/kg	0.105	0.069	1	07/23/24 09:30	07/23/24 11:21	EPA 7471B	1,7471B	MJR
Nickel, Total	59.1		mg/kg	3.15	0.305	2	07/23/24 08:55	07/23/24 14:24	EPA 3050B	1,6010D	DHL
Potassium, Total	5120		mg/kg	315	18.2	2	07/23/24 08:55	07/23/24 14:24	EPA 3050B	1,6010D	DHL
Selenium, Total	0.862	J	mg/kg	2.52	0.325	2	07/23/24 08:55	07/23/24 14:24	EPA 3050B	1,6010D	DHL
Silver, Total	ND		mg/kg	0.630	0.357	2	07/23/24 08:55	07/23/24 14:24	EPA 3050B	1,6010D	DHL
Sodium, Total	233	J	mg/kg	252	3.97	2	07/23/24 08:55	07/23/24 14:24	EPA 3050B	1,6010D	DHL
Thallium, Total	1.26	J	mg/kg	2.52	0.397	2	07/23/24 08:55	07/23/24 14:24	EPA 3050B	1,6010D	DHL
Vanadium, Total	52.2		mg/kg	1.26	0.256	2	07/23/24 08:55	07/23/24 14:24	EPA 3050B	1,6010D	DHL
Zinc, Total	407		mg/kg	6.30	0.370	2	07/23/24 08:55	07/23/24 14:24	EPA 3050B	1,6010D	DHL
General Chemistry - Mansfield Lab											
Chromium, Trivalent	1110		mg/kg	1.33	0.265	1		07/24/24 03:52	NA	107,-	

Project Name: ALLIANCE 51ST
Project Number: 30108678.07
Lab Number: L2441149
Report Date: 07/29/24

SAMPLE RESULTS

Lab ID: L2441149-09
Client ID: DEP51-S9
Sample Location: 51ST ST. PHILA PA
Date Collected: 07/22/24 11:25
Date Received: 07/22/24
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 81%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	10200		mg/kg	9.46	2.55	2	07/23/24 08:55	07/23/24 14:27	EPA 3050B	1,6010D	DHL
Antimony, Total	0.698	J	mg/kg	4.73	0.360	2	07/23/24 08:55	07/23/24 14:27	EPA 3050B	1,6010D	DHL
Arsenic, Total	10.3		mg/kg	0.946	0.197	2	07/23/24 08:55	07/23/24 14:27	EPA 3050B	1,6010D	DHL
Barium, Total	110		mg/kg	0.946	0.165	2	07/23/24 08:55	07/23/24 14:27	EPA 3050B	1,6010D	DHL
Beryllium, Total	0.592		mg/kg	0.473	0.031	2	07/23/24 08:55	07/23/24 14:27	EPA 3050B	1,6010D	DHL
Cadmium, Total	0.452	J	mg/kg	0.946	0.093	2	07/23/24 08:55	07/23/24 14:27	EPA 3050B	1,6010D	DHL
Calcium, Total	14800		mg/kg	9.46	3.31	2	07/23/24 08:55	07/23/24 14:27	EPA 3050B	1,6010D	DHL
Chromium, Total	491		mg/kg	0.946	0.091	2	07/23/24 08:55	07/23/24 14:27	EPA 3050B	1,6010D	DHL
Cobalt, Total	13.0		mg/kg	1.89	0.157	2	07/23/24 08:55	07/23/24 14:27	EPA 3050B	1,6010D	DHL
Copper, Total	50.0		mg/kg	0.946	0.244	2	07/23/24 08:55	07/23/24 14:27	EPA 3050B	1,6010D	DHL
Iron, Total	33900		mg/kg	4.73	0.854	2	07/23/24 08:55	07/23/24 14:27	EPA 3050B	1,6010D	DHL
Lead, Total	1120		mg/kg	4.73	0.254	2	07/23/24 08:55	07/23/24 14:27	EPA 3050B	1,6010D	DHL
Magnesium, Total	7190		mg/kg	9.46	1.46	2	07/23/24 08:55	07/23/24 14:27	EPA 3050B	1,6010D	DHL
Manganese, Total	558		mg/kg	0.946	0.150	2	07/23/24 08:55	07/23/24 14:27	EPA 3050B	1,6010D	DHL
Mercury, Total	0.102		mg/kg	0.079	0.052	1	07/23/24 09:30	07/23/24 11:25	EPA 7471B	1,7471B	MJR
Nickel, Total	35.6		mg/kg	2.36	0.229	2	07/23/24 08:55	07/23/24 14:27	EPA 3050B	1,6010D	DHL
Potassium, Total	3670		mg/kg	236	13.6	2	07/23/24 08:55	07/23/24 14:27	EPA 3050B	1,6010D	DHL
Selenium, Total	0.669	J	mg/kg	1.89	0.244	2	07/23/24 08:55	07/23/24 14:27	EPA 3050B	1,6010D	DHL
Silver, Total	0.286	J	mg/kg	0.473	0.268	2	07/23/24 08:55	07/23/24 14:27	EPA 3050B	1,6010D	DHL
Sodium, Total	172	J	mg/kg	189	2.98	2	07/23/24 08:55	07/23/24 14:27	EPA 3050B	1,6010D	DHL
Thallium, Total	0.900	J	mg/kg	1.89	0.298	2	07/23/24 08:55	07/23/24 14:27	EPA 3050B	1,6010D	DHL
Vanadium, Total	35.7		mg/kg	0.946	0.192	2	07/23/24 08:55	07/23/24 14:27	EPA 3050B	1,6010D	DHL
Zinc, Total	363		mg/kg	4.73	0.277	2	07/23/24 08:55	07/23/24 14:27	EPA 3050B	1,6010D	DHL
General Chemistry - Mansfield Lab											
Chromium, Trivalent	491		mg/kg	0.990	0.198	1		07/24/24 03:52	NA	107,-	

Project Name: ALLIANCE 51ST
Lab Number: L2441149
Project Number: 30108678.07
Report Date: 07/29/24

SAMPLE RESULTS

Lab ID: L2441149-10
Client ID: DEP51-S10
Sample Location: 51ST ST. PHILA PA
Date Collected: 07/22/24 11:30
Date Received: 07/22/24
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 60%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	11200		mg/kg	13.1	3.54	2	07/23/24 08:55	07/23/24 14:31	EPA 3050B	1,6010D	DHL
Antimony, Total	0.777	J	mg/kg	6.56	0.499	2	07/23/24 08:55	07/23/24 14:31	EPA 3050B	1,6010D	DHL
Arsenic, Total	13.8		mg/kg	1.31	0.273	2	07/23/24 08:55	07/23/24 14:31	EPA 3050B	1,6010D	DHL
Barium, Total	119		mg/kg	1.31	0.228	2	07/23/24 08:55	07/23/24 14:31	EPA 3050B	1,6010D	DHL
Beryllium, Total	0.668		mg/kg	0.656	0.043	2	07/23/24 08:55	07/23/24 14:31	EPA 3050B	1,6010D	DHL
Cadmium, Total	0.481	J	mg/kg	1.31	0.129	2	07/23/24 08:55	07/23/24 14:31	EPA 3050B	1,6010D	DHL
Calcium, Total	19900		mg/kg	13.1	4.59	2	07/23/24 08:55	07/23/24 14:31	EPA 3050B	1,6010D	DHL
Chromium, Total	1030		mg/kg	1.31	0.126	2	07/23/24 08:55	07/23/24 14:31	EPA 3050B	1,6010D	DHL
Cobalt, Total	16.0		mg/kg	2.62	0.218	2	07/23/24 08:55	07/23/24 14:31	EPA 3050B	1,6010D	DHL
Copper, Total	60.7		mg/kg	1.31	0.338	2	07/23/24 08:55	07/23/24 14:31	EPA 3050B	1,6010D	DHL
Iron, Total	24900		mg/kg	6.56	1.18	2	07/23/24 08:55	07/23/24 14:31	EPA 3050B	1,6010D	DHL
Lead, Total	242		mg/kg	6.56	0.352	2	07/23/24 08:55	07/23/24 14:31	EPA 3050B	1,6010D	DHL
Magnesium, Total	9220		mg/kg	13.1	2.02	2	07/23/24 08:55	07/23/24 14:31	EPA 3050B	1,6010D	DHL
Manganese, Total	656		mg/kg	1.31	0.209	2	07/23/24 08:55	07/23/24 14:31	EPA 3050B	1,6010D	DHL
Mercury, Total	0.219		mg/kg	0.107	0.070	1	07/23/24 09:30	07/23/24 11:28	EPA 7471B	1,7471B	MJR
Nickel, Total	52.2		mg/kg	3.28	0.318	2	07/23/24 08:55	07/23/24 14:31	EPA 3050B	1,6010D	DHL
Potassium, Total	3410		mg/kg	328	18.9	2	07/23/24 08:55	07/23/24 14:31	EPA 3050B	1,6010D	DHL
Selenium, Total	0.754	J	mg/kg	2.62	0.338	2	07/23/24 08:55	07/23/24 14:31	EPA 3050B	1,6010D	DHL
Silver, Total	ND		mg/kg	0.656	0.371	2	07/23/24 08:55	07/23/24 14:31	EPA 3050B	1,6010D	DHL
Sodium, Total	227	J	mg/kg	262	4.13	2	07/23/24 08:55	07/23/24 14:31	EPA 3050B	1,6010D	DHL
Thallium, Total	0.819	J	mg/kg	2.62	0.413	2	07/23/24 08:55	07/23/24 14:31	EPA 3050B	1,6010D	DHL
Vanadium, Total	50.5		mg/kg	1.31	0.266	2	07/23/24 08:55	07/23/24 14:31	EPA 3050B	1,6010D	DHL
Zinc, Total	343		mg/kg	6.56	0.384	2	07/23/24 08:55	07/23/24 14:31	EPA 3050B	1,6010D	DHL
General Chemistry - Mansfield Lab											
Chromium, Trivalent	1030		mg/kg	1.33	0.267	1		07/24/24 03:52	NA	107,-	

Project Name: ALLIANCE 51ST
Lab Number: L2441149
Project Number: 30108678.07
Report Date: 07/29/24

SAMPLE RESULTS

Lab ID: L2441149-11
Client ID: DEP51-S11
Sample Location: 51ST ST. PHILA PA
Date Collected: 07/22/24 11:40
Date Received: 07/22/24
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 86%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	9980		mg/kg	8.99	2.43	2	07/23/24 08:55	07/23/24 14:34	EPA 3050B	1,6010D	DHL
Antimony, Total	1.09	J	mg/kg	4.50	0.342	2	07/23/24 08:55	07/23/24 14:34	EPA 3050B	1,6010D	DHL
Arsenic, Total	7.01		mg/kg	0.899	0.187	2	07/23/24 08:55	07/23/24 14:34	EPA 3050B	1,6010D	DHL
Barium, Total	104		mg/kg	0.899	0.156	2	07/23/24 08:55	07/23/24 14:34	EPA 3050B	1,6010D	DHL
Beryllium, Total	0.619		mg/kg	0.450	0.030	2	07/23/24 08:55	07/23/24 14:34	EPA 3050B	1,6010D	DHL
Cadmium, Total	0.425	J	mg/kg	0.899	0.088	2	07/23/24 08:55	07/23/24 14:34	EPA 3050B	1,6010D	DHL
Calcium, Total	8320		mg/kg	8.99	3.15	2	07/23/24 08:55	07/23/24 14:34	EPA 3050B	1,6010D	DHL
Chromium, Total	101		mg/kg	0.899	0.086	2	07/23/24 08:55	07/23/24 14:34	EPA 3050B	1,6010D	DHL
Cobalt, Total	9.09		mg/kg	1.80	0.149	2	07/23/24 08:55	07/23/24 14:34	EPA 3050B	1,6010D	DHL
Copper, Total	50.9		mg/kg	0.899	0.232	2	07/23/24 08:55	07/23/24 14:34	EPA 3050B	1,6010D	DHL
Iron, Total	20700		mg/kg	4.50	0.812	2	07/23/24 08:55	07/23/24 14:34	EPA 3050B	1,6010D	DHL
Lead, Total	185		mg/kg	4.50	0.241	2	07/23/24 08:55	07/23/24 14:34	EPA 3050B	1,6010D	DHL
Magnesium, Total	5450		mg/kg	8.99	1.38	2	07/23/24 08:55	07/23/24 14:34	EPA 3050B	1,6010D	DHL
Manganese, Total	412		mg/kg	0.899	0.143	2	07/23/24 08:55	07/23/24 14:34	EPA 3050B	1,6010D	DHL
Mercury, Total	0.202		mg/kg	0.074	0.048	1	07/23/24 09:30	07/23/24 11:31	EPA 7471B	1,7471B	MJR
Nickel, Total	18.6		mg/kg	2.25	0.218	2	07/23/24 08:55	07/23/24 14:34	EPA 3050B	1,6010D	DHL
Potassium, Total	1830		mg/kg	225	12.9	2	07/23/24 08:55	07/23/24 14:34	EPA 3050B	1,6010D	DHL
Selenium, Total	0.291	J	mg/kg	1.80	0.232	2	07/23/24 08:55	07/23/24 14:34	EPA 3050B	1,6010D	DHL
Silver, Total	0.448	J	mg/kg	0.450	0.254	2	07/23/24 08:55	07/23/24 14:34	EPA 3050B	1,6010D	DHL
Sodium, Total	221		mg/kg	180	2.83	2	07/23/24 08:55	07/23/24 14:34	EPA 3050B	1,6010D	DHL
Thallium, Total	0.538	J	mg/kg	1.80	0.283	2	07/23/24 08:55	07/23/24 14:34	EPA 3050B	1,6010D	DHL
Vanadium, Total	33.9		mg/kg	0.899	0.182	2	07/23/24 08:55	07/23/24 14:34	EPA 3050B	1,6010D	DHL
Zinc, Total	222		mg/kg	4.50	0.263	2	07/23/24 08:55	07/23/24 14:34	EPA 3050B	1,6010D	DHL
General Chemistry - Mansfield Lab											
Chromium, Trivalent	101		mg/kg	0.928	0.186	1		07/24/24 04:07	NA	107,-	

Project Name: ALLIANCE 51ST
Lab Number: L2441149
Project Number: 30108678.07
Report Date: 07/29/24

SAMPLE RESULTS

Lab ID: L2441149-12
Client ID: DUP-S
Sample Location: 51ST ST. PHILA PA
Date Collected: 07/22/24 00:00
Date Received: 07/22/24
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 77%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	6280		mg/kg	9.76	2.63	2	07/23/24 08:55	07/23/24 14:38	EPA 3050B	1,6010D	DHL
Antimony, Total	4.16	J	mg/kg	4.88	0.371	2	07/23/24 08:55	07/23/24 14:38	EPA 3050B	1,6010D	DHL
Arsenic, Total	16.9		mg/kg	0.976	0.203	2	07/23/24 08:55	07/23/24 14:38	EPA 3050B	1,6010D	DHL
Barium, Total	122		mg/kg	0.976	0.170	2	07/23/24 08:55	07/23/24 14:38	EPA 3050B	1,6010D	DHL
Beryllium, Total	0.409	J	mg/kg	0.488	0.032	2	07/23/24 08:55	07/23/24 14:38	EPA 3050B	1,6010D	DHL
Cadmium, Total	0.488	J	mg/kg	0.976	0.096	2	07/23/24 08:55	07/23/24 14:38	EPA 3050B	1,6010D	DHL
Calcium, Total	11600		mg/kg	9.76	3.42	2	07/23/24 08:55	07/23/24 14:38	EPA 3050B	1,6010D	DHL
Chromium, Total	305		mg/kg	0.976	0.094	2	07/23/24 08:55	07/23/24 14:38	EPA 3050B	1,6010D	DHL
Cobalt, Total	7.75		mg/kg	1.95	0.162	2	07/23/24 08:55	07/23/24 14:38	EPA 3050B	1,6010D	DHL
Copper, Total	83.2		mg/kg	0.976	0.252	2	07/23/24 08:55	07/23/24 14:38	EPA 3050B	1,6010D	DHL
Iron, Total	28400		mg/kg	4.88	0.881	2	07/23/24 08:55	07/23/24 14:38	EPA 3050B	1,6010D	DHL
Lead, Total	236		mg/kg	4.88	0.261	2	07/23/24 08:55	07/23/24 14:38	EPA 3050B	1,6010D	DHL
Magnesium, Total	3150		mg/kg	9.76	1.50	2	07/23/24 08:55	07/23/24 14:38	EPA 3050B	1,6010D	DHL
Manganese, Total	316		mg/kg	0.976	0.155	2	07/23/24 08:55	07/23/24 14:38	EPA 3050B	1,6010D	DHL
Mercury, Total	0.249		mg/kg	0.082	0.053	1	07/23/24 09:30	07/23/24 11:35	EPA 7471B	1,7471B	MJR
Nickel, Total	28.1		mg/kg	2.44	0.236	2	07/23/24 08:55	07/23/24 14:38	EPA 3050B	1,6010D	DHL
Potassium, Total	1840		mg/kg	244	14.0	2	07/23/24 08:55	07/23/24 14:38	EPA 3050B	1,6010D	DHL
Selenium, Total	0.546	J	mg/kg	1.95	0.252	2	07/23/24 08:55	07/23/24 14:38	EPA 3050B	1,6010D	DHL
Silver, Total	0.335	J	mg/kg	0.488	0.276	2	07/23/24 08:55	07/23/24 14:38	EPA 3050B	1,6010D	DHL
Sodium, Total	152	J	mg/kg	195	3.07	2	07/23/24 08:55	07/23/24 14:38	EPA 3050B	1,6010D	DHL
Thallium, Total	0.617	J	mg/kg	1.95	0.307	2	07/23/24 08:55	07/23/24 14:38	EPA 3050B	1,6010D	DHL
Vanadium, Total	25.3		mg/kg	0.976	0.198	2	07/23/24 08:55	07/23/24 14:38	EPA 3050B	1,6010D	DHL
Zinc, Total	192		mg/kg	4.88	0.286	2	07/23/24 08:55	07/23/24 14:38	EPA 3050B	1,6010D	DHL
General Chemistry - Mansfield Lab											
Chromium, Trivalent	305		mg/kg	1.04	0.208	1		07/24/24 04:07	NA	107,-	

Project Name: ALLIANCE 51ST
Project Number: 30108678.07
Lab Number: L2441149
Report Date: 07/29/24

SAMPLE RESULTS

Lab ID: L2441149-13
Client ID: DEP51-W1
Sample Location: 51ST ST. PHILA PA
Sample Depth:
Matrix: Water

Date Collected: 07/22/24 12:05
Date Received: 07/22/24
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	60.9		ug/l	10.0	3.27	1	07/23/24 07:42	07/23/24 11:24	EPA 3005A	1,6020B	NTB
Antimony, Total	1.215	J	ug/l	4.000	0.4290	1	07/23/24 07:42	07/23/24 11:24	EPA 3005A	1,6020B	NTB
Arsenic, Total	0.9562		ug/l	0.5000	0.1650	1	07/23/24 07:42	07/23/24 11:24	EPA 3005A	1,6020B	NTB
Barium, Total	45.70		ug/l	0.5000	0.1730	1	07/23/24 07:42	07/23/24 11:24	EPA 3005A	1,6020B	NTB
Beryllium, Total	ND		ug/l	0.5000	0.1070	1	07/23/24 07:42	07/23/24 11:24	EPA 3005A	1,6020B	NTB
Cadmium, Total	ND		ug/l	0.2000	0.0599	1	07/23/24 07:42	07/23/24 11:24	EPA 3005A	1,6020B	NTB
Calcium, Total	31100		ug/l	100.	39.4	1	07/23/24 07:42	07/23/24 11:24	EPA 3005A	1,6020B	NTB
Chromium, Total	0.3406	J	ug/l	1.000	0.1780	1	07/23/24 07:42	07/23/24 11:24	EPA 3005A	1,6020B	NTB
Cobalt, Total	0.3777	J	ug/l	0.5000	0.1630	1	07/23/24 07:42	07/23/24 11:24	EPA 3005A	1,6020B	NTB
Copper, Total	3.167		ug/l	1.000	0.3840	1	07/23/24 07:42	07/23/24 11:24	EPA 3005A	1,6020B	NTB
Iron, Total	169.		ug/l	50.0	19.1	1	07/23/24 07:42	07/23/24 11:24	EPA 3005A	1,6020B	NTB
Lead, Total	1.069		ug/l	1.000	0.3430	1	07/23/24 07:42	07/23/24 11:24	EPA 3005A	1,6020B	NTB
Magnesium, Total	12100		ug/l	70.0	24.2	1	07/23/24 07:42	07/23/24 11:24	EPA 3005A	1,6020B	NTB
Manganese, Total	45.85		ug/l	1.000	0.4400	1	07/23/24 07:42	07/23/24 11:24	EPA 3005A	1,6020B	NTB
Mercury, Total	0.1050	J	ug/l	0.2000	0.0915	1	07/23/24 08:20	07/23/24 11:43	EPA 7470A	1,7470A	MJR
Nickel, Total	1.761	J	ug/l	2.000	0.5560	1	07/23/24 07:42	07/23/24 11:24	EPA 3005A	1,6020B	NTB
Potassium, Total	3820		ug/l	100.	30.9	1	07/23/24 07:42	07/23/24 11:24	EPA 3005A	1,6020B	NTB
Selenium, Total	ND		ug/l	5.00	1.73	1	07/23/24 07:42	07/23/24 11:24	EPA 3005A	1,6020B	NTB
Silver, Total	ND		ug/l	0.4000	0.1630	1	07/23/24 07:42	07/23/24 11:24	EPA 3005A	1,6020B	NTB
Sodium, Total	28800		ug/l	100.	29.3	1	07/23/24 07:42	07/23/24 11:24	EPA 3005A	1,6020B	NTB
Thallium, Total	ND		ug/l	1.000	0.1430	1	07/23/24 07:42	07/23/24 11:24	EPA 3005A	1,6020B	NTB
Vanadium, Total	ND		ug/l	5.000	1.570	1	07/23/24 07:42	07/23/24 11:24	EPA 3005A	1,6020B	NTB
Zinc, Total	7.520	J	ug/l	10.00	3.410	1	07/23/24 07:42	07/23/24 11:24	EPA 3005A	1,6020B	NTB
General Chemistry - Mansfield Lab											
Chromium, Trivalent	ND		ug/l	10.0	3.00	1		07/23/24 11:24	NA	107,-	

Project Name: ALLIANCE 51ST
Project Number: 30108678.07
Lab Number: L2441149
Report Date: 07/29/24

SAMPLE RESULTS

Lab ID: L2441149-13
Client ID: DEP51-W1
Sample Location: 51ST ST. PHILA PA
Sample Depth:
Matrix: Water

Date Collected: 07/22/24 12:05
Date Received: 07/22/24
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Dissolved Metals - Mansfield Lab											
Aluminum, Dissolved	8.49	J	ug/l	10.0	3.27	1	07/24/24 06:03	07/24/24 09:25	EPA 3005A	1,6020B	EJF
Antimony, Dissolved	0.6591	J	ug/l	4.000	0.4290	1	07/24/24 06:03	07/24/24 09:25	EPA 3005A	1,6020B	EJF
Arsenic, Dissolved	0.9911		ug/l	0.5000	0.1650	1	07/24/24 06:03	07/24/24 09:25	EPA 3005A	1,6020B	EJF
Barium, Dissolved	43.00		ug/l	0.5000	0.1730	1	07/24/24 06:03	07/24/24 09:25	EPA 3005A	1,6020B	EJF
Beryllium, Dissolved	ND		ug/l	0.5000	0.1070	1	07/24/24 06:03	07/24/24 09:25	EPA 3005A	1,6020B	EJF
Cadmium, Dissolved	ND		ug/l	0.2000	0.0599	1	07/24/24 06:03	07/24/24 09:25	EPA 3005A	1,6020B	EJF
Calcium, Dissolved	31500		ug/l	100.	39.4	1	07/24/24 06:03	07/24/24 09:25	EPA 3005A	1,6020B	EJF
Chromium, Dissolved	0.2748	J	ug/l	1.000	0.1780	1	07/24/24 06:03	07/24/24 11:30	EPA 3005A	1,6020B	EJF
Cobalt, Dissolved	0.2237	J	ug/l	0.5000	0.1630	1	07/24/24 06:03	07/24/24 09:25	EPA 3005A	1,6020B	EJF
Copper, Dissolved	2.925		ug/l	1.000	0.3840	1	07/24/24 06:03	07/24/24 09:25	EPA 3005A	1,6020B	EJF
Iron, Dissolved	50.1		ug/l	50.0	19.1	1	07/24/24 06:03	07/24/24 09:25	EPA 3005A	1,6020B	EJF
Lead, Dissolved	ND		ug/l	1.000	0.3430	1	07/24/24 06:03	07/24/24 09:25	EPA 3005A	1,6020B	EJF
Magnesium, Dissolved	12000		ug/l	70.0	24.2	1	07/24/24 06:03	07/24/24 09:25	EPA 3005A	1,6020B	EJF
Manganese, Dissolved	4.750		ug/l	1.000	0.4400	1	07/24/24 06:03	07/24/24 09:25	EPA 3005A	1,6020B	EJF
Mercury, Dissolved	ND		ug/l	0.2000	0.0915	1	07/24/24 06:55	07/24/24 09:57	EPA 7470A	1,7470A	MJR
Nickel, Dissolved	2.390		ug/l	2.000	0.5560	1	07/24/24 06:03	07/24/24 09:25	EPA 3005A	1,6020B	EJF
Potassium, Dissolved	3890		ug/l	100.	30.9	1	07/24/24 06:03	07/24/24 09:25	EPA 3005A	1,6020B	EJF
Selenium, Dissolved	ND		ug/l	5.00	1.73	1	07/24/24 06:03	07/24/24 09:25	EPA 3005A	1,6020B	EJF
Silver, Dissolved	ND		ug/l	0.4000	0.1630	1	07/24/24 06:03	07/24/24 09:25	EPA 3005A	1,6020B	EJF
Sodium, Dissolved	28000		ug/l	100.	29.3	1	07/24/24 06:03	07/24/24 09:25	EPA 3005A	1,6020B	EJF
Thallium, Dissolved	ND		ug/l	1.000	0.1430	1	07/24/24 06:03	07/24/24 09:25	EPA 3005A	1,6020B	EJF
Vanadium, Dissolved	ND		ug/l	5.000	1.570	1	07/24/24 06:03	07/24/24 09:25	EPA 3005A	1,6020B	EJF
Zinc, Dissolved	3.552	J	ug/l	10.00	3.410	1	07/24/24 06:03	07/24/24 09:25	EPA 3005A	1,6020B	EJF

Project Name: ALLIANCE 51ST
Project Number: 30108678.07
Lab Number: L2441149
Report Date: 07/29/24

SAMPLE RESULTS

Lab ID: L2441149-14
Client ID: DEP51-W2
Sample Location: 51ST ST. PHILA PA
Sample Depth:
Matrix: Water

Date Collected: 07/22/24 12:10
Date Received: 07/22/24
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	36.1		ug/l	10.0	3.27	1	07/23/24 07:42	07/23/24 11:47	EPA 3005A	1,6020B	NTB
Antimony, Total	0.5472	J	ug/l	4.000	0.4290	1	07/23/24 07:42	07/23/24 11:47	EPA 3005A	1,6020B	NTB
Arsenic, Total	0.9875		ug/l	0.5000	0.1650	1	07/23/24 07:42	07/23/24 11:47	EPA 3005A	1,6020B	NTB
Barium, Total	44.09		ug/l	0.5000	0.1730	1	07/23/24 07:42	07/23/24 11:47	EPA 3005A	1,6020B	NTB
Beryllium, Total	ND		ug/l	0.5000	0.1070	1	07/23/24 07:42	07/23/24 11:47	EPA 3005A	1,6020B	NTB
Cadmium, Total	ND		ug/l	0.2000	0.0599	1	07/23/24 07:42	07/23/24 11:47	EPA 3005A	1,6020B	NTB
Calcium, Total	30500		ug/l	100.	39.4	1	07/23/24 07:42	07/23/24 11:47	EPA 3005A	1,6020B	NTB
Chromium, Total	0.2938	J	ug/l	1.000	0.1780	1	07/23/24 07:42	07/23/24 11:47	EPA 3005A	1,6020B	NTB
Cobalt, Total	0.3086	J	ug/l	0.5000	0.1630	1	07/23/24 07:42	07/23/24 11:47	EPA 3005A	1,6020B	NTB
Copper, Total	2.672		ug/l	1.000	0.3840	1	07/23/24 07:42	07/23/24 11:47	EPA 3005A	1,6020B	NTB
Iron, Total	112.		ug/l	50.0	19.1	1	07/23/24 07:42	07/23/24 11:47	EPA 3005A	1,6020B	NTB
Lead, Total	0.5946	J	ug/l	1.000	0.3430	1	07/23/24 07:42	07/23/24 11:47	EPA 3005A	1,6020B	NTB
Magnesium, Total	12000		ug/l	70.0	24.2	1	07/23/24 07:42	07/23/24 11:47	EPA 3005A	1,6020B	NTB
Manganese, Total	38.67		ug/l	1.000	0.4400	1	07/23/24 07:42	07/23/24 11:47	EPA 3005A	1,6020B	NTB
Mercury, Total	0.2490		ug/l	0.2000	0.0915	1	07/23/24 08:20	07/23/24 11:33	EPA 7470A	1,7470A	MJR
Nickel, Total	1.719	J	ug/l	2.000	0.5560	1	07/23/24 07:42	07/23/24 11:47	EPA 3005A	1,6020B	NTB
Potassium, Total	3740		ug/l	100.	30.9	1	07/23/24 07:42	07/23/24 11:47	EPA 3005A	1,6020B	NTB
Selenium, Total	ND		ug/l	5.00	1.73	1	07/23/24 07:42	07/23/24 11:47	EPA 3005A	1,6020B	NTB
Silver, Total	ND		ug/l	0.4000	0.1630	1	07/23/24 07:42	07/23/24 11:47	EPA 3005A	1,6020B	NTB
Sodium, Total	28500		ug/l	100.	29.3	1	07/23/24 07:42	07/23/24 11:47	EPA 3005A	1,6020B	NTB
Thallium, Total	ND		ug/l	1.000	0.1430	1	07/23/24 07:42	07/23/24 11:47	EPA 3005A	1,6020B	NTB
Vanadium, Total	ND		ug/l	5.000	1.570	1	07/23/24 07:42	07/23/24 11:47	EPA 3005A	1,6020B	NTB
Zinc, Total	5.536	J	ug/l	10.00	3.410	1	07/23/24 07:42	07/23/24 11:47	EPA 3005A	1,6020B	NTB
General Chemistry - Mansfield Lab											
Chromium, Trivalent	ND		ug/l	10.0	3.00	1		07/23/24 11:47	NA	107,-	

Project Name: ALLIANCE 51ST
Project Number: 30108678.07
Lab Number: L2441149
Report Date: 07/29/24

SAMPLE RESULTS

Lab ID: L2441149-14
Client ID: DEP51-W2
Sample Location: 51ST ST. PHILA PA
Date Collected: 07/22/24 12:10
Date Received: 07/22/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Dissolved Metals - Mansfield Lab											
Aluminum, Dissolved	8.44	J	ug/l	10.0	3.27	1	07/24/24 06:03	07/24/24 10:34	EPA 3005A	1,6020B	EJF
Antimony, Dissolved	1.200	J	ug/l	4.000	0.4290	1	07/24/24 06:03	07/24/24 10:34	EPA 3005A	1,6020B	EJF
Arsenic, Dissolved	1.043		ug/l	0.5000	0.1650	1	07/24/24 06:03	07/24/24 10:34	EPA 3005A	1,6020B	EJF
Barium, Dissolved	41.81		ug/l	0.5000	0.1730	1	07/24/24 06:03	07/24/24 10:34	EPA 3005A	1,6020B	EJF
Beryllium, Dissolved	ND		ug/l	0.5000	0.1070	1	07/24/24 06:03	07/24/24 10:34	EPA 3005A	1,6020B	EJF
Cadmium, Dissolved	ND		ug/l	0.2000	0.0599	1	07/24/24 06:03	07/24/24 10:34	EPA 3005A	1,6020B	EJF
Calcium, Dissolved	30400		ug/l	100.	39.4	1	07/24/24 06:03	07/24/24 10:34	EPA 3005A	1,6020B	EJF
Chromium, Dissolved	0.2298	J	ug/l	1.000	0.1780	1	07/24/24 06:03	07/24/24 10:34	EPA 3005A	1,6020B	EJF
Cobalt, Dissolved	0.1692	J	ug/l	0.5000	0.1630	1	07/24/24 06:03	07/24/24 10:34	EPA 3005A	1,6020B	EJF
Copper, Dissolved	2.313		ug/l	1.000	0.3840	1	07/24/24 06:03	07/24/24 10:34	EPA 3005A	1,6020B	EJF
Iron, Dissolved	31.4	J	ug/l	50.0	19.1	1	07/24/24 06:03	07/24/24 10:34	EPA 3005A	1,6020B	EJF
Lead, Dissolved	ND		ug/l	1.000	0.3430	1	07/24/24 06:03	07/24/24 10:34	EPA 3005A	1,6020B	EJF
Magnesium, Dissolved	11600		ug/l	70.0	24.2	1	07/24/24 06:03	07/24/24 10:34	EPA 3005A	1,6020B	EJF
Manganese, Dissolved	5.665		ug/l	1.000	0.4400	1	07/24/24 06:03	07/24/24 10:34	EPA 3005A	1,6020B	EJF
Mercury, Dissolved	ND		ug/l	0.2000	0.0915	1	07/24/24 06:55	07/24/24 09:47	EPA 7470A	1,7470A	MJR
Nickel, Dissolved	1.705	J	ug/l	2.000	0.5560	1	07/24/24 06:03	07/24/24 10:34	EPA 3005A	1,6020B	EJF
Potassium, Dissolved	3900		ug/l	100.	30.9	1	07/24/24 06:03	07/24/24 10:34	EPA 3005A	1,6020B	EJF
Selenium, Dissolved	ND		ug/l	5.00	1.73	1	07/24/24 06:03	07/24/24 10:34	EPA 3005A	1,6020B	EJF
Silver, Dissolved	ND		ug/l	0.4000	0.1630	1	07/24/24 06:03	07/24/24 10:34	EPA 3005A	1,6020B	EJF
Sodium, Dissolved	27100		ug/l	100.	29.3	1	07/24/24 06:03	07/24/24 10:34	EPA 3005A	1,6020B	EJF
Thallium, Dissolved	0.1919	J	ug/l	1.000	0.1430	1	07/24/24 06:03	07/24/24 10:34	EPA 3005A	1,6020B	EJF
Vanadium, Dissolved	ND		ug/l	5.000	1.570	1	07/24/24 06:03	07/24/24 10:34	EPA 3005A	1,6020B	EJF
Zinc, Dissolved	3.568	J	ug/l	10.00	3.410	1	07/24/24 06:03	07/24/24 10:34	EPA 3005A	1,6020B	EJF

Project Name: ALLIANCE 51ST
Lab Number: L2441149
Project Number: 30108678.07
Report Date: 07/29/24

SAMPLE RESULTS

Lab ID: L2441149-15
Client ID: DEP51-W3
Sample Location: 51ST ST. PHILA PA
Date Collected: 07/22/24 12:15
Date Received: 07/22/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	41.0		ug/l	10.0	3.27	1	07/23/24 07:42	07/23/24 11:51	EPA 3005A	1,6020B	NTB
Antimony, Total	0.4983	J	ug/l	4.000	0.4290	1	07/23/24 07:42	07/23/24 11:51	EPA 3005A	1,6020B	NTB
Arsenic, Total	0.9090		ug/l	0.5000	0.1650	1	07/23/24 07:42	07/23/24 11:51	EPA 3005A	1,6020B	NTB
Barium, Total	42.13		ug/l	0.5000	0.1730	1	07/23/24 07:42	07/23/24 11:51	EPA 3005A	1,6020B	NTB
Beryllium, Total	ND		ug/l	0.5000	0.1070	1	07/23/24 07:42	07/23/24 11:51	EPA 3005A	1,6020B	NTB
Cadmium, Total	ND		ug/l	0.2000	0.0599	1	07/23/24 07:42	07/23/24 11:51	EPA 3005A	1,6020B	NTB
Calcium, Total	30000		ug/l	100.	39.4	1	07/23/24 07:42	07/23/24 11:51	EPA 3005A	1,6020B	NTB
Chromium, Total	0.2700	J	ug/l	1.000	0.1780	1	07/23/24 07:42	07/23/24 11:51	EPA 3005A	1,6020B	NTB
Cobalt, Total	0.3100	J	ug/l	0.5000	0.1630	1	07/23/24 07:42	07/23/24 11:51	EPA 3005A	1,6020B	NTB
Copper, Total	2.474		ug/l	1.000	0.3840	1	07/23/24 07:42	07/23/24 11:51	EPA 3005A	1,6020B	NTB
Iron, Total	129.		ug/l	50.0	19.1	1	07/23/24 07:42	07/23/24 11:51	EPA 3005A	1,6020B	NTB
Lead, Total	0.6150	J	ug/l	1.000	0.3430	1	07/23/24 07:42	07/23/24 11:51	EPA 3005A	1,6020B	NTB
Magnesium, Total	11500		ug/l	70.0	24.2	1	07/23/24 07:42	07/23/24 11:51	EPA 3005A	1,6020B	NTB
Manganese, Total	41.98		ug/l	1.000	0.4400	1	07/23/24 07:42	07/23/24 11:51	EPA 3005A	1,6020B	NTB
Mercury, Total	0.0920	J	ug/l	0.2000	0.0915	1	07/23/24 08:20	07/23/24 11:46	EPA 7470A	1,7470A	MJR
Nickel, Total	1.577	J	ug/l	2.000	0.5560	1	07/23/24 07:42	07/23/24 11:51	EPA 3005A	1,6020B	NTB
Potassium, Total	3680		ug/l	100.	30.9	1	07/23/24 07:42	07/23/24 11:51	EPA 3005A	1,6020B	NTB
Selenium, Total	ND		ug/l	5.00	1.73	1	07/23/24 07:42	07/23/24 11:51	EPA 3005A	1,6020B	NTB
Silver, Total	ND		ug/l	0.4000	0.1630	1	07/23/24 07:42	07/23/24 11:51	EPA 3005A	1,6020B	NTB
Sodium, Total	26800		ug/l	100.	29.3	1	07/23/24 07:42	07/23/24 11:51	EPA 3005A	1,6020B	NTB
Thallium, Total	ND		ug/l	1.000	0.1430	1	07/23/24 07:42	07/23/24 11:51	EPA 3005A	1,6020B	NTB
Vanadium, Total	ND		ug/l	5.000	1.570	1	07/23/24 07:42	07/23/24 11:51	EPA 3005A	1,6020B	NTB
Zinc, Total	7.010	J	ug/l	10.00	3.410	1	07/23/24 07:42	07/23/24 11:51	EPA 3005A	1,6020B	NTB
General Chemistry - Mansfield Lab											
Chromium, Trivalent	ND		ug/l	10.0	3.00	1		07/23/24 11:51	NA	107,-	

Project Name: ALLIANCE 51ST
Lab Number: L2441149
Project Number: 30108678.07
Report Date: 07/29/24

SAMPLE RESULTS

Lab ID: L2441149-15
Client ID: DEP51-W3
Sample Location: 51ST ST. PHILA PA
Date Collected: 07/22/24 12:15
Date Received: 07/22/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Dissolved Metals - Mansfield Lab											
Aluminum, Dissolved	8.42	J	ug/l	10.0	3.27	1	07/24/24 06:03	07/24/24 10:39	EPA 3005A	1,6020B	EJF
Antimony, Dissolved	0.7665	J	ug/l	4.000	0.4290	1	07/24/24 06:03	07/24/24 10:39	EPA 3005A	1,6020B	EJF
Arsenic, Dissolved	0.9474		ug/l	0.5000	0.1650	1	07/24/24 06:03	07/24/24 10:39	EPA 3005A	1,6020B	EJF
Barium, Dissolved	41.30		ug/l	0.5000	0.1730	1	07/24/24 06:03	07/24/24 10:39	EPA 3005A	1,6020B	EJF
Beryllium, Dissolved	ND		ug/l	0.5000	0.1070	1	07/24/24 06:03	07/24/24 10:39	EPA 3005A	1,6020B	EJF
Cadmium, Dissolved	ND		ug/l	0.2000	0.0599	1	07/24/24 06:03	07/24/24 10:39	EPA 3005A	1,6020B	EJF
Calcium, Dissolved	29700		ug/l	100.	39.4	1	07/24/24 06:03	07/24/24 10:39	EPA 3005A	1,6020B	EJF
Chromium, Dissolved	0.2059	J	ug/l	1.000	0.1780	1	07/24/24 06:03	07/24/24 10:39	EPA 3005A	1,6020B	EJF
Cobalt, Dissolved	0.1663	J	ug/l	0.5000	0.1630	1	07/24/24 06:03	07/24/24 10:39	EPA 3005A	1,6020B	EJF
Copper, Dissolved	2.164		ug/l	1.000	0.3840	1	07/24/24 06:03	07/24/24 10:39	EPA 3005A	1,6020B	EJF
Iron, Dissolved	28.9	J	ug/l	50.0	19.1	1	07/24/24 06:03	07/24/24 10:39	EPA 3005A	1,6020B	EJF
Lead, Dissolved	ND		ug/l	1.000	0.3430	1	07/24/24 06:03	07/24/24 10:39	EPA 3005A	1,6020B	EJF
Magnesium, Dissolved	11400		ug/l	70.0	24.2	1	07/24/24 06:03	07/24/24 10:39	EPA 3005A	1,6020B	EJF
Manganese, Dissolved	5.916		ug/l	1.000	0.4400	1	07/24/24 06:03	07/24/24 10:39	EPA 3005A	1,6020B	EJF
Mercury, Dissolved	ND		ug/l	0.2000	0.0915	1	07/24/24 06:55	07/24/24 10:00	EPA 7470A	1,7470A	MJR
Nickel, Dissolved	1.638	J	ug/l	2.000	0.5560	1	07/24/24 06:03	07/24/24 10:39	EPA 3005A	1,6020B	EJF
Potassium, Dissolved	3690		ug/l	100.	30.9	1	07/24/24 06:03	07/24/24 10:39	EPA 3005A	1,6020B	EJF
Selenium, Dissolved	ND		ug/l	5.00	1.73	1	07/24/24 06:03	07/24/24 10:39	EPA 3005A	1,6020B	EJF
Silver, Dissolved	ND		ug/l	0.4000	0.1630	1	07/24/24 06:03	07/24/24 10:39	EPA 3005A	1,6020B	EJF
Sodium, Dissolved	26400		ug/l	100.	29.3	1	07/24/24 06:03	07/24/24 10:39	EPA 3005A	1,6020B	EJF
Thallium, Dissolved	ND		ug/l	1.000	0.1430	1	07/24/24 06:03	07/24/24 10:39	EPA 3005A	1,6020B	EJF
Vanadium, Dissolved	ND		ug/l	5.000	1.570	1	07/24/24 06:03	07/24/24 10:39	EPA 3005A	1,6020B	EJF
Zinc, Dissolved	3.439	J	ug/l	10.00	3.410	1	07/24/24 06:03	07/24/24 10:39	EPA 3005A	1,6020B	EJF

Project Name: ALLIANCE 51ST
Project Number: 30108678.07
Lab Number: L2441149
Report Date: 07/29/24

SAMPLE RESULTS

Lab ID: L2441149-16
Client ID: DEP51-W4
Sample Location: 51ST ST. PHILA PA
Date Collected: 07/22/24 13:00
Date Received: 07/22/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	44.3		ug/l	10.0	3.27	1	07/23/24 07:42	07/23/24 11:56	EPA 3005A	1,6020B	NTB
Antimony, Total	0.4872	J	ug/l	4.000	0.4290	1	07/23/24 07:42	07/23/24 11:56	EPA 3005A	1,6020B	NTB
Arsenic, Total	0.9654		ug/l	0.5000	0.1650	1	07/23/24 07:42	07/23/24 11:56	EPA 3005A	1,6020B	NTB
Barium, Total	44.53		ug/l	0.5000	0.1730	1	07/23/24 07:42	07/23/24 11:56	EPA 3005A	1,6020B	NTB
Beryllium, Total	ND		ug/l	0.5000	0.1070	1	07/23/24 07:42	07/23/24 11:56	EPA 3005A	1,6020B	NTB
Cadmium, Total	ND		ug/l	0.2000	0.0599	1	07/23/24 07:42	07/23/24 11:56	EPA 3005A	1,6020B	NTB
Calcium, Total	30200		ug/l	100.	39.4	1	07/23/24 07:42	07/23/24 11:56	EPA 3005A	1,6020B	NTB
Chromium, Total	0.2745	J	ug/l	1.000	0.1780	1	07/23/24 07:42	07/23/24 11:56	EPA 3005A	1,6020B	NTB
Cobalt, Total	0.3318	J	ug/l	0.5000	0.1630	1	07/23/24 07:42	07/23/24 11:56	EPA 3005A	1,6020B	NTB
Copper, Total	2.706		ug/l	1.000	0.3840	1	07/23/24 07:42	07/23/24 11:56	EPA 3005A	1,6020B	NTB
Iron, Total	143.		ug/l	50.0	19.1	1	07/23/24 07:42	07/23/24 11:56	EPA 3005A	1,6020B	NTB
Lead, Total	0.7412	J	ug/l	1.000	0.3430	1	07/23/24 07:42	07/23/24 11:56	EPA 3005A	1,6020B	NTB
Magnesium, Total	11600		ug/l	70.0	24.2	1	07/23/24 07:42	07/23/24 11:56	EPA 3005A	1,6020B	NTB
Manganese, Total	44.83		ug/l	1.000	0.4400	1	07/23/24 07:42	07/23/24 11:56	EPA 3005A	1,6020B	NTB
Mercury, Total	ND		ug/l	0.2000	0.0915	1	07/23/24 08:20	07/23/24 11:50	EPA 7470A	1,7470A	MJR
Nickel, Total	1.630	J	ug/l	2.000	0.5560	1	07/23/24 07:42	07/23/24 11:56	EPA 3005A	1,6020B	NTB
Potassium, Total	3730		ug/l	100.	30.9	1	07/23/24 07:42	07/23/24 11:56	EPA 3005A	1,6020B	NTB
Selenium, Total	ND		ug/l	5.00	1.73	1	07/23/24 07:42	07/23/24 11:56	EPA 3005A	1,6020B	NTB
Silver, Total	ND		ug/l	0.4000	0.1630	1	07/23/24 07:42	07/23/24 11:56	EPA 3005A	1,6020B	NTB
Sodium, Total	27900		ug/l	100.	29.3	1	07/23/24 07:42	07/23/24 11:56	EPA 3005A	1,6020B	NTB
Thallium, Total	ND		ug/l	1.000	0.1430	1	07/23/24 07:42	07/23/24 11:56	EPA 3005A	1,6020B	NTB
Vanadium, Total	ND		ug/l	5.000	1.570	1	07/23/24 07:42	07/23/24 11:56	EPA 3005A	1,6020B	NTB
Zinc, Total	5.595	J	ug/l	10.00	3.410	1	07/23/24 07:42	07/23/24 11:56	EPA 3005A	1,6020B	NTB
General Chemistry - Mansfield Lab											
Chromium, Trivalent	ND		ug/l	10.0	3.00	1		07/23/24 11:56	NA	107,-	

Project Name: ALLIANCE 51ST
Lab Number: L2441149
Project Number: 30108678.07
Report Date: 07/29/24

SAMPLE RESULTS

Lab ID: L2441149-16
Client ID: DEP51-W4
Sample Location: 51ST ST. PHILA PA
Date Collected: 07/22/24 13:00
Date Received: 07/22/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Dissolved Metals - Mansfield Lab

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Aluminum, Dissolved	8.57	J	ug/l	10.0	3.27	1	07/24/24 06:03	07/24/24 10:43	EPA 3005A	1,6020B	EJF
Antimony, Dissolved	0.8044	J	ug/l	4.000	0.4290	1	07/24/24 06:03	07/24/24 10:43	EPA 3005A	1,6020B	EJF
Arsenic, Dissolved	0.9409		ug/l	0.5000	0.1650	1	07/24/24 06:03	07/24/24 10:43	EPA 3005A	1,6020B	EJF
Barium, Dissolved	41.26		ug/l	0.5000	0.1730	1	07/24/24 06:03	07/24/24 10:43	EPA 3005A	1,6020B	EJF
Beryllium, Dissolved	ND		ug/l	0.5000	0.1070	1	07/24/24 06:03	07/24/24 10:43	EPA 3005A	1,6020B	EJF
Cadmium, Dissolved	ND		ug/l	0.2000	0.0599	1	07/24/24 06:03	07/24/24 10:43	EPA 3005A	1,6020B	EJF
Calcium, Dissolved	29700		ug/l	100.	39.4	1	07/24/24 06:03	07/24/24 10:43	EPA 3005A	1,6020B	EJF
Chromium, Dissolved	0.2308	J	ug/l	1.000	0.1780	1	07/24/24 06:03	07/24/24 10:43	EPA 3005A	1,6020B	EJF
Cobalt, Dissolved	0.1872	J	ug/l	0.5000	0.1630	1	07/24/24 06:03	07/24/24 10:43	EPA 3005A	1,6020B	EJF
Copper, Dissolved	2.307		ug/l	1.000	0.3840	1	07/24/24 06:03	07/24/24 10:43	EPA 3005A	1,6020B	EJF
Iron, Dissolved	30.2	J	ug/l	50.0	19.1	1	07/24/24 06:03	07/24/24 10:43	EPA 3005A	1,6020B	EJF
Lead, Dissolved	ND		ug/l	1.000	0.3430	1	07/24/24 06:03	07/24/24 10:43	EPA 3005A	1,6020B	EJF
Magnesium, Dissolved	11600		ug/l	70.0	24.2	1	07/24/24 06:03	07/24/24 10:43	EPA 3005A	1,6020B	EJF
Manganese, Dissolved	5.980		ug/l	1.000	0.4400	1	07/24/24 06:03	07/24/24 10:43	EPA 3005A	1,6020B	EJF
Mercury, Dissolved	ND		ug/l	0.2000	0.0915	1	07/24/24 06:55	07/24/24 10:03	EPA 7470A	1,7470A	MJR
Nickel, Dissolved	1.725	J	ug/l	2.000	0.5560	1	07/24/24 06:03	07/24/24 10:43	EPA 3005A	1,6020B	EJF
Potassium, Dissolved	3720		ug/l	100.	30.9	1	07/24/24 06:03	07/24/24 10:43	EPA 3005A	1,6020B	EJF
Selenium, Dissolved	ND		ug/l	5.00	1.73	1	07/24/24 06:03	07/24/24 10:43	EPA 3005A	1,6020B	EJF
Silver, Dissolved	ND		ug/l	0.4000	0.1630	1	07/24/24 06:03	07/24/24 10:43	EPA 3005A	1,6020B	EJF
Sodium, Dissolved	27100		ug/l	100.	29.3	1	07/24/24 06:03	07/24/24 10:43	EPA 3005A	1,6020B	EJF
Thallium, Dissolved	ND		ug/l	1.000	0.1430	1	07/24/24 06:03	07/24/24 10:43	EPA 3005A	1,6020B	EJF
Vanadium, Dissolved	ND		ug/l	5.000	1.570	1	07/24/24 06:03	07/24/24 10:43	EPA 3005A	1,6020B	EJF
Zinc, Dissolved	3.950	J	ug/l	10.00	3.410	1	07/24/24 06:03	07/24/24 10:43	EPA 3005A	1,6020B	EJF

Project Name: ALLIANCE 51ST
Project Number: 30108678.07
Lab Number: L2441149
Report Date: 07/29/24

SAMPLE RESULTS

Lab ID: L2441149-17
Client ID: DUP-W
Sample Location: 51ST ST. PHILA PA
Sample Depth:
Matrix: Water

Date Collected: 07/22/24 00:00
Date Received: 07/22/24
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	41.0		ug/l	10.0	3.27	1	07/23/24 07:42	07/23/24 12:17	EPA 3005A	1,6020B	NTB
Antimony, Total	0.4810	J	ug/l	4.000	0.4290	1	07/23/24 07:42	07/23/24 12:17	EPA 3005A	1,6020B	NTB
Arsenic, Total	0.9336		ug/l	0.5000	0.1650	1	07/23/24 07:42	07/23/24 12:17	EPA 3005A	1,6020B	NTB
Barium, Total	44.93		ug/l	0.5000	0.1730	1	07/23/24 07:42	07/23/24 12:17	EPA 3005A	1,6020B	NTB
Beryllium, Total	ND		ug/l	0.5000	0.1070	1	07/23/24 07:42	07/23/24 12:17	EPA 3005A	1,6020B	NTB
Cadmium, Total	ND		ug/l	0.2000	0.0599	1	07/23/24 07:42	07/23/24 12:17	EPA 3005A	1,6020B	NTB
Calcium, Total	31600		ug/l	100.	39.4	1	07/23/24 07:42	07/23/24 12:17	EPA 3005A	1,6020B	NTB
Chromium, Total	0.2831	J	ug/l	1.000	0.1780	1	07/23/24 07:42	07/23/24 12:17	EPA 3005A	1,6020B	NTB
Cobalt, Total	0.3182	J	ug/l	0.5000	0.1630	1	07/23/24 07:42	07/23/24 12:17	EPA 3005A	1,6020B	NTB
Copper, Total	2.737		ug/l	1.000	0.3840	1	07/23/24 07:42	07/23/24 12:17	EPA 3005A	1,6020B	NTB
Iron, Total	141.		ug/l	50.0	19.1	1	07/23/24 07:42	07/23/24 12:17	EPA 3005A	1,6020B	NTB
Lead, Total	0.6885	J	ug/l	1.000	0.3430	1	07/23/24 07:42	07/23/24 12:17	EPA 3005A	1,6020B	NTB
Magnesium, Total	12100		ug/l	70.0	24.2	1	07/23/24 07:42	07/23/24 12:17	EPA 3005A	1,6020B	NTB
Manganese, Total	43.03		ug/l	1.000	0.4400	1	07/23/24 07:42	07/23/24 12:17	EPA 3005A	1,6020B	NTB
Mercury, Total	ND		ug/l	0.2000	0.0915	1	07/23/24 08:20	07/23/24 11:53	EPA 7470A	1,7470A	MJR
Nickel, Total	1.730	J	ug/l	2.000	0.5560	1	07/23/24 07:42	07/23/24 12:17	EPA 3005A	1,6020B	NTB
Potassium, Total	3820		ug/l	100.	30.9	1	07/23/24 07:42	07/23/24 12:17	EPA 3005A	1,6020B	NTB
Selenium, Total	ND		ug/l	5.00	1.73	1	07/23/24 07:42	07/23/24 12:17	EPA 3005A	1,6020B	NTB
Silver, Total	ND		ug/l	0.4000	0.1630	1	07/23/24 07:42	07/23/24 12:17	EPA 3005A	1,6020B	NTB
Sodium, Total	28900		ug/l	100.	29.3	1	07/23/24 07:42	07/23/24 12:17	EPA 3005A	1,6020B	NTB
Thallium, Total	ND		ug/l	1.000	0.1430	1	07/23/24 07:42	07/23/24 12:17	EPA 3005A	1,6020B	NTB
Vanadium, Total	ND		ug/l	5.000	1.570	1	07/23/24 07:42	07/23/24 12:17	EPA 3005A	1,6020B	NTB
Zinc, Total	5.687	J	ug/l	10.00	3.410	1	07/23/24 07:42	07/23/24 12:17	EPA 3005A	1,6020B	NTB
General Chemistry - Mansfield Lab											
Chromium, Trivalent	ND		ug/l	10.0	3.00	1		07/23/24 12:17	NA	107,-	

Project Name: ALLIANCE 51ST
Project Number: 30108678.07
Lab Number: L2441149
Report Date: 07/29/24

SAMPLE RESULTS

Lab ID: L2441149-17
Client ID: DUP-W
Sample Location: 51ST ST. PHILA PA
Sample Depth:
Matrix: Water

Date Collected: 07/22/24 00:00
Date Received: 07/22/24
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Dissolved Metals - Mansfield Lab											
Aluminum, Dissolved	6.20	J	ug/l	10.0	3.27	1	07/24/24 06:03	07/24/24 10:48	EPA 3005A	1,6020B	EJF
Antimony, Dissolved	0.7301	J	ug/l	4.000	0.4290	1	07/24/24 06:03	07/24/24 10:48	EPA 3005A	1,6020B	EJF
Arsenic, Dissolved	0.9913		ug/l	0.5000	0.1650	1	07/24/24 06:03	07/24/24 10:48	EPA 3005A	1,6020B	EJF
Barium, Dissolved	43.75		ug/l	0.5000	0.1730	1	07/24/24 06:03	07/24/24 10:48	EPA 3005A	1,6020B	EJF
Beryllium, Dissolved	ND		ug/l	0.5000	0.1070	1	07/24/24 06:03	07/24/24 10:48	EPA 3005A	1,6020B	EJF
Cadmium, Dissolved	ND		ug/l	0.2000	0.0599	1	07/24/24 06:03	07/24/24 10:48	EPA 3005A	1,6020B	EJF
Calcium, Dissolved	30100		ug/l	100.	39.4	1	07/24/24 06:03	07/24/24 10:48	EPA 3005A	1,6020B	EJF
Chromium, Dissolved	0.2487	J	ug/l	1.000	0.1780	1	07/24/24 06:03	07/24/24 10:48	EPA 3005A	1,6020B	EJF
Cobalt, Dissolved	0.1669	J	ug/l	0.5000	0.1630	1	07/24/24 06:03	07/24/24 10:48	EPA 3005A	1,6020B	EJF
Copper, Dissolved	2.374		ug/l	1.000	0.3840	1	07/24/24 06:03	07/24/24 10:48	EPA 3005A	1,6020B	EJF
Iron, Dissolved	20.6	J	ug/l	50.0	19.1	1	07/24/24 06:03	07/24/24 10:48	EPA 3005A	1,6020B	EJF
Lead, Dissolved	ND		ug/l	1.000	0.3430	1	07/24/24 06:03	07/24/24 10:48	EPA 3005A	1,6020B	EJF
Magnesium, Dissolved	11700		ug/l	70.0	24.2	1	07/24/24 06:03	07/24/24 10:48	EPA 3005A	1,6020B	EJF
Manganese, Dissolved	1.940		ug/l	1.000	0.4400	1	07/24/24 06:03	07/24/24 10:48	EPA 3005A	1,6020B	EJF
Mercury, Dissolved	ND		ug/l	0.2000	0.0915	1	07/24/24 06:55	07/24/24 10:07	EPA 7470A	1,7470A	MJR
Nickel, Dissolved	1.904	J	ug/l	2.000	0.5560	1	07/24/24 06:03	07/24/24 10:48	EPA 3005A	1,6020B	EJF
Potassium, Dissolved	3810		ug/l	100.	30.9	1	07/24/24 06:03	07/24/24 10:48	EPA 3005A	1,6020B	EJF
Selenium, Dissolved	ND		ug/l	5.00	1.73	1	07/24/24 06:03	07/24/24 10:48	EPA 3005A	1,6020B	EJF
Silver, Dissolved	ND		ug/l	0.4000	0.1630	1	07/24/24 06:03	07/24/24 10:48	EPA 3005A	1,6020B	EJF
Sodium, Dissolved	27600		ug/l	100.	29.3	1	07/24/24 06:03	07/24/24 10:48	EPA 3005A	1,6020B	EJF
Thallium, Dissolved	ND		ug/l	1.000	0.1430	1	07/24/24 06:03	07/24/24 10:48	EPA 3005A	1,6020B	EJF
Vanadium, Dissolved	ND		ug/l	5.000	1.570	1	07/24/24 06:03	07/24/24 10:48	EPA 3005A	1,6020B	EJF
Zinc, Dissolved	3.462	J	ug/l	10.00	3.410	1	07/24/24 06:03	07/24/24 10:48	EPA 3005A	1,6020B	EJF

Project Name: ALLIANCE 51ST
Project Number: 30108678.07
Lab Number: L2441149
Report Date: 07/29/24

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-12 Batch: WG1950082-1										
Aluminum, Total	ND		mg/kg	4.00	1.08	1	07/23/24 08:55	07/23/24 12:55	1,6010D	DHL
Antimony, Total	0.258	J	mg/kg	2.00	0.152	1	07/23/24 08:55	07/23/24 12:55	1,6010D	DHL
Arsenic, Total	ND		mg/kg	0.400	0.083	1	07/23/24 08:55	07/23/24 12:55	1,6010D	DHL
Barium, Total	ND		mg/kg	0.400	0.070	1	07/23/24 08:55	07/23/24 12:55	1,6010D	DHL
Beryllium, Total	ND		mg/kg	0.200	0.013	1	07/23/24 08:55	07/23/24 12:55	1,6010D	DHL
Cadmium, Total	ND		mg/kg	0.400	0.039	1	07/23/24 08:55	07/23/24 12:55	1,6010D	DHL
Calcium, Total	ND		mg/kg	4.00	1.40	1	07/23/24 08:55	07/23/24 12:55	1,6010D	DHL
Chromium, Total	ND		mg/kg	0.400	0.038	1	07/23/24 08:55	07/23/24 12:55	1,6010D	DHL
Cobalt, Total	ND		mg/kg	0.800	0.066	1	07/23/24 08:55	07/23/24 12:55	1,6010D	DHL
Copper, Total	ND		mg/kg	0.400	0.103	1	07/23/24 08:55	07/23/24 12:55	1,6010D	DHL
Iron, Total	1.04	J	mg/kg	2.00	0.361	1	07/23/24 08:55	07/23/24 12:55	1,6010D	DHL
Lead, Total	ND		mg/kg	2.00	0.107	1	07/23/24 08:55	07/23/24 12:55	1,6010D	DHL
Magnesium, Total	ND		mg/kg	4.00	0.616	1	07/23/24 08:55	07/23/24 12:55	1,6010D	DHL
Manganese, Total	ND		mg/kg	0.400	0.064	1	07/23/24 08:55	07/23/24 12:55	1,6010D	DHL
Nickel, Total	ND		mg/kg	1.00	0.097	1	07/23/24 08:55	07/23/24 12:55	1,6010D	DHL
Potassium, Total	ND		mg/kg	100	5.76	1	07/23/24 08:55	07/23/24 12:55	1,6010D	DHL
Selenium, Total	ND		mg/kg	0.800	0.103	1	07/23/24 08:55	07/23/24 12:55	1,6010D	DHL
Silver, Total	ND		mg/kg	0.200	0.113	1	07/23/24 08:55	07/23/24 12:55	1,6010D	DHL
Sodium, Total	ND		mg/kg	80.0	1.26	1	07/23/24 08:55	07/23/24 12:55	1,6010D	DHL
Thallium, Total	ND		mg/kg	0.800	0.126	1	07/23/24 08:55	07/23/24 12:55	1,6010D	DHL
Vanadium, Total	ND		mg/kg	0.400	0.081	1	07/23/24 08:55	07/23/24 12:55	1,6010D	DHL
Zinc, Total	ND		mg/kg	2.00	0.117	1	07/23/24 08:55	07/23/24 12:55	1,6010D	DHL

Prep Information

Digestion Method: EPA 3050B

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-12 Batch: WG1950083-1										
Mercury, Total	ND		mg/kg	0.083	0.054	1	07/23/24 09:30	07/23/24 10:34	1,7471B	MJR

Project Name: ALLIANCE 51ST
Project Number: 30108678.07
Lab Number: L2441149
Report Date: 07/29/24

Method Blank Analysis
Batch Quality Control

Prep Information

Digestion Method: EPA 7471B

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 13-17 Batch: WG1950093-1										
Aluminum, Total	ND		ug/l	10.0	3.27	1	07/23/24 07:42	07/23/24 11:15	1,6020B	NTB
Antimony, Total	ND		ug/l	4.000	0.4290	1	07/23/24 07:42	07/23/24 11:15	1,6020B	NTB
Arsenic, Total	ND		ug/l	0.5000	0.1650	1	07/23/24 07:42	07/23/24 11:15	1,6020B	NTB
Barium, Total	ND		ug/l	0.5000	0.1730	1	07/23/24 07:42	07/23/24 11:15	1,6020B	NTB
Beryllium, Total	ND		ug/l	0.5000	0.1070	1	07/23/24 07:42	07/23/24 11:15	1,6020B	NTB
Cadmium, Total	ND		ug/l	0.2000	0.0599	1	07/23/24 07:42	07/23/24 11:15	1,6020B	NTB
Calcium, Total	ND		ug/l	100	39.4	1	07/23/24 07:42	07/23/24 11:15	1,6020B	NTB
Chromium, Total	ND		ug/l	1.000	0.1780	1	07/23/24 07:42	07/23/24 11:15	1,6020B	NTB
Cobalt, Total	ND		ug/l	0.5000	0.1630	1	07/23/24 07:42	07/23/24 11:15	1,6020B	NTB
Copper, Total	ND		ug/l	1.000	0.3840	1	07/23/24 07:42	07/23/24 11:15	1,6020B	NTB
Iron, Total	ND		ug/l	50.0	19.1	1	07/23/24 07:42	07/23/24 11:15	1,6020B	NTB
Lead, Total	ND		ug/l	1.000	0.3430	1	07/23/24 07:42	07/23/24 11:15	1,6020B	NTB
Magnesium, Total	ND		ug/l	70.0	24.2	1	07/23/24 07:42	07/23/24 11:15	1,6020B	NTB
Manganese, Total	ND		ug/l	1.000	0.4400	1	07/23/24 07:42	07/23/24 11:15	1,6020B	NTB
Nickel, Total	ND		ug/l	2.000	0.5560	1	07/23/24 07:42	07/23/24 11:15	1,6020B	NTB
Potassium, Total	ND		ug/l	100	30.9	1	07/23/24 07:42	07/23/24 11:15	1,6020B	NTB
Selenium, Total	ND		ug/l	5.00	1.73	1	07/23/24 07:42	07/23/24 11:15	1,6020B	NTB
Silver, Total	ND		ug/l	0.4000	0.1630	1	07/23/24 07:42	07/23/24 11:15	1,6020B	NTB
Sodium, Total	ND		ug/l	100	29.3	1	07/23/24 07:42	07/23/24 11:15	1,6020B	NTB
Thallium, Total	ND		ug/l	1.000	0.1430	1	07/23/24 07:42	07/23/24 11:15	1,6020B	NTB
Vanadium, Total	ND		ug/l	5.000	1.570	1	07/23/24 07:42	07/23/24 11:15	1,6020B	NTB
Zinc, Total	ND		ug/l	10.00	3.410	1	07/23/24 07:42	07/23/24 11:15	1,6020B	NTB

Prep Information

Digestion Method: EPA 3005A

Project Name: ALLIANCE 51ST
Project Number: 30108678.07
Lab Number: L2441149
Report Date: 07/29/24

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 13-17 Batch: WG1950095-1										
Mercury, Total	ND		ug/l	0.2000	0.0915	1	07/23/24 08:20	07/23/24 11:15	1,7470A	MJR

Prep Information

Digestion Method: EPA 7470A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Dissolved Metals - Mansfield Lab for sample(s): 13-17 Batch: WG1950096-1										
Aluminum, Dissolved	ND		ug/l	10.0	3.27	1	07/24/24 06:03	07/24/24 10:13	1,6020B	EJF
Antimony, Dissolved	0.4414	J	ug/l	4.000	0.4290	1	07/24/24 06:03	07/24/24 10:13	1,6020B	EJF
Arsenic, Dissolved	ND		ug/l	0.5000	0.1650	1	07/24/24 06:03	07/24/24 10:13	1,6020B	EJF
Barium, Dissolved	ND		ug/l	0.5000	0.1730	1	07/24/24 06:03	07/24/24 10:13	1,6020B	EJF
Beryllium, Dissolved	ND		ug/l	0.5000	0.1070	1	07/24/24 06:03	07/24/24 10:13	1,6020B	EJF
Cadmium, Dissolved	ND		ug/l	0.2000	0.0599	1	07/24/24 06:03	07/24/24 10:13	1,6020B	EJF
Calcium, Dissolved	ND		ug/l	100	39.4	1	07/24/24 06:03	07/24/24 10:13	1,6020B	EJF
Chromium, Dissolved	ND		ug/l	1.000	0.1780	1	07/24/24 06:03	07/24/24 10:13	1,6020B	EJF
Cobalt, Dissolved	ND		ug/l	0.5000	0.1630	1	07/24/24 06:03	07/24/24 10:13	1,6020B	EJF
Copper, Dissolved	ND		ug/l	1.000	0.3840	1	07/24/24 06:03	07/24/24 10:13	1,6020B	EJF
Iron, Dissolved	ND		ug/l	50.0	19.1	1	07/24/24 06:03	07/24/24 10:13	1,6020B	EJF
Lead, Dissolved	ND		ug/l	1.000	0.3430	1	07/24/24 06:03	07/24/24 10:13	1,6020B	EJF
Magnesium, Dissolved	ND		ug/l	70.0	24.2	1	07/24/24 06:03	07/24/24 10:13	1,6020B	EJF
Manganese, Dissolved	ND		ug/l	1.000	0.4400	1	07/24/24 06:03	07/24/24 10:13	1,6020B	EJF
Nickel, Dissolved	ND		ug/l	2.000	0.5560	1	07/24/24 06:03	07/24/24 10:13	1,6020B	EJF
Potassium, Dissolved	ND		ug/l	100	30.9	1	07/24/24 06:03	07/24/24 10:13	1,6020B	EJF
Selenium, Dissolved	ND		ug/l	5.00	1.73	1	07/24/24 06:03	07/24/24 10:13	1,6020B	EJF
Silver, Dissolved	ND		ug/l	0.4000	0.1630	1	07/24/24 06:03	07/24/24 10:13	1,6020B	EJF
Sodium, Dissolved	38.9	J	ug/l	100	29.3	1	07/24/24 06:03	07/24/24 10:13	1,6020B	EJF
Thallium, Dissolved	ND		ug/l	1.000	0.1430	1	07/24/24 06:03	07/24/24 10:13	1,6020B	EJF
Vanadium, Dissolved	ND		ug/l	5.000	1.570	1	07/24/24 06:03	07/24/24 10:13	1,6020B	EJF
Zinc, Dissolved	ND		ug/l	10.00	3.410	1	07/24/24 06:03	07/24/24 10:13	1,6020B	EJF

Project Name: ALLIANCE 51ST
Project Number: 30108678.07
Lab Number: L2441149
Report Date: 07/29/24

Method Blank Analysis
Batch Quality Control

Prep Information

Digestion Method: EPA 3005A

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Dissolved Metals - Mansfield Lab for sample(s): 13-17 Batch: WG1950098-1										
Mercury, Dissolved	ND		ug/l	0.2000	0.0915	1	07/24/24 06:55	07/24/24 09:40	1,7470A	MJR

Prep Information

Digestion Method: EPA 7470A

Lab Control Sample Analysis

Batch Quality Control

Project Name: ALLIANCE 51ST

Project Number: 30108678.07

Lab Number: L2441149

Report Date: 07/29/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-12 Batch: WG1950082-2								
Aluminum, Total	101		-		80-120	-		
Antimony, Total	106		-		80-120	-		
Arsenic, Total	109		-		80-120	-		
Barium, Total	102		-		80-120	-		
Beryllium, Total	104		-		80-120	-		
Cadmium, Total	102		-		80-120	-		
Calcium, Total	103		-		80-120	-		
Chromium, Total	101		-		80-120	-		
Cobalt, Total	103		-		80-120	-		
Copper, Total	105		-		80-120	-		
Iron, Total	104		-		80-120	-		
Lead, Total	106		-		80-120	-		
Magnesium, Total	104		-		80-120	-		
Manganese, Total	102		-		80-120	-		
Nickel, Total	103		-		80-120	-		
Potassium, Total	106		-		80-120	-		
Selenium, Total	110		-		80-120	-		
Silver, Total	108		-		80-120	-		
Sodium, Total	107		-		80-120	-		
Thallium, Total	104		-		80-120	-		
Vanadium, Total	103		-		80-120	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: ALLIANCE 51ST

Project Number: 30108678.07

Lab Number: L2441149

Report Date: 07/29/24

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-12 Batch: WG1950082-2					
Zinc, Total	104	-	80-120	-	
Total Metals - Mansfield Lab Associated sample(s): 01-12 Batch: WG1950083-2					
Mercury, Total	102	-	80-120	-	

Lab Control Sample Analysis

Batch Quality Control

Project Name: ALLIANCE 51ST

Project Number: 30108678.07

Lab Number: L2441149

Report Date: 07/29/24

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 13-17 Batch: WG1950093-2					
Aluminum, Total	93	-	80-120	-	
Antimony, Total	82	-	80-120	-	
Arsenic, Total	93	-	80-120	-	
Barium, Total	95	-	80-120	-	
Beryllium, Total	93	-	80-120	-	
Cadmium, Total	92	-	80-120	-	
Calcium, Total	87	-	80-120	-	
Chromium, Total	93	-	80-120	-	
Cobalt, Total	94	-	80-120	-	
Copper, Total	94	-	80-120	-	
Iron, Total	113	-	80-120	-	
Lead, Total	89	-	80-120	-	
Magnesium, Total	92	-	80-120	-	
Manganese, Total	96	-	80-120	-	
Nickel, Total	96	-	80-120	-	
Potassium, Total	92	-	80-120	-	
Selenium, Total	88	-	80-120	-	
Silver, Total	96	-	80-120	-	
Sodium, Total	96	-	80-120	-	
Thallium, Total	88	-	80-120	-	
Vanadium, Total	92	-	80-120	-	

Lab Control Sample Analysis

Batch Quality Control

Project Name: ALLIANCE 51ST

Project Number: 30108678.07

Lab Number: L2441149

Report Date: 07/29/24

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 13-17 Batch: WG1950093-2					
Zinc, Total	93	-	80-120	-	
Total Metals - Mansfield Lab Associated sample(s): 13-17 Batch: WG1950095-2					
Mercury, Total	112	-	80-120	-	

Lab Control Sample Analysis

Batch Quality Control

Project Name: ALLIANCE 51ST

Project Number: 30108678.07

Lab Number: L2441149

Report Date: 07/29/24

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Dissolved Metals - Mansfield Lab Associated sample(s): 13-17 Batch: WG1950096-2					
Aluminum, Dissolved	95	-	80-120	-	
Antimony, Dissolved	85	-	80-120	-	
Arsenic, Dissolved	104	-	80-120	-	
Barium, Dissolved	101	-	80-120	-	
Beryllium, Dissolved	103	-	80-120	-	
Cadmium, Dissolved	100	-	80-120	-	
Calcium, Dissolved	119	-	80-120	-	
Chromium, Dissolved	98	-	80-120	-	
Cobalt, Dissolved	106	-	80-120	-	
Copper, Dissolved	107	-	80-120	-	
Iron, Dissolved	110	-	80-120	-	
Lead, Dissolved	104	-	80-120	-	
Magnesium, Dissolved	98	-	80-120	-	
Manganese, Dissolved	100	-	80-120	-	
Nickel, Dissolved	107	-	80-120	-	
Potassium, Dissolved	102	-	80-120	-	
Selenium, Dissolved	96	-	80-120	-	
Silver, Dissolved	103	-	80-120	-	
Sodium, Dissolved	104	-	80-120	-	
Thallium, Dissolved	105	-	80-120	-	
Vanadium, Dissolved	97	-	80-120	-	

Lab Control Sample Analysis

Batch Quality Control

Project Name: ALLIANCE 51ST

Project Number: 30108678.07

Lab Number: L2441149

Report Date: 07/29/24

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Dissolved Metals - Mansfield Lab Associated sample(s): 13-17 Batch: WG1950096-2					
Zinc, Dissolved	105	-	80-120	-	
Dissolved Metals - Mansfield Lab Associated sample(s): 13-17 Batch: WG1950098-2					
Mercury, Dissolved	99	-	80-120	-	

Matrix Spike Analysis
Batch Quality Control

Project Name: ALLIANCE 51ST
Project Number: 30108678.07

Lab Number: L2441149
Report Date: 07/29/24

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-12 QC Batch ID: WG1950082-3 QC Sample: L2441006-01 Client ID: MS Sample												
Aluminum, Total	4500	226	4920	**186**	Q	-	-		75-125	-		20
Antimony, Total	ND	56.4	54.2	96		-	-		75-125	-		20
Arsenic, Total	4.11	13.5	18.1	103		-	-		75-125	-		20
Barium, Total	12.0	226	230	97		-	-		75-125	-		20
Beryllium, Total	0.240J	5.64	5.79	103		-	-		75-125	-		20
Cadmium, Total	ND	5.98	5.70	95		-	-		75-125	-		20
Calcium, Total	1000	1130	2000	89		-	-		75-125	-		20
Chromium, Total	6.81	22.6	28.3	95		-	-		75-125	-		20
Cobalt, Total	1.95J	56.4	56.1	99		-	-		75-125	-		20
Copper, Total	4.32	28.2	32.8	101		-	-		75-125	-		20
Iron, Total	5610	113	6040	**381**	Q	-	-		75-125	-		20
Lead, Total	8.16	59.8	67.8	100		-	-		75-125	-		20
Magnesium, Total	1110	1130	2370	112		-	-		75-125	-		20
Manganese, Total	67.0	56.4	125	103		-	-		75-125	-		20
Nickel, Total	5.33	56.4	60.3	97		-	-		75-125	-		20
Potassium, Total	658	1130	1720	94		-	-		75-125	-		20
Selenium, Total	0.353J	13.5	13.9	103		-	-		75-125	-		20
Silver, Total	ND	5.64	5.78	102		-	-		75-125	-		20
Sodium, Total	52.3J	1130	1200	106		-	-		75-125	-		20
Thallium, Total	ND	13.5	13.2	98		-	-		75-125	-		20
Vanadium, Total	8.88	56.4	64.4	98		-	-		75-125	-		20

Matrix Spike Analysis
Batch Quality Control

Project Name: ALLIANCE 51ST
Project Number: 30108678.07

Lab Number: L2441149
Report Date: 07/29/24

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-12 QC Batch ID: WG1950082-3 QC Sample: L2441006-01 Client ID: MS Sample									
Zinc, Total	23.1	56.4	79.7	100	-	-	75-125	-	20
Total Metals - Mansfield Lab Associated sample(s): 01-12 QC Batch ID: WG1950083-3 QC Sample: L2440891-01 Client ID: MS Sample									
Mercury, Total	ND	2.37	2.49	105	-	-	80-120	-	20

Matrix Spike Analysis
Batch Quality Control

Project Name: ALLIANCE 51ST
Project Number: 30108678.07

Lab Number: L2441149
Report Date: 07/29/24

Parameter	Native Sample	MS Added	MS Found	MS %Recovery		MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 13-17 QC Batch ID: WG1950093-3 QC Sample: L2441149-13 Client ID: DEP51-W1										
Aluminum, Total	60.9	2000	1940	94		-	-	75-125	-	20
Antimony, Total	1.215J	500	438.0	88		-	-	75-125	-	20
Arsenic, Total	0.9562	120	112.9	93		-	-	75-125	-	20
Barium, Total	45.70	2000	1972	96		-	-	75-125	-	20
Beryllium, Total	ND	50	45.69	91		-	-	75-125	-	20
Cadmium, Total	ND	53	50.31	95		-	-	75-125	-	20
Calcium, Total	31100	10000	37600	**65**	Q	-	-	75-125	-	20
Chromium, Total	0.3406J	200	186.1	93		-	-	75-125	-	20
Cobalt, Total	0.3777J	500	471.5	94		-	-	75-125	-	20
Copper, Total	3.167	250	237.0	94		-	-	75-125	-	20
Iron, Total	169.	1000	1260	109		-	-	75-125	-	20
Lead, Total	1.069	530	504.7	95		-	-	75-125	-	20
Magnesium, Total	12100	10000	21000	89		-	-	75-125	-	20
Manganese, Total	45.85	500	518.3	94		-	-	75-125	-	20
Nickel, Total	1.761J	500	474.2	95		-	-	75-125	-	20
Potassium, Total	3820	10000	12800	90		-	-	75-125	-	20
Selenium, Total	ND	120	104	87		-	-	75-125	-	20
Silver, Total	ND	50	48.76	98		-	-	75-125	-	20
Sodium, Total	28800	10000	39600	108		-	-	75-125	-	20
Thallium, Total	ND	120	112.8	94		-	-	75-125	-	20
Vanadium, Total	ND	500	455.9	91		-	-	75-125	-	20

Matrix Spike Analysis
Batch Quality Control

Project Name: ALLIANCE 51ST
Project Number: 30108678.07

Lab Number: L2441149
Report Date: 07/29/24

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 13-17 QC Batch ID: WG1950093-3 QC Sample: L2441149-13 Client ID: DEP51-W1									
Zinc, Total	7.520J	500	461.5	92	-	-	75-125	-	20
Total Metals - Mansfield Lab Associated sample(s): 13-17 QC Batch ID: WG1950095-3 QC Sample: L2441149-14 Client ID: DEP51-W2									
Mercury, Total	0.2490	5	5.005	95	-	-	75-125	-	20

Matrix Spike Analysis
Batch Quality Control

Project Name: ALLIANCE 51ST
Project Number: 30108678.07

Lab Number: L2441149
Report Date: 07/29/24

Parameter	Native Sample	MS Added	MS Found	MS %Recovery		MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Dissolved Metals - Mansfield Lab Associated sample(s): 13-17 QC Batch ID: WG1950096-3 QC Sample: L2441149-13 Client ID: DEP51-W1										
Aluminum, Dissolved	8.49J	2000	1740	87		-	-	75-125	-	20
Antimony, Dissolved	0.6591J	500	447.0	89		-	-	75-125	-	20
Arsenic, Dissolved	0.9911	120	118.5	98		-	-	75-125	-	20
Barium, Dissolved	43.00	2000	1994	98		-	-	75-125	-	20
Beryllium, Dissolved	ND	50	51.92	104		-	-	75-125	-	20
Cadmium, Dissolved	ND	53	52.33	99		-	-	75-125	-	20
Calcium, Dissolved	31500	10000	36900	**54**	Q	-	-	75-125	-	20
Chromium, Dissolved	0.2748J	200	180.9	90		-	-	75-125	-	20
Cobalt, Dissolved	0.2237J	500	480.4	96		-	-	75-125	-	20
Copper, Dissolved	2.925	250	251.2	99		-	-	75-125	-	20
Iron, Dissolved	50.1	1000	1050	100		-	-	75-125	-	20
Lead, Dissolved	ND	530	534.3	101		-	-	75-125	-	20
Magnesium, Dissolved	12000	10000	19600	76		-	-	75-125	-	20
Manganese, Dissolved	4.750	500	445.1	88		-	-	75-125	-	20
Nickel, Dissolved	2.390	500	488.5	97		-	-	75-125	-	20
Potassium, Dissolved	3890	10000	12400	85		-	-	75-125	-	20
Selenium, Dissolved	ND	120	109	91		-	-	75-125	-	20
Silver, Dissolved	ND	50	50.04	100		-	-	75-125	-	20
Sodium, Dissolved	28000	10000	35600	76		-	-	75-125	-	20
Thallium, Dissolved	ND	120	123.7	103		-	-	75-125	-	20
Vanadium, Dissolved	ND	500	451.9	90		-	-	75-125	-	20

Matrix Spike Analysis
Batch Quality Control

Project Name: ALLIANCE 51ST
Project Number: 30108678.07

Lab Number: L2441149
Report Date: 07/29/24

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Dissolved Metals - Mansfield Lab Associated sample(s): 13-17 QC Batch ID: WG1950096-3 QC Sample: L2441149-13 Client ID: DEP51-W1									
Zinc, Dissolved	3.552J	500	489.2	98	-	-	75-125	-	20
Dissolved Metals - Mansfield Lab Associated sample(s): 13-17 QC Batch ID: WG1950098-3 QC Sample: L2441149-14 Client ID: DEP51-W2									
Mercury, Dissolved	ND	5	5.104	102	-	-	75-125	-	20

Lab Duplicate Analysis

Batch Quality Control

Project Name: ALLIANCE 51ST
Project Number: 30108678.07

Lab Number: L2441149
Report Date: 07/29/24

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-12 QC Batch ID: WG1950082-4 QC Sample: L2441006-01 Client ID: DUP Sample						
Arsenic, Total	4.11	4.13	mg/kg	0		20
Total Metals - Mansfield Lab Associated sample(s): 01-12 QC Batch ID: WG1950083-4 QC Sample: L2440891-01 Client ID: DUP Sample						
Mercury, Total	ND	ND	mg/kg	NC		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: ALLIANCE 51ST
Project Number: 30108678.07

Lab Number: L2441149
Report Date: 07/29/24

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 13-17 QC Batch ID: WG1950093-4 QC Sample: L2441149-13 Client ID: DEP51-W1					
Aluminum, Total	60.9	54.9	ug/l	10	20
Antimony, Total	1.215J	1.095J	ug/l	NC	20
Arsenic, Total	0.9562	0.9548	ug/l	0	20
Barium, Total	45.70	44.41	ug/l	3	20
Beryllium, Total	ND	ND	ug/l	NC	20
Cadmium, Total	ND	ND	ug/l	NC	20
Calcium, Total	31100	29900	ug/l	4	20
Chromium, Total	0.3406J	0.3212J	ug/l	NC	20
Cobalt, Total	0.3777J	0.3516J	ug/l	NC	20
Copper, Total	3.167	2.880	ug/l	9	20
Iron, Total	169.	165	ug/l	2	20
Lead, Total	1.069	1.023	ug/l	4	20
Magnesium, Total	12100	11600	ug/l	4	20
Manganese, Total	45.85	44.06	ug/l	4	20
Nickel, Total	1.761J	1.757J	ug/l	NC	20
Potassium, Total	3820	3600	ug/l	6	20
Selenium, Total	ND	ND	ug/l	NC	20
Silver, Total	ND	ND	ug/l	NC	20
Sodium, Total	28800	27600	ug/l	4	20

Lab Duplicate Analysis
Batch Quality Control

Project Name: ALLIANCE 51ST
Project Number: 30108678.07

Lab Number: L2441149
Report Date: 07/29/24

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 13-17 QC Batch ID: WG1950093-4 QC Sample: L2441149-13 Client ID: DEP51-W1					
Thallium, Total	ND	ND	ug/l	NC	20
Vanadium, Total	ND	ND	ug/l	NC	20
Zinc, Total	7.520J	7.041J	ug/l	NC	20
Total Metals - Mansfield Lab Associated sample(s): 13-17 QC Batch ID: WG1950095-4 QC Sample: L2441149-14 Client ID: DEP51-W2					
Mercury, Total	0.2490	0.1280J	ug/l	NC	20

Lab Duplicate Analysis
Batch Quality Control

Project Name: ALLIANCE 51ST
Project Number: 30108678.07

Lab Number: L2441149
Report Date: 07/29/24

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Dissolved Metals - Mansfield Lab Associated sample(s): 13-17 QC Batch ID: WG1950096-4 QC Sample: L2441149-13 Client ID: DEP51-W1					
Aluminum, Dissolved	8.49J	8.10J	ug/l	NC	20
Antimony, Dissolved	0.6591J	1.708J	ug/l	NC	20
Arsenic, Dissolved	0.9911	1.025	ug/l	3	20
Barium, Dissolved	43.00	42.52	ug/l	1	20
Beryllium, Dissolved	ND	ND	ug/l	NC	20
Cadmium, Dissolved	ND	ND	ug/l	NC	20
Calcium, Dissolved	31500	31300	ug/l	1	20
Chromium, Dissolved	0.2748J	0.3535J	ug/l	NC	20
Cobalt, Dissolved	0.2237J	0.2392J	ug/l	NC	20
Copper, Dissolved	2.925	2.478	ug/l	17	20
Iron, Dissolved	50.1	32.2J	ug/l	NC	20
Lead, Dissolved	ND	ND	ug/l	NC	20
Magnesium, Dissolved	12000	12300	ug/l	2	20
Manganese, Dissolved	4.750	4.846	ug/l	2	20
Nickel, Dissolved	2.390	1.882J	ug/l	NC	20
Potassium, Dissolved	3890	3960	ug/l	2	20
Selenium, Dissolved	ND	ND	ug/l	NC	20
Silver, Dissolved	ND	ND	ug/l	NC	20
Sodium, Dissolved	28000	28800	ug/l	3	20

Lab Duplicate Analysis

Batch Quality Control

Project Name: ALLIANCE 51ST
Project Number: 30108678.07

Lab Number: L2441149
Report Date: 07/29/24

Parameter	Native Sample	Duplicate Sample	Units	RPD	RPD Limits
Dissolved Metals - Mansfield Lab Associated sample(s): 13-17 QC Batch ID: WG1950096-4 QC Sample: L2441149-13 Client ID: DEP51-W1					
Thallium, Dissolved	ND	ND	ug/l	NC	20
Vanadium, Dissolved	ND	ND	ug/l	NC	20
Zinc, Dissolved	3.552J	3.505J	ug/l	NC	20
Dissolved Metals - Mansfield Lab Associated sample(s): 13-17 QC Batch ID: WG1950098-4 QC Sample: L2441149-14 Client ID: DEP51-W2					
Mercury, Dissolved	ND	ND	ug/l	NC	20

INORGANICS
&
MISCELLANEOUS

Project Name: ALLIANCE 51ST
Project Number: 30108678.07

Lab Number: L2441149
Report Date: 07/29/24

SAMPLE RESULTS

Lab ID: L2441149-01
Client ID: DEP51-S1
Sample Location: 51ST ST. PHILA PA

Date Collected: 07/22/24 10:30
Date Received: 07/22/24
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	98.9		%	0.100	NA	1	-	07/23/24 08:53	121,2540G	ROI
Chromium, Hexavalent	0.212	J	mg/kg	0.809	0.162	1	07/23/24 09:09	07/24/24 03:52	1,7196A	DTH

Project Name: ALLIANCE 51ST
Project Number: 30108678.07

Lab Number: L2441149
Report Date: 07/29/24

SAMPLE RESULTS

Lab ID: L2441149-02
Client ID: DEP51-S2
Sample Location: 51ST ST. PHILA PA

Date Collected: 07/22/24 10:45
Date Received: 07/22/24
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	94.0		%	0.100	NA	1	-	07/23/24 08:53	121,2540G	ROI
Chromium, Hexavalent	3.73		mg/kg	0.851	0.170	1	07/23/24 09:09	07/24/24 03:52	1,7196A	DTH

Project Name: ALLIANCE 51ST
Project Number: 30108678.07

Lab Number: L2441149
Report Date: 07/29/24

SAMPLE RESULTS

Lab ID: L2441149-03
Client ID: DEP51-S3
Sample Location: 51ST ST. PHILA PA

Date Collected: 07/22/24 10:50
Date Received: 07/22/24
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	96.8		%	0.100	NA	1	-	07/23/24 08:53	121,2540G	ROI
Chromium, Hexavalent	ND		mg/kg	0.826	0.165	1	07/23/24 09:09	07/24/24 03:52	1,7196A	DTH

Project Name: ALLIANCE 51ST
Project Number: 30108678.07

Lab Number: L2441149
Report Date: 07/29/24

SAMPLE RESULTS

Lab ID: L2441149-04
Client ID: DEP51-S4
Sample Location: 51ST ST. PHILA PA

Date Collected: 07/22/24 11:00
Date Received: 07/22/24
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	96.7		%	0.100	NA	1	-	07/23/24 08:53	121,2540G	ROI
Chromium, Hexavalent	ND		mg/kg	0.827	0.165	1	07/23/24 09:09	07/24/24 03:52	1,7196A	DTH

Project Name: ALLIANCE 51ST
Project Number: 30108678.07

Lab Number: L2441149
Report Date: 07/29/24

SAMPLE RESULTS

Lab ID: L2441149-05
Client ID: DEP51-S5
Sample Location: 51ST ST. PHILA PA

Date Collected: 07/22/24 11:05
Date Received: 07/22/24
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	73.8		%	0.100	NA	1	-	07/23/24 08:53	121,2540G	ROI
Chromium, Hexavalent	ND		mg/kg	1.08	0.217	1	07/23/24 09:09	07/24/24 03:52	1,7196A	DTH

Project Name: ALLIANCE 51ST
Project Number: 30108678.07

Lab Number: L2441149
Report Date: 07/29/24

SAMPLE RESULTS

Lab ID: L2441149-06
Client ID: DEP51-S6
Sample Location: 51ST ST. PHILA PA

Date Collected: 07/22/24 11:10
Date Received: 07/22/24
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	80.8		%	0.100	NA	1	-	07/23/24 08:53	121,2540G	ROI
Chromium, Hexavalent	ND		mg/kg	0.990	0.198	1	07/23/24 09:09	07/24/24 03:52	1,7196A	DTH

Project Name: ALLIANCE 51ST
Project Number: 30108678.07

Lab Number: L2441149
Report Date: 07/29/24

SAMPLE RESULTS

Lab ID: L2441149-07
Client ID: DEP51-S7
Sample Location: 51ST ST. PHILA PA

Date Collected: 07/22/24 11:15
Date Received: 07/22/24
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	73.3		%	0.100	NA	1	-	07/23/24 08:53	121,2540G	ROI
Chromium, Hexavalent	0.273	J	mg/kg	1.09	0.218	1	07/23/24 09:09	07/24/24 03:52	1,7196A	DTH

Project Name: ALLIANCE 51ST
Project Number: 30108678.07

Lab Number: L2441149
Report Date: 07/29/24

SAMPLE RESULTS

Lab ID: L2441149-08
Client ID: DEP51-S8
Sample Location: 51ST ST. PHILA PA

Date Collected: 07/22/24 11:20
Date Received: 07/22/24
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	60.3		%	0.100	NA	1	-	07/23/24 08:53	121,2540G	ROI
Chromium, Hexavalent	ND		mg/kg	1.33	0.265	1	07/23/24 09:09	07/24/24 03:52	1,7196A	DTH

Project Name: ALLIANCE 51ST
Project Number: 30108678.07

Lab Number: L2441149
Report Date: 07/29/24

SAMPLE RESULTS

Lab ID: L2441149-09
Client ID: DEP51-S9
Sample Location: 51ST ST. PHILA PA

Date Collected: 07/22/24 11:25
Date Received: 07/22/24
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	80.8		%	0.100	NA	1	-	07/23/24 08:53	121,2540G	ROI
Chromium, Hexavalent	ND		mg/kg	0.990	0.198	1	07/23/24 09:09	07/24/24 03:52	1,7196A	DTH

Project Name: ALLIANCE 51ST
Project Number: 30108678.07

Lab Number: L2441149
Report Date: 07/29/24

SAMPLE RESULTS

Lab ID: L2441149-10
Client ID: DEP51-S10
Sample Location: 51ST ST. PHILA PA

Date Collected: 07/22/24 11:30
Date Received: 07/22/24
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	60.0		%	0.100	NA	1	-	07/23/24 08:53	121,2540G	ROI
Chromium, Hexavalent	ND		mg/kg	1.33	0.267	1	07/23/24 09:09	07/24/24 03:52	1,7196A	DTH

Project Name: ALLIANCE 51ST
Project Number: 30108678.07

Lab Number: L2441149
Report Date: 07/29/24

SAMPLE RESULTS

Lab ID: L2441149-11
Client ID: DEP51-S11
Sample Location: 51ST ST. PHILA PA

Date Collected: 07/22/24 11:40
Date Received: 07/22/24
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	86.2		%	0.100	NA	1	-	07/23/24 08:53	121,2540G	ROI
Chromium, Hexavalent	ND		mg/kg	0.928	0.186	1	07/23/24 09:09	07/24/24 04:07	1,7196A	DTH

Project Name: ALLIANCE 51ST
Project Number: 30108678.07
Lab Number: L2441149
Report Date: 07/29/24

SAMPLE RESULTS

Lab ID: L2441149-12
Client ID: DUP-S
Sample Location: 51ST ST. PHILA PA
Sample Depth:
Matrix: Soil

Date Collected: 07/22/24 00:00
Date Received: 07/22/24
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	77.0		%	0.100	NA	1	-	07/23/24 08:53	121,2540G	ROI
Chromium, Hexavalent	ND		mg/kg	1.04	0.208	1	07/23/24 09:09	07/24/24 04:07	1,7196A	DTH

Project Name: ALLIANCE 51ST
Project Number: 30108678.07

Lab Number: L2441149
Report Date: 07/29/24

SAMPLE RESULTS

Lab ID: L2441149-13
Client ID: DEP51-W1
Sample Location: 51ST ST. PHILA PA

Date Collected: 07/22/24 12:05
Date Received: 07/22/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Chromium, Hexavalent	ND		ug/l	10.0	3.00	1	07/23/24 05:45	07/23/24 06:25	1,7196A	CAR

Project Name: ALLIANCE 51ST
Project Number: 30108678.07

Lab Number: L2441149
Report Date: 07/29/24

SAMPLE RESULTS

Lab ID: L2441149-14
Client ID: DEP51-W2
Sample Location: 51ST ST. PHILA PA

Date Collected: 07/22/24 12:10
Date Received: 07/22/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Chromium, Hexavalent	ND		ug/l	10.0	3.00	1	07/23/24 05:45	07/23/24 06:25	1,7196A	CAR

Project Name: ALLIANCE 51ST
Project Number: 30108678.07

Lab Number: L2441149
Report Date: 07/29/24

SAMPLE RESULTS

Lab ID: L2441149-15
Client ID: DEP51-W3
Sample Location: 51ST ST. PHILA PA

Date Collected: 07/22/24 12:15
Date Received: 07/22/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Chromium, Hexavalent	ND		ug/l	10.0	3.00	1	07/23/24 05:45	07/23/24 06:26	1,7196A	CAR

Project Name: ALLIANCE 51ST
Project Number: 30108678.07

Lab Number: L2441149
Report Date: 07/29/24

SAMPLE RESULTS

Lab ID: L2441149-16
Client ID: DEP51-W4
Sample Location: 51ST ST. PHILA PA

Date Collected: 07/22/24 13:00
Date Received: 07/22/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Chromium, Hexavalent	ND		ug/l	10.0	3.00	1	07/23/24 05:45	07/23/24 06:26	1,7196A	CAR

Project Name: ALLIANCE 51ST
Project Number: 30108678.07

Lab Number: L2441149
Report Date: 07/29/24

SAMPLE RESULTS

Lab ID: L2441149-17
Client ID: DUP-W
Sample Location: 51ST ST. PHILA PA

Sample Depth:
Matrix: Water

Date Collected: 07/22/24 00:00
Date Received: 07/22/24
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Chromium, Hexavalent	ND		ug/l	10.0	3.00	1	07/23/24 05:45	07/23/24 06:26	1,7196A	CAR

Project Name: ALLIANCE 51ST
Project Number: 30108678.07
Lab Number: L2441149
Report Date: 07/29/24

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 13-17 Batch: WG1950068-1										
Chromium, Hexavalent	ND		ug/l	10.0	3.00	1	07/23/24 05:45	07/23/24 06:24	1,7196A	CAR
General Chemistry - Westborough Lab for sample(s): 01-10 Batch: WG1950127-1										
Chromium, Hexavalent	ND		mg/kg	0.800	0.160	1	07/23/24 09:09	07/24/24 03:52	1,7196A	DTH
General Chemistry - Westborough Lab for sample(s): 11-12 Batch: WG1950129-1										
Chromium, Hexavalent	ND		mg/kg	0.800	0.160	1	07/23/24 09:09	07/24/24 04:07	1,7196A	DTH

Lab Control Sample Analysis

Batch Quality Control

Project Name: ALLIANCE 51ST

Project Number: 30108678.07

Lab Number: L2441149

Report Date: 07/29/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 13-17 Batch: WG1950068-2								
Chromium, Hexavalent	99		-		85-115	-		20
General Chemistry - Westborough Lab Associated sample(s): 01-10 Batch: WG1950127-2								
Chromium, Hexavalent	95		-		80-120	-		20
General Chemistry - Westborough Lab Associated sample(s): 11-12 Batch: WG1950129-2								
Chromium, Hexavalent	95		-		80-120	-		20

Matrix Spike Analysis
Batch Quality Control

Project Name: ALLIANCE 51ST
Project Number: 30108678.07

Lab Number: L2441149
Report Date: 07/29/24

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 13-17 QC Batch ID: WG1950068-4 QC Sample: L2441149-13 Client ID: DEP51-W1												
Chromium, Hexavalent	ND	100	101	101		-	-		85-115	-		20
General Chemistry - Westborough Lab Associated sample(s): 01-10 QC Batch ID: WG1950127-4 QC Sample: L2441149-06 Client ID: DEP51-S6												
Chromium, Hexavalent	ND	1580	1520	96		-	-		75-125	-		20
General Chemistry - Westborough Lab Associated sample(s): 11-12 QC Batch ID: WG1950129-4 QC Sample: L2441149-11 Client ID: DEP51-S11												
Chromium, Hexavalent	ND	1230	554	**45**	Q	-	-		75-125	-		20

Lab Duplicate Analysis

Batch Quality Control

Project Name: ALLIANCE 51ST
Project Number: 30108678.07

Lab Number: L2441149
Report Date: 07/29/24

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 13-17 QC Batch ID: WG1950068-3 QC Sample: L2441149-13 Client ID: DEP51-W1						
Chromium, Hexavalent	ND	ND	ug/l	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01-12 QC Batch ID: WG1950112-1 QC Sample: L2437747-04 Client ID: DUP Sample						
Solids, Total	88.3	88.5	%	0		20
General Chemistry - Westborough Lab Associated sample(s): 01-10 QC Batch ID: WG1950127-6 QC Sample: L2441149-06 Client ID: DEP51-S6						
Chromium, Hexavalent	ND	ND	mg/kg	NC		20
General Chemistry - Westborough Lab Associated sample(s): 11-12 QC Batch ID: WG1950129-6 QC Sample: L2441149-11 Client ID: DEP51-S11						
Chromium, Hexavalent	ND	ND	mg/kg	NC		20

Project Name: ALLIANCE 51ST
Project Number: 30108678.07

Lab Number: L2441149
Report Date: 07/29/24

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent
B	Absent
C	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2441149-01A	Vial MeOH preserved	B	NA		3.5	Y	Absent		PA-8260HLW(14)
L2441149-01B	Vial water preserved	B	NA		3.5	Y	Absent	23-JUL-24 05:27	PA-8260HLW(14)
L2441149-01C	Vial water preserved	B	NA		3.5	Y	Absent	23-JUL-24 05:27	PA-8260HLW(14)
L2441149-01D	Plastic 120ml unpreserved	B	NA		3.5	Y	Absent		TS(7)
L2441149-01E	Metals Only-Glass 60mL/2oz unpreserved	B	NA		3.5	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),TL-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),CU-TI(180),SB-TI(180),PB-TI(180),SE-TI(180),ZN-TI(180),V-TI(180),CO-TI(180),MG-TI(180),HG-T(28),MN-TI(180),FE-TI(180),CA-TI(180),K-TI(180),NA-TI(180),CD-TI(180)
L2441149-01F	Glass 120ml/4oz unpreserved	B	NA		3.5	Y	Absent		HEXCR-7196(30)
L2441149-02A	Vial MeOH preserved	B	NA		3.5	Y	Absent		PA-8260HLW(14)
L2441149-02B	Vial water preserved	B	NA		3.5	Y	Absent	23-JUL-24 05:27	PA-8260HLW(14)
L2441149-02C	Vial water preserved	B	NA		3.5	Y	Absent	23-JUL-24 05:27	PA-8260HLW(14)
L2441149-02D	Plastic 120ml unpreserved	B	NA		3.5	Y	Absent		TS(7)
L2441149-02E	Metals Only-Glass 60mL/2oz unpreserved	B	NA		3.5	Y	Absent		BE-TI(180),BA-TI(180),AS-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),NI-TI(180),TL-TI(180),CU-TI(180),SE-TI(180),PB-TI(180),ZN-TI(180),SB-TI(180),CO-TI(180),V-TI(180),HG-T(28),FE-TI(180),MN-TI(180),MG-TI(180),NA-TI(180),CD-TI(180),CA-TI(180),K-TI(180)
L2441149-02F	Glass 120ml/4oz unpreserved	B	NA		3.5	Y	Absent		HEXCR-7196(30)
L2441149-03A	Vial MeOH preserved	B	NA		3.5	Y	Absent		PA-8260HLW(14)
L2441149-03B	Vial water preserved	B	NA		3.5	Y	Absent	23-JUL-24 05:27	PA-8260HLW(14)
L2441149-03C	Vial water preserved	B	NA		3.5	Y	Absent	23-JUL-24 05:27	PA-8260HLW(14)
L2441149-03D	Plastic 120ml unpreserved	B	NA		3.5	Y	Absent		TS(7)

*Values in parentheses indicate holding time in days

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Project Number: 30108678.07

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Report Date: 07/29/24

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2441149-03E	Metals Only-Glass 60mL/2oz unpreserved	B	NA		3.5	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),CR-TI(180),TL-TI(180),NI-TI(180),CU-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),PB-TI(180),V-TI(180),CO-TI(180),MG-TI(180),FE-TI(180),HG-T(28),MN-TI(180),CD-TI(180),NA-TI(180),K-TI(180),CA-TI(180)
L2441149-03F	Glass 120ml/4oz unpreserved	B	NA		3.5	Y	Absent		HEXCR-7196(30)
L2441149-04A	Vial MeOH preserved	B	NA		3.5	Y	Absent		PA-8260HLW(14)
L2441149-04B	Vial water preserved	B	NA		3.5	Y	Absent	23-JUL-24 05:27	PA-8260HLW(14)
L2441149-04C	Vial water preserved	B	NA		3.5	Y	Absent	23-JUL-24 05:27	PA-8260HLW(14)
L2441149-04D	Plastic 120ml unpreserved	B	NA		3.5	Y	Absent		TS(7)
L2441149-04E	Metals Only-Glass 60mL/2oz unpreserved	B	NA		3.5	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),TL-TI(180),AL-TI(180),NI-TI(180),CR-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CU-TI(180),V-TI(180),CO-TI(180),FE-TI(180),MG-TI(180),MN-TI(180),HG-T(28),CA-TI(180),CD-TI(180),NA-TI(180),K-TI(180)
L2441149-04F	Glass 120ml/4oz unpreserved	B	NA		3.5	Y	Absent		HEXCR-7196(30)
L2441149-05A	Vial MeOH preserved	B	NA		3.5	Y	Absent		PA-8260HLW(14)
L2441149-05B	Vial water preserved	B	NA		3.5	Y	Absent	23-JUL-24 05:27	PA-8260HLW(14)
L2441149-05C	Vial water preserved	B	NA		3.5	Y	Absent	23-JUL-24 05:27	PA-8260HLW(14)
L2441149-05D	Plastic 120ml unpreserved	B	NA		3.5	Y	Absent		TS(7)
L2441149-05E	Metals Only-Glass 60mL/2oz unpreserved	B	NA		3.5	Y	Absent		BE-TI(180),BA-TI(180),AS-TI(180),AG-TI(180),TL-TI(180),AL-TI(180),NI-TI(180),CR-TI(180),PB-TI(180),SE-TI(180),SB-TI(180),CU-TI(180),ZN-TI(180),V-TI(180),CO-TI(180),MG-TI(180),FE-TI(180),HG-T(28),MN-TI(180),K-TI(180),CD-TI(180),CA-TI(180),NA-TI(180)
L2441149-05F	Glass 120ml/4oz unpreserved	B	NA		3.5	Y	Absent		HEXCR-7196(30)
L2441149-06A	Vial MeOH preserved	A	NA		5.3	Y	Absent		PA-8260HLW(14)
L2441149-06B	Vial water preserved	A	NA		5.3	Y	Absent	23-JUL-24 05:27	PA-8260HLW(14)
L2441149-06C	Vial water preserved	A	NA		5.3	Y	Absent	23-JUL-24 05:27	PA-8260HLW(14)
L2441149-06D	Plastic 120ml unpreserved	A	NA		5.3	Y	Absent		TS(7)
L2441149-06E	Metals Only-Glass 60mL/2oz unpreserved	A	NA		5.3	Y	Absent		BE-TI(180),BA-TI(180),AS-TI(180),AG-TI(180),CR-TI(180),AL-TI(180),TL-TI(180),NI-TI(180),PB-TI(180),SB-TI(180),SE-TI(180),CU-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CA-TI(180),CD-TI(180),K-TI(180),NA-TI(180)

*Values in parentheses indicate holding time in days

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2441149-06F	Glass 120ml/4oz unpreserved	A	NA		5.3	Y	Absent		HEXCR-7196(30)
L2441149-07A	Vial MeOH preserved	C	NA		4.1	Y	Absent		PA-8260HLW(14)
L2441149-07B	Vial water preserved	C	NA		4.1	Y	Absent	23-JUL-24 05:27	PA-8260HLW(14)
L2441149-07C	Vial water preserved	C	NA		4.1	Y	Absent	23-JUL-24 05:27	PA-8260HLW(14)
L2441149-07D	Plastic 120ml unpreserved	C	NA		4.1	Y	Absent		TS(7)
L2441149-07E	Metals Only-Glass 60mL/2oz unpreserved	C	NA		4.1	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),TL-TI(180),CR-TI(180),NI-TI(180),AL-TI(180),PB-TI(180),SB-TI(180),ZN-TI(180),CU-TI(180),SE-TI(180),V-TI(180),CO-TI(180),MN-TI(180),MG-TI(180),FE-TI(180),HG-T(28),K-TI(180),NA-TI(180),CA-TI(180),CD-TI(180)
L2441149-07F	Glass 120ml/4oz unpreserved	C	NA		4.1	Y	Absent		HEXCR-7196(30)
L2441149-08A	Vial MeOH preserved	C	NA		4.1	Y	Absent		PA-8260HLW(14)
L2441149-08B	Vial water preserved	C	NA		4.1	Y	Absent	23-JUL-24 05:27	PA-8260HLW(14)
L2441149-08C	Vial water preserved	C	NA		4.1	Y	Absent	23-JUL-24 05:27	PA-8260HLW(14)
L2441149-08D	Plastic 120ml unpreserved	C	NA		4.1	Y	Absent		TS(7)
L2441149-08E	Metals Only-Glass 60mL/2oz unpreserved	C	NA		4.1	Y	Absent		BE-TI(180),BA-TI(180),AS-TI(180),AG-TI(180),TL-TI(180),CR-TI(180),NI-TI(180),AL-TI(180),SB-TI(180),PB-TI(180),CU-TI(180),SE-TI(180),ZN-TI(180),V-TI(180),CO-TI(180),HG-T(28),FE-TI(180),MG-TI(180),MN-TI(180),CD-TI(180),NA-TI(180),CA-TI(180),K-TI(180)
L2441149-08F	Glass 120ml/4oz unpreserved	C	NA		4.1	Y	Absent		HEXCR-7196(30)
L2441149-09A	Vial MeOH preserved	C	NA		4.1	Y	Absent		PA-8260HLW(14)
L2441149-09B	Vial water preserved	C	NA		4.1	Y	Absent	23-JUL-24 05:27	PA-8260HLW(14)
L2441149-09C	Vial water preserved	C	NA		4.1	Y	Absent	23-JUL-24 05:27	PA-8260HLW(14)
L2441149-09D	Plastic 120ml unpreserved	C	NA		4.1	Y	Absent		TS(7)
L2441149-09E	Metals Only-Glass 60mL/2oz unpreserved	C	NA		4.1	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),NI-TI(180),TL-TI(180),AL-TI(180),CR-TI(180),CU-TI(180),PB-TI(180),SB-TI(180),ZN-TI(180),SE-TI(180),CO-TI(180),V-TI(180),FE-TI(180),HG-T(28),MG-TI(180),MN-TI(180),CD-TI(180),K-TI(180),CA-TI(180),NA-TI(180)
L2441149-09F	Glass 120ml/4oz unpreserved	C	NA		4.1	Y	Absent		HEXCR-7196(30)
L2441149-10A	Vial MeOH preserved	C	NA		4.1	Y	Absent		PA-8260HLW(14)
L2441149-10B	Vial water preserved	C	NA		4.1	Y	Absent	23-JUL-24 05:27	PA-8260HLW(14)

*Values in parentheses indicate holding time in days

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Report Date: 07/29/24

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Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2441149-10C	Vial water preserved	C	NA		4.1	Y	Absent	23-JUL-24 05:27	PA-8260HLW(14)
L2441149-10D	Plastic 120ml unpreserved	C	NA		4.1	Y	Absent		TS(7)
L2441149-10E	Metals Only-Glass 60mL/2oz unpreserved	C	NA		4.1	Y	Absent		BE-TI(180),BA-TI(180),AS-TI(180),AG-TI(180),CR-TI(180),AL-TI(180),TL-TI(180),NI-TI(180),PB-TI(180),CU-TI(180),SB-TI(180),SE-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),MN-TI(180),FE-TI(180),MG-TI(180),HG-T(28),CA-TI(180),NA-TI(180),CD-TI(180),K-TI(180)
L2441149-10F	Glass 120ml/4oz unpreserved	C	NA		4.1	Y	Absent		HEXCR-7196(30)
L2441149-11A	Vial MeOH preserved	C	NA		4.1	Y	Absent		PA-8260HLW(14)
L2441149-11B	Vial water preserved	C	NA		4.1	Y	Absent	23-JUL-24 05:27	PA-8260HLW(14)
L2441149-11C	Vial water preserved	C	NA		4.1	Y	Absent	23-JUL-24 05:27	PA-8260HLW(14)
L2441149-11D	Plastic 120ml unpreserved	C	NA		4.1	Y	Absent		TS(7)
L2441149-11E	Metals Only-Glass 60mL/2oz unpreserved	C	NA		4.1	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),NI-TI(180),CR-TI(180),AL-TI(180),TL-TI(180),PB-TI(180),ZN-TI(180),CU-TI(180),SB-TI(180),SE-TI(180),CO-TI(180),V-TI(180),FE-TI(180),MN-TI(180),MG-TI(180),HG-T(28),K-TI(180),NA-TI(180),CD-TI(180),CA-TI(180)
L2441149-11F	Glass 120ml/4oz unpreserved	C	NA		4.1	Y	Absent		HEXCR-7196(30)
L2441149-12A	Vial MeOH preserved	C	NA		4.1	Y	Absent		PA-8260HLW(14)
L2441149-12B	Vial water preserved	C	NA		4.1	Y	Absent	23-JUL-24 05:27	PA-8260HLW(14)
L2441149-12C	Vial water preserved	C	NA		4.1	Y	Absent	23-JUL-24 05:27	PA-8260HLW(14)
L2441149-12D	Plastic 120ml unpreserved	C	NA		4.1	Y	Absent		TS(7)
L2441149-12E	Metals Only-Glass 60mL/2oz unpreserved	C	NA		4.1	Y	Absent		BE-TI(180),BA-TI(180),AS-TI(180),AG-TI(180),AL-TI(180),TL-TI(180),NI-TI(180),CR-TI(180),ZN-TI(180),SE-TI(180),PB-TI(180),CU-TI(180),SB-TI(180),V-TI(180),CO-TI(180),HG-T(28),FE-TI(180),MG-TI(180),MN-TI(180),CD-TI(180),CA-TI(180),K-TI(180),NA-TI(180)
L2441149-12F	Glass 120ml/4oz unpreserved	C	NA		4.1	Y	Absent		HEXCR-7196(30)
L2441149-13A	Vial HCl preserved	A	NA		5.3	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2441149-13B	Vial HCl preserved	A	NA		5.3	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2441149-13C	Vial HCl preserved	A	NA		5.3	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2441149-13D	Plastic 250ml unpreserved	A	7	7	5.3	Y	Absent		-

*Values in parentheses indicate holding time in days

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Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2441149-13E	Plastic 250ml HNO3 preserved	A	<2	<2	5.3	Y	Absent		CO-6020T-PPB(180),AL-6020T-PPB(180),SB-6020T-PPB(180),CR-6020T-PPB(180),HG-T-PPB(28),BE-6020T-PPB(180),CD-6020T-PPB(180),CA-6020T-PPB(180),CU-6020T-PPB(180),BA-6020T-PPB(180),TL-6020T-PPB(180),AG-6020T-PPB(180),PB-6020T-PPB(180),K-6020T-PPB(180),AS-6020T-PPB(180),FE-6020T-PPB(180),NA-6020T-PPB(180),ZN-6020T-PPB(180),MG-6020T-PPB(180),NI-6020T-PPB(180),MN-6020T-PPB(180),SE-6020T-PPB(180),V-6020T-PPB(180)
L2441149-13F	Plastic 500ml unpreserved	A	7	7	5.3	Y	Absent		HEXCR-7196-PPB(1)
L2441149-13X	Plastic 120ml HNO3 preserved Filtrates	A	NA	NA	5.3	Y	Absent		PB-6020S-PPB(180),AG-6020S-PPB(180),BE-6020S-PPB(180),K-6020S-PPB(180),TL-6020S-PPB(180),HG-S-PPB(28),ZN-6020S-PPB(180),CU-6020S-PPB(180),CD-6020S-PPB(180),CO-6020S-PPB(180),SB-6020S-PPB(180),AS-6020S-PPB(180),CR-6020S-PPB(180),MN-6020S-PPB(180),BA-6020S-PPB(180),FE-6020S-PPB(180),MG-6020S-PPB(180),CA-6020S-PPB(180),NA-6020S-PPB(180),V-6020S-PPB(180),AL-6020S-PPB(180),NI-6020S-PPB(180),SE-6020S-PPB(180)
L2441149-14A	Vial HCl preserved	A	NA		5.3	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2441149-14B	Vial HCl preserved	A	NA		5.3	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2441149-14C	Vial HCl preserved	A	NA		5.3	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2441149-14D	Plastic 250ml unpreserved	A	7	7	5.3	Y	Absent		-
L2441149-14E	Plastic 250ml HNO3 preserved	A	<2	<2	5.3	Y	Absent		AL-6020T-PPB(180),CO-6020T-PPB(180),CD-6020T-PPB(180),HG-T-PPB(28),SB-6020T-PPB(180),CR-6020T-PPB(180),BE-6020T-PPB(180),CA-6020T-PPB(180),CU-6020T-PPB(180),BA-6020T-PPB(180),TL-6020T-PPB(180),K-6020T-PPB(180),PB-6020T-PPB(180),AS-6020T-PPB(180),AG-6020T-PPB(180),FE-6020T-PPB(180),NI-6020T-PPB(180),ZN-6020T-PPB(180),MG-6020T-PPB(180),NA-6020T-PPB(180),MN-6020T-PPB(180),SE-6020T-PPB(180),V-6020T-PPB(180)
L2441149-14F	Plastic 500ml unpreserved	A	7	7	5.3	Y	Absent		HEXCR-7196-PPB(1)

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Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2441149-14X	Plastic 120ml HNO3 preserved Filtrates	A	NA	NA	5.3	Y	Absent		PB-6020S-PPB(180),K-6020S-PPB(180),AG-6020S-PPB(180),BE-6020S-PPB(180),TL-6020S-PPB(180),HG-S-PPB(28),ZN-6020S-PPB(180),CU-6020S-PPB(180),CO-6020S-PPB(180),CD-6020S-PPB(180),SB-6020S-PPB(180),AS-6020S-PPB(180),MN-6020S-PPB(180),CR-6020S-PPB(180),NA-6020S-PPB(180),FE-6020S-PPB(180),BA-6020S-PPB(180),MG-6020S-PPB(180),V-6020S-PPB(180),CA-6020S-PPB(180),AL-6020S-PPB(180),NI-6020S-PPB(180),SE-6020S-PPB(180)
L2441149-15A	Vial HCl preserved	A	NA		5.3	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2441149-15B	Vial HCl preserved	A	NA		5.3	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2441149-15C	Vial HCl preserved	A	NA		5.3	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2441149-15D	Plastic 250ml unpreserved	A	7	7	5.3	Y	Absent		-
L2441149-15E	Plastic 250ml HNO3 preserved	A	<2	<2	5.3	Y	Absent		AL-6020T-PPB(180),CO-6020T-PPB(180),BE-6020T-PPB(180),CR-6020T-PPB(180),SB-6020T-PPB(180),CD-6020T-PPB(180),HG-T-PPB(28),CA-6020T-PPB(180),CU-6020T-PPB(180),TL-6020T-PPB(180),BA-6020T-PPB(180),K-6020T-PPB(180),AG-6020T-PPB(180),AS-6020T-PPB(180),PB-6020T-PPB(180),FE-6020T-PPB(180),NA-6020T-PPB(180),MG-6020T-PPB(180),NI-6020T-PPB(180),ZN-6020T-PPB(180),V-6020T-PPB(180),MN-6020T-PPB(180),SE-6020T-PPB(180)
L2441149-15F	Plastic 500ml unpreserved	A	7	7	5.3	Y	Absent		HEXCR-7196-PPB(1)
L2441149-15X	Plastic 120ml HNO3 preserved Filtrates	A	NA	NA	5.3	Y	Absent		PB-6020S-PPB(180),K-6020S-PPB(180),AG-6020S-PPB(180),BE-6020S-PPB(180),TL-6020S-PPB(180),HG-S-PPB(28),ZN-6020S-PPB(180),CO-6020S-PPB(180),CD-6020S-PPB(180),CU-6020S-PPB(180),MN-6020S-PPB(180),CR-6020S-PPB(180),AS-6020S-PPB(180),SB-6020S-PPB(180),BA-6020S-PPB(180),MG-6020S-PPB(180),CA-6020S-PPB(180),NA-6020S-PPB(180),V-6020S-PPB(180),FE-6020S-PPB(180),AL-6020S-PPB(180),SE-6020S-PPB(180),NI-6020S-PPB(180)
L2441149-16A	Vial HCl preserved	A	NA		5.3	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2441149-16B	Vial HCl preserved	A	NA		5.3	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2441149-16C	Vial HCl preserved	A	NA		5.3	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2441149-16D	Plastic 250ml unpreserved	A	7	7	5.3	Y	Absent		-

*Values in parentheses indicate holding time in days

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L2441149-16E	Plastic 250ml HNO3 preserved	A	<2	<2	5.3	Y	Absent		CO-6020T-PPB(180),AL-6020T-PPB(180),CD-6020T-PPB(180),SB-6020T-PPB(180),BE-6020T-PPB(180),HG-T-PPB(28),CR-6020T-PPB(180),CU-6020T-PPB(180),CA-6020T-PPB(180),BA-6020T-PPB(180),TL-6020T-PPB(180),AS-6020T-PPB(180),PB-6020T-PPB(180),AG-6020T-PPB(180),K-6020T-PPB(180),FE-6020T-PPB(180),NA-6020T-PPB(180),ZN-6020T-PPB(180),MG-6020T-PPB(180),NI-6020T-PPB(180),V-6020T-PPB(180),SE-6020T-PPB(180),MN-6020T-PPB(180)
L2441149-16F	Plastic 500ml unpreserved	A	7	7	5.3	Y	Absent		HEXCR-7196-PPB(1)
L2441149-16X	Plastic 120ml HNO3 preserved Filtrates	A	NA	NA	5.3	Y	Absent		PB-6020S-PPB(180),TL-6020S-PPB(180),K-6020S-PPB(180),AG-6020S-PPB(180),BE-6020S-PPB(180),ZN-6020S-PPB(180),HG-S-PPB(28),CU-6020S-PPB(180),CD-6020S-PPB(180),CO-6020S-PPB(180),CR-6020S-PPB(180),MN-6020S-PPB(180),AS-6020S-PPB(180),SB-6020S-PPB(180),BA-6020S-PPB(180),FE-6020S-PPB(180),NA-6020S-PPB(180),CA-6020S-PPB(180),MG-6020S-PPB(180),V-6020S-PPB(180),AL-6020S-PPB(180),SE-6020S-PPB(180),NI-6020S-PPB(180)
L2441149-17A	Vial HCl preserved	A	NA		5.3	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2441149-17B	Vial HCl preserved	A	NA		5.3	Y	Absent		PA-8260-SIM(14),PA-8260(14)
L2441149-17D	Plastic 250ml unpreserved	A	7	7	5.3	Y	Absent		-
L2441149-17E	Plastic 250ml HNO3 preserved	A	<2	<2	5.3	Y	Absent		CO-6020T-PPB(180),AL-6020T-PPB(180),SB-6020T-PPB(180),CD-6020T-PPB(180),CR-6020T-PPB(180),HG-T-PPB(28),BE-6020T-PPB(180),CA-6020T-PPB(180),CU-6020T-PPB(180),TL-6020T-PPB(180),BA-6020T-PPB(180),K-6020T-PPB(180),AS-6020T-PPB(180),AG-6020T-PPB(180),PB-6020T-PPB(180),FE-6020T-PPB(180),NI-6020T-PPB(180),ZN-6020T-PPB(180),NA-6020T-PPB(180),MG-6020T-PPB(180),MN-6020T-PPB(180),SE-6020T-PPB(180),V-6020T-PPB(180)
L2441149-17F	Plastic 500ml unpreserved	A	7	7	5.3	Y	Absent		HEXCR-7196-PPB(1)

*Values in parentheses indicate holding time in days

Project Name: ALLIANCE 51ST
Project Number: 30108678.07

Lab Number: L2441149
Report Date: 07/29/24

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2441149-17X	Plastic 120ml HNO3 preserved Filtrates	A	NA	NA	5.3	Y	Absent		PB-6020S-PPB(180),BE-6020S-PPB(180),K-6020S-PPB(180),TL-6020S-PPB(180),AG-6020S-PPB(180),HG-S-PPB(28),ZN-6020S-PPB(180),CU-6020S-PPB(180),CO-6020S-PPB(180),CD-6020S-PPB(180),CR-6020S-PPB(180),AS-6020S-PPB(180),SB-6020S-PPB(180),MN-6020S-PPB(180),FE-6020S-PPB(180),V-6020S-PPB(180),BA-6020S-PPB(180),MG-6020S-PPB(180),NA-6020S-PPB(180),CA-6020S-PPB(180),NI-6020S-PPB(180),SE-6020S-PPB(180),AL-6020S-PPB(180)

*Values in parentheses indicate holding time in days

Project Name:	ALLIANCE 51ST	**Lab Number:**	L2441149
Project Number:	30108678.07	**Report Date:**	07/29/24

GLOSSARY

Acronyms

DL - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LOD - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

LOQ - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

NP - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.

NR - No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

STLP - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEQ - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.

TIC - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers

Project Name:	ALLIANCE 51ST	**Lab Number:**	L2441149
Project Number:	30108678.07	**Report Date:**	07/29/24

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

F - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively

Report Format: DU Report with 'J' Qualifiers

Project Name:	ALLIANCE 51ST	**Lab Number:**	L2441149
Project Number:	30108678.07	**Report Date:**	07/29/24

Data Qualifiers

Identified Compounds (TICs). For calculated parameters, this represents that one or more values used in the calculation were estimated.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

V - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Z - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Project Name:	ALLIANCE 51ST	**Lab Number:**	L2441149
Project Number:	30108678.07	**Report Date:**	07/29/24

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.

107 Alpha Analytical - In-house calculation method.

121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624.1: m/p-xylene, o-xylene, Naphthalene
EPA 625.1: alpha-Terpineol
EPA 8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270E: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol, Azobenzene; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Nonpotable Water: EPA RSK-175 Dissolved Gases
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 524.2: THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables).
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522, EPA 537.1.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb**,** As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

L2441149 24JUL24
LEVINE – NJ

NEW JERSEY CHAIN OF CUSTODY

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 3

Date Rec'd in Lab 7/23/24

Client Information

Client: Arcadis
Address: 1 Harmon Cove Rd
Middlebury NJ
Phone: 732-326-1566
Fax:
Email: Larry.Brad@arcadis.com

Project Information

Project Name: Allegra 4/5th
Project Location: Mahwah, NJ
Project #: 30108678.27
(Use Project name as Project #)
Project Manager: Larry Brad
ALPHAQuote #:

Turn-Around Time

Standard
Rush (only if pre approved)
Due Date:
# of Days:

These samples have been previously analyzed by Alpha

Deliverables

NJ Full / Reduced
EQuIS (1 File) EQuIS (4 File)
Other

PO #

Regulatory Requirement

SRS Residential/Non Residential
SRS Impact to Groundwater
NJ Ground Water Quality Standards
NJ IGW SPLP Leachate Criteria
Other

Site Information

Is this site impacted by Petroleum? Yes
Petroleum Product:

For EPH, selection is REQUIRED:
Category 1
Category 2

For VOC, selection is REQUIRED:
1,4-Dioxane
8011

Other project specific requirements/comments:
Hex Cr, TAL Metals 48 hr TAT
Please specify Metals or TAL
For soil and water
VOCs Normal TAT

ANALYSIS

Sample Filtration
Done
Lab to do
Preservation
Lab to do
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	VOC +1G	HEX Cr	Filtered Cr	TAL Metals	Trivalent Cr				Sample Specific Comments	Total Bottles
L1149-01	DEP81-S1	7/22/24	1030	SOIL	MH	X	X		X	X					6
-02	DEP81-S2		1045			X	X		X	X					
-03	DEP81-S3		1050			X	X		X	X					
-04	DEP81-S4		1100			X	X		X	X					
-05	DEP81-S5		1105			X	X		X	X					
-06	DEP81-S6		1110			X	X		X	X					
-07	DEP81-S7		1115			X	X		X	X					
-08	DEP81-S8		1120			X	X		X	X					
-09	DEP81-S9		1125			X	X		X	X					
-10	DEP81-S10		1130			X	X		X	X					
Container Type						V	A		A	A					
Preservative						O	A		A	A					

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other – Ascorbic

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
Matt Lipka	7/22/24 1640	Bob PACE	07-22-24 1620
Bob PACE	07-22-24 1800		7/22/24 1800
	7/22/24 2100	Anthony Green	JUL 22 2024 2205
Anthony Green			7/23/24 0015

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-14 HC (rev. 30-Sept-2013)

7/23/24 0225 Received 7/23/24 0225

NEW JERSEY CHAIN OF CUSTODY

ALPHA

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 2 of 2

Date Rec'd in Lab 7/23/24

ALPHA Job # L2414149

Client Information
Client: Arcadis
Address: 1 Merkam Way Ste 5
Willingboro NJ
Phone: 908-526-7400
Fax:
Email: Larry.Grant@arcadis.com

Project Information
Project Name: Allisare 5/GR
Project Location: Phila, PA
Project #: 30106678.27
(Use Project name as Project #)
Project Manager: Larry Grant
ALPHAQuote #:

Turn-Around Time
Standard
Rush (only if pre approved)
Due Date:
# of Days:

Deliverables
NJ Full / Reduced
EQuIS (1 File) EQuIS (4 File)
Other

Regulatory Requirement
SRS Residential/Non Residential
SRS Impact to Groundwater
NJ Ground Water Quality Standards
NJ IGW SPLP Leachate Criteria
Other

Billing Information
Same as Client Info
PO #

Site Information
Is this site impacted by Petroleum? Yes
Petroleum Product:

These samples have been previously analyzed by Alpha

For EPH, selection is REQUIRED:
Category 1
Category 2

For VOC, selection is REQUIRED:
1,4-Dioxane
8011

Other project specific requirements/comments:
Hex Cr, TAL Metals 48 hr TAT for soil and water
~~Please specify Metals or TAL.~~
VOCs Normal TAT

ANALYSIS

Sample Filtration
Done
Lab to do
Preservation
Lab to do
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	VOC +10	Hex Cr	TAL Metals	Trivalent Cr	VOC +10	Hex Cr	Total Metals	Dissolved Metals	Sample Specific Comments	Total Bottles
L2414149-01	DEPAI-S11	7/22/24	1140	SO	MP	X		X	X						6
-02	DUP-5		X			X	X	X	X						6
-03	DEPAI-W1		1259	AQ						X	X	X	X		6
-04	DEPAI-W2		1210							X	X	X	X		6
-05	DEPAI-W3		1215							X	X	X	X		6
-06	DEPAI-W4		1355							X	X	X	X		6
-07	DUP-W		X							X	X	X	X		6

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code:
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Container Type	V	A	A	A	A/G	D	P	P
Preservative	O	A	A	A	B	A	C	A

Relinquished By:	Date/Time	Received By:	Date/Time
[illegible]	7/22/24 1621	[illegible]	07-22-24 16:20
[illegible]	07-22-24 1800	[illegible]	7/22/24 1800
[illegible]	7/22/24 2100	Anthony Green	JUL 22 2024 2205
Anthony Green		[illegible]	7/23/24 0225

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-14 HC (rev. 30-Sept-2013)

7/23/24 0225 moved 7/23/24 0225

Arcadis (Alpha) Laboratory Data Package for August 6, 2024 Sampling

ANALYTICAL REPORT

Lab Number:	L2444177
Client:	Arcadis U.S., Inc 1 Harvard Way Suite 5 Hillsborough, NJ 08844
ATTN:	Larry Brunt
Phone:	(908) 526-1000
Project Name:	ALLISURE 51ST
Project Number:	30108678
Report Date:	08/07/24

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0826), IL (200077), IN (C-MA-03), KY (KY98045), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), OR (MA-1316), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #525-23-122-91930A1).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: ALLISURE 51ST
Project Number: 30108678

Lab Number: L2444177
Report Date: 08/07/24

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2444177-01	DEP51-S3	SOIL	PHILA, PA	08/06/24 10:55	08/06/24
L2444177-02	DEP51-S8	SOIL	PHILA, PA	08/06/24 11:00	08/06/24
L2444177-03	DEP51-S10	SOIL	PHILA, PA	08/06/24 11:05	08/06/24

Project Name:	ALLISURE 51ST	**Lab Number:**	L2444177
Project Number:	30108678	**Report Date:**	08/07/24

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments and solids are reported on a dry weight basis unless otherwise noted. Tissues are reported "as received" or on a wet weight basis, unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name:	ALLISURE 51ST	**Lab Number:**	L2444177
Project Number:	30108678	**Report Date:**	08/07/24

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Total Metals

L2444177-01 through -03: The sample has an elevated detection limit for chromium due to the dilution required by the sample matrix.

The WG1956229-3 MS recovery for chromium (343%), performed on L2444177-01, does not apply because the sample concentration is greater than four times the spike amount added.

The WG1956229-4 Laboratory Duplicate RPD for chromium (29%), performed on L2444177-01, is outside the acceptance criteria. The elevated RPD has been attributed to the non-homogeneous nature of the native sample.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Tiffani Morrissey - Tiffani Morrissey

Title: Technical Director/Representative Date: 08/07/24

METALS

Project Name: ALLISURE 51ST
Project Number: 30108678
Lab Number: L2444177
Report Date: 08/07/24

SAMPLE RESULTS

Lab ID: L2444177-01
Client ID: DEP51-S3
Sample Location: PHILA, PA
Sample Depth:
Matrix: Soil
Percent Solids: 81%

Date Collected: 08/06/24 10:55
Date Received: 08/06/24
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Chromium, Total	266		mg/kg	0.947	0.091	2	08/07/24 08:15	08/07/24 11:53	EPA 3050B	1,6010D	JMF

Project Name: ALLISURE 51ST
Lab Number: L2444177
Project Number: 30108678
Report Date: 08/07/24

SAMPLE RESULTS

Lab ID: L2444177-02
Client ID: DEP51-S8
Sample Location: PHILA, PA
Date Collected: 08/06/24 11:00
Date Received: 08/06/24
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 65%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Chromium, Total	163		mg/kg	1.19	0.114	2	08/07/24 08:15	08/07/24 11:41	EPA 3050B	1,6010D	JMF

Project Name: ALLISURE 51ST
Project Number: 30108678
Lab Number: L2444177
Report Date: 08/07/24

SAMPLE RESULTS

Lab ID: L2444177-03
Client ID: DEP51-S10
Sample Location: PHILA, PA
Date Collected: 08/06/24 11:05
Date Received: 08/06/24
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 67%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Chromium, Total	1000		mg/kg	1.17	0.112	2	08/07/24 08:15	08/07/24 11:45	EPA 3050B	1,6010D	JMF

Project Name: ALLISURE 51ST
Project Number: 30108678
Lab Number: L2444177
Report Date: 08/07/24

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-03 Batch: WG1956229-1										
Chromium, Total	ND		mg/kg	0.400	0.038	1	08/07/24 08:15	08/07/24 11:33	1,6010D	JMF

Prep Information

Digestion Method: EPA 3050B

Lab Control Sample Analysis

Batch Quality Control

Project Name: ALLISURE 51ST

Project Number: 30108678

Lab Number: L2444177

Report Date: 08/07/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-03 Batch: WG1956229-2								
Chromium, Total	98		-		80-120	-		

Matrix Spike Analysis
Batch Quality Control

Project Name: ALLISURE 51ST
Project Number: 30108678

Lab Number: L2444177
Report Date: 08/07/24

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG1956229-3 QC Sample: L2444177-01 Client ID: DEP51-S3												
Chromium, Total	266	18.6	330	**343**	Q	-	-		75-125	-		20

Lab Duplicate Analysis

Batch Quality Control

Project Name: ALLISURE 51ST

Project Number: 30108678

Lab Number: L2444177

Report Date: 08/07/24

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-03 QC Batch ID: WG1956229-4 QC Sample: L2444177-01 Client ID: DEP51-S3						
Chromium, Total	266	357	mg/kg	**29**	Q	20

INORGANICS
&
MISCELLANEOUS

Project Name: ALLISURE 51ST
Project Number: 30108678

Lab Number: L2444177
Report Date: 08/07/24

SAMPLE RESULTS

Lab ID: L2444177-01
Client ID: DEP51-S3
Sample Location: PHILA, PA

Date Collected: 08/06/24 10:55
Date Received: 08/06/24
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	80.6		%	0.100	NA	1	-	08/07/24 01:39	121,2540G	WJM
Chromium, Hexavalent	ND		mg/kg	0.992	0.198	1	08/07/24 04:51	08/07/24 09:14	1,7196A	LOF

Project Name: ALLISURE 51ST
Project Number: 30108678

Lab Number: L2444177
Report Date: 08/07/24

SAMPLE RESULTS

Lab ID: L2444177-02
Client ID: DEP51-S8
Sample Location: PHILA, PA

Date Collected: 08/06/24 11:00
Date Received: 08/06/24
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	64.9		%	0.100	NA	1	-	08/07/24 01:39	121,2540G	WJM
Chromium, Hexavalent	ND		mg/kg	1.23	0.246	1	08/07/24 04:51	08/07/24 09:14	1,7196A	LOF

Project Name: ALLISURE 51ST
Project Number: 30108678
Lab Number: L2444177
Report Date: 08/07/24

SAMPLE RESULTS

Lab ID: L2444177-03
Client ID: DEP51-S10
Sample Location: PHILA, PA
Sample Depth:
Matrix: Soil

Date Collected: 08/06/24 11:05
Date Received: 08/06/24
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	67.1		%	0.100	NA	1	-	08/07/24 01:39	121,2540G	WJM
Chromium, Hexavalent	ND		mg/kg	1.19	0.238	1	08/07/24 04:51	08/07/24 09:14	1,7196A	LOF

Project Name: ALLISURE 51ST
Project Number: 30108678
Lab Number: L2444177
Report Date: 08/07/24

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 01-03 Batch: WG1956213-1										
Chromium, Hexavalent	ND		mg/kg	0.800	0.160	1	08/07/24 04:51	08/07/24 09:14	1,7196A	LOF

Lab Control Sample Analysis

Batch Quality Control

Project Name: ALLISURE 51ST

Project Number: 30108678

Lab Number: L2444177

Report Date: 08/07/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-03 Batch: WG1956213-2								
Chromium, Hexavalent	95		-		80-120	-		20

Matrix Spike Analysis
Batch Quality Control

Project Name: ALLISURE 51ST
Project Number: 30108678

Lab Number: L2444177
Report Date: 08/07/24

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-03 QC Batch ID: WG1956213-4 QC Sample: L2444177-01 Client ID: DEP51-S3												
Chromium, Hexavalent	ND	1290	1240	96		-	-		75-125	-		20

Lab Duplicate Analysis

Batch Quality Control

Project Name: ALLISURE 51ST

Project Number: 30108678

Lab Number: L2444177

Report Date: 08/07/24

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-03 QC Batch ID: WG1956179-1 QC Sample: L2444064-01 Client ID: DUP Sample						
Solids, Total	89.5	89.4	%	0		20
General Chemistry - Westborough Lab Associated sample(s): 01-03 QC Batch ID: WG1956213-6 QC Sample: L2444177-01 Client ID: DEP51-S3						
Chromium, Hexavalent	ND	ND	mg/kg	NC		20

Project Name: ALLISURE 51ST
Project Number: 30108678

Lab Number: L2444177
Report Date: 08/07/24

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2444177-01A	Metals Only-Glass 60mL/2oz unpreserved	A	NA		2.8	Y	Absent		CR-TI(180)
L2444177-01B	Glass 120ml/4oz unpreserved	A	NA		2.8	Y	Absent		TS(7),HEXCR-7196(30)
L2444177-02A	Metals Only-Glass 60mL/2oz unpreserved	A	NA		2.8	Y	Absent		CR-TI(180)
L2444177-02B	Glass 120ml/4oz unpreserved	A	NA		2.8	Y	Absent		TS(7),HEXCR-7196(30)
L2444177-03A	Metals Only-Glass 60mL/2oz unpreserved	A	NA		2.8	Y	Absent		CR-TI(180)
L2444177-03B	Glass 120ml/4oz unpreserved	A	NA		2.8	Y	Absent		TS(7),HEXCR-7196(30)

*Values in parentheses indicate holding time in days

Project Name:	ALLISURE 51ST	**Lab Number:**	L2444177
Project Number:	30108678	**Report Date:**	08/07/24

GLOSSARY

Acronyms

DL	- Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
EDL	- Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).
EMPC	- Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.
EPA	- Environmental Protection Agency.
LCS	- Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LCSD	- Laboratory Control Sample Duplicate: Refer to LCS.
LFB	- Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.
LOD	- Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
LOQ	- Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.) Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)
MDL	- Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
MS	- Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.
MSD	- Matrix Spike Sample Duplicate: Refer to MS.
NA	- Not Applicable.
NC	- Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.
NDPA/DPA	- N-Nitrosodiphenylamine/Diphenylamine.
NI	- Not Ignitable.
NP	- Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.
NR	- No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.
RL	- Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.
RPD	- Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.
SRM	- Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.
STLP	- Semi-dynamic Tank Leaching Procedure per EPA Method 1315.
TEF	- Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.
TEQ	- Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.
TIC	- Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers

Project Name:	ALLISURE 51ST	**Lab Number:**	L2444177
Project Number:	30108678	**Report Date:**	08/07/24

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

F - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively

Report Format: DU Report with 'J' Qualifiers

Project Name:	ALLISURE 51ST	**Lab Number:**	L2444177
Project Number:	30108678	**Report Date:**	08/07/24

Data Qualifiers

Identified Compounds (TICs). For calculated parameters, this represents that one or more values used in the calculation were estimated.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

V - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Z - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Report Format: DU Report with 'J' Qualifiers

Project Name:	ALLISURE 51ST	**Lab Number:**	L2444177
Project Number:	30108678	**Report Date:**	08/07/24

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.

121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624.1: m/p-xylene, o-xylene, Naphthalene
EPA 625.1: alpha-Terpineol
EPA 8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270E: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol, Azobenzene; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Nonpotable Water: EPA RSK-175 Dissolved Gases
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 524.2: THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables).
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522, EPA 537.1.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb**,** As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

Serial_No:08072415:39

L2444177 07AUG24
LEVINE – NJ

NEW JERSEY CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 1

Date Rec'd in Lab 8/7/24

Project Information
Project Name: Allstate RIR
Project Location: Philadelphia, PA
Project # 30105678
(Use Project name as Project #) ☐
Project Manager: Larry Brad
ALPHAQuote #:

Turn-Around Time
Standard ☐ Due Date:
Rush (only if pre approved) ☑ # of Days: 24 hours

Client Information
Client: Arcadis
Address: 1 Harwood Bay Stn 4 Hillsborough NJ
Phone: 908-526-1000
Fax:
Email: Larry.Brad@arcadis.com

Deliverables
☐ NJ Full / Reduced
☐ EQuIS (1 File) ☐ EQuIS (4 File)
☐ Other

Regulatory Requirement
☐ SRS Residential/Non Residential
☐ SRS Impact to Groundwater
☐ NJ Ground Water Quality Standards
☐ NJ IGW SPLP Leachate Criteria
☐ Other

☐ Same as Client Info
PO #

Site Information
Is this site impacted by Petroleum? Yes ☐
Petroleum Product:

These samples have been previously analyzed by Alpha ☐

For EPH, selection is REQUIRED:
☐ Category 1
☐ Category 2

For VOC, selection is REQUIRED:
☐ 1,4-Dioxane
☐ 8011

Other project specific requirements/comments:
Please specify Metals or TAL.

ANALYSIS

Sample Filtration
☐ Done
☐ Lab to do
Preservation
☐ Lab to do
(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	TAL Metals	8011							Sample Specific Comments	Total Bottles
44177-01	VRP51-S7	8/6/24	1045	SO1	MJ	X	X								2
02	DRP51-S8		1100			X	X								2
03	DUP51-S10		1105			X	X								2

Container Type: A A
Preservative: A A

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
MJH Arcadis	8/6/24 1200	Fedex	8/6/24 1200
Woodlake Page	8/6/24 1520	MJ Pace	8.6.24 1520
MJ Pace	8-6-24 1830/2320		8/7/24-05
	8/6/24		8/6 2200

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-14 HC (rev. 30-Sept-2013)

7/8/24 0SO Tyler Codnia 7/8/24 @ 250

Arcadis (Alpha) Laboratory Data Package for August 13, 2024 Sampling

ANALYTICAL REPORT

Lab Number:	L2445674
Client:	Arcadis U.S., Inc 1 Harvard Way Suite 5 Hillsborough, NJ 08844
ATTN:	Larry Brunt
Phone:	(908) 526-1000
Project Name:	ALLIANCE 51ST
Project Number:	30108678
Report Date:	08/16/24

The original project report/data package is held by Alpha Analytical. This report/data package is paginated and should be reproduced only in its entirety. Alpha Analytical holds no responsibility for results and/or data that are not consistent with the original.

Certifications & Approvals: MA (M-MA086), NH NELAP (2064), CT (PH-0826), IL (200077), IN (C-MA-03), KY (KY98045), ME (MA00086), MD (348), NJ (MA935), NY (11148), NC (25700/666), OR (MA-1316), PA (68-03671), RI (LAO00065), TX (T104704476), VT (VT-0935), VA (460195), USDA (Permit #525-23-122-91930A1).

Eight Walkup Drive, Westborough, MA 01581-1019
508-898-9220 (Fax) 508-898-9193 800-624-9220 - www.alphalab.com

Project Name: ALLIANCE 51ST
Project Number: 30108678

Lab Number: L2445674
Report Date: 08/16/24

Alpha Sample ID	Client ID	Matrix	Sample Location	Collection Date/Time	Receive Date
L2445674-01	DEP51-S3-240813	SOIL	PHILA, PA	08/13/24 10:45	08/13/24
L2445674-02	DEP51-S5-240813	SOIL	PHILA, PA	08/13/24 11:10	08/13/24
L2445674-03	DEP51-S6-240813	SOIL	PHILA, PA	08/13/24 11:20	08/13/24
L2445674-04	DEP51-S8A-240813	SOIL	PHILA, PA	08/13/24 11:30	08/13/24
L2445674-05	DEP51-S10A-240813	SOIL	PHILA, PA	08/13/24 11:35	08/13/24
L2445674-06	DEP51-S12-240813	SOIL	PHILA, PA	08/13/24 10:51	08/13/24
L2445674-07	DEP51-S13-240813	SOIL	PHILA, PA	08/13/24 11:05	08/13/24
L2445674-08	DEP51-S14-240813	SOIL	PHILA, PA	08/13/24 11:45	08/13/24
L2445674-09	DEP51-S15-240813	SOIL	PHILA, PA	08/13/24 11:55	08/13/24
L2445674-10	DEP51-S7-240813	SOIL	PHILA, PA	08/13/24 11:25	08/13/24
L2445674-11	DUP-S 240813	SOIL	PHILA, PA	08/13/24 00:00	08/13/24
L2445674-12	DEP51-W5-240813	WATER	PHILA, PA	08/13/24 12:30	08/13/24
L2445674-13	DEP51-W6-240813	WATER	PHILA, PA	08/13/24 12:55	08/13/24

Project Name:	ALLIANCE 51ST	**Lab Number:**	L2445674
Project Number:	30108678	**Report Date:**	08/16/24

Case Narrative

The samples were received in accordance with the Chain of Custody and no significant deviations were encountered during the preparation or analysis unless otherwise noted. Sample Receipt, Container Information, and the Chain of Custody are located at the back of the report.

Results contained within this report relate only to the samples submitted under this Alpha Lab Number and meet NELAP requirements for all NELAP accredited parameters unless otherwise noted in the following narrative. The data presented in this report is organized by parameter (i.e. VOC, SVOC, etc.). Sample specific Quality Control data (i.e. Surrogate Spike Recovery) is reported at the end of the target analyte list for each individual sample, followed by the Laboratory Batch Quality Control at the end of each parameter. Tentatively Identified Compounds (TICs), if requested, are reported for compounds identified to be present and are not part of the method/program Target Compound List, even if only a subset of the TCL are being reported. If a sample was re-analyzed or re-extracted due to a required quality control corrective action and if both sets of data are reported, the Laboratory ID of the re-analysis or re-extraction is designated with an "R" or "RE", respectively.

When multiple Batch Quality Control elements are reported (e.g. more than one LCS), the associated samples for each element are noted in the grey shaded header line of each data table. Any Laboratory Batch, Sample Specific % recovery or RPD value that is outside the listed Acceptance Criteria is bolded in the report. In reference to questions H (CAM) or 4 (RCP) when "NO" is checked, the performance criteria for CAM and RCP methods allow for some quality control failures to occur and still be within method compliance. In these instances, the specific failure is not narrated but noted in the associated QC Outlier Summary Report, located directly after the Case Narrative. QC information is also incorporated in the Data Usability Assessment table (Format 11) of our Data Merger tool, where it can be reviewed in conjunction with the sample result, associated regulatory criteria and any associated data usability implications.

Soil/sediments and solids are reported on a dry weight basis unless otherwise noted. Tissues are reported "as received" or on a wet weight basis, unless otherwise noted. Definitions of all data qualifiers and acronyms used in this report are provided in the Glossary located at the back of the report.

HOLD POLICY - For samples submitted on hold, Alpha's policy is to hold samples (with the exception of Air canisters) free of charge for 21 calendar days from the date the project is completed. After 21 calendar days, we will dispose of all samples submitted including those put on hold unless you have contacted your Alpha Project Manager and made arrangements for Alpha to continue to hold the samples. Air canisters will be disposed after 3 business days from the date the project is completed.

Please contact Project Management at 800-624-9220 with any questions.

Project Name:	ALLIANCE 51ST	**Lab Number:**	L2445674
Project Number:	30108678	**Report Date:**	08/16/24

Case Narrative (continued)

Report Submission

All non-detect (ND) or estimated concentrations (J-qualified) have been quantitated to the limit noted in the MDL column.

Total Metals

L2445674-01 through -13: The sample has elevated detection limits for all elements, with the exception of mercury, due to the dilution required by the sample matrix.

Chromium, Hexavalent

The WG1959251-5 Soluble MS recovery for chromium, hexavalent (71%), performed on L2445674-11, was outside the acceptance criteria. This has been attributed to matrix interference. A post-spike was performed with a recovery of 89%.

The WG1959316-6 Laboratory Duplicate RPD for chromium, hexavalent (26%), performed on L2445674-01, is outside the acceptance criteria. The elevated RPD has been attributed to the non-homogeneous nature of the native sample.

I, the undersigned, attest under the pains and penalties of perjury that, to the best of my knowledge and belief and based upon my personal inquiry of those responsible for providing the information contained in this analytical report, such information is accurate and complete. This certificate of analysis is not complete unless this page accompanies any and all pages of this report.

Authorized Signature: Kelly Stenstrom

Title: Technical Director/Representative Date: 08/16/24

METALS

Project Name: ALLIANCE 51ST
Project Number: 30108678
Lab Number: L2445674
Report Date: 08/16/24

SAMPLE RESULTS

Lab ID: L2445674-01
Client ID: DEP51-S3-240813
Sample Location: PHILA, PA
Date Collected: 08/13/24 10:45
Date Received: 08/13/24
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 88%

Total Metals - Mansfield Lab

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Aluminum, Total	11000		mg/kg	8.74	2.36	2	08/14/24 22:56	08/15/24 20:08	EPA 3050B	1,6010D	JMF
Antimony, Total	ND		mg/kg	4.37	0.332	2	08/14/24 22:56	08/15/24 20:08	EPA 3050B	1,6010D	JMF
Arsenic, Total	6.46		mg/kg	0.874	0.182	2	08/14/24 22:56	08/15/24 20:08	EPA 3050B	1,6010D	JMF
Barium, Total	120		mg/kg	0.874	0.152	2	08/14/24 22:56	08/15/24 20:08	EPA 3050B	1,6010D	JMF
Beryllium, Total	0.542		mg/kg	0.437	0.029	2	08/14/24 22:56	08/15/24 20:08	EPA 3050B	1,6010D	JMF
Cadmium, Total	0.340	J	mg/kg	0.874	0.086	2	08/14/24 22:56	08/15/24 20:08	EPA 3050B	1,6010D	JMF
Calcium, Total	36100		mg/kg	8.74	3.06	2	08/14/24 22:56	08/15/24 20:08	EPA 3050B	1,6010D	JMF
Chromium, Total	828		mg/kg	0.874	0.084	2	08/14/24 22:56	08/15/24 20:08	EPA 3050B	1,6010D	JMF
Cobalt, Total	12.3		mg/kg	1.75	0.145	2	08/14/24 22:56	08/15/24 20:08	EPA 3050B	1,6010D	JMF
Copper, Total	32.7		mg/kg	0.874	0.226	2	08/14/24 22:56	08/15/24 20:08	EPA 3050B	1,6010D	JMF
Iron, Total	18400		mg/kg	4.37	0.790	2	08/14/24 22:56	08/15/24 20:08	EPA 3050B	1,6010D	JMF
Lead, Total	68.5		mg/kg	4.37	0.234	2	08/14/24 22:56	08/15/24 20:08	EPA 3050B	1,6010D	JMF
Magnesium, Total	7140		mg/kg	8.74	1.35	2	08/14/24 22:56	08/15/24 20:08	EPA 3050B	1,6010D	JMF
Manganese, Total	401		mg/kg	0.874	0.139	2	08/14/24 22:56	08/15/24 20:08	EPA 3050B	1,6010D	JMF
Mercury, Total	0.089		mg/kg	0.080	0.052	1	08/14/24 23:55	08/15/24 08:14	EPA 7471B	1,7471B	JWN
Nickel, Total	42.3		mg/kg	2.19	0.212	2	08/14/24 22:56	08/15/24 20:08	EPA 3050B	1,6010D	JMF
Potassium, Total	5760		mg/kg	219	12.6	2	08/14/24 22:56	08/15/24 20:08	EPA 3050B	1,6010D	JMF
Selenium, Total	ND		mg/kg	1.75	0.226	2	08/14/24 22:56	08/15/24 20:08	EPA 3050B	1,6010D	JMF
Silver, Total	ND		mg/kg	0.437	0.247	2	08/14/24 22:56	08/15/24 20:08	EPA 3050B	1,6010D	JMF
Sodium, Total	149	J	mg/kg	175	2.75	2	08/14/24 22:56	08/15/24 20:08	EPA 3050B	1,6010D	JMF
Thallium, Total	ND		mg/kg	1.75	0.275	2	08/14/24 22:56	08/15/24 20:08	EPA 3050B	1,6010D	JMF
Vanadium, Total	42.6		mg/kg	0.874	0.178	2	08/14/24 22:56	08/15/24 20:08	EPA 3050B	1,6010D	JMF
Zinc, Total	184		mg/kg	4.37	0.256	2	08/14/24 22:56	08/15/24 20:08	EPA 3050B	1,6010D	JMF

Project Name: ALLIANCE 51ST
Project Number: 30108678
Lab Number: L2445674
Report Date: 08/16/24

SAMPLE RESULTS

Lab ID: L2445674-02
Client ID: DEP51-S5-240813
Sample Location: PHILA, PA
Date Collected: 08/13/24 11:10
Date Received: 08/13/24
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 80%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	6320		mg/kg	9.80	2.65	2	08/14/24 22:56	08/15/24 20:16	EPA 3050B	1,6010D	JMF
Antimony, Total	ND		mg/kg	4.90	0.372	2	08/14/24 22:56	08/15/24 20:16	EPA 3050B	1,6010D	JMF
Arsenic, Total	3.99		mg/kg	0.980	0.204	2	08/14/24 22:56	08/15/24 20:16	EPA 3050B	1,6010D	JMF
Barium, Total	77.5		mg/kg	0.980	0.170	2	08/14/24 22:56	08/15/24 20:16	EPA 3050B	1,6010D	JMF
Beryllium, Total	0.372	J	mg/kg	0.490	0.032	2	08/14/24 22:56	08/15/24 20:16	EPA 3050B	1,6010D	JMF
Cadmium, Total	0.301	J	mg/kg	0.980	0.096	2	08/14/24 22:56	08/15/24 20:16	EPA 3050B	1,6010D	JMF
Calcium, Total	10700		mg/kg	9.80	3.43	2	08/14/24 22:56	08/15/24 20:16	EPA 3050B	1,6010D	JMF
Chromium, Total	246		mg/kg	0.980	0.094	2	08/14/24 22:56	08/15/24 20:16	EPA 3050B	1,6010D	JMF
Cobalt, Total	7.32		mg/kg	1.96	0.163	2	08/14/24 22:56	08/15/24 20:16	EPA 3050B	1,6010D	JMF
Copper, Total	27.2		mg/kg	0.980	0.253	2	08/14/24 22:56	08/15/24 20:16	EPA 3050B	1,6010D	JMF
Iron, Total	18300		mg/kg	4.90	0.885	2	08/14/24 22:56	08/15/24 20:16	EPA 3050B	1,6010D	JMF
Lead, Total	132		mg/kg	4.90	0.263	2	08/14/24 22:56	08/15/24 20:16	EPA 3050B	1,6010D	JMF
Magnesium, Total	4300		mg/kg	9.80	1.51	2	08/14/24 22:56	08/15/24 20:16	EPA 3050B	1,6010D	JMF
Manganese, Total	274		mg/kg	0.980	0.156	2	08/14/24 22:56	08/15/24 20:16	EPA 3050B	1,6010D	JMF
Mercury, Total	ND		mg/kg	0.089	0.058	1	08/14/24 23:55	08/15/24 08:48	EPA 7471B	1,7471B	JWN
Nickel, Total	22.4		mg/kg	2.45	0.237	2	08/14/24 22:56	08/15/24 20:16	EPA 3050B	1,6010D	JMF
Potassium, Total	3450		mg/kg	245	14.1	2	08/14/24 22:56	08/15/24 20:16	EPA 3050B	1,6010D	JMF
Selenium, Total	ND		mg/kg	1.96	0.253	2	08/14/24 22:56	08/15/24 20:16	EPA 3050B	1,6010D	JMF
Silver, Total	ND		mg/kg	0.490	0.277	2	08/14/24 22:56	08/15/24 20:16	EPA 3050B	1,6010D	JMF
Sodium, Total	169	J	mg/kg	196	3.09	2	08/14/24 22:56	08/15/24 20:16	EPA 3050B	1,6010D	JMF
Thallium, Total	ND		mg/kg	1.96	0.309	2	08/14/24 22:56	08/15/24 20:16	EPA 3050B	1,6010D	JMF
Vanadium, Total	22.7		mg/kg	0.980	0.199	2	08/14/24 22:56	08/15/24 20:16	EPA 3050B	1,6010D	JMF
Zinc, Total	164		mg/kg	4.90	0.287	2	08/14/24 22:56	08/15/24 20:16	EPA 3050B	1,6010D	JMF

Project Name: ALLIANCE 51ST
Project Number: 30108678
Lab Number: L2445674
Report Date: 08/16/24

SAMPLE RESULTS

Lab ID: L2445674-03
Client ID: DEP51-S6-240813
Sample Location: PHILA, PA
Date Collected: 08/13/24 11:20
Date Received: 08/13/24
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 90%

Total Metals - Mansfield Lab

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Aluminum, Total	5690		mg/kg	17.8	4.80	4	08/14/24 22:56	08/15/24 22:28	EPA 3050B	1,6010D	JMF
Antimony, Total	5.88	J	mg/kg	8.90	0.676	4	08/14/24 22:56	08/15/24 22:28	EPA 3050B	1,6010D	JMF
Arsenic, Total	8.96		mg/kg	1.78	0.370	4	08/14/24 22:56	08/15/24 22:28	EPA 3050B	1,6010D	JMF
Barium, Total	74.5		mg/kg	1.78	0.310	4	08/14/24 22:56	08/15/24 22:28	EPA 3050B	1,6010D	JMF
Beryllium, Total	0.529	J	mg/kg	0.890	0.059	4	08/14/24 22:56	08/15/24 22:28	EPA 3050B	1,6010D	JMF
Cadmium, Total	0.875	J	mg/kg	1.78	0.174	4	08/14/24 22:56	08/15/24 22:28	EPA 3050B	1,6010D	JMF
Calcium, Total	13300		mg/kg	17.8	6.23	4	08/14/24 22:56	08/15/24 22:28	EPA 3050B	1,6010D	JMF
Chromium, Total	522		mg/kg	1.78	0.171	4	08/14/24 22:56	08/15/24 22:28	EPA 3050B	1,6010D	JMF
Cobalt, Total	11.7		mg/kg	3.56	0.295	4	08/14/24 22:56	08/15/24 22:28	EPA 3050B	1,6010D	JMF
Copper, Total	81.3		mg/kg	1.78	0.459	4	08/14/24 22:56	08/15/24 22:28	EPA 3050B	1,6010D	JMF
Iron, Total	51900		mg/kg	8.90	1.61	4	08/14/24 22:56	08/15/24 22:28	EPA 3050B	1,6010D	JMF
Lead, Total	1060		mg/kg	8.90	0.477	4	08/14/24 22:56	08/15/24 22:28	EPA 3050B	1,6010D	JMF
Magnesium, Total	4210		mg/kg	17.8	2.74	4	08/14/24 22:56	08/15/24 22:28	EPA 3050B	1,6010D	JMF
Manganese, Total	483		mg/kg	1.78	0.283	4	08/14/24 22:56	08/15/24 22:28	EPA 3050B	1,6010D	JMF
Mercury, Total	ND		mg/kg	0.074	0.048	1	08/14/24 23:55	08/15/24 08:51	EPA 7471B	1,7471B	JWN
Nickel, Total	40.9		mg/kg	4.45	0.430	4	08/14/24 22:56	08/15/24 22:28	EPA 3050B	1,6010D	JMF
Potassium, Total	2420		mg/kg	445	25.6	4	08/14/24 22:56	08/15/24 22:28	EPA 3050B	1,6010D	JMF
Selenium, Total	0.734	J	mg/kg	3.56	0.459	4	08/14/24 22:56	08/15/24 22:28	EPA 3050B	1,6010D	JMF
Silver, Total	ND		mg/kg	0.890	0.504	4	08/14/24 22:56	08/15/24 22:28	EPA 3050B	1,6010D	JMF
Sodium, Total	141	J	mg/kg	356	5.60	4	08/14/24 22:56	08/15/24 22:28	EPA 3050B	1,6010D	JMF
Thallium, Total	ND		mg/kg	3.56	0.560	4	08/14/24 22:56	08/15/24 22:28	EPA 3050B	1,6010D	JMF
Vanadium, Total	29.0		mg/kg	1.78	0.361	4	08/14/24 22:56	08/15/24 22:28	EPA 3050B	1,6010D	JMF
Zinc, Total	311		mg/kg	8.90	0.521	4	08/14/24 22:56	08/15/24 22:28	EPA 3050B	1,6010D	JMF

Project Name: ALLIANCE 51ST
Project Number: 30108678
Lab Number: L2445674
Report Date: 08/16/24

SAMPLE RESULTS

Lab ID: L2445674-04
Client ID: DEP51-S8A-240813
Sample Location: PHILA, PA
Date Collected: 08/13/24 11:30
Date Received: 08/13/24
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 64%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	3840		mg/kg	11.8	3.19	2	08/14/24 22:56	08/15/24 20:47	EPA 3050B	1,6010D	JMF
Antimony, Total	ND		mg/kg	5.90	0.449	2	08/14/24 22:56	08/15/24 20:47	EPA 3050B	1,6010D	JMF
Arsenic, Total	5.93		mg/kg	1.18	0.246	2	08/14/24 22:56	08/15/24 20:47	EPA 3050B	1,6010D	JMF
Barium, Total	44.1		mg/kg	1.18	0.205	2	08/14/24 22:56	08/15/24 20:47	EPA 3050B	1,6010D	JMF
Beryllium, Total	0.220	J	mg/kg	0.590	0.039	2	08/14/24 22:56	08/15/24 20:47	EPA 3050B	1,6010D	JMF
Cadmium, Total	0.392	J	mg/kg	1.18	0.116	2	08/14/24 22:56	08/15/24 20:47	EPA 3050B	1,6010D	JMF
Calcium, Total	12800		mg/kg	11.8	4.13	2	08/14/24 22:56	08/15/24 20:47	EPA 3050B	1,6010D	JMF
Chromium, Total	204		mg/kg	1.18	0.113	2	08/14/24 22:56	08/15/24 20:47	EPA 3050B	1,6010D	JMF
Cobalt, Total	6.04		mg/kg	2.36	0.196	2	08/14/24 22:56	08/15/24 20:47	EPA 3050B	1,6010D	JMF
Copper, Total	25.3		mg/kg	1.18	0.305	2	08/14/24 22:56	08/15/24 20:47	EPA 3050B	1,6010D	JMF
Iron, Total	34600		mg/kg	5.90	1.07	2	08/14/24 22:56	08/15/24 20:47	EPA 3050B	1,6010D	JMF
Lead, Total	80.3		mg/kg	5.90	0.316	2	08/14/24 22:56	08/15/24 20:47	EPA 3050B	1,6010D	JMF
Magnesium, Total	3840		mg/kg	11.8	1.82	2	08/14/24 22:56	08/15/24 20:47	EPA 3050B	1,6010D	JMF
Manganese, Total	267		mg/kg	1.18	0.188	2	08/14/24 22:56	08/15/24 20:47	EPA 3050B	1,6010D	JMF
Mercury, Total	ND		mg/kg	0.098	0.064	1	08/14/24 23:55	08/15/24 08:54	EPA 7471B	1,7471B	JWN
Nickel, Total	15.1		mg/kg	2.95	0.286	2	08/14/24 22:56	08/15/24 20:47	EPA 3050B	1,6010D	JMF
Potassium, Total	1710		mg/kg	295	17.0	2	08/14/24 22:56	08/15/24 20:47	EPA 3050B	1,6010D	JMF
Selenium, Total	ND		mg/kg	2.36	0.305	2	08/14/24 22:56	08/15/24 20:47	EPA 3050B	1,6010D	JMF
Silver, Total	ND		mg/kg	0.590	0.334	2	08/14/24 22:56	08/15/24 20:47	EPA 3050B	1,6010D	JMF
Sodium, Total	94.0	J	mg/kg	236	3.72	2	08/14/24 22:56	08/15/24 20:47	EPA 3050B	1,6010D	JMF
Thallium, Total	ND		mg/kg	2.36	0.372	2	08/14/24 22:56	08/15/24 20:47	EPA 3050B	1,6010D	JMF
Vanadium, Total	16.0		mg/kg	1.18	0.240	2	08/14/24 22:56	08/15/24 20:47	EPA 3050B	1,6010D	JMF
Zinc, Total	86.2		mg/kg	5.90	0.346	2	08/14/24 22:56	08/15/24 20:47	EPA 3050B	1,6010D	JMF

Project Name: ALLIANCE 51ST
Project Number: 30108678
Lab Number: L2445674
Report Date: 08/16/24

SAMPLE RESULTS

Lab ID: L2445674-05
Client ID: DEP51-S10A-240813
Sample Location: PHILA, PA
Date Collected: 08/13/24 11:35
Date Received: 08/13/24
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 72%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	7860		mg/kg	11.0	2.98	2	08/14/24 22:56	08/15/24 20:54	EPA 3050B	1,6010D	JMF
Antimony, Total	0.893	J	mg/kg	5.51	0.419	2	08/14/24 22:56	08/15/24 20:54	EPA 3050B	1,6010D	JMF
Arsenic, Total	8.72		mg/kg	1.10	0.229	2	08/14/24 22:56	08/15/24 20:54	EPA 3050B	1,6010D	JMF
Barium, Total	92.5		mg/kg	1.10	0.192	2	08/14/24 22:56	08/15/24 20:54	EPA 3050B	1,6010D	JMF
Beryllium, Total	0.514	J	mg/kg	0.551	0.036	2	08/14/24 22:56	08/15/24 20:54	EPA 3050B	1,6010D	JMF
Cadmium, Total	0.477	J	mg/kg	1.10	0.108	2	08/14/24 22:56	08/15/24 20:54	EPA 3050B	1,6010D	JMF
Calcium, Total	23100		mg/kg	11.0	3.86	2	08/14/24 22:56	08/15/24 20:54	EPA 3050B	1,6010D	JMF
Chromium, Total	535		mg/kg	1.10	0.106	2	08/14/24 22:56	08/15/24 20:54	EPA 3050B	1,6010D	JMF
Cobalt, Total	11.5		mg/kg	2.20	0.183	2	08/14/24 22:56	08/15/24 20:54	EPA 3050B	1,6010D	JMF
Copper, Total	50.7		mg/kg	1.10	0.284	2	08/14/24 22:56	08/15/24 20:54	EPA 3050B	1,6010D	JMF
Iron, Total	16700		mg/kg	5.51	0.996	2	08/14/24 22:56	08/15/24 20:54	EPA 3050B	1,6010D	JMF
Lead, Total	223		mg/kg	5.51	0.296	2	08/14/24 22:56	08/15/24 20:54	EPA 3050B	1,6010D	JMF
Magnesium, Total	10600		mg/kg	11.0	1.70	2	08/14/24 22:56	08/15/24 20:54	EPA 3050B	1,6010D	JMF
Manganese, Total	411		mg/kg	1.10	0.175	2	08/14/24 22:56	08/15/24 20:54	EPA 3050B	1,6010D	JMF
Mercury, Total	0.110		mg/kg	0.087	0.057	1	08/14/24 23:55	08/15/24 08:58	EPA 7471B	1,7471B	JWN
Nickel, Total	34.7		mg/kg	2.76	0.267	2	08/14/24 22:56	08/15/24 20:54	EPA 3050B	1,6010D	JMF
Potassium, Total	2820		mg/kg	276	15.9	2	08/14/24 22:56	08/15/24 20:54	EPA 3050B	1,6010D	JMF
Selenium, Total	0.297	J	mg/kg	2.20	0.284	2	08/14/24 22:56	08/15/24 20:54	EPA 3050B	1,6010D	JMF
Silver, Total	ND		mg/kg	0.551	0.312	2	08/14/24 22:56	08/15/24 20:54	EPA 3050B	1,6010D	JMF
Sodium, Total	180	J	mg/kg	220	3.47	2	08/14/24 22:56	08/15/24 20:54	EPA 3050B	1,6010D	JMF
Thallium, Total	ND		mg/kg	2.20	0.347	2	08/14/24 22:56	08/15/24 20:54	EPA 3050B	1,6010D	JMF
Vanadium, Total	35.2		mg/kg	1.10	0.224	2	08/14/24 22:56	08/15/24 20:54	EPA 3050B	1,6010D	JMF
Zinc, Total	244		mg/kg	5.51	0.323	2	08/14/24 22:56	08/15/24 20:54	EPA 3050B	1,6010D	JMF

Project Name: ALLIANCE 51ST
Project Number: 30108678
Lab Number: L2445674
Report Date: 08/16/24

SAMPLE RESULTS

Lab ID: L2445674-06
Client ID: DEP51-S12-240813
Sample Location: PHILA, PA
Date Collected: 08/13/24 10:51
Date Received: 08/13/24
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 73%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	9440		mg/kg	10.8	2.91	2	08/14/24 22:56	08/15/24 21:01	EPA 3050B	1,6010D	JMF
Antimony, Total	0.783	J	mg/kg	5.38	0.409	2	08/14/24 22:56	08/15/24 21:01	EPA 3050B	1,6010D	JMF
Arsenic, Total	9.93		mg/kg	1.08	0.224	2	08/14/24 22:56	08/15/24 21:01	EPA 3050B	1,6010D	JMF
Barium, Total	126		mg/kg	1.08	0.187	2	08/14/24 22:56	08/15/24 21:01	EPA 3050B	1,6010D	JMF
Beryllium, Total	0.536	J	mg/kg	0.538	0.036	2	08/14/24 22:56	08/15/24 21:01	EPA 3050B	1,6010D	JMF
Cadmium, Total	0.546	J	mg/kg	1.08	0.106	2	08/14/24 22:56	08/15/24 21:01	EPA 3050B	1,6010D	JMF
Calcium, Total	26500		mg/kg	10.8	3.77	2	08/14/24 22:56	08/15/24 21:01	EPA 3050B	1,6010D	JMF
Chromium, Total	822		mg/kg	1.08	0.103	2	08/14/24 22:56	08/15/24 21:01	EPA 3050B	1,6010D	JMF
Cobalt, Total	12.9		mg/kg	2.15	0.179	2	08/14/24 22:56	08/15/24 21:01	EPA 3050B	1,6010D	JMF
Copper, Total	59.0		mg/kg	1.08	0.278	2	08/14/24 22:56	08/15/24 21:01	EPA 3050B	1,6010D	JMF
Iron, Total	18100		mg/kg	5.38	0.972	2	08/14/24 22:56	08/15/24 21:01	EPA 3050B	1,6010D	JMF
Lead, Total	145		mg/kg	5.38	0.289	2	08/14/24 22:56	08/15/24 21:01	EPA 3050B	1,6010D	JMF
Magnesium, Total	5630		mg/kg	10.8	1.66	2	08/14/24 22:56	08/15/24 21:01	EPA 3050B	1,6010D	JMF
Manganese, Total	391		mg/kg	1.08	0.171	2	08/14/24 22:56	08/15/24 21:01	EPA 3050B	1,6010D	JMF
Mercury, Total	0.173		mg/kg	0.095	0.062	1	08/14/24 23:55	08/15/24 09:01	EPA 7471B	1,7471B	JWN
Nickel, Total	46.3		mg/kg	2.69	0.261	2	08/14/24 22:56	08/15/24 21:01	EPA 3050B	1,6010D	JMF
Potassium, Total	3740		mg/kg	269	15.5	2	08/14/24 22:56	08/15/24 21:01	EPA 3050B	1,6010D	JMF
Selenium, Total	0.394	J	mg/kg	2.15	0.278	2	08/14/24 22:56	08/15/24 21:01	EPA 3050B	1,6010D	JMF
Silver, Total	ND		mg/kg	0.538	0.305	2	08/14/24 22:56	08/15/24 21:01	EPA 3050B	1,6010D	JMF
Sodium, Total	170	J	mg/kg	215	3.39	2	08/14/24 22:56	08/15/24 21:01	EPA 3050B	1,6010D	JMF
Thallium, Total	ND		mg/kg	2.15	0.339	2	08/14/24 22:56	08/15/24 21:01	EPA 3050B	1,6010D	JMF
Vanadium, Total	44.0		mg/kg	1.08	0.219	2	08/14/24 22:56	08/15/24 21:01	EPA 3050B	1,6010D	JMF
Zinc, Total	278		mg/kg	5.38	0.316	2	08/14/24 22:56	08/15/24 21:01	EPA 3050B	1,6010D	JMF

Project Name: ALLIANCE 51ST
Project Number: 30108678
Lab Number: L2445674
Report Date: 08/16/24

SAMPLE RESULTS

Lab ID: L2445674-07
Client ID: DEP51-S13-240813
Sample Location: PHILA, PA
Date Collected: 08/13/24 11:05
Date Received: 08/13/24
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 98%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	8390		mg/kg	7.83	2.11	2	08/14/24 22:56	08/15/24 21:08	EPA 3050B	1,6010D	JMF
Antimony, Total	0.646	J	mg/kg	3.92	0.298	2	08/14/24 22:56	08/15/24 21:08	EPA 3050B	1,6010D	JMF
Arsenic, Total	6.25		mg/kg	0.783	0.163	2	08/14/24 22:56	08/15/24 21:08	EPA 3050B	1,6010D	JMF
Barium, Total	107		mg/kg	0.783	0.136	2	08/14/24 22:56	08/15/24 21:08	EPA 3050B	1,6010D	JMF
Beryllium, Total	0.451		mg/kg	0.392	0.026	2	08/14/24 22:56	08/15/24 21:08	EPA 3050B	1,6010D	JMF
Cadmium, Total	0.401	J	mg/kg	0.783	0.077	2	08/14/24 22:56	08/15/24 21:08	EPA 3050B	1,6010D	JMF
Calcium, Total	35600		mg/kg	7.83	2.74	2	08/14/24 22:56	08/15/24 21:08	EPA 3050B	1,6010D	JMF
Chromium, Total	412		mg/kg	0.783	0.075	2	08/14/24 22:56	08/15/24 21:08	EPA 3050B	1,6010D	JMF
Cobalt, Total	9.70		mg/kg	1.57	0.130	2	08/14/24 22:56	08/15/24 21:08	EPA 3050B	1,6010D	JMF
Copper, Total	39.1		mg/kg	0.783	0.202	2	08/14/24 22:56	08/15/24 21:08	EPA 3050B	1,6010D	JMF
Iron, Total	20200		mg/kg	3.92	0.707	2	08/14/24 22:56	08/15/24 21:08	EPA 3050B	1,6010D	JMF
Lead, Total	1290		mg/kg	3.92	0.210	2	08/14/24 22:56	08/15/24 21:08	EPA 3050B	1,6010D	JMF
Magnesium, Total	7150		mg/kg	7.83	1.21	2	08/14/24 22:56	08/15/24 21:08	EPA 3050B	1,6010D	JMF
Manganese, Total	386		mg/kg	0.783	0.124	2	08/14/24 22:56	08/15/24 21:08	EPA 3050B	1,6010D	JMF
Mercury, Total	0.057	J	mg/kg	0.072	0.047	1	08/14/24 23:55	08/15/24 09:04	EPA 7471B	1,7471B	JWN
Nickel, Total	29.9		mg/kg	1.96	0.190	2	08/14/24 22:56	08/15/24 21:08	EPA 3050B	1,6010D	JMF
Potassium, Total	4260		mg/kg	196	11.3	2	08/14/24 22:56	08/15/24 21:08	EPA 3050B	1,6010D	JMF
Selenium, Total	ND		mg/kg	1.57	0.202	2	08/14/24 22:56	08/15/24 21:08	EPA 3050B	1,6010D	JMF
Silver, Total	ND		mg/kg	0.392	0.222	2	08/14/24 22:56	08/15/24 21:08	EPA 3050B	1,6010D	JMF
Sodium, Total	309		mg/kg	157	2.47	2	08/14/24 22:56	08/15/24 21:08	EPA 3050B	1,6010D	JMF
Thallium, Total	ND		mg/kg	1.57	0.247	2	08/14/24 22:56	08/15/24 21:08	EPA 3050B	1,6010D	JMF
Vanadium, Total	32.1		mg/kg	0.783	0.159	2	08/14/24 22:56	08/15/24 21:08	EPA 3050B	1,6010D	JMF
Zinc, Total	197		mg/kg	3.92	0.230	2	08/14/24 22:56	08/15/24 21:08	EPA 3050B	1,6010D	JMF

Project Name: ALLIANCE 51ST
Project Number: 30108678
Lab Number: L2445674
Report Date: 08/16/24

SAMPLE RESULTS

Lab ID: L2445674-08
Client ID: DEP51-S14-240813
Sample Location: PHILA, PA
Date Collected: 08/13/24 11:45
Date Received: 08/13/24
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 62%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	12500		mg/kg	11.9	3.23	2	08/14/24 22:56	08/15/24 21:15	EPA 3050B	1,6010D	JMF
Antimony, Total	2.05	J	mg/kg	5.97	0.454	2	08/14/24 22:56	08/15/24 21:15	EPA 3050B	1,6010D	JMF
Arsenic, Total	6.80		mg/kg	1.19	0.248	2	08/14/24 22:56	08/15/24 21:15	EPA 3050B	1,6010D	JMF
Barium, Total	491		mg/kg	1.19	0.208	2	08/14/24 22:56	08/15/24 21:15	EPA 3050B	1,6010D	JMF
Beryllium, Total	0.725		mg/kg	0.597	0.039	2	08/14/24 22:56	08/15/24 21:15	EPA 3050B	1,6010D	JMF
Cadmium, Total	0.631	J	mg/kg	1.19	0.117	2	08/14/24 22:56	08/15/24 21:15	EPA 3050B	1,6010D	JMF
Calcium, Total	18800		mg/kg	11.9	4.18	2	08/14/24 22:56	08/15/24 21:15	EPA 3050B	1,6010D	JMF
Chromium, Total	292		mg/kg	1.19	0.115	2	08/14/24 22:56	08/15/24 21:15	EPA 3050B	1,6010D	JMF
Cobalt, Total	18.6		mg/kg	2.39	0.198	2	08/14/24 22:56	08/15/24 21:15	EPA 3050B	1,6010D	JMF
Copper, Total	121		mg/kg	1.19	0.308	2	08/14/24 22:56	08/15/24 21:15	EPA 3050B	1,6010D	JMF
Iron, Total	27000		mg/kg	5.97	1.08	2	08/14/24 22:56	08/15/24 21:15	EPA 3050B	1,6010D	JMF
Lead, Total	253		mg/kg	5.97	0.320	2	08/14/24 22:56	08/15/24 21:15	EPA 3050B	1,6010D	JMF
Magnesium, Total	9510		mg/kg	11.9	1.84	2	08/14/24 22:56	08/15/24 21:15	EPA 3050B	1,6010D	JMF
Manganese, Total	456		mg/kg	1.19	0.190	2	08/14/24 22:56	08/15/24 21:15	EPA 3050B	1,6010D	JMF
Mercury, Total	0.174		mg/kg	0.105	0.068	1	08/14/24 23:55	08/15/24 09:07	EPA 7471B	1,7471B	JWN
Nickel, Total	38.3		mg/kg	2.99	0.289	2	08/14/24 22:56	08/15/24 21:15	EPA 3050B	1,6010D	JMF
Potassium, Total	4670		mg/kg	299	17.2	2	08/14/24 22:56	08/15/24 21:15	EPA 3050B	1,6010D	JMF
Selenium, Total	0.326	J	mg/kg	2.39	0.308	2	08/14/24 22:56	08/15/24 21:15	EPA 3050B	1,6010D	JMF
Silver, Total	0.731		mg/kg	0.597	0.338	2	08/14/24 22:56	08/15/24 21:15	EPA 3050B	1,6010D	JMF
Sodium, Total	115	J	mg/kg	239	3.76	2	08/14/24 22:56	08/15/24 21:15	EPA 3050B	1,6010D	JMF
Thallium, Total	ND		mg/kg	2.39	0.376	2	08/14/24 22:56	08/15/24 21:15	EPA 3050B	1,6010D	JMF
Vanadium, Total	41.6		mg/kg	1.19	0.242	2	08/14/24 22:56	08/15/24 21:15	EPA 3050B	1,6010D	JMF
Zinc, Total	740		mg/kg	5.97	0.350	2	08/14/24 22:56	08/15/24 21:15	EPA 3050B	1,6010D	JMF

Project Name: ALLIANCE 51ST
Project Number: 30108678
Lab Number: L2445674
Report Date: 08/16/24

SAMPLE RESULTS

Lab ID: L2445674-09
Client ID: DEP51-S15-240813
Sample Location: PHILA, PA
Date Collected: 08/13/24 11:55
Date Received: 08/13/24
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 71%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	6080		mg/kg	11.0	2.97	2	08/14/24 22:56	08/15/24 21:22	EPA 3050B	1,6010D	JMF
Antimony, Total	0.545	J	mg/kg	5.51	0.419	2	08/14/24 22:56	08/15/24 21:22	EPA 3050B	1,6010D	JMF
Arsenic, Total	3.60		mg/kg	1.10	0.229	2	08/14/24 22:56	08/15/24 21:22	EPA 3050B	1,6010D	JMF
Barium, Total	65.6		mg/kg	1.10	0.192	2	08/14/24 22:56	08/15/24 21:22	EPA 3050B	1,6010D	JMF
Beryllium, Total	0.383	J	mg/kg	0.551	0.036	2	08/14/24 22:56	08/15/24 21:22	EPA 3050B	1,6010D	JMF
Cadmium, Total	0.396	J	mg/kg	1.10	0.108	2	08/14/24 22:56	08/15/24 21:22	EPA 3050B	1,6010D	JMF
Calcium, Total	19900		mg/kg	11.0	3.86	2	08/14/24 22:56	08/15/24 21:22	EPA 3050B	1,6010D	JMF
Chromium, Total	57.1		mg/kg	1.10	0.106	2	08/14/24 22:56	08/15/24 21:22	EPA 3050B	1,6010D	JMF
Cobalt, Total	6.54		mg/kg	2.20	0.183	2	08/14/24 22:56	08/15/24 21:22	EPA 3050B	1,6010D	JMF
Copper, Total	38.3		mg/kg	1.10	0.284	2	08/14/24 22:56	08/15/24 21:22	EPA 3050B	1,6010D	JMF
Iron, Total	12100		mg/kg	5.51	0.995	2	08/14/24 22:56	08/15/24 21:22	EPA 3050B	1,6010D	JMF
Lead, Total	139		mg/kg	5.51	0.295	2	08/14/24 22:56	08/15/24 21:22	EPA 3050B	1,6010D	JMF
Magnesium, Total	12100		mg/kg	11.0	1.70	2	08/14/24 22:56	08/15/24 21:22	EPA 3050B	1,6010D	JMF
Manganese, Total	257		mg/kg	1.10	0.175	2	08/14/24 22:56	08/15/24 21:22	EPA 3050B	1,6010D	JMF
Mercury, Total	0.101		mg/kg	0.089	0.058	1	08/14/24 23:55	08/15/24 09:11	EPA 7471B	1,7471B	JWN
Nickel, Total	12.8		mg/kg	2.75	0.267	2	08/14/24 22:56	08/15/24 21:22	EPA 3050B	1,6010D	JMF
Potassium, Total	2230		mg/kg	275	15.9	2	08/14/24 22:56	08/15/24 21:22	EPA 3050B	1,6010D	JMF
Selenium, Total	0.411	J	mg/kg	2.20	0.284	2	08/14/24 22:56	08/15/24 21:22	EPA 3050B	1,6010D	JMF
Silver, Total	ND		mg/kg	0.551	0.312	2	08/14/24 22:56	08/15/24 21:22	EPA 3050B	1,6010D	JMF
Sodium, Total	99.1	J	mg/kg	220	3.47	2	08/14/24 22:56	08/15/24 21:22	EPA 3050B	1,6010D	JMF
Thallium, Total	ND		mg/kg	2.20	0.347	2	08/14/24 22:56	08/15/24 21:22	EPA 3050B	1,6010D	JMF
Vanadium, Total	23.7		mg/kg	1.10	0.224	2	08/14/24 22:56	08/15/24 21:22	EPA 3050B	1,6010D	JMF
Zinc, Total	118		mg/kg	5.51	0.323	2	08/14/24 22:56	08/15/24 21:22	EPA 3050B	1,6010D	JMF

Project Name: ALLIANCE 51ST
Project Number: 30108678
Lab Number: L2445674
Report Date: 08/16/24

SAMPLE RESULTS

Lab ID: L2445674-10
Client ID: DEP51-S7-240813
Sample Location: PHILA, PA
Date Collected: 08/13/24 11:25
Date Received: 08/13/24
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 79%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	10600		mg/kg	9.55	2.58	2	08/14/24 22:56	08/15/24 21:28	EPA 3050B	1,6010D	JMF
Antimony, Total	0.614	J	mg/kg	4.77	0.363	2	08/14/24 22:56	08/15/24 21:28	EPA 3050B	1,6010D	JMF
Arsenic, Total	8.89		mg/kg	0.955	0.199	2	08/14/24 22:56	08/15/24 21:28	EPA 3050B	1,6010D	JMF
Barium, Total	119		mg/kg	0.955	0.166	2	08/14/24 22:56	08/15/24 21:28	EPA 3050B	1,6010D	JMF
Beryllium, Total	0.574		mg/kg	0.477	0.032	2	08/14/24 22:56	08/15/24 21:28	EPA 3050B	1,6010D	JMF
Cadmium, Total	0.566	J	mg/kg	0.955	0.094	2	08/14/24 22:56	08/15/24 21:28	EPA 3050B	1,6010D	JMF
Calcium, Total	16000		mg/kg	9.55	3.34	2	08/14/24 22:56	08/15/24 21:28	EPA 3050B	1,6010D	JMF
Chromium, Total	660		mg/kg	0.955	0.092	2	08/14/24 22:56	08/15/24 21:28	EPA 3050B	1,6010D	JMF
Cobalt, Total	14.3		mg/kg	1.91	0.158	2	08/14/24 22:56	08/15/24 21:28	EPA 3050B	1,6010D	JMF
Copper, Total	45.7		mg/kg	0.955	0.246	2	08/14/24 22:56	08/15/24 21:28	EPA 3050B	1,6010D	JMF
Iron, Total	20500		mg/kg	4.77	0.862	2	08/14/24 22:56	08/15/24 21:28	EPA 3050B	1,6010D	JMF
Lead, Total	154		mg/kg	4.77	0.256	2	08/14/24 22:56	08/15/24 21:28	EPA 3050B	1,6010D	JMF
Magnesium, Total	7600		mg/kg	9.55	1.47	2	08/14/24 22:56	08/15/24 21:28	EPA 3050B	1,6010D	JMF
Manganese, Total	508		mg/kg	0.955	0.152	2	08/14/24 22:56	08/15/24 21:28	EPA 3050B	1,6010D	JMF
Mercury, Total	0.092		mg/kg	0.087	0.057	1	08/14/24 23:55	08/15/24 09:14	EPA 7471B	1,7471B	JWN
Nickel, Total	46.6		mg/kg	2.39	0.231	2	08/14/24 22:56	08/15/24 21:28	EPA 3050B	1,6010D	JMF
Potassium, Total	4730		mg/kg	239	13.7	2	08/14/24 22:56	08/15/24 21:28	EPA 3050B	1,6010D	JMF
Selenium, Total	0.293	J	mg/kg	1.91	0.246	2	08/14/24 22:56	08/15/24 21:28	EPA 3050B	1,6010D	JMF
Silver, Total	ND		mg/kg	0.477	0.270	2	08/14/24 22:56	08/15/24 21:28	EPA 3050B	1,6010D	JMF
Sodium, Total	157	J	mg/kg	191	3.01	2	08/14/24 22:56	08/15/24 21:28	EPA 3050B	1,6010D	JMF
Thallium, Total	ND		mg/kg	1.91	0.301	2	08/14/24 22:56	08/15/24 21:28	EPA 3050B	1,6010D	JMF
Vanadium, Total	42.8		mg/kg	0.955	0.194	2	08/14/24 22:56	08/15/24 21:28	EPA 3050B	1,6010D	JMF
Zinc, Total	276		mg/kg	4.77	0.280	2	08/14/24 22:56	08/15/24 21:28	EPA 3050B	1,6010D	JMF

Project Name: ALLIANCE 51ST
Project Number: 30108678
Lab Number: L2445674
Report Date: 08/16/24

SAMPLE RESULTS

Lab ID: L2445674-11
Client ID: DUP-S 240813
Sample Location: PHILA, PA
Date Collected: 08/13/24 00:00
Date Received: 08/13/24
Field Prep: Not Specified

Sample Depth:
Matrix: Soil
Percent Solids: 74%

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	11900		mg/kg	10.7	2.89	2	08/14/24 22:56	08/15/24 21:35	EPA 3050B	1,6010D	JMF
Antimony, Total	0.891	J	mg/kg	5.36	0.407	2	08/14/24 22:56	08/15/24 21:35	EPA 3050B	1,6010D	JMF
Arsenic, Total	11.6		mg/kg	1.07	0.223	2	08/14/24 22:56	08/15/24 21:35	EPA 3050B	1,6010D	JMF
Barium, Total	150		mg/kg	1.07	0.186	2	08/14/24 22:56	08/15/24 21:35	EPA 3050B	1,6010D	JMF
Beryllium, Total	0.678		mg/kg	0.536	0.035	2	08/14/24 22:56	08/15/24 21:35	EPA 3050B	1,6010D	JMF
Cadmium, Total	0.709	J	mg/kg	1.07	0.105	2	08/14/24 22:56	08/15/24 21:35	EPA 3050B	1,6010D	JMF
Calcium, Total	25900		mg/kg	10.7	3.75	2	08/14/24 22:56	08/15/24 21:35	EPA 3050B	1,6010D	JMF
Chromium, Total	1040		mg/kg	1.07	0.103	2	08/14/24 22:56	08/15/24 21:35	EPA 3050B	1,6010D	JMF
Cobalt, Total	16.4		mg/kg	2.14	0.178	2	08/14/24 22:56	08/15/24 21:35	EPA 3050B	1,6010D	JMF
Copper, Total	63.9		mg/kg	1.07	0.277	2	08/14/24 22:56	08/15/24 21:35	EPA 3050B	1,6010D	JMF
Iron, Total	22200		mg/kg	5.36	0.968	2	08/14/24 22:56	08/15/24 21:35	EPA 3050B	1,6010D	JMF
Lead, Total	220		mg/kg	5.36	0.287	2	08/14/24 22:56	08/15/24 21:35	EPA 3050B	1,6010D	JMF
Magnesium, Total	7370		mg/kg	10.7	1.65	2	08/14/24 22:56	08/15/24 21:35	EPA 3050B	1,6010D	JMF
Manganese, Total	505		mg/kg	1.07	0.170	2	08/14/24 22:56	08/15/24 21:35	EPA 3050B	1,6010D	JMF
Mercury, Total	0.206		mg/kg	0.095	0.062	1	08/14/24 23:55	08/15/24 09:24	EPA 7471B	1,7471B	JWN
Nickel, Total	60.4		mg/kg	2.68	0.259	2	08/14/24 22:56	08/15/24 21:35	EPA 3050B	1,6010D	JMF
Potassium, Total	4870		mg/kg	268	15.4	2	08/14/24 22:56	08/15/24 21:35	EPA 3050B	1,6010D	JMF
Selenium, Total	0.487	J	mg/kg	2.14	0.277	2	08/14/24 22:56	08/15/24 21:35	EPA 3050B	1,6010D	JMF
Silver, Total	0.433	J	mg/kg	0.536	0.303	2	08/14/24 22:56	08/15/24 21:35	EPA 3050B	1,6010D	JMF
Sodium, Total	165	J	mg/kg	214	3.38	2	08/14/24 22:56	08/15/24 21:35	EPA 3050B	1,6010D	JMF
Thallium, Total	ND		mg/kg	2.14	0.338	2	08/14/24 22:56	08/15/24 21:35	EPA 3050B	1,6010D	JMF
Vanadium, Total	54.2		mg/kg	1.07	0.218	2	08/14/24 22:56	08/15/24 21:35	EPA 3050B	1,6010D	JMF
Zinc, Total	352		mg/kg	5.36	0.314	2	08/14/24 22:56	08/15/24 21:35	EPA 3050B	1,6010D	JMF

Project Name: ALLIANCE 51ST
Project Number: 30108678
Lab Number: L2445674
Report Date: 08/16/24

SAMPLE RESULTS

Lab ID: L2445674-12
Client ID: DEP51-W5-240813
Sample Location: PHILA, PA
Sample Depth:
Matrix: Water

Date Collected: 08/13/24 12:30
Date Received: 08/13/24
Field Prep: Not Specified

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	ND		ug/l	50.0	16.4	5	08/14/24 22:30	08/16/24 09:28	EPA 3005A	1,6020B	EJF
Antimony, Total	ND		ug/l	20.00	2.145	5	08/14/24 22:30	08/16/24 09:28	EPA 3005A	1,6020B	EJF
Arsenic, Total	1.310	J	ug/l	2.500	0.8250	5	08/14/24 22:30	08/16/24 09:28	EPA 3005A	1,6020B	EJF
Barium, Total	69.37		ug/l	2.500	0.8650	5	08/14/24 22:30	08/16/24 09:28	EPA 3005A	1,6020B	EJF
Beryllium, Total	ND		ug/l	2.500	0.5350	5	08/14/24 22:30	08/16/24 09:28	EPA 3005A	1,6020B	EJF
Cadmium, Total	ND		ug/l	1.000	0.2995	5	08/14/24 22:30	08/16/24 09:28	EPA 3005A	1,6020B	EJF
Calcium, Total	94600		ug/l	500.	197.	5	08/14/24 22:30	08/16/24 09:28	EPA 3005A	1,6020B	EJF
Chromium, Total	23850		ug/l	500.0	89.00	500	08/14/24 22:30	08/16/24 09:41	EPA 3005A	1,6020B	EJF
Cobalt, Total	0.8738	J	ug/l	2.500	0.8150	5	08/14/24 22:30	08/16/24 09:28	EPA 3005A	1,6020B	EJF
Copper, Total	2.974	J	ug/l	5.000	1.920	5	08/14/24 22:30	08/16/24 09:28	EPA 3005A	1,6020B	EJF
Iron, Total	ND		ug/l	250	95.5	5	08/14/24 22:30	08/16/24 09:28	EPA 3005A	1,6020B	EJF
Lead, Total	ND		ug/l	5.000	1.715	5	08/14/24 22:30	08/16/24 09:28	EPA 3005A	1,6020B	EJF
Magnesium, Total	8980		ug/l	350.	121.	5	08/14/24 22:30	08/16/24 09:28	EPA 3005A	1,6020B	EJF
Manganese, Total	ND		ug/l	5.000	2.200	5	08/14/24 22:30	08/16/24 09:28	EPA 3005A	1,6020B	EJF
Mercury, Total	ND		ug/l	0.2000	0.0915	1	08/14/24 22:41	08/15/24 12:37	EPA 7470A	1,7470A	MJR
Nickel, Total	ND		ug/l	10.00	2.780	5	08/14/24 22:30	08/16/24 09:28	EPA 3005A	1,6020B	EJF
Potassium, Total	14600		ug/l	500.	154.	5	08/14/24 22:30	08/16/24 09:28	EPA 3005A	1,6020B	EJF
Selenium, Total	ND		ug/l	25.0	8.65	5	08/14/24 22:30	08/16/24 09:28	EPA 3005A	1,6020B	EJF
Silver, Total	ND		ug/l	2.000	0.8150	5	08/14/24 22:30	08/16/24 09:28	EPA 3005A	1,6020B	EJF
Sodium, Total	46400		ug/l	500.	146.	5	08/14/24 22:30	08/16/24 09:28	EPA 3005A	1,6020B	EJF
Thallium, Total	1.018	J	ug/l	5.000	0.7150	5	08/14/24 22:30	08/16/24 09:28	EPA 3005A	1,6020B	EJF
Vanadium, Total	ND		ug/l	25.00	7.850	5	08/14/24 22:30	08/16/24 09:28	EPA 3005A	1,6020B	EJF
Zinc, Total	ND		ug/l	50.00	17.05	5	08/14/24 22:30	08/16/24 09:28	EPA 3005A	1,6020B	EJF

Project Name: ALLIANCE 51ST
Project Number: 30108678
Lab Number: L2445674
Report Date: 08/16/24

SAMPLE RESULTS

Lab ID: L2445674-13
Client ID: DEP51-W6-240813
Sample Location: PHILA, PA
Date Collected: 08/13/24 12:55
Date Received: 08/13/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Prep Method	Analytical Method	Analyst
Total Metals - Mansfield Lab											
Aluminum, Total	224.		ug/l	50.0	16.4	5	08/14/24 22:30	08/16/24 09:32	EPA 3005A	1,6020B	EJF
Antimony, Total	ND		ug/l	20.00	2.145	5	08/14/24 22:30	08/16/24 09:32	EPA 3005A	1,6020B	EJF
Arsenic, Total	4.636		ug/l	2.500	0.8250	5	08/14/24 22:30	08/16/24 09:32	EPA 3005A	1,6020B	EJF
Barium, Total	57.45		ug/l	2.500	0.8650	5	08/14/24 22:30	08/16/24 09:32	EPA 3005A	1,6020B	EJF
Beryllium, Total	ND		ug/l	2.500	0.5350	5	08/14/24 22:30	08/16/24 09:32	EPA 3005A	1,6020B	EJF
Cadmium, Total	ND		ug/l	1.000	0.2995	5	08/14/24 22:30	08/16/24 09:32	EPA 3005A	1,6020B	EJF
Calcium, Total	200000		ug/l	500.	197.	5	08/14/24 22:30	08/16/24 09:32	EPA 3005A	1,6020B	EJF
Chromium, Total	33610		ug/l	500.0	89.00	500	08/14/24 22:30	08/16/24 09:46	EPA 3005A	1,6020B	EJF
Cobalt, Total	1.016	J	ug/l	2.500	0.8150	5	08/14/24 22:30	08/16/24 09:32	EPA 3005A	1,6020B	EJF
Copper, Total	6.866		ug/l	5.000	1.920	5	08/14/24 22:30	08/16/24 09:32	EPA 3005A	1,6020B	EJF
Iron, Total	ND		ug/l	250	95.5	5	08/14/24 22:30	08/16/24 09:32	EPA 3005A	1,6020B	EJF
Lead, Total	ND		ug/l	5.000	1.715	5	08/14/24 22:30	08/16/24 09:32	EPA 3005A	1,6020B	EJF
Magnesium, Total	4530		ug/l	350.	121.	5	08/14/24 22:30	08/16/24 09:32	EPA 3005A	1,6020B	EJF
Manganese, Total	ND		ug/l	5.000	2.200	5	08/14/24 22:30	08/16/24 09:32	EPA 3005A	1,6020B	EJF
Mercury, Total	0.0920	J	ug/l	0.2000	0.0915	1	08/14/24 22:41	08/15/24 12:47	EPA 7470A	1,7470A	MJR
Nickel, Total	ND		ug/l	10.00	2.780	5	08/14/24 22:30	08/16/24 09:32	EPA 3005A	1,6020B	EJF
Potassium, Total	16100		ug/l	500.	154.	5	08/14/24 22:30	08/16/24 09:32	EPA 3005A	1,6020B	EJF
Selenium, Total	ND		ug/l	25.0	8.65	5	08/14/24 22:30	08/16/24 09:32	EPA 3005A	1,6020B	EJF
Silver, Total	ND		ug/l	2.000	0.8150	5	08/14/24 22:30	08/16/24 09:32	EPA 3005A	1,6020B	EJF
Sodium, Total	60000		ug/l	500.	146.	5	08/14/24 22:30	08/16/24 09:32	EPA 3005A	1,6020B	EJF
Thallium, Total	ND		ug/l	5.000	0.7150	5	08/14/24 22:30	08/16/24 09:32	EPA 3005A	1,6020B	EJF
Vanadium, Total	15.50	J	ug/l	25.00	7.850	5	08/14/24 22:30	08/16/24 09:32	EPA 3005A	1,6020B	EJF
Zinc, Total	ND		ug/l	50.00	17.05	5	08/14/24 22:30	08/16/24 09:32	EPA 3005A	1,6020B	EJF

Project Name: ALLIANCE 51ST
Project Number: 30108678
Lab Number: L2445674
Report Date: 08/16/24

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-11 Batch: WG1959238-1										
Aluminum, Total	ND		mg/kg	4.00	1.08	1	08/14/24 22:56	08/15/24 10:18	1,6010D	DHL
Antimony, Total	ND		mg/kg	2.00	0.152	1	08/14/24 22:56	08/15/24 10:18	1,6010D	DHL
Arsenic, Total	ND		mg/kg	0.400	0.083	1	08/14/24 22:56	08/15/24 10:18	1,6010D	DHL
Barium, Total	ND		mg/kg	0.400	0.070	1	08/14/24 22:56	08/15/24 10:18	1,6010D	DHL
Beryllium, Total	ND		mg/kg	0.200	0.013	1	08/14/24 22:56	08/15/24 10:18	1,6010D	DHL
Cadmium, Total	ND		mg/kg	0.400	0.039	1	08/14/24 22:56	08/15/24 10:18	1,6010D	DHL
Calcium, Total	ND		mg/kg	4.00	1.40	1	08/14/24 22:56	08/15/24 10:18	1,6010D	DHL
Chromium, Total	ND		mg/kg	0.400	0.038	1	08/14/24 22:56	08/15/24 10:18	1,6010D	DHL
Cobalt, Total	ND		mg/kg	0.800	0.066	1	08/14/24 22:56	08/15/24 10:18	1,6010D	DHL
Copper, Total	ND		mg/kg	0.400	0.103	1	08/14/24 22:56	08/15/24 10:18	1,6010D	DHL
Iron, Total	0.623	J	mg/kg	2.00	0.361	1	08/14/24 22:56	08/15/24 10:18	1,6010D	DHL
Lead, Total	ND		mg/kg	2.00	0.107	1	08/14/24 22:56	08/15/24 10:18	1,6010D	DHL
Magnesium, Total	ND		mg/kg	4.00	0.616	1	08/14/24 22:56	08/15/24 10:18	1,6010D	DHL
Manganese, Total	ND		mg/kg	0.400	0.064	1	08/14/24 22:56	08/15/24 10:18	1,6010D	DHL
Nickel, Total	ND		mg/kg	1.00	0.097	1	08/14/24 22:56	08/15/24 10:18	1,6010D	DHL
Potassium, Total	ND		mg/kg	100	5.76	1	08/14/24 22:56	08/15/24 10:18	1,6010D	DHL
Selenium, Total	ND		mg/kg	0.800	0.103	1	08/14/24 22:56	08/15/24 10:18	1,6010D	DHL
Silver, Total	ND		mg/kg	0.200	0.113	1	08/14/24 22:56	08/15/24 10:18	1,6010D	DHL
Sodium, Total	1.29	J	mg/kg	80.0	1.26	1	08/14/24 22:56	08/15/24 10:18	1,6010D	DHL
Thallium, Total	ND		mg/kg	0.800	0.126	1	08/14/24 22:56	08/15/24 10:18	1,6010D	DHL
Vanadium, Total	ND		mg/kg	0.400	0.081	1	08/14/24 22:56	08/15/24 10:18	1,6010D	DHL
Zinc, Total	ND		mg/kg	2.00	0.117	1	08/14/24 22:56	08/15/24 10:18	1,6010D	DHL

Prep Information

Digestion Method: EPA 3050B

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 01-11 Batch: WG1959240-1										
Mercury, Total	ND		mg/kg	0.083	0.054	1	08/14/24 23:55	08/15/24 08:07	1,7471B	JWN

Project Name: ALLIANCE 51ST
Project Number: 30108678
Lab Number: L2445674
Report Date: 08/16/24

Method Blank Analysis
Batch Quality Control

Prep Information

Digestion Method: EPA 7471B

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 12-13 Batch: WG1959367-1										
Aluminum, Total	ND		ug/l	10.0	3.27	1	08/14/24 22:30	08/16/24 07:44	1,6020B	EJF
Antimony, Total	ND		ug/l	4.000	0.4290	1	08/14/24 22:30	08/16/24 07:44	1,6020B	EJF
Arsenic, Total	ND		ug/l	0.5000	0.1650	1	08/14/24 22:30	08/16/24 07:44	1,6020B	EJF
Barium, Total	ND		ug/l	0.5000	0.1730	1	08/14/24 22:30	08/16/24 07:44	1,6020B	EJF
Beryllium, Total	ND		ug/l	0.5000	0.1070	1	08/14/24 22:30	08/16/24 07:44	1,6020B	EJF
Cadmium, Total	ND		ug/l	0.2000	0.0599	1	08/14/24 22:30	08/16/24 07:44	1,6020B	EJF
Calcium, Total	ND		ug/l	100	39.4	1	08/14/24 22:30	08/16/24 07:44	1,6020B	EJF
Chromium, Total	ND		ug/l	1.000	0.1780	1	08/14/24 22:30	08/16/24 07:44	1,6020B	EJF
Cobalt, Total	ND		ug/l	0.5000	0.1630	1	08/14/24 22:30	08/16/24 07:44	1,6020B	EJF
Copper, Total	ND		ug/l	1.000	0.3840	1	08/14/24 22:30	08/16/24 07:44	1,6020B	EJF
Iron, Total	ND		ug/l	50.0	19.1	1	08/14/24 22:30	08/16/24 07:44	1,6020B	EJF
Lead, Total	ND		ug/l	1.000	0.3430	1	08/14/24 22:30	08/16/24 07:44	1,6020B	EJF
Magnesium, Total	ND		ug/l	70.0	24.2	1	08/14/24 22:30	08/16/24 07:44	1,6020B	EJF
Manganese, Total	ND		ug/l	1.000	0.4400	1	08/14/24 22:30	08/16/24 07:44	1,6020B	EJF
Nickel, Total	ND		ug/l	2.000	0.5560	1	08/14/24 22:30	08/16/24 07:44	1,6020B	EJF
Potassium, Total	ND		ug/l	100	30.9	1	08/14/24 22:30	08/16/24 07:44	1,6020B	EJF
Selenium, Total	ND		ug/l	5.00	1.73	1	08/14/24 22:30	08/16/24 07:44	1,6020B	EJF
Silver, Total	ND		ug/l	0.4000	0.1630	1	08/14/24 22:30	08/16/24 07:44	1,6020B	EJF
Sodium, Total	ND		ug/l	100	29.3	1	08/14/24 22:30	08/16/24 07:44	1,6020B	EJF
Thallium, Total	ND		ug/l	1.000	0.1430	1	08/14/24 22:30	08/16/24 07:44	1,6020B	EJF
Vanadium, Total	ND		ug/l	5.000	1.570	1	08/14/24 22:30	08/16/24 07:44	1,6020B	EJF
Zinc, Total	ND		ug/l	10.00	3.410	1	08/14/24 22:30	08/16/24 07:44	1,6020B	EJF

Prep Information

Digestion Method: EPA 3005A

Project Name: ALLIANCE 51ST
Project Number: 30108678
Lab Number: L2445674
Report Date: 08/16/24

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
Total Metals - Mansfield Lab for sample(s): 12-13 Batch: WG1959372-1										
Mercury, Total	ND		ug/l	0.2000	0.0915	1	08/14/24 22:41	08/15/24 12:31	1,7470A	MJR

Prep Information

Digestion Method: EPA 7470A

Lab Control Sample Analysis

Batch Quality Control

Project Name: ALLIANCE 51ST

Project Number: 30108678

Lab Number: L2445674

Report Date: 08/16/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-11 Batch: WG1959238-2								
Aluminum, Total	101		-		80-120	-		
Antimony, Total	105		-		80-120	-		
Arsenic, Total	100		-		80-120	-		
Barium, Total	102		-		80-120	-		
Beryllium, Total	104		-		80-120	-		
Cadmium, Total	104		-		80-120	-		
Calcium, Total	103		-		80-120	-		
Chromium, Total	100		-		80-120	-		
Cobalt, Total	103		-		80-120	-		
Copper, Total	104		-		80-120	-		
Iron, Total	106		-		80-120	-		
Lead, Total	100		-		80-120	-		
Magnesium, Total	101		-		80-120	-		
Manganese, Total	102		-		80-120	-		
Nickel, Total	101		-		80-120	-		
Potassium, Total	104		-		80-120	-		
Selenium, Total	103		-		80-120	-		
Silver, Total	105		-		80-120	-		
Sodium, Total	104		-		80-120	-		
Thallium, Total	103		-		80-120	-		
Vanadium, Total	102		-		80-120	-		

Lab Control Sample Analysis

Batch Quality Control

Project Name: ALLIANCE 51ST

Project Number: 30108678

Lab Number: L2445674

Report Date: 08/16/24

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-11 Batch: WG1959238-2					
Zinc, Total	102	-	80-120	-	
Total Metals - Mansfield Lab Associated sample(s): 01-11 Batch: WG1959240-2					
Mercury, Total	96	-	80-120	-	

Lab Control Sample Analysis

Batch Quality Control

Project Name: ALLIANCE 51ST

Project Number: 30108678

Lab Number: L2445674

Report Date: 08/16/24

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 12-13 Batch: WG1959367-2					
Aluminum, Total	97	-	80-120	-	
Antimony, Total	84	-	80-120	-	
Arsenic, Total	105	-	80-120	-	
Barium, Total	98	-	80-120	-	
Beryllium, Total	102	-	80-120	-	
Cadmium, Total	101	-	80-120	-	
Calcium, Total	95	-	80-120	-	
Chromium, Total	115	-	80-120	-	
Cobalt, Total	113	-	80-120	-	
Copper, Total	111	-	80-120	-	
Iron, Total	118	-	80-120	-	
Lead, Total	102	-	80-120	-	
Magnesium, Total	105	-	80-120	-	
Manganese, Total	116	-	80-120	-	
Nickel, Total	114	-	80-120	-	
Potassium, Total	110	-	80-120	-	
Selenium, Total	103	-	80-120	-	
Silver, Total	110	-	80-120	-	
Sodium, Total	97	-	80-120	-	
Thallium, Total	106	-	80-120	-	
Vanadium, Total	110	-	80-120	-	

Lab Control Sample Analysis

Batch Quality Control

Project Name: ALLIANCE 51ST

Project Number: 30108678

Lab Number: L2445674

Report Date: 08/16/24

Parameter	LCS %Recovery	LCSD %Recovery	%Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 12-13 Batch: WG1959367-2					
Zinc, Total	104	-	80-120	-	
Total Metals - Mansfield Lab Associated sample(s): 12-13 Batch: WG1959372-2					
Mercury, Total	104	-	80-120	-	

Matrix Spike Analysis
Batch Quality Control

Project Name: ALLIANCE 51ST
Project Number: 30108678

Lab Number: L2445674
Report Date: 08/16/24

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-11 QC Batch ID: WG1959238-3 QC Sample: L2445543-14 Client ID: MS Sample												
Aluminum, Total	6530	196	6660	**66**	Q	-	-		75-125	-		20
Antimony, Total	ND	49	44.9	92		-	-		75-125	-		20
Arsenic, Total	2.69	11.8	13.7	94		-	-		75-125	-		20
Barium, Total	32.6	196	211	91		-	-		75-125	-		20
Beryllium, Total	0.349J	4.9	5.13	105		-	-		75-125	-		20
Cadmium, Total	28.1	5.2	21.9	**0**	Q	-	-		75-125	-		20
Calcium, Total	4120	980	4530	**42**	Q	-	-		75-125	-		20
Chromium, Total	102	19.6	81.9	**0**	Q	-	-		75-125	-		20
Cobalt, Total	29.1	49	69.0	81		-	-		75-125	-		20
Copper, Total	137	24.5	119	**0**	Q	-	-		75-125	-		20
Iron, Total	13800	98	14000	**204**	Q	-	-		75-125	-		20
Lead, Total	40.6	52	78.8	**74**	Q	-	-		75-125	-		20
Magnesium, Total	2710	980	3390	**69**	Q	-	-		75-125	-		20
Manganese, Total	331	49	378	96		-	-		75-125	-		20
Nickel, Total	93.4	49	100	**13**	Q	-	-		75-125	-		20
Potassium, Total	305	980	1190	90		-	-		75-125	-		20
Selenium, Total	3.06	11.8	14.3	96		-	-		75-125	-		20
Silver, Total	3.24	4.9	7.21	81		-	-		75-125	-		20
Sodium, Total	279	980	1230	97		-	-		75-125	-		20
Thallium, Total	0.492J	11.8	11.1	94		-	-		75-125	-		20
Vanadium, Total	25.5	49	77.1	105		-	-		75-125	-		20

Matrix Spike Analysis
Batch Quality Control

Project Name: ALLIANCE 51ST
Project Number: 30108678

Lab Number: L2445674
Report Date: 08/16/24

Parameter	Native Sample	MS Added	MS Found	MS %Recovery		MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-11 QC Batch ID: WG1959238-3 QC Sample: L2445543-14 Client ID: MS Sample										
Zinc, Total	111	49	125	**28**	Q	-	-	75-125	-	20
Total Metals - Mansfield Lab Associated sample(s): 01-11 QC Batch ID: WG1959240-3 QC Sample: L2445674-01 Client ID: DEP51-S3-240813										
Mercury, Total	0.089	1.5	1.53	96		-	-	80-120	-	20

Matrix Spike Analysis
Batch Quality Control

Project Name: ALLIANCE 51ST
Project Number: 30108678

Lab Number: L2445674
Report Date: 08/16/24

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 12-13 QC Batch ID: WG1959367-3 QC Sample: L2445642-01 Client ID: MS Sample									
Aluminum, Total	64.2	2000	2100	102	-	-	75-125	-	20
Antimony, Total	1.753J	500	497.5	100	-	-	75-125	-	20
Arsenic, Total	2.093	120	133.2	109	-	-	75-125	-	20
Barium, Total	114.4	2000	2149	102	-	-	75-125	-	20
Beryllium, Total	ND	50	52.37	105	-	-	75-125	-	20
Cadmium, Total	0.1884J	53	55.26	104	-	-	75-125	-	20
Calcium, Total	8940	10000	18300	94	-	-	75-125	-	20
Chromium, Total	14.46	200	244.3	115	-	-	75-125	-	20
Cobalt, Total	3.631	500	578.5	115	-	-	75-125	-	20
Copper, Total	90.24	250	374.7	114	-	-	75-125	-	20
Iron, Total	6640	1000	7720	108	-	-	75-125	-	20
Lead, Total	11.33	530	576.9	107	-	-	75-125	-	20
Magnesium, Total	2980	10000	14200	112	-	-	75-125	-	20
Manganese, Total	668.0	500	1292	125	-	-	75-125	-	20
Nickel, Total	40.21	500	612.4	114	-	-	75-125	-	20
Potassium, Total	14300	10000	26700	124	-	-	75-125	-	20
Selenium, Total	ND	120	122	102	-	-	75-125	-	20
Silver, Total	ND	50	56.10	112	-	-	75-125	-	20
Sodium, Total	6880	10000	18200	113	-	-	75-125	-	20
Thallium, Total	ND	120	134.1	112	-	-	75-125	-	20
Vanadium, Total	2.160J	500	558.6	112	-	-	75-125	-	20

Matrix Spike Analysis
Batch Quality Control

Project Name: ALLIANCE 51ST
Project Number: 30108678

Lab Number: L2445674
Report Date: 08/16/24

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	MSD Found	MSD %Recovery	Recovery Limits	RPD	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 12-13 QC Batch ID: WG1959367-3 QC Sample: L2445642-01 Client ID: MS Sample									
Zinc, Total	187.3	500	738.2	110	-	-	75-125	-	20
Total Metals - Mansfield Lab Associated sample(s): 12-13 QC Batch ID: WG1959372-3 QC Sample: L2445674-12 Client ID: DEP51-W5-240813									
Mercury, Total	ND	5	4.907	98	-	-	75-125	-	20

Lab Duplicate Analysis

Batch Quality Control

Project Name: ALLIANCE 51ST
Project Number: 30108678

Lab Number: L2445674
Report Date: 08/16/24

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 01-11 QC Batch ID: WG1959238-4 QC Sample: L2445543-14 Client ID: DUP Sample						
Cobalt, Total	29.1	26.2	mg/kg	10		20
Total Metals - Mansfield Lab Associated sample(s): 01-11 QC Batch ID: WG1959240-4 QC Sample: L2445674-01 Client ID: DEP51-S3-240813						
Mercury, Total	0.089	0.074J	mg/kg	NC		20
Total Metals - Mansfield Lab Associated sample(s): 12-13 QC Batch ID: WG1959367-4 QC Sample: L2445642-01 Client ID: DUP Sample						
Iron, Total	6640	6470	ug/l	3		20
Lead, Total	11.33	11.12	ug/l	2		20
Nickel, Total	40.21	39.88	ug/l	1		20
Zinc, Total	187.3	187.0	ug/l	0		20
Total Metals - Mansfield Lab Associated sample(s): 12-13 QC Batch ID: WG1959372-4 QC Sample: L2445674-12 Client ID: DEP51-W5-240813						
Mercury, Total	ND	0.1040J	ug/l	NC		20

Project Name: ALLIANCE 51ST
Project Number: 30108678

Lab Serial Dilution Analysis
Batch Quality Control

Lab Number: L2445674
Report Date: 08/16/24

Parameter	Native Sample	Serial Dilution	Units	% D	Qual	RPD Limits
Total Metals - Mansfield Lab Associated sample(s): 12-13 QC Batch ID: WG1959367-6 QC Sample: L2445642-01 Client ID: DUP Sample						
Iron, Total	6640	6520	ug/l	2		20

INORGANICS
&
MISCELLANEOUS

Project Name: ALLIANCE 51ST
Project Number: 30108678

Lab Number: L2445674
Report Date: 08/16/24

SAMPLE RESULTS

Lab ID: L2445674-01
Client ID: DEP51-S3-240813
Sample Location: PHILA, PA

Date Collected: 08/13/24 10:45
Date Received: 08/13/24
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	88.1		%	0.100	NA	1	-	08/14/24 08:25	121,2540G	ROI
Chromium, Hexavalent	4.27		mg/kg	0.908	0.182	1	08/14/24 14:45	08/15/24 13:10	1,7196A	RDS

Project Name: ALLIANCE 51ST
Project Number: 30108678

Lab Number: L2445674
Report Date: 08/16/24

SAMPLE RESULTS

Lab ID: L2445674-02
Client ID: DEP51-S5-240813
Sample Location: PHILA, PA

Date Collected: 08/13/24 11:10
Date Received: 08/13/24
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	80.0		%	0.100	NA	1	-	08/14/24 08:25	121,2540G	ROI
Chromium, Hexavalent	7.06		mg/kg	1.00	0.200	1	08/14/24 14:45	08/15/24 13:10	1,7196A	RDS

Project Name: ALLIANCE 51ST
Project Number: 30108678

Lab Number: L2445674
Report Date: 08/16/24

SAMPLE RESULTS

Lab ID: L2445674-03
Client ID: DEP51-S6-240813
Sample Location: PHILA, PA

Date Collected: 08/13/24 11:20
Date Received: 08/13/24
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	89.5		%	0.100	NA	1	-	08/14/24 08:25	121,2540G	ROI
Chromium, Hexavalent	5.04		mg/kg	0.894	0.179	1	08/14/24 14:45	08/15/24 13:10	1,7196A	RDS

Project Name: ALLIANCE 51ST
Project Number: 30108678

Lab Number: L2445674
Report Date: 08/16/24

SAMPLE RESULTS

Lab ID: L2445674-04
Client ID: DEP51-S8A-240813
Sample Location: PHILA, PA

Date Collected: 08/13/24 11:30
Date Received: 08/13/24
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	64.0		%	0.100	NA	1	-	08/14/24 08:25	121,2540G	ROI
Chromium, Hexavalent	7.30		mg/kg	1.25	0.250	1	08/14/24 14:45	08/15/24 13:10	1,7196A	RDS

Project Name: ALLIANCE 51ST
Project Number: 30108678

Lab Number: L2445674
Report Date: 08/16/24

SAMPLE RESULTS

Lab ID: L2445674-05
Client ID: DEP51-S10A-240813
Sample Location: PHILA, PA

Date Collected: 08/13/24 11:35
Date Received: 08/13/24
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	71.9		%	0.100	NA	1	-	08/14/24 08:25	121,2540G	ROI
Chromium, Hexavalent	ND		mg/kg	1.11	0.222	1	08/14/24 14:45	08/15/24 13:10	1,7196A	RDS

Project Name: ALLIANCE 51ST
Project Number: 30108678

Lab Number: L2445674
Report Date: 08/16/24

SAMPLE RESULTS

Lab ID: L2445674-06
Client ID: DEP51-S12-240813
Sample Location: PHILA, PA

Date Collected: 08/13/24 10:51
Date Received: 08/13/24
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	73.4		%	0.100	NA	1	-	08/14/24 08:25	121,2540G	ROI
Chromium, Hexavalent	ND		mg/kg	1.09	0.218	1	08/14/24 14:45	08/15/24 13:10	1,7196A	RDS

Project Name: ALLIANCE 51ST
Project Number: 30108678

Lab Number: L2445674
Report Date: 08/16/24

SAMPLE RESULTS

Lab ID: L2445674-07
Client ID: DEP51-S13-240813
Sample Location: PHILA, PA

Date Collected: 08/13/24 11:05
Date Received: 08/13/24
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	97.6		%	0.100	NA	1	-	08/14/24 08:25	121,2540G	ROI
Chromium, Hexavalent	18.8		mg/kg	0.820	0.164	1	08/14/24 14:45	08/15/24 13:10	1,7196A	RDS

Project Name: ALLIANCE 51ST
Project Number: 30108678

Lab Number: L2445674
Report Date: 08/16/24

SAMPLE RESULTS

Lab ID: L2445674-08
Client ID: DEP51-S14-240813
Sample Location: PHILA, PA

Date Collected: 08/13/24 11:45
Date Received: 08/13/24
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	61.9		%	0.100	NA	1	-	08/14/24 08:25	121,2540G	ROI
Chromium, Hexavalent	1.13	J	mg/kg	1.29	0.258	1	08/14/24 14:45	08/15/24 13:10	1,7196A	RDS

Project Name: ALLIANCE 51ST
Project Number: 30108678

Lab Number: L2445674
Report Date: 08/16/24

SAMPLE RESULTS

Lab ID: L2445674-09
Client ID: DEP51-S15-240813
Sample Location: PHILA, PA

Date Collected: 08/13/24 11:55
Date Received: 08/13/24
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	70.8		%	0.100	NA	1	-	08/14/24 08:25	121,2540G	ROI
Chromium, Hexavalent	ND		mg/kg	1.13	0.226	1	08/14/24 14:45	08/15/24 13:10	1,7196A	RDS

Project Name: ALLIANCE 51ST
Project Number: 30108678

Lab Number: L2445674
Report Date: 08/16/24

SAMPLE RESULTS

Lab ID: L2445674-10
Client ID: DEP51-S7-240813
Sample Location: PHILA, PA

Date Collected: 08/13/24 11:25
Date Received: 08/13/24
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	79.4		%	0.100	NA	1	-	08/14/24 08:25	121,2540G	ROI
Chromium, Hexavalent	0.466	J	mg/kg	1.01	0.202	1	08/14/24 14:45	08/15/24 13:10	1,7196A	RDS

Project Name: ALLIANCE 51ST
Project Number: 30108678

Lab Number: L2445674
Report Date: 08/16/24

SAMPLE RESULTS

Lab ID: L2445674-11
Client ID: DUP-S 240813
Sample Location: PHILA, PA

Date Collected: 08/13/24 00:00
Date Received: 08/13/24
Field Prep: Not Specified

Sample Depth:
Matrix: Soil

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Solids, Total	74.2		%	0.100	NA	1	-	08/14/24 08:25	121,2540G	ROI
Chromium, Hexavalent	ND		mg/kg	1.08	0.216	1	08/14/24 13:12	08/15/24 15:44	1,7196A	RDS

Project Name: ALLIANCE 51ST
Project Number: 30108678

Lab Number: L2445674
Report Date: 08/16/24

SAMPLE RESULTS

Lab ID: L2445674-12
Client ID: DEP51-W5-240813
Sample Location: PHILA, PA

Date Collected: 08/13/24 12:30
Date Received: 08/13/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Chromium, Hexavalent	19600		ug/l	500	150.	50	08/14/24 09:00	08/14/24 09:25	1,7196A	JBB

Project Name: ALLIANCE 51ST
Project Number: 30108678

Lab Number: L2445674
Report Date: 08/16/24

SAMPLE RESULTS

Lab ID: L2445674-13
Client ID: DEP51-W6-240813
Sample Location: PHILA, PA

Date Collected: 08/13/24 12:55
Date Received: 08/13/24
Field Prep: Not Specified

Sample Depth:
Matrix: Water

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab										
Chromium, Hexavalent	28000		ug/l	1000	300.	100	08/14/24 09:00	08/14/24 09:26	1,7196A	JBB

Project Name: ALLIANCE 51ST
Project Number: 30108678
Lab Number: L2445674
Report Date: 08/16/24

Method Blank Analysis
Batch Quality Control

Parameter	Result	Qualifier	Units	RL	MDL	Dilution Factor	Date Prepared	Date Analyzed	Analytical Method	Analyst
General Chemistry - Westborough Lab for sample(s): 12-13 Batch: WG1959146-1										
Chromium, Hexavalent	ND		ug/l	10.0	3.00	1	08/14/24 09:00	08/14/24 09:21	1,7196A	JBB
General Chemistry - Westborough Lab for sample(s): 11 Batch: WG1959251-1										
Chromium, Hexavalent	ND		mg/kg	0.800	0.160	1	08/14/24 13:12	08/15/24 15:44	1,7196A	RDS
General Chemistry - Westborough Lab for sample(s): 01-10 Batch: WG1959316-1										
Chromium, Hexavalent	ND		mg/kg	0.800	0.160	1	08/14/24 14:45	08/15/24 13:10	1,7196A	RDS

Lab Control Sample Analysis

Batch Quality Control

Project Name: ALLIANCE 51ST

Project Number: 30108678

Lab Number: L2445674

Report Date: 08/16/24

Parameter	LCS %Recovery	Qual	LCSD %Recovery	Qual	%Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 12-13 Batch: WG1959146-2								
Chromium, Hexavalent	97		-		85-115	-		20
General Chemistry - Westborough Lab Associated sample(s): 11 Batch: WG1959251-2								
Chromium, Hexavalent	82		-		80-120	-		20
General Chemistry - Westborough Lab Associated sample(s): 01-10 Batch: WG1959316-2								
Chromium, Hexavalent	86		-		80-120	-		20

Matrix Spike Analysis
Batch Quality Control

Project Name: ALLIANCE 51ST
Project Number: 30108678

Lab Number: L2445674
Report Date: 08/16/24

Parameter	Native Sample	MS Added	MS Found	MS %Recovery	Qual	MSD Found	MSD %Recovery	Qual	Recovery Limits	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 12-13 QC Batch ID: WG1959146-4 QC Sample: L2445674-13 Client ID: DEP51-W6-240813												
Chromium, Hexavalent	28000	100000	37200	92		-	-		85-115	-		20
General Chemistry - Westborough Lab Associated sample(s): 11 QC Batch ID: WG1959251-4 QC Sample: L2445674-11 Client ID: DUP-S 240813												
Chromium, Hexavalent	ND	1490	1140	77		-	-		75-125	-		20
General Chemistry - Westborough Lab Associated sample(s): 01-10 QC Batch ID: WG1959316-4 QC Sample: L2445674-01 Client ID: DEP51-S3-240813												
Chromium, Hexavalent	4.27	1300	1100	84		-	-		75-125	-		20

Lab Duplicate Analysis
Batch Quality Control

Project Name: ALLIANCE 51ST
Project Number: 30108678

Lab Number: L2445674
Report Date: 08/16/24

Parameter	Native Sample	Duplicate Sample	Units	RPD	Qual	RPD Limits
General Chemistry - Westborough Lab Associated sample(s): 01-11 QC Batch ID: WG1959075-1 QC Sample: L2445674-01 Client ID: DEP51-S3-240813						
Solids, Total	88.1	88.4	%	0		20
General Chemistry - Westborough Lab Associated sample(s): 12-13 QC Batch ID: WG1959146-3 QC Sample: L2445674-12 Client ID: DEP51-W5-240813						
Chromium, Hexavalent	19600	19700	ug/l	1		20
General Chemistry - Westborough Lab Associated sample(s): 11 QC Batch ID: WG1959251-6 QC Sample: L2445674-11 Client ID: DUP-S 240813						
Chromium, Hexavalent	ND	ND	mg/kg	NC		20
General Chemistry - Westborough Lab Associated sample(s): 01-10 QC Batch ID: WG1959316-6 QC Sample: L2445674-01 Client ID: DEP51-S3-240813						
Chromium, Hexavalent	4.27	5.53	mg/kg	**26**	Q	20

Project Name: ALLIANCE 51ST
Project Number: 30108678

Lab Number: L2445674
Report Date: 08/16/24

Sample Receipt and Container Information

Were project specific reporting limits specified? YES

Cooler Information

Cooler	Custody Seal
A	Absent

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2445674-01A	Glass 120ml/4oz unpreserved	A	NA		2.2	Y	Absent		BE-TI(180),BA-TI(180),AS-TI(180),AG-TI(180),NI-TI(180),CR-TI(180),TL-TI(180),AL-TI(180),SE-TI(180),PB-TI(180),ZN-TI(180),SB-TI(180),CU-TI(180),V-TI(180),CO-TI(180),FE-TI(180),MN-TI(180),MG-TI(180),HG-T(28),NA-TI(180),K-TI(180),CD-TI(180),CA-TI(180)
L2445674-01B	Glass 120ml/4oz unpreserved	A	NA		2.2	Y	Absent		TS(7),HEXCR-7196(30)
L2445674-02A	Metals Only-Glass 60mL/2oz unpreserved	A	NA		2.2	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),AL-TI(180),TL-TI(180),NI-TI(180),CU-TI(180),ZN-TI(180),PB-TI(180),SE-TI(180),SB-TI(180),CO-TI(180),V-TI(180),HG-T(28),MG-TI(180),FE-TI(180),MN-TI(180),CD-TI(180),K-TI(180),NA-TI(180),CA-TI(180)
L2445674-02B	Glass 120ml/4oz unpreserved	A	NA		2.2	Y	Absent		TS(7),HEXCR-7196(30)
L2445674-03A	Metals Only-Glass 60mL/2oz unpreserved	A	NA		2.2	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),TL-TI(180),NI-TI(180),AL-TI(180),CU-TI(180),SB-TI(180),SE-TI(180),PB-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),FE-TI(180),MN-TI(180),HG-T(28),MG-TI(180),K-TI(180),NA-TI(180),CA-TI(180),CD-TI(180)
L2445674-03B	Glass 120ml/4oz unpreserved	A	NA		2.2	Y	Absent		TS(7),HEXCR-7196(30)
L2445674-04A	Metals Only-Glass 60mL/2oz unpreserved	A	NA		2.2	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),CR-TI(180),TL-TI(180),NI-TI(180),AL-TI(180),CU-TI(180),PB-TI(180),ZN-TI(180),SE-TI(180),SB-TI(180),V-TI(180),CO-TI(180),HG-T(28),MN-TI(180),FE-TI(180),MG-TI(180),CA-TI(180),NA-TI(180),K-TI(180),CD-TI(180)
L2445674-04B	Glass 120ml/4oz unpreserved	A	NA		2.2	Y	Absent		TS(7),HEXCR-7196(30)
L2445674-05A	Metals Only-Glass 60mL/2oz unpreserved	A	NA		2.2	Y	Absent		BE-TI(180),BA-TI(180),AS-TI(180),AG-TI(180),AL-TI(180),NI-TI(180),CR-TI(180),TL-TI(180),ZN-TI(180),SE-TI(180),SB-TI(180),CU-TI(180),PB-TI(180),CO-TI(180),V-TI(180),FE-TI(180),MG-TI(180),HG-T(28),MN-TI(180),K-TI(180),CD-TI(180),CA-TI(180),NA-TI(180)
L2445674-05B	Glass 120ml/4oz unpreserved	A	NA		2.2	Y	Absent		TS(7),HEXCR-7196(30)

*Values in parentheses indicate holding time in days

Project Name: ALLIANCE 51ST
Project Number: 30108678

Lab Number: L2445674
Report Date: 08/16/24

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2445674-06A	Glass 120ml/4oz unpreserved	A	NA		2.2	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),TL-TI(180),CR-TI(180),NI-TI(180),CU-TI(180),ZN-TI(180),SE-TI(180),SB-TI(180),PB-TI(180),CO-TI(180),V-TI(180),HG-T(28),FE-TI(180),MG-TI(180),MN-TI(180),K-TI(180),CA-TI(180),NA-TI(180),CD-TI(180)
L2445674-06B	Glass 120ml/4oz unpreserved	A	NA		2.2	Y	Absent		TS(7),HEXCR-7196(30)
L2445674-07A	Glass 120ml/4oz unpreserved	A	NA		2.2	Y	Absent		BE-TI(180),BA-TI(180),AS-TI(180),AG-TI(180),TL-TI(180),AL-TI(180),NI-TI(180),CR-TI(180),CU-TI(180),PB-TI(180),SE-TI(180),SB-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),HG-T(28),MN-TI(180),FE-TI(180),MG-TI(180),CA-TI(180),NA-TI(180),K-TI(180),CD-TI(180)
L2445674-07B	Glass 120ml/4oz unpreserved	A	NA		2.2	Y	Absent		TS(7),HEXCR-7196(30)
L2445674-08A	Metals Only-Glass 60mL/2oz unpreserved	A	NA		2.2	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),NI-TI(180),TL-TI(180),AL-TI(180),CR-TI(180),SB-TI(180),ZN-TI(180),PB-TI(180),SE-TI(180),CU-TI(180),CO-TI(180),V-TI(180),MN-TI(180),MG-TI(180),HG-T(28),FE-TI(180),CD-TI(180),K-TI(180),CA-TI(180),NA-TI(180)
L2445674-08B	Glass 120ml/4oz unpreserved	A	NA		2.2	Y	Absent		TS(7),HEXCR-7196(30)
L2445674-09A	Metals Only-Glass 60mL/2oz unpreserved	A	NA		2.2	Y	Absent		BE-TI(180),BA-TI(180),AS-TI(180),AG-TI(180),CR-TI(180),AL-TI(180),TL-TI(180),NI-TI(180),CU-TI(180),PB-TI(180),ZN-TI(180),SB-TI(180),SE-TI(180),V-TI(180),CO-TI(180),FE-TI(180),HG-T(28),MN-TI(180),MG-TI(180),CD-TI(180),NA-TI(180),CA-TI(180),K-TI(180)
L2445674-09B	Glass 120ml/4oz unpreserved	A	NA		2.2	Y	Absent		TS(7),HEXCR-7196(30)
L2445674-10A	Metals Only-Glass 60mL/2oz unpreserved	A	NA		2.2	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),TL-TI(180),CR-TI(180),NI-TI(180),PB-TI(180),SE-TI(180),CU-TI(180),SB-TI(180),ZN-TI(180),CO-TI(180),V-TI(180),HG-T(28),MG-TI(180),MN-TI(180),FE-TI(180),CD-TI(180),NA-TI(180),CA-TI(180),K-TI(180)
L2445674-10B	Glass 120ml/4oz unpreserved	A	NA		2.2	Y	Absent		TS(7),HEXCR-7196(30)
L2445674-11A	Glass 120ml/4oz unpreserved	A	NA		2.2	Y	Absent		BE-TI(180),AS-TI(180),BA-TI(180),AG-TI(180),AL-TI(180),NI-TI(180),TL-TI(180),CR-TI(180),ZN-TI(180),CU-TI(180),SB-TI(180),PB-TI(180),SE-TI(180),V-TI(180),CO-TI(180),MG-TI(180),MN-TI(180),FE-TI(180),HG-T(28),K-TI(180),NA-TI(180),CA-TI(180),CD-TI(180)
L2445674-11B	Glass 120ml/4oz unpreserved	A	NA		2.2	Y	Absent		TS(7),HEXCR-7196(30)

*Values in parentheses indicate holding time in days

Project Name: ALLIANCE 51ST
Project Number: 30108678

Lab Number: L2445674
Report Date: 08/16/24

Container Information

Container ID	Container Type	Cooler	Initial pH	Final pH	Temp deg C	Pres	Seal	Frozen Date/Time	Analysis(*)
L2445674-12A	Plastic 250ml HNO3 preserved	A	<2	<2	2.2	Y	Absent		AL-6020T-PPB(180),CO-6020T-PPB(180),SB-6020T-PPB(180),BE-6020T-PPB(180),CR-6020T-PPB(180),CD-6020T-PPB(180),HG-T-PPB(28),CA-6020T-PPB(180),CU-6020T-PPB(180),TL-6020T-PPB(180),BA-6020T-PPB(180),K-6020T-PPB(180),AG-6020T-PPB(180),PB-6020T-PPB(180),AS-6020T-PPB(180),FE-6020T-PPB(180),NI-6020T-PPB(180),NA-6020T-PPB(180),MG-6020T-PPB(180),ZN-6020T-PPB(180),MN-6020T-PPB(180),SE-6020T-PPB(180),V-6020T-PPB(180)
L2445674-12B	Plastic 250ml unpreserved	A	7	7	2.2	Y	Absent		HEXCR-7196-PPB(1)
L2445674-13A	Plastic 250ml HNO3 preserved	A	<2	<2	2.2	Y	Absent		CO-6020T-PPB(180),AL-6020T-PPB(180),CD-6020T-PPB(180),SB-6020T-PPB(180),BE-6020T-PPB(180),CR-6020T-PPB(180),HG-T-PPB(28),CU-6020T-PPB(180),CA-6020T-PPB(180),TL-6020T-PPB(180),BA-6020T-PPB(180),AG-6020T-PPB(180),K-6020T-PPB(180),AS-6020T-PPB(180),PB-6020T-PPB(180),FE-6020T-PPB(180),NA-6020T-PPB(180),NI-6020T-PPB(180),MG-6020T-PPB(180),ZN-6020T-PPB(180),V-6020T-PPB(180),SE-6020T-PPB(180),MN-6020T-PPB(180)
L2445674-13B	Plastic 250ml unpreserved	A	7	7	2.2	Y	Absent		HEXCR-7196-PPB(1)

*Values in parentheses indicate holding time in days

Project Name:	ALLIANCE 51ST	**Lab Number:**	L2445674
Project Number:	30108678	**Report Date:**	08/16/24

GLOSSARY

Acronyms

DL - Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the limit of quantitation (LOQ). The DL includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

EDL - Estimated Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The EDL includes any adjustments from dilutions, concentrations or moisture content, where applicable. The use of EDLs is specific to the analysis of PAHs using Solid-Phase Microextraction (SPME).

EMPC - Estimated Maximum Possible Concentration: The concentration that results from the signal present at the retention time of an analyte when the ions meet all of the identification criteria except the ion abundance ratio criteria. An EMPC is a worst-case estimate of the concentration.

EPA - Environmental Protection Agency.

LCS - Laboratory Control Sample: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LCSD - Laboratory Control Sample Duplicate: Refer to LCS.

LFB - Laboratory Fortified Blank: A sample matrix, free from the analytes of interest, spiked with verified known amounts of analytes or a material containing known and verified amounts of analytes.

LOD - Limit of Detection: This value represents the level to which a target analyte can reliably be detected for a specific analyte in a specific matrix by a specific method. The LOD includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

LOQ - Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

Limit of Quantitation: The value at which an instrument can accurately measure an analyte at a specific concentration. The LOQ includes any adjustments from dilutions, concentrations or moisture content, where applicable. (DoD report formats only.)

MDL - Method Detection Limit: This value represents the level to which target analyte concentrations are reported as estimated values, when those target analyte concentrations are quantified below the reporting limit (RL). The MDL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

MS - Matrix Spike Sample: A sample prepared by adding a known mass of target analyte to a specified amount of matrix sample for which an independent estimate of target analyte concentration is available. For Method 332.0, the spike recovery is calculated using the native concentration, including estimated values.

MSD - Matrix Spike Sample Duplicate: Refer to MS.

NA - Not Applicable.

NC - Not Calculated: Term is utilized when one or more of the results utilized in the calculation are non-detect at the parameter's reporting unit.

NDPA/DPA - N-Nitrosodiphenylamine/Diphenylamine.

NI - Not Ignitable.

NP - Non-Plastic: Term is utilized for the analysis of Atterberg Limits in soil.

NR - No Results: Term is utilized when 'No Target Compounds Requested' is reported for the analysis of Volatile or Semivolatile Organic TIC only requests.

RL - Reporting Limit: The value at which an instrument can accurately measure an analyte at a specific concentration. The RL includes any adjustments from dilutions, concentrations or moisture content, where applicable.

RPD - Relative Percent Difference: The results from matrix and/or matrix spike duplicates are primarily designed to assess the precision of analytical results in a given matrix and are expressed as relative percent difference (RPD). Values which are less than five times the reporting limit for any individual parameter are evaluated by utilizing the absolute difference between the values; although the RPD value will be provided in the report.

SRM - Standard Reference Material: A reference sample of a known or certified value that is of the same or similar matrix as the associated field samples.

STLP - Semi-dynamic Tank Leaching Procedure per EPA Method 1315.

TEF - Toxic Equivalency Factors: The values assigned to each dioxin and furan to evaluate their toxicity relative to 2,3,7,8-TCDD.

TEQ - Toxic Equivalent: The measure of a sample's toxicity derived by multiplying each dioxin and furan by its corresponding TEF and then summing the resulting values.

TIC - Tentatively Identified Compound: A compound that has been identified to be present and is not part of the target compound list (TCL) for the method and/or program. All TICs are qualitatively identified and reported as estimated concentrations.

Report Format: DU Report with 'J' Qualifiers

Project Name:	ALLIANCE 51ST	**Lab Number:**	L2445674
Project Number:	30108678	**Report Date:**	08/16/24

Footnotes

1 - The reference for this analyte should be considered modified since this analyte is absent from the target analyte list of the original method.

Terms

Analytical Method: Both the document from which the method originates and the analytical reference method. (Example: EPA 8260B is shown as 1,8260B.) The codes for the reference method documents are provided in the References section of the Addendum.

Chlordane: The target compound Chlordane (CAS No. 57-74-9) is reported for GC ECD analyses. Per EPA,this compound "refers to a mixture of chlordane isomers, other chlorinated hydrocarbons and numerous other components." (Reference: USEPA Toxicological Review of Chlordane, In Support of Summary Information on the Integrated Risk Information System (IRIS), December 1997.)

Difference: With respect to Total Oxidizable Precursor (TOP) Assay analysis, the difference is defined as the Post-Treatment value minus the Pre-Treatment value.

Final pH: As it pertains to Sample Receipt & Container Information section of the report, Final pH reflects pH of container determined after adjustment at the laboratory, if applicable. If no adjustment required, value reflects Initial pH.

Frozen Date/Time: With respect to Volatile Organics in soil, Frozen Date/Time reflects the date/time at which associated Reagent Water-preserved vials were initially frozen. Note: If frozen date/time is beyond 48 hours from sample collection, value will be reflected in 'bold'.

Gasoline Range Organics (GRO): Gasoline Range Organics (GRO) results include all chromatographic peaks eluting from Methyl tert butyl ether through Naphthalene, with the exception of GRO analysis in support of State of Ohio programs, which includes all chromatographic peaks eluting from Hexane through Dodecane.

Initial pH: As it pertains to Sample Receipt & Container Information section of the report, Initial pH reflects pH of container determined upon receipt, if applicable.

PAH Total: With respect to Alkylated PAH analyses, the 'PAHs, Total' result is defined as the summation of results for all or a subset of the following compounds: Naphthalene, C1-C4 Naphthalenes, 2-Methylnaphthalene, 1-Methylnaphthalene, Biphenyl, Acenaphthylene, Acenaphthene, Fluorene, C1-C3 Fluorenes, Phenanthrene, C1-C4 Phenanthrenes/Anthracenes, Anthracene, Fluoranthene, Pyrene, C1-C4 Fluoranthenes/Pyrenes, Benz(a)anthracene, Chrysene, C1-C4 Chrysenes, Benzo(b)fluoranthene, Benzo(j)+(k)fluoranthene, Benzo(e)pyrene, Benzo(a)pyrene, Perylene, Indeno(1,2,3-cd)pyrene, Dibenz(ah)+(ac)anthracene, Benzo(g,h,i)perylene. If a 'Total' result is requested, the results of its individual components will also be reported.

PFAS Total: With respect to PFAS analyses, the 'PFAS, Total (5)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA and PFOS. In addition, the 'PFAS, Total (6)' result is defined as the summation of results for: PFHpA, PFHxS, PFOA, PFNA, PFDA and PFOS. For MassDEP DW compliance analysis only, the 'PFAS, Total (6)' result is defined as the summation of results at or above the RL. Note: If a 'Total' result is requested, the results of its individual components will also be reported.

Total: With respect to Organic analyses, a 'Total' result is defined as the summation of results for individual isomers or Aroclors. If a 'Total' result is requested, the results of its individual components will also be reported. This is applicable to 'Total' results for methods 8260, 8081 and 8082.

Data Qualifiers

A - Spectra identified as "Aldol Condensates" are byproducts of the extraction/concentration procedures when acetone is introduced in the process.

B - The analyte was detected above the reporting limit in the associated method blank. Flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For MCP-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank. For DOD-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte at less than ten times (10x) the concentration found in the blank AND the analyte was detected above one-half the reporting limit (or above the reporting limit for common lab contaminants) in the associated method blank. For NJ-Air-related projects, flag only applies to associated field samples that have detectable concentrations of the analyte above the reporting limit. For NJ-related projects (excluding Air), flag only applies to associated field samples that have detectable concentrations of the analyte, which was detected above the reporting limit in the associated method blank or above five times the reporting limit for common lab contaminants (Phthalates, Acetone, Methylene Chloride, 2-Butanone).

C - Co-elution: The target analyte co-elutes with a known lab standard (i.e. surrogate, internal standards, etc.) for co-extracted analyses.

D - Concentration of analyte was quantified from diluted analysis. Flag only applies to field samples that have detectable concentrations of the analyte.

E - Concentration of analyte exceeds the range of the calibration curve and/or linear range of the instrument.

F - The ratio of quantifier ion response to qualifier ion response falls outside of the laboratory criteria. Results are considered to be an estimated maximum concentration.

G - The concentration may be biased high due to matrix interferences (i.e, co-elution) with non-target compound(s). The result should be considered estimated.

H - The analysis of pH was performed beyond the regulatory-required holding time of 15 minutes from the time of sample collection.

I - The lower value for the two columns has been reported due to obvious interference.

J - Estimated value. The Target analyte concentration is below the quantitation limit (RL), but above the Method Detection Limit (MDL) or Estimated Detection Limit (EDL) for SPME-related analyses. This represents an estimated concentration for Tentatively

Report Format: DU Report with 'J' Qualifiers

Project Name:	ALLIANCE 51ST	**Lab Number:**	L2445674
Project Number:	30108678	**Report Date:**	08/16/24

Data Qualifiers

Identified Compounds (TICs). For calculated parameters, this represents that one or more values used in the calculation were estimated.

M - Reporting Limit (RL) exceeds the MCP CAM Reporting Limit for this analyte.

ND - Not detected at the method detection limit (MDL) for the sample, or estimated detection limit (EDL) for SPME-related analyses.

NJ - Presumptive evidence of compound. This represents an estimated concentration for Tentatively Identified Compounds (TICs), where the identification is based on a mass spectral library search.

P - The RPD between the results for the two columns exceeds the method-specified criteria.

Q - The quality control sample exceeds the associated acceptance criteria. For DOD-related projects, LCS and/or Continuing Calibration Standard exceedences are also qualified on all associated sample results. Note: This flag is not applicable for matrix spike recoveries when the sample concentration is greater than 4x the spike added or for batch duplicate RPD when the sample concentrations are less than 5x the RL. (Metals only.)

R - Analytical results are from sample re-analysis.

RE - Analytical results are from sample re-extraction.

S - Analytical results are from modified screening analysis.

V - The surrogate associated with this target analyte has a recovery outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Z - The batch matrix spike and/or duplicate associated with this target analyte has a recovery/RPD outside the QC acceptance limits. (Applicable to MassDEP DW Compliance samples only.)

Project Name:	ALLIANCE 51ST	**Lab Number:**	L2445674
Project Number:	30108678	**Report Date:**	08/16/24

REFERENCES

1 Test Methods for Evaluating Solid Waste: Physical/Chemical Methods. EPA SW-846. Third Edition. Updates I - VI, 2018.

121 Standard Methods for the Examination of Water and Wastewater. APHA-AWWA-WEF. Standard Methods Online.

LIMITATION OF LIABILITIES

Alpha Analytical performs services with reasonable care and diligence normal to the analytical testing laboratory industry. In the event of an error, the sole and exclusive responsibility of Alpha Analytical shall be to re-perform the work at it's own expense. In no event shall Alpha Analytical be held liable for any incidental, consequential or special damages, including but not limited to, damages in any way connected with the use of, interpretation of, information or analysis provided by Alpha Analytical.

We strongly urge our clients to comply with EPA protocol regarding sample volume, preservation, cooling, containers, sampling procedures, holding time and splitting of samples in the field.

Certification Information

The following analytes are not included in our Primary NELAP Scope of Accreditation:

Westborough Facility
EPA 624.1: m/p-xylene, o-xylene, Naphthalene
EPA 625.1: alpha-Terpineol
EPA 8260D: NPW: 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene; SCM: Iodomethane (methyl iodide), 1,2,4,5-Tetramethylbenzene; 4-Ethyltoluene.
EPA 8270E: NPW: Dimethylnaphthalene,1,4-Diphenylhydrazine, alpha-Terpineol, Azobenzene; SCM: Dimethylnaphthalene,1,4-Diphenylhydrazine.
SM4500: NPW: Amenable Cyanide; SCM: Total Phosphorus, TKN, NO2, NO3.

Mansfield Facility
SM 2540D: TSS.
EPA TO-15: Halothane, 2,4,4-Trimethyl-2-pentene, 2,4,4-Trimethyl-1-pentene, Thiophene, 2-Methylthiophene, 3-Methylthiophene, 2-Ethylthiophene, 1,2,3-Trimethylbenzene, Indan, Indene, 1,2,4,5-Tetramethylbenzene, Benzothiophene, 1-Methylnaphthalene.
Nonpotable Water: EPA RSK-175 Dissolved Gases
Biological Tissue Matrix: EPA 3050B

The following analytes are included in our Massachusetts DEP Scope of Accreditation

Westborough Facility:

Drinking Water
EPA 300.0: Chloride, Nitrate-N, Fluoride, Sulfate; **EPA 353.2**: Nitrate-N, Nitrite-N; **SM4500NO3-F**: Nitrate-N, Nitrite-N; **SM4500F-C, SM4500CN-CE, EPA 180.1, SM2130B, SM4500Cl-D, SM2320B, SM2540C, SM4500H-B, SM4500NO2-B**
EPA 524.2: THMs and VOCs; **EPA 504.1:** EDB, DBCP.
Microbiology: **SM9215B; SM9223-P/A, SM9223B-Colilert-QT,SM9222D**.

Non-Potable Water
SM4500H,B, EPA 120.1, SM2510B, SM2540C, SM2320B, SM4500CL-E, SM4500F-BC, SM4500NH3-BH: Ammonia-N and Kjeldahl-N, **EPA 350.1**: Ammonia-N, **LACHAT 10-107-06-1-B**: Ammonia-N, **EPA 351.1, SM4500NO3-F, EPA 353.2**: Nitrate-N**, SM4500P-E, SM4500P-B, E, SM4500SO4-E, SM5220D, EPA 410.4, SM5210B, SM5310C, SM4500CL-D, EPA 1664, EPA 420.1, SM4500-CN-CE, SM2540D, EPA 300: Chloride, Sulfate, Nitrate.**
EPA 624.1: Volatile Halocarbons & Aromatics,
EPA 608.3: Chlordane, Toxaphene, Aldrin, alpha-BHC, beta-BHC, gamma-BHC, delta-BHC, Dieldrin, DDD, DDE, DDT, Endosulfan I, Endosulfan II, Endosulfan sulfate, Endrin, Endrin Aldehyde, Heptachlor, Heptachlor Epoxide, PCBs
EPA 625.1: SVOC (Acid/Base/Neutral Extractables).
Microbiology: **SM9223B-Colilert-QT; Enterolert-QT, EPA 1600, EPA 1603, SM9222D.**

Mansfield Facility:

Drinking Water
EPA 200.7: Al, Ba, Cd, Cr, Cu, Fe, Mn, Ni, Na, Ag, Ca, Zn. **EPA 200.8:** Al, Sb, As, Ba, Be, Cd, Cr, Cu, Pb, Mn, Ni, Se, Ag, TL, Zn. **EPA 245.1** Hg.
EPA 522, EPA 537.1.

Non-Potable Water
EPA 200.7: Al, Sb, As, Be, Cd, Ca, Cr, Co, Cu, Fe, Pb, Mg, Mn, Mo, Ni, K, Se, Ag, Na, Sr, TL, Ti, V, Zn.
EPA 200.8: Al, Sb**,** As, Be, Cd, Cr, Cu, Fe, Pb, Mn, Ni, K, Se, Ag, Na, TL, Zn.
EPA 245.1 Hg.
SM2340B

For a complete listing of analytes and methods, please contact your Alpha Project Manager.

NEW JERSEY CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581 — 8 Walkup Dr. — TEL: 508-898-9220 — FAX: 508-898-9193

Mansfield, MA 02048 — 320 Forbes Blvd — TEL: 508-822-9300 — FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page 1 of 2

Date Rec'd in Lab: 8/14/2024

ALPHA Job #: L2445674

Client Information

Client: Arcadis
Address: 1 Acterial Way Ste 5
Hillborough, NJ
Phone: 908-526-1m
Fax:
Email: Larry.Blunt@arcadis.com

Project Information

Project Name: Alcoa 51st St
Project Location: Phila, PA
Project #: 30106679
(Use Project name as Project #)
Project Manager: Larry Blunt
ALPHAQuote #:

Turn-Around Time

Standard
Rush (only if pre approved) [X]
Due Date:
# of Days: 3 Day

Deliverables

- [ ] NJ Full / Reduced
- [ ] EQuIS (1 File)
- [ ] EQuIS (4 File)
- [ ] Other

Billing Information

- [ ] Same as Client Info

PO #

Regulatory Requirement

- [ ] SRS Residential/Non Residential
- [ ] SRS Impact to Groundwater
- [ ] NJ Ground Water Quality Standards
- [ ] NJ IGW SPLP Leachate Criteria
- [ ] Other

Site Information

Is this site impacted by Petroleum? Yes [ ]

Petroleum Product:

These samples have been previously analyzed by Alpha [ ]

For EPH, selection is REQUIRED:
- [ ] Category 1
- [ ] Category 2

For VOC, selection is REQUIRED:
- [ ] 1,4-Dioxane
- [ ] 8011

Other project specific requirements/comments:

Please specify Metals or TAL.

Sample Filtration

- [ ] Done
- [ ] Lab to do

Preservation
- [ ] Lab to do

(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	ANALYSIS: TCL VOC	ANALYSIS: TAL metals	Sample Specific Comments	Total # Bottles
45674-01	DEPA1-S3-240617	8/8/24	1040	SOIL	MJT	X	X		2
-02	DEPA1-S5-240617		1110			X	X		
-03	DEPA1-S6-240617		1120			X	X		
-04	DEPA1-S8A-240617		1130			X	X		
-05	DEPA1-S10A-240617		1135			X	X		
-06	DEPA1-S12-240617		1041			X	X		
-07	DEPA1-S13-240617		1105			X	X		
-08	DEPA1-S14-240617		1145			X	X		
-09	DEPA1-S15-240617		1155			X	X		
-10	DEPA1-S7-240617		1125			X	X		

Container Type: A A
Preservative: A A

Preservative Code: A = None; B = HCl; C = HNO_3; D = H_2SO_4; E = NaOH; F = MeOH; G = $NaHSO_4$; H = $Na_2S_2O_3$; K/E = Zn Ac/NaOH; O = Other

Container Code: P = Plastic; A = Amber Glass; V = Vial; G = Glass; B = Bacteria Cup; C = Cube; O = Other; E = Encore; D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
Matt Hilliard	8/13/24 1800	FAC	8/13/24 1345
FAC	8/13/24 1500	FAC	8-13-24 1500
MSM (AM)	8/13/24 1800	MSM (AM)	8/13 1900
			8/13 2300

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-14 HC (rev. 30-Sept-2013)

8/14 0140

8/14/2024

NEW JERSEY CHAIN OF CUSTODY

ALPHA ANALYTICAL

Westborough, MA 01581
8 Walkup Dr.
TEL: 508-898-9220
FAX: 508-898-9193

Mansfield, MA 02048
320 Forbes Blvd
TEL: 508-822-9300
FAX: 508-822-3288

Service Centers
Mahwah, NJ 07430: 35 Whitney Rd, Suite 5
Albany, NY 12205: 14 Walker Way
Tonawanda, NY 14150: 275 Cooper Ave, Suite 105

Page: 2 of 2

Date Rec'd in Lab: 8/14/2024

ALPHA Job #: L2445674

Client Information

Client: Arcadis
Address: 1 Washington Blvd Ste 5
Jersey City NJ
Phone: 862-526-1600
Fax:
Email: Larry.Glantz@arcadis.com

Project Information

Project Name: Hillsdale Street
Project Location: Phillipsburg NJ
Project #: 30106678
(Use Project name as Project #)
Project Manager: Larry Glantz
ALPHAQuote #:

Turn-Around Time

Standard
Rush (only if pre approved)
Due Date:
# of Days: 3 day

Deliverables

- NJ Full / Reduced
- EQuIS (1 File)
- EQuIS (4 File)
- Other

Regulatory Requirement

- SRS Residential/Non Residential
- SRS Impact to Groundwater
- NJ Ground Water Quality Standards
- NJ IGW SPLP Leachate Criteria
- Other

Billing Information

- Same as Client Info

PO #

Site Information

Is this site impacted by Petroleum? Yes

Petroleum Product:

These samples have been previously analyzed by Alpha

For EPH, selection is REQUIRED:
- Category 1
- Category 2

For VOC, selection is REQUIRED:
- 1,4-Dioxane
- 8011

Other project specific requirements/comments:

Please specify Metals or TAL.

ANALYSIS

Sample Filtration
- Done 0.45 n/a
- Lab to do

Preservation
- Lab to do

(Please Specify below)

ALPHA Lab ID (Lab Use Only)	Sample ID	Collection Date	Collection Time	Sample Matrix	Sampler's Initials	HPK CC	TAL Metals	HPK CC	TAL Metals	Sample Specific Comments	Total Bottle
45674-11	[redacted] BAD-S 240813	8/13/24	X	Soil	MH	X	X				
-12	[redacted] WS 240813		1220	AQ				X	X		
-13	[redacted] PS1-WG-240813		1255					X	X		

Container Type: A A P P
Preservative: A A A C

Preservative Code:
A = None
B = HCl
C = HNO_3
D = H_2SO_4
E = NaOH
F = MeOH
G = $NaHSO_4$
H = $Na_2S_2O_3$
K/E = Zn Ac/NaOH
O = Other

Container Code:
P = Plastic
A = Amber Glass
V = Vial
G = Glass
B = Bacteria Cup
C = Cube
O = Other
E = Encore
D = BOD Bottle

Westboro: Certification No: MA935
Mansfield: Certification No: MA015

Relinquished By:	Date/Time	Received By:	Date/Time
Matt Miller	8/13/24 1345	[redacted] FACT	8/13/24 1345
[redacted] (SIGNATURE)	8/13/24 1500	[redacted] ARCADIS	8/13/24 1520
[redacted] (SIGNATURE)	8/13/24 1820	[redacted]	8/13 2300
		[redacted]	8/14 0140

Please print clearly, legibly and completely. Samples can not be logged in and turnaround time clock will not start until any ambiguities are resolved. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY ALPHA'S TERMS & CONDITIONS. (See reverse side.)

Form No: 01-14 HC (rev. 30-Sept-2013)