VIA ELECTRONIC MAIL

February 19, 2025

Moshood Oduwole
Remedial Project Manager
U.S. Environmental Protection Agency, Region III
4 Penn Center
Mail Code – 3LD10
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Subject: Quarterly Progress Report No. 33
Former Kop-Flex Facility Site, Hanover, Maryland
USEPA ID No. MDD043373935
Administrative Order on Consent, Docket No. RCRA-03-2016-0170 CA

Dear Moshood:

On behalf of EMERSUB 16, LLC, a subsidiary of Emerson Electric Co. (Emerson), WSP USA, Inc. (WSP) is submitting this quarterly progress report describing the activities conducted in the 4th Quarter of calendar year 2024 (October 1st through December 31st) as part of the corrective measures implementation at the former Kop-Flex, Inc. facility property located at 7555 Harmans Road (Site) in Hanover, Maryland. The Site is identical to the area described as the "Facility" in the Administrative Order on Consent, Docket No. RCRA-03-2016-0170 CA (Consent Order). The report also describes the activities planned for the 1st Quarter of calendar year 2025 (January 1st through March 31st).

This progress report is being submitted to the U.S. Environmental Protection Agency (EPA) pursuant to Section VI.C.3 of the Consent Order. Please note that, in addition to performing the work conducted under the Consent Order, EMERSUB 16 continues to perform the remedial activities specified in the October 2015 Response Action Plan (RAP) approved by the Maryland Department of the Environment (MDE) Voluntary Cleanup Program, and that EMERSUB 16 copies USEPA on all submittals required under that program.

If you have any questions, please do not hesitate to contact me at 703-709-6500.

Kind regards,

Robert E. Johnson
Vice President – Earth & Environment

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Encl.

cc: Mr. Stephen Clarke, EMERSUB 16 LLC
Mr. Tate Stevens, Voluntary Cleanup Program Section, MDE
Mr. Brian Deitz, Site Assessment and Remediation Division, MDE

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CERTIFICATION

I certify that the information contained in or accompanying this quarterly progress report is true, accurate, and complete.

As to those portions of this quarterly progress report for which I cannot personally verify their accuracy, I certify under penalty of law that this quarterly report and all attachments were prepared in accordance with procedures designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, or the immediate supervisor of such person(s), the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fines and imprisonment for knowing violations.

Signature: 

Name: Stephen L. Clarke

Title: President of EMERSUB 16, LLC

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Site Name: Former Kop-Flex Inc.
Site Address: 7555 Harmans Road
Hanover, Maryland 21077

Consultant: WSP USA Inc.
Address: 13530 Dulles Technology Drive, Suite 300
Herndon, Virginia 20171
Phone No.: (703) 709-6500

Project Coordinator: Eric Johnson
Alternate: Lisa Kelly

1.0 ACTIVITIES COMPLETED DURING OCTOBER 2024 – DECEMBER 2024 REPORTING PERIOD

1.1 HYDRAULIC CONTAINMENT SYSTEM OPERATION

- The hydraulic containment system (System) operated for 76 of the 92 days during the fourth quarter of 2024, which equates to an 83% run-time efficiency over this 3-month period. There were two system shutdowns during the fourth quarter, which included a prolonged shutdown that started on December 23, 2024, and continued into 2025 due to an issue with the boiler used for onsite regeneration of the ion exchange resin that treats the contaminated groundwater. During a routine Site visit on December 20th, a water leak at the boiler was identified by the System Operation and Maintenance (O&M) contractor. A ruptured fire tube was noted upon inspection by the mechanical boiler contractor (Tate Engineering). Work was scheduled to complete replacement of the ruptured fire tube in the first quarter of 2025.[1] The other shutdown (6 days) was due to a bad transformer on the boiler that needed to be replaced.

  Following replacement of the RW-2D pump motor and programming of the variable-frequency drive that controls the pump operation (discussed further in Section 1.2), this well was brought back online on December 18th. The well has pumped at approximately 25 gallons per minute (GPM) until the System was shut down on December 23rd, as mentioned above.

- A total of approximately 3.64 million gallons of impacted groundwater were extracted and treated during the fourth quarter of 2024, with a combined average withdrawal rate of up to 63 GPM when all recovery wells were on-line. This combined flow is similar to the typical flow, which has averaged 68 GPM over the operational lifetime of the System. The combined flow rate reflects the return to service of deep recovery well RW-2D.

- Effluent samples were collected for chemical analysis in accordance with the requirements specified in the National Pollutant Discharge Elimination System (NPDES) Permit for the System. The analytical results for all monitoring parameters, with the exception of total copper in the October and December samples, complied with the effluent limitations specified in the NPDES Permit.

  Concentrations of total copper exceeded the average monthly effluent limit of 9 micrograms per liter (µg/L) in the discharge samples collected in mid-October 2024 (16 µg/L) and mid-December 2024 (12.9 µg/L) The total copper concentration in the October sample also was above the daily maximum limit of 13 µg/L. WSP provided the appropriate verbal and written notifications to the Compliance Program of the MDE Water Management Administration in accordance with the reporting requirements in the NPDES Permit. (Copies of the written notifications of noncompliance submitted to MDE are included as Enclosure A [October monitoring period] and Enclosure B [December monitoring period]). Effluent samples collected after each noncompliance event detected total copper concentrations of 6.3 µg/L (early November 2024), and 7.2 µg/L and 10 µg/L (late

[1] The damaged boiler fire tube was replaced during January 16-17, 2025

January 2025), which are generally consistent with the historical data for total copper in the treated water. An assessment of the System components did not identify a potential cause for the copper exceedances. Based on System operational data and historical hydrogeochemical data, the slightly elevated copper concentration in the October and December samples reflect differences in the natural *(i.e.*, background) copper levels in the shallow and deep zones of the affected aquifer in combination with a significant (50%) reduction in the flow contribution from the deep aquifer zone, which is characterized by low copper concentrations. EMERSUB 16 and WSP have implemented a sampling plan to assess the copper concentrations in the shallow and deep aquifer and combined water processed through the treatment system. The results of the sampling activities and planned corrective action(s) to minimize future non-compliance with the copper effluent limitations will be submitted to the MDE Water Compliance Program.

- To monitor chlorinated volatile organic compounds (CVOCs) and 1,4-dioxane mass removal and treatment efficiency by the System, samples of both the influent and effluent were collected and analyzed during the reporting period. Monthly effluent samples were collected from October 2024 through December 2024 in accordance with the NPDES Permit. The total concentration of CVOCs and 1,4-dioxane in the October influent sample was 519 µg/L, which is higher than the results for the other quarterly influent samples collected in 2024. As of the end of December 2024, an estimated total of 558 pounds of CVOCs and 221 pounds of 1,4-dioxane have been recovered from the impacted portion of the Lower Patapsco aquifer.
- Non-detect CVOC and 1,4-dioxane results were reported for the effluent samples collected during the reporting period, with the exception of the October and December 2024 monitoring events where 1,4-dioxane was present at concentrations of 7.1 µg/L and 3.0 µg/L, respectively. These 1,4-dioxane levels are below the site-specific cleanup level and permit reporting value of 15 µg/L and generally consistent with concentrations detected in previous samples of the treated groundwater. The non-detect to very low concentrations of 1,4-dioxane in the samples reflect the presence of sufficient treatment capacity for the System resin.

1.2 WELL RW-2D PUMP MAINTENANCE

- During the reporting period, maintenance activities were conducted that included the replacement of the motor and pump end for the electric submersible pump in deep recovery well RW-2D. The pump repairs were completed, and the well was returned to service on December 18, 2024. Since resuming operation, well RW-2D has been pumping at an average rate of approximately 25 GPM from the deep (confined) zone of the Lower Patapsco aquifer.

1.3 GROUNDWATER LEVEL MONITORING

- Groundwater level monitoring is conducted semi-annually to gather data to evaluate the hydraulic head conditions in both the shallow and deep zones of the Lower Patapsco aquifer at the Site. Based on historical water level data collected under non-remedial pumping conditions, groundwater in the shallow zone of the Lower Patapsco aquifer flows to the north and west toward Stony Run, while flow paths are to the south-southeast in the deep (confined) zone of the aquifer.

  During the reporting period, water level measurements were collected from the shallow and deep monitoring wells and all recovery well piezometers except RW-2D the week of November 10, 2024. The water level data for this and previous measurement rounds is provided in Table 1. A measurement could not be obtained at the RW-2D piezometer due to the deployment of a pressure transducer and cable within the piezometer casing. WSP plans to re-deploy the pressure transducer inside the well casing to ensure water level readings can be obtained during future measurement events.
- Contour maps depicting the water table (Figure 1) and piezometric surface in the lower portion of the shallow zone (Figure 2) were generated from the November 2024 measurements. Evaluation of the groundwater elevations and gradients in the shallow zone are discussed separately below.
- The contouring of the groundwater elevations determined from the November data showed spatial variations in the water table and piezometric surface for the lower portion of the shallow zone that closely resemble those from previous measurement rounds under remedial pumping conditions.

  The water table contour map (Figure 1) indicates a generally westward flow of groundwater in the uppermost portion of the shallow zone of the Lower Patapsco aquifer across the Site, with the continued presence of a lowering in the groundwater surface

around well MW-38R that is associated with pumping from recovery wells RW-1S and RW-2S. A slight rise of the water table in the area around MW-09 is interpreted to reflect the enhanced recharge (movement of water downward through the soils) to the groundwater system, which is associated with the routing of surface water runoff to the small storm water management area (SWMA) located in the east-central portion of the Site. The enhanced infiltration of runoff in this SWMA, compared to the surrounding paved area, causes the localized increase in the water table elevation in the immediate area, and results in localized groundwater flow to the east away from the SWMA towards MW-04R and a small portion of the adjoining William-Scotsman property.

As with previous measurement rounds, the most pronounced decline in water levels in the shallow zone of the Lower Patapsco aquifer occurred within the permeable sand deposits comprising the lower portion of this hydrogeologic unit, with a well-developed cone of depression in the piezometric surface in the vicinity of recovery well RW-2S and extending to the north and south (Figure 2). Based on the head contours, groundwater in the eastern portion of the Site flows in a north and west direction toward the recovery wells. (This flow of groundwater in the shallow zone differs from the southerly direction of groundwater movement in the deep confined zone discussed below.) The November 2024 contour map for the lower portion of the shallow zone depicts a hydraulic capture zone extending northward to the loading dock area between Catalent Buildings 1 and 2 and southward beyond Catalent Building 2 toward MW-44 and the property boundary (Figure 2). The extraction of groundwater from RW-1S and RW-2S appears to impart sufficient hydraulic influence to contain the migration of Site-related contaminants in the shallow zone of the Lower Patapsco aquifer, although lower than normal pumping rates at RW-1S appear to have caused a transient reduction in the capture area during the most recent sampling event as compared to May 2024.

- The potentiometric surface contour map for the deep, confined zone of the Lower Patapsco aquifer generated from the November 2024 water level data is provided in Figure 3. The hydraulic head distribution shows a perturbation in the flow field around RW-1D, associated with a slight depression in the potentiometric surface along the southern property boundary in response to groundwater withdrawals from this recovery well. Evaluation of the head distribution indicates drawdown of the potentiometric surface extending south onto the adjoining William Scotsman property. However, with RW-2D being off-line, the observed drawdown area does not extend toward the southeastern portion of the Site.

1.4 GROUNDWATER QUALITY MONITORING

- In accordance with the Groundwater Monitoring Plan, groundwater quality samples were collected during the week of November 10, 2024, from all onsite monitoring wells identified for annual sampling. Samples were also obtained of the groundwater discharge from the operating shallow and deep recovery wells at this time to assess the contaminant concentrations at each extraction point.

- Groundwater samples from the shallow and deep monitoring wells were collected using 38-inch (3.2-foot) long HydraSleeve™ samplers. The HydraSleeves™ were suspended with the top, or inlet port, of the sampler placed at the midpoint of the 10-foot screened interval in each well. Given this deployment depth, retrieval would fill the sampler through the overlying interval of the well screen equal to the length of the sampler (Table 2). Samples were obtained by carefully removing the HydraSleeve™ sampler from the well and decanting a representative portion of the collected water into the laboratory-supplied containers. A separate aliquot of sample was poured into the sampling cup of a hand-held, multi-parameter water quality meter to measure temperature, pH, specific conductance, and turbidity in the field. The results of these measurements for each sampling location are provided in Table 3. At wells MW-16 and MW-16D, which are designated for the collection of field quality control samples (matrix spike/matrix spike duplicate and field duplicate, respectively), insufficient volume was left over to collect field parameter measurements. Insufficient sample volume to measure field parameters was also encountered at well MW-44D.

  Samples of the groundwater discharge from on-line recovery wells were collected via sampling ports located in the well head piping. A small amount of water was purged from the sampling port and collected in a 5-gallon bucket followed by the collection of the sample directly into the containers.

  All water samples were submitted to the Australian Laboratory Services (ALS) Global laboratory in Middletown, Pennsylvania, and analyzed for VOCs using USEPA SW-846 Test Method 8260D and 1,4-dioxane using USEPA Test Method 8270E with selected ion monitoring.

- Analytical results for the site-related CVOCs and 1,4-dioxane are summarized in Table 4 for the monitoring well samples. Historical (December 2016 to present) data for the monitoring well samples are provided in Table 5. Analytical results for the site-related CVOCs and 1,4-dioxane in the recovery well discharge samples are summarized in Table 6. A copy of the certified laboratory analytical report for the samples is included in Enclosure C.

- The distribution of CVOC and 1,4-dioxane concentrations in the November 2024 groundwater samples from the monitoring wells in the shallow zone of the Lower Patapsco Aquifer mostly varied relative to levels detected in the May 2024 samples (Table 5). As with previous sampling events, the highest concentrations of site-related contaminants of concern (COCs) were detected in the sample collected from MW-16, which had a total concentration of COCs of 3,375 µg/l (Table 4). This total concentration reflects a decrease in COC levels from May 2024, with concentrations of 1,1-dichloroethane (1,1-DCA), 1,1-dichlorothene (1,1-DCE), 1,4-dioxane, and 1,1,1-trichlorothane (1,1,1-TCA) all decreasing between 3 and 15 percent (Figure 4; Table 5).

  In the eastern part of the Site upgradient of the recovery wells, the results of the sample collected from MW-04R continue to indicate lower concentrations of 1,1-DCA (32.6 µg/l), 1,1-DCE (61.6 µg/l), and 1,4-dioxane (36.8 µg/l) (Table 5; Figure 4). Concentrations of 1,1-DCA and 1,1-DCE have fluctuated by approximately 15 percent or less, with slightly greater variations (20 to 50 percent) in the concentrations of 1,4-dioxane. Generally, these variations are less than those that were historically observed in the previous monitoring well MW-04 and may reflect less influence of water moving downward from the SWMA through the soil to the water table. Concentrations of 1,1-DCE (18 µg/l) continue to exceed its groundwater quality criterion at well MW-09, which is located downgradient (northwest) of MW-04R and the SWMA. The 1,1-DCE concentration exhibited a notable decrease from the level detected in the previous (May 2024) sample, as did the concentrations for 1,1-DCA and 1,4-dixoane. At the deeper MW-20 location, concentrations of 1,1-DCA (389 µg/l) and 1,1-DCE (528 µg/l) both decreased slightly between May and December 2024, although the concentrations of these COCs remain high compared to the sampling history of the well prior to December 2023. A possible explanation for higher CVOC levels is the change in both the sampling interval depth and length of the sampler compared to historical sampling events, with higher concentrations in the groundwater flowing into the upper portion of the screened interval compared to the middle portion of the screen. Vertical changes in the CVOC concentrations could also be related to subtle differences in the sandy aquifer materials within the screened interval and matrix diffusion effects from clayey deposits. The concentration of 1,4-dioxane (616 µg/l) increased more significantly between the last two sampling events.

  Generally lower COC concentrations were detected in samples from the shallow monitoring wells in the western part of the Site where the recovery wells are in operation (Table 4, Figure 4). Concentrations of one or more site-related COCs exceeded the groundwater quality criteria in the samples from wells MW-38R and MW-43. At the MW-43 location north of the recovery wells, concentrations of 1,1-DCA, 1,1-DCE, and 1,4-dioxane remain relatively unchanged during the last five sampling events (November 2022 through 2024). Overall, the results reflect a trend of decreasing VOC concentrations in this well throughout its sampling history. In addition, no site-related COCs were detected in the sample from wells MW-03 and MW-39, which are located northwest of the recovery wells. At the MW-44 location south of the recovery wells, concentrations of COCs have also decreased from 2019 to the present. No COCs exceeded the evaluation criteria in the November 2024 sample from this well.

- For the deep monitoring well samples, the CVOC and 1,4-dioxane concentrations detected in the November 2024 samples are generally similar to levels detected historically with some exceptions (Table 5; Figure 5). At the MW-16D location, which has the highest concentrations of site-related COCs, the latest results indicate decreases in 1,1-DCA (16.8 µg/l) and 1,1-DCE (68.2 µg/l) relative to the May 2024 sample. These declines are consistent with the historical trend of decreasing concentrations of COCs at this location throughout its sampling history. The concentration of 1,4-dioxane (21.6 µg/l) increased slightly compared to the May (18.7 µg/l) sampling event (Table 5).

  In the upgradient portion of the plume (MW-23D), typical seasonal variations resulted in the concentration of 1,1-DCA (20.1 µg/l) and 1,1-DCE (78 µg/l) decreasing by 38 percent and 42 percent, respectively. between May 2024 and November 2024, and the concentration of 1,4-dioxane increasing from 24 µg/l to 34 µg/l.[2] The total COC concentrations (137.4 µg/l) reached a historically low level during the latest sampling event due to the declines in 1,1-DCA and 1,1-DCE.

[2] This change in 1,4-dioxane concentrations is similar to seasonal variations of similar magnitude in the 2022 and 2023 samples.

In the southern portion of the Site, the concentrations of 1,1-DCE (19.8 µg/l) and 1,4-dioxane (7.2 µg/l) in the November 2024 sample from well MW-21D increased relative to the May event. These increases mark a partial return to levels observed prior to May 2024 when concentrations in this well appeared to be increasing since 2021. The sample collected from MW-22D, which is situated near the southeastern corner of the Site, had a concentration of 1,1-DCE (10.8 µg/l) that exceeded the comparative criterion and 1,4-dioxane (3.4 µg/l) which was below the comparative criterion. These concentrations represent an increase relative to the concentrations observed in the May 2024 samples collected from this well and may be due to a reduced capture zone while recovery well RW-2D was off-line from mid-May 2024 until mid-December 2024.

- Total concentrations of detectable CVOCs and 1,4-dioxane in the November samples from recovery wells RW-1S and RW-2S were 1,044 µg/l and 790 µg/l, respectively, which are higher than the concentrations detected in the previous samples from May 2024. The total COC concentration in the sample from deep recovery well RW-1D (567.5 µg/l) was similar to the level in the previous (May 2024) sample (563.6 µg/l), with 1,1-DCA (100 µg/l), 1,1-DCE (384 µg/l), and 1,4-dioxane (50.4 µg/l) being detected at the highest concentration (Table 6; Figure 6).

2.0 PLANNED ONSITE ACTIVITIES FOR THE FIRST QUARTER OF 2025

- Continue with the operation and as needed maintenance activities for the System, along with the collection and assessment of operational data to evaluate System performance.
- Conduct the required monthly effluent monitoring and reporting pursuant to the NPDES Permit.
- Complete sampling activities to evaluate the copper concentrations in the extracted groundwater and process water flow through the treatment system to guide the pumping rates for the recovery wells to minimize future non-compliance with the copper Permit limitations and provide the results and proposed corrective actions to the MDE Water Compliance Program.
- Perform *ex-situ* chemical cleaning of the resin in late March or April 2025 to remove natural organic constituents and fine-grained particulates that have accumulated in the treatment media as part of normal System operation.
- If necessary, collect water level measurements from the shallow monitoring and recovery wells and evaluate the data to assess the aquifer response to remedial pumping and capture of the contaminant plumes in the shallow zone of the Lower Patapsco aquifer.

3.0 KEY PERSONNEL/FACILITY CHANGES

There were no changes to key personnel for the corrective action or onsite conditions related to the activities conducted by the facility operator during the reporting period.

FIGURES

STONY RUN

POND

WILLIAMS SCOTSMAN, INC.

TREATMENT EQUIPMENT BUILDING

CATALENT BUILDING 1

CATALENT BUILDING 2

MW-03

MW-43

MW-09
114.07

MW-39

MW-38R
106.64

RW-1S

MW-42
107.38

RW-2S

MW-18

MW-5R
107.47

RW-3S

MW-16

MW-44

MW-01
114.05

MW-04R
113.34

MW-20

MW-45
113.09

107.5

108.5

109.5

110.5

111.5

112.5

113.5

113.5

POND

LEGEND

- PROPERTY LINE
- STREAM/EDGE OF WATER
- FENCE LINE
- STORMWATER MANAGEMENT AREA
- SHALLOW MONITORING WELL
- SHALLOW EXTRACTION WELL
- 113.34 GROUNDWATER SURFACE ELEVATION (FEET MSL)
- GROUNDWATER SURFACE CONTOUR (DASHED WHERE INFERRED)
- GROUNDWATER FLOW PATH

NOTE:

THE NOVEMBER 2024 GROUNDWATER ELEVATION CONTOURS ARE REPRESENTATIVE OF PUMPING CONDITIONS AT RECOVERY WELLS RW-1S AND RW-2S (RW-3S WAS OFF-LINE).

0 140 280

SCALE IN FEET

THE ORIGINAL VERSION OF THIS DRAWING IS IN COLOR. BLACK & WHITE COPIES MAY NOT ACCURATELY DEPICT CERTAIN INFORMATION.

B

Drawn By: EGC
Checked: 12/26/2024
Approved: 1/24/2025
DWG Name: 314V5608.010-088

FORMER KOP-FLEX FACILITY SITE
HANOVER, MARYLAND
PREPARED FOR
EMERSUB 16 LLC
ST. LOUIS, MISSOURI

FIGURE 1

WATER TABLE CONTOUR MAP,
PUMPING CONDITIONS
(NOVEMBER 2024)

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TEL: +1 703.709.6500

STONY RUN

POND

WILLIAMS SCOTSMAN, INC.

CATALENT BUILDING 1

CATALENT BUILDING 2

TREATMENT EQUIPMENT BUILDING

MW-03
98.03

MW-43
99.96

MW-39
106.12

MW-38R

RW-1S
105.00

RW-2S
90.44

RW-3S
NM

MW-42

MW-18
100.79

MW-5R

MW-44
110.57

MW-09

MW-04R

MW-20
114.30

MW-16
112.05

MW-01

98 100 102 104 106 108 110 112 114 94 96

POND

N

LEGEND

- PROPERTY LINE
- STREAM/EDGE OF WATER
- FENCE LINE
- STORMWATER MANAGEMENT AREA
- SHALLOW MONITORING WELL
- SHALLOW EXTRACTION WELL
- 100.12 PIEZOMETRIC SURFACE ELEVATION (FEET MSL)
- PIEZOMETRIC SURFACE CONTOUR (DASHED WHERE INFERRED)
- GROUNDWATER FLOW PATH
- APPROXIMATE EXTENT OF HYDRAULIC CAPTURE

NOTE:

THE NOVEMBER 2024 GROUNDWATER ELEVATION CONTOURS ARE REPRESENTATIVE OF PUMPING CONDITIONS AT RECOVERY WELLS RW-1S AND RW-2S (RW-3S WAS OFF-LINE).

0 140 280
SCALE IN FEET

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DWG Name: 314V5608.010-089

FORMER KOP-FLEX FACILITY SITE
HANOVER, MARYLAND
PREPARED FOR
EMERSUB 16 LLC
ST. LOUIS, MISSOURI

FIGURE 2

PIEZOMETRIC SURFACE CONTOUR MAP FOR THE LOWER PORTION OF THE SHALLOW ZONE OF THE LOWER PATASPCO AQUIFER (NOVEMBER 2024)

WSP USA Inc.
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SUITE 300
HERNDON, VA 20171
TEL: +1 703.709.6500

MW-46D
84.97

MW-27D
84.66

STONY RUN

POND

MW-23D
84.20

CATALENT BUILDING 1

WILLIAMS
SCOTSMAN, INC.

TREATMENT
EQUIPMENT
BUILDING

84

82

MW-16D
81.87

MW-40D
81.37

CATALENT BUILDING 2

MW-22D
80.82

MW-41D

MW-01D
78.52

MW-21D
75.13

RW-1D

RW-2D

80

78

76

MW-24D
74.40

POND

LEGEND

- PROPERTY LINE
- STREAM/EDGE OF WATER
- FENCE LINE
- STORMWATER MANAGEMENT AREA
- DEEP MONITORING WELL
- DEEP EXTRACTION WELL
- 80.82 POTENTIOMETRIC SURFACE ELEVATION (FEET MSL)
- POTENTIOMETRIC SURFACE CONTOUR (DASHED WHERE INFERRED)
- GROUNDWATER FLOW PATH
- APPROXIMATE EXTENT OF HYDRAULIC CAPTURE

NOTE:

THE NOVEMBER 2024 GROUNDWATER ELEVATION CONTOURS ARE REPRESENTATIVE OF PUMPING CONDITIONS AT RECOVERY WELL RW-1D (RW-2D WAS OFF-LINE).

0 140 280
SCALE IN FEET

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Approved: 1/24/2025
DWG Name: 314V5608.010-090

FORMER KOP-FLEX FACILITY SITE
HANOVER, MARYLAND
PREPARED FOR
EMERSUB 16 LLC
ST. LOUIS, MISSOURI

FIGURE 3

POTENTIOMETRIC SURFACE CONTOUR MAP FOR THE DEEP ZONE OF THE LOWER PATAPSCO AQUIFER (NOVEMBER 2024)

WSP USA Inc.
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VERIZON

MW-46D

MW-27D

STONY RUN

POND

MW-23D

CATALENT BUILDING 1

CATALENT BUILDING 2

TREATMENT EQUIPMENT BUILDING

WILLIAMS SCOTSMAN, INC.

MW-03

MW-39

MW-38R

MW-42

MW-18

MW-43

MW-09

MW-16

MW-04R

MW-20

MW-04

MW-45

MW-16D

RW-1S

RW-2S

MW-5R

RW-3S

MW-40D

MW-44

MW-41D

MW-22D

MW-21D

RW-1D

RW-2D

MW-01D

MW-01

MW-24D

MW-43		
	5/19/24	11/10/24
1,1-DCA	1.5	1.3
1,2-DCA	ND	ND
1,1-DCE	***17.3***	***15.2***
1,4-Dioxane	6.3	9.6
1,1,1-TCA	ND	ND
TCE	ND	ND

MW-03		
	May 24	11/10/24
1,1-DCA	NS	ND
1,2-DCA	NS	ND
1,1-DCE	NS	ND
1,4-Dioxane	NS	ND
1,1,1-TCA	NS	ND
TCE	NS	ND

MW-39		
	6/12/24	11/10/24
1,1-DCA	ND	ND
1,2-DCA	ND	ND
1,1-DCE	ND	ND
1,4-Dioxane	ND	ND
1,1,1-TCA	ND	ND
TCE	ND	ND

MW-38R		
	5/19/24	11/10/24
1,1-DCA	***8.1***	***3.9***
1,2-DCA	ND	ND
1,1-DCE	ND	ND
1,4-Dioxane	10.0	***19.2***
1,1,1-TCA	ND	ND
TCE	ND	ND

MW-42		
	5/19/24	11/10/24
1,1-DCA	ND	ND
1,2-DCA	ND	ND
1,1-DCE	ND	ND
1,4-Dioxane	3.7	3.3
1,1,1-TCA	ND	ND
TCE	ND	ND

MW-18		
	May 24	11/10/24
1,1-DCA	NS	ND
1,2-DCA	NS	ND
1,1-DCE	NS	ND
1,4-Dioxane	NS	ND
1,1,1-TCA	NS	ND
TCE	NS	ND

MW-09		
	5/19/24	11/11/24
1,1-DCA	***2.9***	1.1
1,2-DCA	ND	ND
1,1-DCE	***60.7***	***18.0***
1,4-Dioxane	3.8	2.2
1,1,1-TCA	ND	ND
TCE	ND	ND

MW-16		
	5/19/24	11/11/24
1,1-DCA	***1,160***	***1,030***
1,2-DCA	ND	ND
1,1-DCE	***1,640***	***1,490***
1,4-Dioxane	***91.4***	***88.1***
1,1,1-TCA	***905***	***767***
TCE	ND	ND

MW-04R		
	5/19/24	11/11/24
1,1-DCA	***36.0***	***32.6***
1,2-DCA	ND	ND
1,1-DCE	***76.0***	***61.6***
1,4-Dioxane	***26.7***	***36.8***
1,1,1-TCA	ND	ND
TCE	ND	ND

MW-20		
	5/19/24	11/11/24
1,1-DCA	***386***	***389***
1,2-DCA	***12.6***	***13.2***
1,1-DCE	***560***	***528***
1,4-Dioxane	***396***	***616***
1,1,1-TCA	ND	ND
TCE	***5.1***	ND

MW-5R		
	May 24	11/10/24
1,1-DCA	NS	ND
1,2-DCA	NS	ND
1,1-DCE	NS	ND
1,4-Dioxane	NS	1.9
1,1,1-TCA	NS	1.1
TCE	NS	ND

MW-44		
	5/19/24	11/10/24
1,1-DCA	***3.3***	1.6
1,2-DCA	ND	ND
1,1-DCE	5.0	2.0
1,4-Dioxane	1.9	2.8
1,1,1-TCA	5.8	2.0
TCE	ND	ND

MW-01		
	May 24	11/11/24
1,1-DCA	NS	ND
1,2-DCA	NS	ND
1,1-DCE	NS	ND
1,4-Dioxane	NS	ND
1,1,1-TCA	NS	ND
TCE	NS	ND

LEGEND

- PROPERTY LINE
- STREAM/EDGE OF WATER
- FENCE LINE
- STORMWATER MANAGEMENT AREA
- SHALLOW MONITORING WELL
- DEEP MONITORING WELL
- ABANDONED WELL
- SHALLOW EXTRACTION WELL
- DEEP EXTRACTION WELL

MW-20		
	5/19/24	11/11/24
1,1-DCA	***386***	***389***
1,2-DCA	***12.6***	***13.2***
1,1-DCE	***560***	***528***
1,4-Dioxane	***396***	***616***
1,1,1-TCA	ND	ND
TCE	***5.1***	ND

WELL ID
DATE
CONCENTRATION (ug/l) (BOLD ITALIC EXCEEDS CLEANUP LEVELS)
CONSTITUENT

ND	NON DETECT
1,1-DCA	1,1–DICHLOROETHANE
1,2-DCA	1,2–DICHLOROETHANE
1,1-DCE	1,1–DICHLOROETHENE
1,1,1-TCA	1,1,1–TRICHLOROETHANE
TCE	TRICHLOROETHENE

Cleanup Levels	
	µg/l
1,1-DCA	2.8
1,2-DCA	5
1,1-DCE	7
1,4-Dioxane	15
1,1,1-TCA	200
TCE	5

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SCALE IN FEET

Drawn By: EGC
Checked: 12/26/2024
Approved:
DWG Name: 314V5608.010-091

FORMER KOP-FLEX FACILITY SITE
HANOVER, MARYLAND
PREPARED FOR
EMERSUB 16 LLC
ST. LOUIS, MISSOURI

FIGURE 4

SAMPLING RESULTS FOR THE MONITORING WELLS SCREENED IN THE SHALLOW ZONE OF THE LOWER PATAPSCO AQUIFER (NOVEMBER 2024)

WSP USA Inc.
13530 DULLES TECHNOLOGY DR
SUITE 300
HERNDON, VA 20171
TEL: +1 703.709.6500

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Drawn By: EGC | Checked: 12/26/2024 | Approved: | DWG Name: 314V5608.010-091

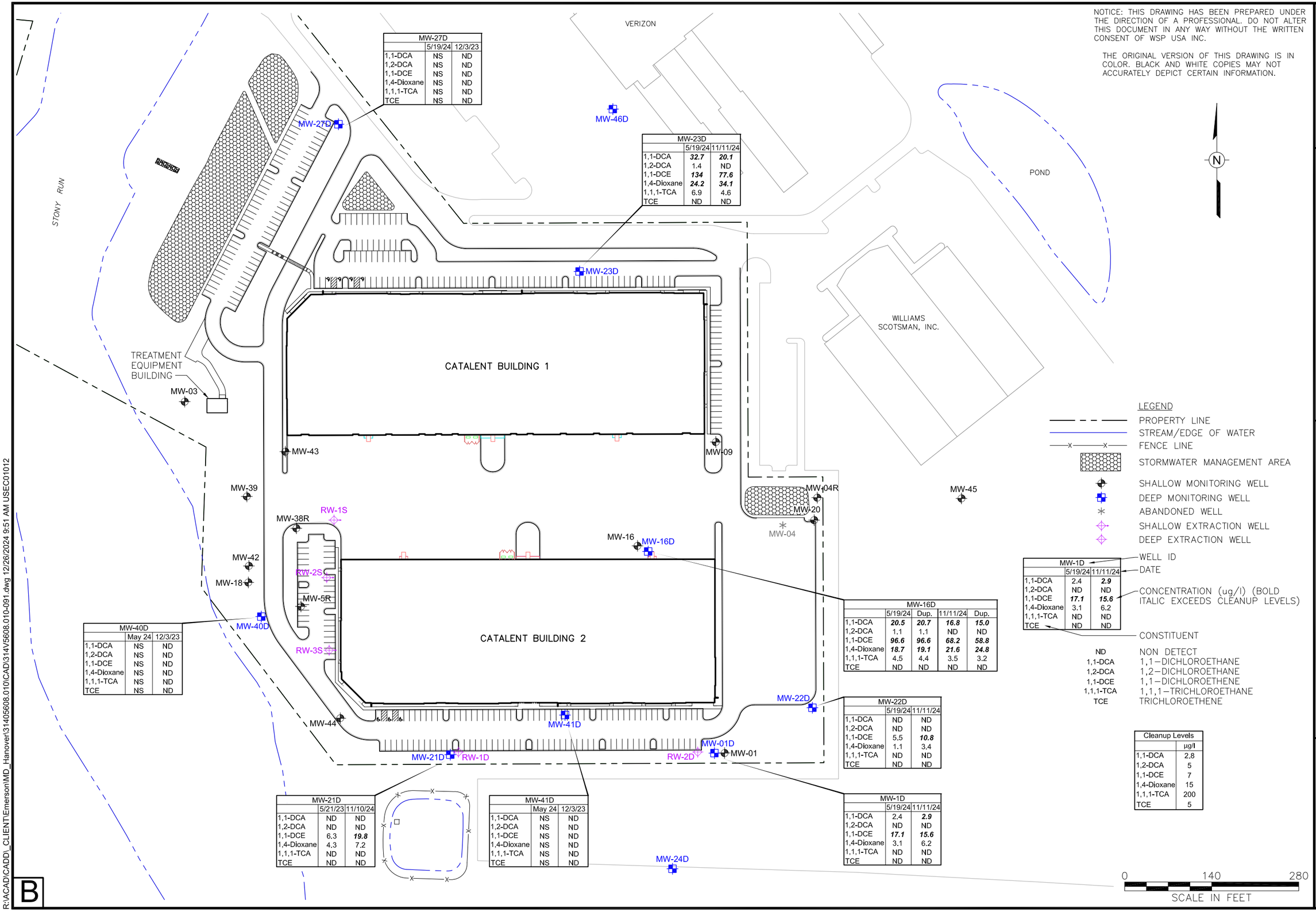
FORMER KOP-FLEX FACILITY SITE
HANOVER, MARYLAND

PREPARED FOR
EMERSUB 16 LLC
ST. LOUIS, MISSOURI

FIGURE 5

SAMPLING RESULTS FOR THE MONITORING WELLS SCREENED IN THE DEEP ZONE OF THE LOWER PATAPSCO AQUIFER (NOVEMBER 2024)

WSP USA Inc.
13530 DULLES TECHNOLOGY DR
SUITE 300
HERNDON, VA 20171
TEL: +1 703.709.6500



MW-27D	5/19/24	12/3/23
1,1-DCA	NS	ND
1,2-DCA	NS	ND
1,1-DCE	NS	ND
1,4-Dioxane	NS	ND
1,1,1-TCA	NS	ND
TCE	NS	ND

MW-23D	5/19/24	11/11/24
1,1-DCA	***32.7***	***20.1***
1,2-DCA	1.4	ND
1,1-DCE	***134***	***77.6***
1,4-Dioxane	***24.2***	***34.1***
1,1,1-TCA	6.9	4.6
TCE	ND	ND

MW-40D	May 24	12/3/23
1,1-DCA	NS	ND
1,2-DCA	NS	ND
1,1-DCE	NS	ND
1,4-Dioxane	NS	ND
1,1,1-TCA	NS	ND
TCE	NS	ND

MW-16D	5/19/24	Dup.	11/11/24	Dup.
1,1-DCA	***20.5***	***20.7***	***16.8***	***15.0***
1,2-DCA	1.1	1.1	ND	ND
1,1-DCE	***96.6***	***96.6***	***68.2***	***58.8***
1,4-Dioxane	***18.7***	***19.1***	***21.6***	***24.8***
1,1,1-TCA	4.5	4.4	3.5	3.2
TCE	ND	ND	ND	ND

MW-22D	5/19/24	11/11/24
1,1-DCA	ND	ND
1,2-DCA	ND	ND
1,1-DCE	5.5	***10.8***
1,4-Dioxane	1.1	3.4
1,1,1-TCA	ND	ND
TCE	ND	ND

MW-21D	5/21/23	11/10/24
1,1-DCA	ND	ND
1,2-DCA	ND	ND
1,1-DCE	6.3	***19.8***
1,4-Dioxane	4.3	7.2
1,1,1-TCA	ND	ND
TCE	ND	ND

MW-41D	May 24	12/3/23
1,1-DCA	NS	ND
1,2-DCA	NS	ND
1,1-DCE	NS	ND
1,4-Dioxane	NS	ND
1,1,1-TCA	NS	ND
TCE	NS	ND

MW-1D	5/19/24	11/11/24
1,1-DCA	2.4	***2.9***
1,2-DCA	ND	ND
1,1-DCE	***17.1***	***15.6***
1,4-Dioxane	3.1	6.2
1,1,1-TCA	ND	ND
TCE	ND	ND

LEGEND

- PROPERTY LINE
- STREAM/EDGE OF WATER
- FENCE LINE
- STORMWATER MANAGEMENT AREA
- SHALLOW MONITORING WELL
- DEEP MONITORING WELL
- ABANDONED WELL
- SHALLOW EXTRACTION WELL
- DEEP EXTRACTION WELL

MW-1D — WELL ID
5/19/24 | 11/11/24 — DATE
2.4 | ***2.9*** — CONCENTRATION (ug/l) (BOLD ITALIC EXCEEDS CLEANUP LEVELS)
TCE — CONSTITUENT

ND	NON DETECT
1,1-DCA	1,1-DICHLOROETHANE
1,2-DCA	1,2-DICHLOROETHANE
1,1-DCE	1,1-DICHLOROETHENE
1,1,1-TCA	1,1,1-TRICHLOROETHANE
TCE	TRICHLOROETHENE

Cleanup Levels	µg/l
1,1-DCA	2.8
1,2-DCA	5
1,1-DCE	7
1,4-Dioxane	15
1,1,1-TCA	200
TCE	5

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VERIZON

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POND

WILLIAMS SCOTSMAN, INC.

CATALENT BUILDING 1

CATALENT BUILDING 2

TREATMENT EQUIPMENT BUILDING

MW-27D
MW-46D
MW-23D
MW-03
MW-43
MW-09
MW-39
MW-38R
RW-1S
MW-42
MW-18
RW-2S
MW-5R
MW-40D
RW-3S
MW-44
MW-04R
MW-20
MW-04
MW-45
MW-16
MW-16D
MW-22D
MW-41D
MW-01D
MW-01
MW-21D
RW-1D
RW-2D
MW-24D

RW-1S		
	5/19/24	11/10/24
1,1-DCA	***170***	***162***
1,2-DCA	ND	ND
1,1-DCE	***574***	***623***
1,4-Dioxane	***128***	***176***
1,1,1-TCA	50.6	56.3
TCE	ND	ND

RW-2S		
	5/19/24	11/10/24
1,1-DCA	***67.8***	***57.2***
1,2-DCA	ND	ND
1,1-DCE	***406***	***349***
1,4-Dioxane	***27.9***	***179***
1,1,1-TCA	***405***	***205***
TCE	ND	ND

RW-3S		
	May 24	Nov 24
1,1-DCA	NS	NS
1,2-DCA	NS	NS
1,1-DCE	NS	NS
1,4-Dioxane	NS	NS
1,1,1-TCA	NS	NS
TCE	NS	NS

RW-1D		
	5/19/24	11/10/24
1,1-DCA	***81.2***	***100.0***
1,2-DCA	ND	ND
1,1-DCE	***329***	***384***
1,4-Dioxane	***127***	***50.4***
1,1,1-TCA	17.1	18.3
TCE	ND	ND

RW-2D		
	May 24	Nov 24
1,1-DCA	NS	NS
1,2-DCA	NS	NS
1,1-DCE	NS	NS
1,4-Dioxane	NS	NS
1,1,1-TCA	NS	NS
TCE	NS	NS

LEGEND

- PROPERTY LINE
- STREAM/EDGE OF WATER
- FENCE LINE
- STORMWATER MANAGEMENT AREA
- SHALLOW MONITORING WELL
- DEEP MONITORING WELL
- ABANDONED WELL
- SHALLOW EXTRACTION WELL
- DEEP EXTRACTION WELL

RW-1D		
	5/19/24	11/10/24
1,1-DCA	***81.2***	***100.0***
1,2-DCA	ND	ND
1,1-DCE	***329***	***384***
1,4-Dioxane	***127***	***50.4***
1,1,1-TCA	17.1	18.3
TCE	ND	ND

WELL ID
DATE
CONCENTRATION (ug/l) (BOLD ITALIC EXCEEDS CLEANUP LEVELS)
CONSTITUENT

ND	NON DETECT
1,1-DCA	1,1–DICHLOROETHANE
1,2-DCA	1,2–DICHLOROETHANE
1,1-DCE	1,1–DICHLOROETHENE
1,1,1-TCA	1,1,1–TRICHLOROETHANE
TCE	TRICHLOROETHENE

Cleanup Levels	
	µg/l
1,1-DCA	2.8
1,2-DCA	5
1,1-DCE	7
1,4-Dioxane	15
1,1,1-TCA	200
TCE	5

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SCALE IN FEET

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Approved:
DWG Name: 314V5608.010-091

FORMER KOP-FLEX FACILITY SITE
HANOVER, MARYLAND
PREPARED FOR
EMERSUB 16 LLC
ST. LOUIS, MISSOURI

FIGURE 6
GROUNDWATER RECOVERY WELL RESULTS
(NOVEMBER 2024)

WSP USA Inc.
13530 DULLES TECHNOLOGY DR
SUITE 300
HERNDON, VA 20171
TEL: +1 703.709.6500

TABLES

Table 1

Historical Water Level Measurements in
Onsite Monitoring Wells and Recovery Well Piezometers
Former Kop-Flex Facility Site
Hanover, Maryland
(December 2016 to November 2024) (a)

Well ID	Zone	TOC elevation	12/7/2016 (c)		2/1/2017 (c)		3/21/2017		4/7/2017		4/10/2017	
			Depth to Water	*Groundwater Elevation*	*Depth to Water*	*Groundwater Elevation*	*Depth to Water*	*Groundwater Elevation*	*Depth to Water*	*Groundwater Elevation*	*Depth to Water*	*Groundwater Elevation*
MW-01	Shallow	129.8	NM	-	15.98	113.82	16.16	113.64	15.93	113.87	15.95	113.85
MW-03	Shallow	113.6	6.78	106.82	6.83	106.77	6.79	106.81	6.41	107.19	6.76	106.84
MW-04	Shallow	124.4	12.28	112.12	11.14	113.26	11.17	113.23	11.05	113.35	11.09	113.31
MW-04R (b)	Shallow	127.5	NA	-	NA	-	NA	-	NA	-	NA	-
MW-5R	Shallow	123.5	15.87	107.63	13.49	110.01	15.98	107.52	16.15	107.35	16.38	107.12
MW-09	Shallow	125.1	10.84	114.26	11.30	113.80	11.51	113.59	11.41	113.69	11.41	113.69
MW-16	Shallow	124.0	10.92	113.08	11.12	112.88	11.66	112.34	11.74	112.26	11.81	112.19
MW-18	Shallow	125.1	20.77	104.33	20.84	104.26	22.85	102.25	22.85	102.25	23.11	101.99
MW-20	Shallow	125.4	NM	-	12.24	113.16	12.5	112.90	12.33	113.07	12.31	113.09
MW-38R	Shallow	125.4	15.58	109.82	15.76	109.64	19.64	105.76	19.6	105.80	20.81	104.59
MW-39	Shallow	124.6	NM	-	20.96	103.64	22.64	101.96	22.55	102.05	21.86	102.74
MW-42	Shallow	125.9	16.18	109.72	16.26	109.64	19.28	106.62	19.33	106.57	19.52	106.38
MW-43	Shallow	122.8	19.25	103.55	19.31	103.49	20.68	102.12	20.31	102.49	20.61	102.19
MW-44	Shallow	127.1	14.93	112.17	15.25	111.85	17.7	109.40	17.08	110.02	17.18	109.92
MW-45	Shallow	126.7	NM	-	NM	-	14.1	112.62	13.85	112.87	13.85	112.87
RW-1S	Shallow	122.9	12.96	109.94	13.17	109.73	12.96	109.94	20.36	102.54	20.6	102.30
RW-2S	Shallow	123.5	14.12	109.38	14.02	109.48	28.55	94.95	28.88	94.62	29.81	93.69
RW-3S	Shallow	125.4	14.29	111.11	14.24	111.16	20.34	105.06	23.49	101.91	23.59	101.81
MW-01D	Deep	129.4	42.81	86.59	42.22	87.18	56.15	73.25	56.06	73.34	56.22	73.18
MW-16D	Deep	124.1	34.91	89.19	34.72	89.38	37.55	86.55	37.6	86.50	38.02	86.08
MW-21D	Deep	126.3	37.8	88.50	37.59	88.71	47.12	79.18	47.26	79.04	47.57	78.73
MW-22D	Deep	128.9	40.78	88.07	40.49	88.36	43.28	85.57	43.3	85.55	43.59	85.26
MW-23D	Deep	125.2	35.14	90.06	34.74	90.46	36.33	88.87	36.29	88.91	36.72	88.48
MW-24D	Deep	129.1	46.3	82.80	45.73	83.37	47.44	81.66	47.71	81.39	48	81.10
MW-27D	Deep	117.2	29.66	87.54	26.78	90.42	27.73	89.47	27.68	89.52	28.18	89.02
MW-40D	Deep	124.1	35.14	88.96	34.94	89.16	37.19	86.91	37.51	86.59	37.98	86.12
MW-41D	Deep	127.1	41.98	85.12	41.44	85.66	44.00	83.10	44.06	83.04	44.48	82.62
MW-46D	Deep	124.8	NM	-	NM	-	NM	-	NM	-	NM	-
RW-1D	Deep	126.9	38.53	88.37	38.19	88.71	58.69	68.21	59.02	67.88	59.06	67.84
RW-2D	Deep	127.4	42.31	85.09	41.62	85.78	68.82	58.58	68.51	58.89	68.39	59.01

a/ Vertical datum is NAVD-88
NM = not measured
TOC = top of casing
NA = not available because the well had not been installed
Light gray shading denotes wells screened in the shallow (unconfined) zone; blue shading denotes wells screened in the deep (confined) zone.
Continuous pumping of the groundwater recovery well system started on March 29, 2017.
Water levels from both shallow and deep recovery wells were measured in piezometers co-located with the wells.
b/ MW-04 was replaced in September 2022 with MW-04R.
c/ Water level measurements representative of non-pumping conditions in the aquifer system.

Table 1

Historical Water Level Measurements in
Onsite Monitoring Wells and Recovery Well Piezometers
Former Kop-Flex Facility Site
Hanover, Maryland
(December 2016 to November 2024) (a)

Well ID	Zone	TOC elevation	4/13/2017		4/17/2017		5/1/2017		5/8/2017		8/31/2017	
			Depth to Water	*Groundwater Elevation*	*Depth to Water*	*Groundwater Elevation*	*Depth to Water*	*Groundwater Elevation*	*Depth to Water*	*Groundwater Elevation*	*Depth to Water*	*Groundwater Elevation*
MW-01	Shallow	129.8	15.94	113.86	15.90	113.90	15.92	113.88	15.81	113.99	15.49	114.31
MW-03	Shallow	113.6	6.91	106.69	6.90	106.70	6.96	106.64	6.87	106.73	7.59	106.01
MW-04	Shallow	124.4	11.06	113.34	11.13	113.27	10.95	113.45	10.91	113.49	10.66	113.74
MW-04R (b)	Shallow	127.5	NA	-	NA	-	NA	-	NA	-	NA	-
MW-5R	Shallow	123.5	16.45	107.05	16.47	107.03	16.60	106.90	16.60	106.90	16.90	106.60
MW-09	Shallow	125.1	11.51	113.59	11.48	113.62	11.41	113.69	11.34	113.76	11.09	114.01
MW-16	Shallow	124.0	11.82	112.18	12.08	111.92	11.99	112.01	11.81	112.19	11.90	112.10
MW-18	Shallow	125.1	23.18	101.92	23.19	101.91	23.30	101.80	23.28	101.82	24.63	100.47
MW-20	Shallow	125.4	12.3	113.10	13.38	112.02	13.01	112.39	12.24	113.16	12.39	113.01
MW-38R	Shallow	125.4	19.81	105.59	19.84	105.56	19.94	105.46	19.96	105.44	20.16	105.24
MW-39	Shallow	124.6	23	101.60	23.01	101.59	23.05	101.55	23.00	101.60	24.51	100.09
MW-42	Shallow	125.9	19.49	106.41	19.55	106.35	19.68	106.22	19.67	106.23	19.95	105.95
MW-43	Shallow	122.8	21.81	100.99	20.92	101.88	21.11	101.69	20.90	101.90	21.73	101.07
MW-44	Shallow	127.1	17.35	109.75	17.23	109.87	17.31	109.79	17.27	109.83	17.18	109.92
MW-45	Shallow	126.7	13.85	112.87	13.75	112.97	13.67	113.05	13.60	113.12	13.20	113.52
RW-1S	Shallow	122.9	20.56	102.34	20.60	102.30	20.80	102.10	20.79	102.11	21.49	101.41
RW-2S	Shallow	123.5	29	94.50	29.14	94.36	29.61	93.89	29.74	93.76	32.10	91.40
RW-3S	Shallow	125.4	23.69	101.71	23.73	101.67	24.32	101.08	24.46	100.94	26.20	99.20
MW-01D	Deep	129.4	56.44	72.96	56.37	73.03	56.40	73.00	56.29	73.11	56.70	72.70
MW-16D	Deep	124.1	38.1	86.00	37.94	86.16	37.98	86.12	38.08	86.02	41.1	83.00
MW-21D	Deep	126.3	47.61	78.69	47.58	78.72	47.54	78.76	47.61	78.69	56.7	69.60
MW-22D	Deep	128.9	43.76	85.09	43.73	85.12	43.82	85.03	43.81	85.04	46.71	82.14
MW-23D	Deep	125.2	36.81	88.39	36.61	88.59	36.71	88.49	36.77	88.43	39.9	85.30
MW-24D	Deep	129.1	48.16	80.94	48.29	80.81	48.35	80.75	48.37	80.73	55.82	73.28
MW-27D	Deep	117.2	28.3	88.90	28.03	89.17	28.21	88.99	28.21	88.99	31.11	86.09
MW-40D	Deep	124.1	37.98	86.12	37.85	86.25	38.01	86.09	38.04	86.06	41.00	83.10
MW-41D	Deep	127.1	44.56	82.54	44.43	82.67	44.61	82.49	44.62	82.48	49.18	77.92
MW-46D	Deep	124.8	NM	-	NM	-	NM	-	NM	-	NM	-
RW-1D	Deep	126.9	59.02	67.88	59.26	67.64	58.88	68.02	58.99	67.91	60.23	66.67
RW-2D	Deep	127.4	68.78	58.62	68.63	58.77	68.70	58.70	68.44	58.96	70.11	57.29

a/ Vertical datum is NAVD-88
NM = not measured
TOC = top of casing
NA = not available because the well had not been installed
Light gray shading denotes wells screened in the shallow (unconfined) zone; blue shading denotes wells screened in the deep (confined) zone.
Continuous pumping of the groundwater recovery well system started on March 29, 2017.
Water levels from both shallow and deep recovery wells were measured in piezometers co-located with the wells.
c/ MW-04 was replaced in September 2022 with MW-04R.
b/ Water level measurements representative of non-pumping conditions in the aquifer system.

Table 1

Historical Water Level Measurements in
Onsite Monitoring Wells and Recovery Well Piezometers
Former Kop-Flex Facility Site
Hanover, Maryland
(December 2016 to November 2024) (a)

Well ID	Zone	TOC elevation	10/25/2017		11/14/2017		5/30/2018		11/7/2018	
			Depth to Water	*Groundwater Elevation*	*Depth to Water*	*Groundwater Elevation*	*Depth to Water*	*Groundwater Elevation*	*Depth to Water*	*Groundwater Elevation*
MW-01	Shallow	129.8	NA	NA	14.17	115.63	15.52	114.28	13.99	115.81
MW-03	Shallow	113.6	NA	NA	7.27	106.33	7.17	106.43	6.43	107.17
MW-04	Shallow	124.4	NA	NA	10.97	113.43	10.19	114.21	9.16	115.24
MW-04R (b)	Shallow	127.5	NA	-	NA	-	NA	-	NA	-
MW-5R	Shallow	123.5	NA	NA	16.78	106.72	15.89	107.61	15.51	107.99
MW-09	Shallow	125.1	NA	NA	NA	NA	10.78	114.32	9.16	115.94
MW-16	Shallow	124.0	NA	NA	12.00	112.00	11.76	112.24	10.96	113.04
MW-18	Shallow	125.1	NA	NA	24.41	100.69	23.80	101.30	23.13	101.97
MW-20	Shallow	125.4	NA	NA	11.98	113.42	12.15	113.25	11.74	113.66
MW-38R	Shallow	125.4	NA	NA	19.93	105.47	19.35	106.05	18.67	106.73
MW-39	Shallow	124.6	NA	NA	23.93	100.67	23.72	100.88	23.09	101.51
MW-42	Shallow	125.9	NA	NA	19.82	106.08	19.16	106.74	18.55	107.35
MW-43	Shallow	122.8	NA	NA	21.66	101.14	20.47	102.33	20.60	102.20
MW-44	Shallow	127.1	NA	NA	17.00	110.10	16.32	110.78	15.78	111.32
MW-45	Shallow	126.7	NA	NA	13.80	112.92	12.98	113.74	12.00	114.72
RW-1S	Shallow	122.9	NA	NA	21.98	100.92	22.88	100.02	23.97	98.93
RW-2S	Shallow	123.5	NA	NA	30.76	92.74	28.37	95.13	27.48	96.02
RW-3S	Shallow	125.4	NA	NA	28.47	96.93	26.91	98.49	24.39	101.01
MW-01D	Deep	129.4	58.17	71.23	58.09	71.31	58.03	71.37	57.22	72.18
MW-16D	Deep	124.1	40.71	83.39	40.63	83.47	40.37	83.73	39.33	84.77
MW-21D	Deep	126.3	50.61	75.69	50.53	75.77	50.38	75.92	49.61	76.69
MW-22D	Deep	128.9	46.74	82.11	46.25	82.60	46.30	82.55	35.31	93.54
MW-23D	Deep	125.2	39.21	85.99	39.04	86.16	38.87	86.33	37.72	87.48
MW-24D	Deep	129.1	52.15	76.95	51.99	77.11	50.94	78.16	50.72	78.38
MW-27D	Deep	117.2	30.52	86.68	30.34	86.86	30.20	87.00	29.17	88.03
MW-40D	Deep	124.1	40.75	83.35	40.50	83.60	40.44	83.66	39.60	84.50
MW-41D	Deep	127.1	47.94	79.16	47.71	79.39	47.56	79.54	46.56	80.54
MW-46D	Deep	124.8	NM	-	NM	-	37.37	87.40	32.65	92.12
RW-1D	Deep	126.9	62.62	64.28	63.62	63.28	62.75	64.15	62.97	63.93
RW-2D	Deep	127.4	68.90	58.50	68.95	58.45	69.21	58.19	68.34	59.06

a/ Vertical datum is NAVD-88
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Light gray shading denotes wells screened in the shallow (unconfined) zone; blue shading denotes wells screened in the deep (confined) zone.
Continuous pumping of the groundwater recovery well system started on March 29, 2017.
Water levels from both shallow and deep recovery wells were measured in piezometers co-located with the wells.
c/ MW-04 was replaced in September 2022 with MW-04R.
b/ Water level measurements representative of non-pumping conditions in the aquifer system.

Table 1

Historical Water Level Measurements in
Onsite Monitoring Wells and Recovery Well Piezometers
Former Kop-Flex Facility Site
Hanover, Maryland
(December 2016 to November 2024) (a)

Well ID	Zone	TOC elevation	5/21/2019		11/19/2019		5/12/2020		11/22/2020	
			Depth to Water	*Groundwater Elevation*	*Depth to Water*	*Groundwater Elevation*	*Depth to Water*	*Groundwater Elevation*	*Depth to Water*	*Groundwater Elevation*
MW-01	Shallow	129.8	13.98	115.82	16.47	113.33	15.67	114.13	15.58	114.22
MW-03	Shallow	113.6	7.08	106.52	7.02	106.58	6.09	107.51	6.1	107.50
MW-04	Shallow	124.4	8.80	115.60	11.07	113.33	11.00	113.40	10.85	113.55
MW-04R (b)	Shallow	127.5	NA	-	NA	-	NA	-	NA	-
MW-5R	Shallow	123.5	15.74	107.76	16.61	106.89	16.55	106.95	15.84	107.66
MW-09	Shallow	125.1	9.61	115.49	12.00	113.10	11.57	113.53	11.23	113.87
MW-16	Shallow	124.0	9.37	114.63	12.43	111.57	11.66	112.34	11.68	112.32
MW-18	Shallow	125.1	22.97	102.13	21.12	103.98	23.10	102.00	23.80	101.30
MW-20	Shallow	125.4	10.64	114.76	12.98	112.42	12.57	112.83	12.11	113.29
MW-38R	Shallow	125.4	19.13	106.27	19.83	105.57	19.03	106.37	19.25	106.15
MW-39	Shallow	124.6	23.00	101.60	23.94	100.66	23.04	101.56	23.52	101.08
MW-42	Shallow	125.9	18.91	106.99	19.44	106.46	18.85	107.05	NM	-
MW-43	Shallow	122.8	21.46	101.34	22.04	100.76	20.98	101.82	21.91	100.89
MW-44	Shallow	127.1	15.91	111.19	17.24	109.86	16.30	110.80	16.52	110.58
MW-45	Shallow	126.7	11.75	114.97	14.55	112.17	NM	-	13.61	113.11
RW-1S	Shallow	122.9	26.42	96.48	28.64	94.26	29.16	93.74	28.13	94.77
RW-2S	Shallow	123.5	31.16	92.34	31.70	91.80	33.33	90.17	35.31	88.19
RW-3S	Shallow	125.4	22.10	103.30	23.24	102.16	22.85	102.55	26.72	98.68
MW-01D	Deep	129.4	56.55	72.85	59.49	69.91	57.17	72.23	59.91	69.49
MW-16D	Deep	124.1	38.30	85.80	40.99	83.11	38.67	85.43	39.97	84.13
MW-21D	Deep	126.3	48.38	77.92	50.75	75.55	48.50	77.80	50.37	75.93
MW-22D	Deep	128.9	44.02	84.83	46.20	82.65	44.05	84.80	46.55	82.30
MW-23D	Deep	125.2	36.88	88.32	39.40	85.80	37.16	88.04	39.22	85.98
MW-24D	Deep	129.1	49.67	79.43	51.12	77.98	48.80	80.30	53.02	76.08
MW-27D	Deep	117.2	28.15	89.05	30.68	86.52	28.64	88.56	30.62	86.58
MW-40D	Deep	124.1	38.50	85.60	41.16	82.94	38.59	85.51	40.97	83.13
MW-41D	Deep	127.1	45.42	81.68	48.50	78.60	45.28	81.82	48.65	78.45
MW-46D	Deep	124.8	35.47	89.30	37.90	86.87	35.73	89.04	37.72	87.05
RW-1D	Deep	126.9	62.44	64.46	64.86	62.04	NM	-	NM	-
RW-2D	Deep	127.4	68.19	59.21	71.36	56.04	69.35	58.05	69.72	57.68

a/ Vertical datum is NAVD-88
NM = not measured
TOC = top of casing
NA = not available because the well had not been installed
Light gray shading denotes wells screened in the shallow (unconfined) zone; blue shading denotes wells screened in the deep (confined) zone.
Continuous pumping of the groundwater recovery well system started on March 29, 2017.
Water levels from both shallow and deep recovery wells were measured in piezometers co-located with the wells.
b/ MW-04 was replaced in September 2022 with MW-04R.
c/ Water level measurements representative of non-pumping conditions in the aquifer system.

Table 1

Historical Water Level Measurements in
Onsite Monitoring Wells and Recovery Well Piezometers
Former Kop-Flex Facility Site
Hanover, Maryland
(December 2016 to November 2024) (a)

Well ID	Zone	TOC elevation	5/9/2021		11/14/2021 (c)		6/26/2022 (c)		11/7/2022		11/20/2022	
			Depth to Water	*Groundwater Elevation*	*Depth to Water*	*Groundwater Elevation*	*Depth to Water*	*Groundwater Elevation*	*Depth to Water*	*Groundwater Elevation*	*Depth to Water*	*Groundwater Elevation*
MW-01	Shallow	129.8	14.75	115.05	15.35	114.45	14.85	114.95	15.66	114.14	15.65	114.15
MW-03	Shallow	113.6	6.4	107.20	5.86	107.74	6.21	107.39	6.39	107.21	6.29	107.31
MW-04	Shallow	124.4	9.75	114.65	10.43	113.97	9.90	114.50	-	- (b)	-	- (b)
MW-04R (b)	Shallow	127.5	NA	-	NA	-	NA	-	13.93	113.54	14.01	113.46
MW-5R	Shallow	123.5	NM	-	13.52	109.98	14.36	109.14	NM	-	15.95	107.55
MW-09	Shallow	125.1	10.35	114.75	10.85	114.25	10.50	114.60	10.81	114.29	11.08	114.02
MW-16	Shallow	124.0	11.15	112.85	11.05	112.95	11.22	112.78	11.84	112.16	11.75	112.25
MW-18	Shallow	125.1	26.71	98.39	21.42	103.68	22.05	103.05	23.37	101.73	23.39	101.71
MW-20	Shallow	125.4	11.22	114.18	11.34	114.06	14.41	110.99	11.35	114.05	11.73	113.67
MW-38R	Shallow	125.4	18.55	106.85	15.63	109.77	17.66	107.74	19.32	106.08	19.01	106.39
MW-39	Shallow	124.6	22.98	101.62	21.29	103.31	22.22	102.38	23.74	100.86	23.49	101.11
MW-42	Shallow	125.9	17.98	107.92	15.64	110.26	NM	-	18.68	107.22	18.48	107.42
MW-43	Shallow	122.8	21.02	101.78	20.10	102.70	20.47	102.33	21.58	101.22	21.51	101.29
MW-44	Shallow	127.1	16.26	110.84	15.21	111.89	15.80	111.30	16.12	110.98	15.85	111.25
MW-45	Shallow	126.7	12.69	114.03	13.35	113.37	12.91	113.81	NM	-	13.54	113.18
RW-1S	Shallow	122.9	25.00	97.90	13.28	109.62	NM	-	20.77	102.13	20.41	102.49
RW-2S	Shallow	123.5	34.85	88.65	16.02	107.48	NM	-	29.30	94.20	28.82	94.68
RW-3S	Shallow	125.4	25.36	100.04	15.69	109.71	NM	-	NM	-	16.94	108.46
MW-01D	Deep	129.4	57.46	71.94	45.20	84.20	47.46	81.94	NM	-	60.02	69.38
MW-16D	Deep	124.1	38.81	85.29	37.06	87.04	NM	-	NM	-	NM	-
MW-21D	Deep	126.3	48.64	77.66	41.50	84.80	43.11	83.19	NM	-	51.95	74.35
MW-22D	Deep	128.9	44.72	84.13	43.36	85.49	44.90	83.95	NM	-	46.90	81.95
MW-23D	Deep	125.2	37.36	87.84	36.73	88.47	38.36	86.84	NM	-	39.85	85.35
MW-24D	Deep	129.1	50.01	79.09	49.40	79.70	51.06	78.04	NM	-	53.11	75.99
MW-27D	Deep	117.2	28.89	88.31	28.72	88.48	29.82	87.38	NM	-	31.18	86.02
MW-40D	Deep	124.1	39.00	85.10	37.48	86.62	40.04	84.06	NM	-	41.58	82.52
MW-41D	Deep	127.1	45.95	81.15	44.51	82.59	46.96	80.14	NM	-	48.78	78.32
MW-46D	Deep	124.8	35.95	88.82	35.62	89.15	37.13	87.64	NM	-	38.38	86.39
RW-1D	Deep	126.9	NM	-	41.71	85.19	NM	-	NM	-	64.80	62.10
RW-2D	Deep	127.4	69.41	57.99	43.90	83.50	NM	-	NM	-	71.59	55.81

a/ Vertical datum is NAVD-88
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NA = not available because the well had not been installed
Light gray shading denotes wells screened in the shallow (unconfined) zone; blue shading denotes wells screened in the deep (confined) zone.
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Water levels from both shallow and deep recovery wells were measured in piezometers co-located with the wells.
b/ MW-04 was replaced in September 2022 with MW-04R.
c/ Water level measurements representative of non-pumping conditions in the aquifer system.

Table 1

Historical Water Level Measurements in
Onsite Monitoring Wells and Recovery Well Piezometers
Former Kop-Flex Facility Site
Hanover, Maryland
(December 2016 to November 2024) (a)

Well ID	Zone	TOC elevation	5/21/2023		12/3/2023		5/19-5/20/2024		11/10-11/11/2024	
			Depth to Water	*Groundwater Elevation*	*Depth to Water*	*Groundwater Elevation*	*Depth to Water*	*Groundwater Elevation*	*Depth to Water*	*Groundwater Elevation*
MW-01	Shallow	129.8	15.22	114.58	15.73	114.07	14.4	115.40	15.75	114.05
MW-03	Shallow	113.6	6.63	106.97	6.9	106.70	6.93	106.67	15.57	98.03
MW-04	Shallow	124.4	-	- (b)	-	- (b)	-	- (b)	-	- (b)
MW-04R (b)	Shallow	127.5	13.60	113.87	14.11	113.36	12.83	114.64	14.13	113.34
MW-5R	Shallow	123.5	13.53	109.97	15.32	108.18	14.98	108.52	16.03	107.47
MW-09	Shallow	125.1	10.90	114.20	11.29	113.81	10.03	115.07	11.03	114.07
MW-16	Shallow	124.0	11.79	112.21	11.68	112.32	10.77	113.23	11.95	112.05
MW-18	Shallow	125.1	21.46	103.64	23.69	101.41	22.86	102.24	24.31	100.79
MW-20	Shallow	125.4	11.80	113.60	11.81	113.59	11.07	114.33	11.10	114.30
MW-38R	Shallow	125.4	16.76	108.64	18.18	107.22	18.28	107.12	18.76	106.64
MW-39	Shallow	124.6	21.72	102.88	23.63	100.97	23.20	101.40	24.48	100.12
MW-42	Shallow	125.9	15.89	110.01	17.83	108.07	17.97	107.93	18.52	107.38
MW-43	Shallow	122.8	20.10	102.70	22.15	100.65	21.92	100.88	22.84	99.96
MW-44	Shallow	127.1	15.30	111.80	15.91	111.19	15.51	111.59	16.53	110.57
MW-45	Shallow	126.7	13.08	113.64	13.54	113.18	12.40	114.32	13.63	113.09
RW-1S	Shallow	122.9	13.22	109.68	18.10	104.80	20.67	102.23	17.90	105.00
RW-2S	Shallow	123.5	14.70	108.80	28.91	94.59	20.57	102.93	33.06	90.44
RW-3S	Shallow	125.4	15.82	109.58	NM	-	16.97	108.43	NM	-
MW-01D	Deep	129.4	45.61	83.79	58.66	70.74	48.81	80.59	50.88	78.52
MW-16D	Deep	124.1	37.56	86.54	41.89	82.21	40.33	83.77	42.23	81.87
MW-21D	Deep	126.3	40.86	85.44	51.76	74.54	50.40	75.90	51.17	75.13
MW-22D	Deep	128.9	43.52	85.33	48.10	80.75	46.44	82.41	48.03	80.82
MW-23D	Deep	125.2	37.31	87.89	40.28	84.92	39.06	86.14	41.00	84.20
MW-24D	Deep	129.1	49.42	79.68	53.83	75.27	52.60	76.50	54.70	74.40
MW-27D	Deep	117.2	29.24	87.96	31.71	85.49	30.64	86.56	32.54	84.66
MW-40D	Deep	124.1	37.80	86.30	42.06	82.04	40.96	83.14	42.73	81.37
MW-41D	Deep	127.1	44.84	82.26	49.37	77.73	47.50	79.60	49.71	77.39
MW-46D	Deep	124.8	36.26	88.51	38.88	85.89	37.66	87.11	39.80	84.97
RW-1D	Deep	126.9	42.00	84.90	64.03	62.87	63.31	63.59	62.86	64.04
RW-2D	Deep	127.4	45.25	82.15	NM	-	NM	-	NM	-

a/ Vertical datum is NAVD-88
NM = not measured
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Light gray shading denotes wells screened in the shallow (unconfined) zone; blue shading denotes wells screened in the deep (confined) zone.
Continuous pumping of the groundwater recovery well system started on March 29, 2017.
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b/ MW-04 was replaced in September 2022 with MW-04R.
c/ Water level measurements representative of non-pumping conditions in the aquifer system.

Table 2

Deployment Depths for New HydraSleeve Samplers
Former Kop-Flex Facility Site
Hanover, Maryland (a)

Well ID	Well Depth (ft bgs)	Top of Screen (ft bgs)	Deployment Depth (ft bgs) (b)	Sample Interval (ft bgs)
Shallow Wells				
MW-01	37	27	32	28.8 - 32.0
MW-03	25.5	16	21	17.3-20.5
MW-04R	40	30	35	31.8-35
MW-05R	32	22	27	23.8-27
MW-09	25	15	20	16.8 - 20
MW-16	50	40	45	40.7 - 45
MW-18	56	46	51	47.8 - 51
MW-20	60	50	55	51.8 - 55
MW-38R	28	18	23	20.9 - 24.1
MW-39	50	40	45	41.8 - 45
MW-42	30	20	25	21.8 - 25.0
MW-43	46	36	41	37.8 - 41.0
MW-44	42	32	37	33.8 - 37.0
Deep Wells				
MW-01D	112	102	107	103.8 - 107.0
MW-16D	101	91	98	95.2 - 98.4
MW-21D	102	92	97	93.8 - 97.0
MW-22D	114	104	109	105.8 - 109.0
MW-23D	92	82	87	83.8 - 87
MW-27D	113	103	108	104.8 - 108.0
MW-40D	97	87	92	88.8 - 92.0
MW-41D	162	152	157	153.8 - 157.0

a/ ft bgs = feet below ground surface
b/ Deployment depth is measured at the top of the sampler

Table 3

Field Water Quality Measurements
Former Kop-Flex Facility Site
Hanover, MD
November 2024 (a)

Well ID	Sample Date	Temperature (°C)	pH	Specific Conductivity (mS/cm)	Turbidity(NTU)
Shallow Wells					
MW-01	11/10/2024	12.36	4.22	0.438	> 1000
MW-03	11/10/2024	15.57	5.89	0.261	760
MW-04R	11/10/2024	13.06	5.92	0.381	> 1000
MW-05R	11/10/2024	13.46	3.15	0.274	264
MW-09	11/10/2024	11.68	6.24	1.13	660
MW-16	11/10/2024	Parameters Not Collected Due to Insufficient Sample Volume			
MW-18	11/10/2024	11.99	4.58	0.291	53
MW-20	11/10/2024	13.07	5.31	0.069	156
MW-38R	11/10/2024	14	3.73	0.118	135
MW-39	11/10/2024	13.11	4.11	0.190	191
MW-42	11/10/2024	12.63	4.23	0.135	90.3
MW-43	11/10/2024	13.44	4.02	0.234	175
MW-44	11/10/2024	Parameters Not Collected Due to Insufficient Sample Volume			
Deep Wells					
MW-01D	11/10/2024	11.80	4.20	0.121	> 1000
MW-16D	11/10/2024	Parameters Not Collected Due to Insufficient Sample Volume			
MW-21D	11/10/2024	12.43	4.63	0.162	87.0
MW-22D	11/10/2024	12.0	4.74	0.159	754
MW-23D	11/10/2024	12.73	5.82	0.217	357
MW-27D	11/10/2024	13.37	5.95	0.248	>1000
MW-40D	11/10/2024	12.11	4.34	0.252	78.4
MW-41D	11/10/2024	12.03	3.43	0.14	15

a/ °C = degrees Celsius; mS/cm = milliSiemens/centimeter; ORP = oxidation-reduction potential; mV = millivolts; NTU = nephelometric turbidity units.

Table 4

November 2024 Monitoring Well Sampling Results
Former Kop-Flex Facility Site
Hanover, Maryland (a)

Parameters	Groundwater Cleanup Standards (µg/L) (b)		Shallow Wells												
		Well ID:	MW-01	MW-03	MW-04R (d)	MW-05R	MW-09	MW-16	MW-18	MW-20	MW-38R	MW-39	MW-42	MW-43	MW-44
		Sampling Date:	11/11/2024	11/10/2024	11/11/2024	11/10/2024	11/11/2024	11/11/2024	11/10/2024	11/11/2024	11/10/2024	11/10/2024	11/10/2024	11/10/2024	11/10/2024
Chloroethane	2,100		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	35.4	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	2.8		1.0 U	1.0 U	**32.6**	1.0 U	1.1	**1,030**	1.0 U	**389**	**3.9**	1.0 U	1.0 U	1.3	1.6
1,2-Dichloroethane	5		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20.0 U	1.0 U	**13.2**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	7		1.0 U	1.0 U	**61.6**	1.0 U	**18.0**	**1,490**	1.0 U	**528**	1.0 U	1.0 U	1.0 U	**15.2**	2.0
1,4-Dioxane	15	(c)	1.0 U	2.5 U	**36.8**	1.9	2.2	**88.1**	1.0 U	**616**	**19.2**	1.0 U	3.3	9.6	2.8
Methyl t-Butyl Ether	20		1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	20.0 U	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.9	1.0 U
1,1,1-Trichloroethane	200		1.0 U	1.0 U	1.0 U	1.1	1.0 U	**767**	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0
		Total COCs & 1,4-Dioxane	**ND**	**ND**	**131**	**3.0**	**21.3**	**3,375**	**ND**	**1,546**	**23.1**	**ND**	**3.3**	**26.1**	**8.4**

Table 4

November 2024 Monitoring Well Sampling Results
Former Kop-Flex Facility Site
Hanover, Maryland (a)

Parameters	Groundwater Cleanup Standards (µg/L) (b)		Well ID:	Deep Wells								
				MW-01D	MW-16D	MW-100 (e)	MW-21D	MW-22D	MW-23D	MW-27D	MW-40D	MW-41D
			Sampling Date:	11/11/2024	11/11/2024	11/10/2024	11/10/2024	11/11/2024	11/11/2024	11/10/2024	11/10/2024	11/10/2024
Chloroethane	2,100			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethane	2.8			**2.9**	**16.8**	**15.0**	1.0 U	1.0 U	**20.1**	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	5			1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	7			**15.6**	**68.2**	**58.8**	**19.8**	**10.8**	**77.6**	1.0 U	1.0 U	1.0 U
1,4-Dioxane	15	(c)		6.2	**21.6**	**24.8**	7.2	3.4	**34.1**	1.0 U	1.0 U	1.0 U
Methyl t-Butyl Ether	20			1.0 U	1.0 U	1.0 U	1.6	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,1-Trichloroethane	200			1.0 U	3.5	3.2	1.0 U	1.0 U	4.6	1.0 U	1.0 U	1.0 U
		Total COCs & 1,4-Dioxane		**24.7**	**110**	**101.8**	**27**	**14.2**	**136.4**	**ND**	**ND**	**ND**

a/ U = not detected above the method detection limit; NS = not sampled; ID = identification;
COCs = Site-specific contaminants of concern (sum of 1,1-dichloroethane, 1,2-dichloroethane, 1,1-dichloroethene, 1,1,1-trichloroethane, and 1,4-dioxane)
Bolded values indicate an exceedence of the Groundwater Quality Standards
All sample concentrations in micrograms per liter (µg/l)
Collected samples representative of non-pumping conditions in the aquifer system

b/ All cleanup standards, except for 1,4-dioxane, are equal to the Maryland Generic Numeric Cleanup Standards for Groundwater, Type I and II Aquifers, from the State of Maryland Interim Final Guidance (October 2018). Accessed May 27, 2020: https://mde.maryland.gov/programs/LAND/MarylandBrownfieldVCP/Documents/www.mde.stat

c/ Numeric cleanup standards from WSP's October 2, 2015, Response Action Plan, Revision 2.

d/ MW-04 was replaced in September 2022 with monitoring well MW-4R

e/ MW-100 is a blind duplicate of MW-16D

Table 5

Historical Monitoring Well Sampling Results
Former Kop-Flex Facility Site
Hanover, Maryland
(December 2016 - November 2024) (a)

Well ID	Sample Date	Chloroethane	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	1,4-Dioxane	Methylene Chloride	Tetrachloroethene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene	Vinyl chloride
Groundwater Cleanup Standards (b)		2,100	2.8	5	7	70	15 (c)	5	5	200	5	5	2
MW-01	5/14/2020	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/9/2021	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/14/2021	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	6/26/2022	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.23	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/20/2022	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	12/3/2023	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/11/2024	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
MW-03	12/8/2016	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.6	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/1/2017	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/30/2018	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/21/2019	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/12/2020	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/9/2021	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/14/2021	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	6/26/2022	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/20/2022	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	12/3/2023	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/10/2024	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
MW-04	12/7/2016	10.0 U	**259**	10.0 U	**1,020**	10.0 U	**576**	20.0 U	4.0 U	31.7	10.0 U	10.0 U	10.0 U
	5/2/2017	4.0 U	**103**	4.0 U	**459**	4.0 U	**252**	8.0 U	4.0 U	13.0	4.0 U	4.0 U	4.0 U
	11/15/2017	5.0 U	**29.2**	1.0 J	**151**	1.0 U	**121**	**10.5**	0.687 J	4.3	1.0 U	1.4	1.0 U
	5/30/2018	1.0 U	**33.3**	1.0 U	**153**	1.0 U	**92.7**	2.0 U	1.0 U	4.0	1.0 U	1.0 U	1.0 U
	11/7/2018	1.0 U	**23.3**	1.0 U	**89.9**	1.0 U	1.0 U	2.0 U	1.0 U	1.6	1.0 U	1.0 U	1.0 U
	5/21/2019	1.0 U	**57.7**	1.1	**142**	1.0 U	**111**	5.0 U	1.0 U	1.7	1.0 U	1.1	1.0 U
	11/19/2019	1.0 U	**45.1**	1.1	**126**	1.0 U	**94.2**	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/13/2020	1.0 U	**58.6**	1.3	**149**	1.0 U	**84.6**	5.0 U	1.0 U	1.4	1.2	1.2	1.0 U
	11/22/2020	1.0 U	**62.0**	1.6	**141**	1.0 U	**151**	5.0 U	1.0 U	1.0 U	1.0 U	1.2	1.0 U
	5/9/2021	2.5 U	**130**	2.9	**361**	2.5 U	**303**	12.5 U	2.5 U	3.4	2.5 U	2.5 U	2.5 U
	11/14/2021	1.0 U	**82.7**	1.2	**175**	1.0 U	**134**	5.0 U	1.0 U	1.0 U	1.0 U	1.5	1.0 U
	6/26/2022	1.0 U	**173**	3.1	**339**	1.0 U	**86.8**	5.0 U	1.0 U	1.8	1.0 U	3.0	1.0 U

Table 5

Historical Monitoring Well Sampling Results
Former Kop-Flex Facility Site
Hanover, Maryland
(December 2016 - November 2024) (a)

Well ID	Sample Date	Chloroethane	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	1,4-Dioxane	Methylene Chloride	Tetrachloroethene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene	Vinyl chloride
Groundwater Cleanup Standards (b)		2,100	2.8	5	7	70	15 (c)	5	5	200	5	5	2
MW-04R	11/20/2022	1.0 U	**37.4**	1.1	**76.0**	1.0 U	**57.3**	1.0 U	1.0 U	1.1	1.0 U	1.0 U	1.0 U
	5/21/2023	1.0 U	**33.2**	1.0 U	**65.5**	1.0 U	**30.8**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	12/3/2023	5.0 U	**31.3**	5.0 U	**65.8**	5.0 U	**35.9**	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
	5/19/2024	1.0 U	**36.0**	1.1	**76.0**	1.0 U	**26.7**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/11/2024	1.0 U	**32.6**	1.0 U	**61.6**	1.0 U	**36.8**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
MW-5R	12/7/2016	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	**16.5**	2.0 U	1.0 U	1.4	1.0 U	1.0 U	1.0 U
	5/1/2017	1.0 U	1.4	1.0 U	1.4	1.0 U	**16.5**	2.0 U	1.0 U	2.7	1.0 U	1.0 U	1.0 U
	11/15/2017	5.0 U	1.6	1.0 U	2.5	1.0 U	11.0	**10.2**	1.0 U	1.7	1.0 U	1.0 U	1.0 U
	5/30/2018	1.0 U	1.8	1.0 U	2.7	1.0 U	11.5	2.0 U	1.0 U	1.4	1.0 U	1.0 U	1.0 U
	11/7/2018	1.0 U	1.0 U	1.0 U	1.3	1.0 U	2.0 U	2.0 U	1.0 U	1.5	1.0 U	1.0 U	1.0 U
	5/21/2019	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	7.6	5.0 U	1.0 U	1.9	1.0 U	1.0 U	1.0 U
	11/19/2019	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	6.8	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/12/2020	1.0 U	1.8	1.0 U	1.7	1.0 U	13.4	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/22/2020	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.2	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/14/2021	1.0 U	1.6	1.0 U	1.4	1.0 U	12.0	5.0 U	1.0 U	2.4	1.0 U	1.0 U	1.0 U
	6/26/2022	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0	5.0 U	1.0 U	1.2	1.0 U	1.0 U	1.0 U
	11/20/2022	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/21/2023	1.0 U	1.2	1.0 U	1.0 U	1.0 U	3.3	1.0 U	1.0 U	1.6	1.0 U	1.0 U	1.0 U
	12/3/2023	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5	1.0 U	1.0 U	1.5	1.0 U	1.0 U	1.0 U
	11/10/2024	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.9	1.0 U	1.0 U	1.1	1.0 U	1.0 U	1.0 U

Table 5

Historical Monitoring Well Sampling Results
Former Kop-Flex Facility Site
Hanover, Maryland
(December 2016 - November 2024) (a)

Well ID	Sample Date	Chloroethane	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	1,4-Dioxane	Methylene Chloride	Tetrachloroethene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene	Vinyl chloride
Groundwater Cleanup Standards (b)		2,100	2.8	5	7	70	15 (c)	5	5	200	5	5	2
MW-09	12/8/2016	1.0 U	**4.5**	1.0 U	**104**	1.0 U	**95.5**	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/2/2017	1.0 U	**2.9**	1.0 U	**63.8**	1.0 U	**20.8**	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/15/2017	5.0 U	**3.1**	0.4 J	**60.2**	1.0 U	**32.4**	5.0 U	1.0 U	0.7 J	1.0 U	1.0 U	1.0 U
	5/30/2018	1.0 U	2.2	1.0 U	**49.2**	1.0 U	**23.4**	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/7/2018	1.0 U	**4.5**	1.0 U	**75.9**	1.0 U	**37.4**	2.0 U	1.0 U	1.1	1.0 U	1.0 U	1.0 U
	5/21/2019	1.0 U	**3.6**	1.0 U	**70.8**	1.0 U	**32.8**	5.0 U	1.0 U	1.2	1.0 U	1.0 U	1.0 U
	11/19/2019	1.0 U	2.6	1.0 U	**48.7**	1.0 U	**24.4**	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/13/2020	1.0 U	2.6	1.0 U	**50.5**	1.0 U	**18.7**	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/22/2020	1.0 U	2.5	1.0 U	**56.4**	1.0 U	**25.7**	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/9/2021	1.0 U	**3.0**	1.0 U	**56.3**	1.0 U	**23.6**	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/14/2021	1.0 U	2.5	1.0 U	**53.3**	1.0 U	**22.6**	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	6/26/2022	1.0 U	**3.0**	1.0 U	**57.7**	1.0 U	4.5	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/20/2022	1.0 U	1.9	1.0 U	**35.7**	1.0 U	7.5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/21/2023	1.0 U	1.9	1.0 U	**36.0**	1.0 U	4.5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	12/3/2023	1.0 U	2.6	1.0 U	**53.4**	1.0 U	6.4	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/19/2024	1.0 U	**2.9**	1.0 U	**60.7**	1.0 U	3.8	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/11/2024	1.0 U	1.1	1.0 U	**18.0**	1.0 U	2.2	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
MW-16	12/8/2016	200 U	**6,420**	200 U	**26,200**	200 U	**1,450**	400 U	100 U	**4,390**	200 U	200 U	200 U
	5/2/2017	225	**7,910**	100 U	**10,500**	100 U	**971**	200 U	100 U	**8,930**	100 U	100 U	100 U
	11/15/2017	732	**7,110**	**22**	**7,740**	46	**836**	**11**	**18.4**	**5,590**	1.0 U	**69**	**19**
	5/30/2018	249	**6,250**	50 U	**4,690**	50 U	**636**	100 U	50 U	**7,360**	50.0 U	50 U	50 U
	11/7/2018	275	**7,360**	50 U	**7,800**	50 U	**866**	100 U	50 U	**6,420**	50.0 U	**74.2**	50 U
	5/22/2019	10 U	**343**	10 U	**1,160**	10 U	**1,230**	50 U	10 U	**216**	10.0 U	**13.7**	10.0 U
	11/19/2019	23.4	**608**	10 U	**1,440**	10 U	**81.9**	50 U	10 U	**314**	10.0 U	**18.3**	10.0 U
	5/13/2020	10.9	**394**	5.0 U	**571**	5.0 U	**39.2**	5.0 U	5.0 U	**487**	5.0 U	**10.7**	5.0 U
	11/22/2020	20.0 U	**1,560**	20 U	**1,130**	20 U	**84.2**	100 U	20 U	**2,060**	5.0 U	20.0 U	20.0 U
	5/9/2021	4.2	**169**	2.0 U	**276**	2.1	**19.3**	10 U	2.2	123	2.0 U	**6.2**	2.0 U
	11/14/2021	12.5 U	**1,350**	12.5 U	**1,630**	12.5 U	**76.0**	62.5 U	12.5 U	**1,720**	12.5 U	12.5 U	12.5 U
	6/26/2022	42.6	**1,030**	1.0 U	**1,210**	1.0 U	**26.4**	1.4	**5.5**	**1,610**	1.0 U	**13.8**	**2.3**
	11/20/2022	136.0	**3,290**	1.0 U	**4,290**	1.0 U	**143.0**	2.2	**9.4**	**2,960**	1.0 U	**28.0**	**13.2**
	5/21/2023	96.1	**2,230**	1.0 U	**2,510**	1.0 U	**89.5**	3.7	**6.3**	**2,230**	1.0 U	**19.1**	**6.7**
	12/3/2023	124.0	**3,040**	20.0 U	**3,990**	20.0 U	**96.3**	20.0 U	20.0 U	**2,200**	20.0 U	**20.5**	20 U
	5/19/2024	34.5	**1,160**	20.0 U	**1,640**	20.0 U	**91.4**	20.0 U	20.0 U	**905**	20.0 U	20.0 U	20 U
	11/11/2024	35.4	**1,030**	20.0 U	**1,490**	20.0 U	**88.1**	20.0 U	20.0 U	**767**	20.0 U	20.0 U	20.0 U

Table 5

Historical Monitoring Well Sampling Results
Former Kop-Flex Facility Site
Hanover, Maryland
(December 2016 - November 2024) (a)

Well ID	Sample Date	Chloroethane	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	1,4-Dioxane	Methylene Chloride	Tetrachloroethene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene	Vinyl chloride
Groundwater Cleanup Standards (b)		2,100	2.8	5	7	70	15 (c)	5	5	200	5	5	2
MW-18	12/7/2016	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/1/2017	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/15/2017	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	**24.9**	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/30/2018	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/7/2018	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/21/2019	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/19/2019	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/12/2020	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/22/2020	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/9/2021	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/14/2021	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	6/26/2022	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/20/2022	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/21/2023	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	12/3/2023	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/10/2024	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
MW-20	12/9/2016	2.0 U	**99.7**	**5.1**	**173**	2.0 U	**767**	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
	5/2/2017	2.0 U	**161**	**7.3**	**286**	2.0 U	**967**	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
	11/15/2017	5.0 U	**136**	**5.7**	**223**	1.4	**969**	5.0 U	1.0 U	1.0 U	1.9	1.0 U	1.0 U
	5/30/2018	2.0 U	**115**	**5.5**	**205**	2.0 U	**966**	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
	11/7/2018	2.5 U	**145**	**6.3**	**233**	2.5 U	**986**	5.0 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
	5/21/2019	2.0 U	**157**	**6.5**	**226**	2.0 U	**1,620**	10.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
	11/19/2019	2.0 U	**175**	**7.5**	**244**	2.0 U	**1,220**	10.0 U	2.0 U	2.0 U	2.1	2.0 U	2.0 U
	5/13/2020	2.0 U	**188**	**7.7**	**232**	2.0 U	**1,000**	10.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
	11/22/2020	2.0 U	**205**	**7.5**	**272**	2.0 U	**1,260**	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
	5/9/2021	2.0 U	**214**	**7.5**	**267**	2.2	**1,010**	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
	11/14/2021	2.0 U	**256**	**8.7**	**321**	2.0 U	**1,210**	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
	6/26/2022	1.0 U	**294**	**10.8**	**426**	2.9	**377**	5.0 U	1.0 U	1.0 U	2.7	2.7	1.0 U
	11/20/2022	1.0 U	**258**	**9.7**	**348**	2.6	**560**	1.0 U	1.0 U	1.0 U	2.4	2.7	1.0 U
	5/21/2023	1.0 U	**252**	**8.9**	**307**	1.0 U	**407**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	12/3/2023	5.0 U	**432**	**13.1**	**631**	5.0 U	**404**	5.0 U	5.0 U	5.0 U	5.0 U	**5.9**	1.0 U
	5/19/2024	5.0 U	**386**	**12.6**	**560**	5.0 U	**396**	5.0 U	5.0 U	5.0 U	5.0 U	**5.1**	1.0 U
	11/11/2024	5.0 U	**389**	**13.2**	**528**	5.0 U	**616**	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

Table 5

Historical Monitoring Well Sampling Results
Former Kop-Flex Facility Site
Hanover, Maryland
(December 2016 - November 2024) (a)

Well ID	Sample Date	Chloroethane	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	1,4-Dioxane	Methylene Chloride	Tetrachloroethene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene	Vinyl chloride
Groundwater Cleanup Standards (b)		2,100	2.8	5	7	70	15 (c)	5	5	200	5	5	2
MW-38R	12/9/2016	1.0 U	**3.8**	1.0 U	1.0 U	1.0 U	**18.3**	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/1/2017	1.0 U	**6.0**	1.0 U	1.0 U	1.0 U	**42.6**	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/15/2017	5.0 U	**8.3**	1.0 U	1.0 U	1.0 U	**62.5**	**8.1**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/30/2018	1.0 U	**4.3**	1.0 U	1.0 U	1.0 U	**40.7**	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/7/2018	1.0 U	**6.9**	1.0 U	1.0 U	1.0 U	**39.4**	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/21/2019	1.0 U	**4.7**	1.0 U	1.0 U	1.0 U	**43.2**	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/19/2019	1.0 U	**7.7**	1.0 U	1.0 U	1.0 U	**51.5**	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/12/2020	1.0 U	**6.2**	1.0 U	1.0 U	1.0 U	**40.8**	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/22/2020	1.0 U	**6.5**	1.0 U	1.0 U	1.0 U	**40.9**	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/9/2021	1.0 U	**5.5**	1.0 U	1.0 U	1.0 U	**47.0**	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/19/2021	1.0 U	**6.7**	1.0 U	1.0 U	1.0 U	**46.2**	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	6/26/2022	1.0 U	**7.6**	1.0 U	1.0 U	1.0 U	14.4	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/20/2022	1.0 U	**7.1**	1.0 U	1.0 U	1.0 U	**20.1**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/21/2023	1.0 U	**6.8**	1.0 U	1.0 U	1.0 U	11.4	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	12/3/2023	1.0 U	**4.2**	1.0 U	1.0 U	1.0 U	**18.2**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/10/2024	1.0 U	**3.9**	1.0 U	1.0 U	1.0 U	**19.2**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
MW-39	12/7/2016	1.0 U	1.0 U	1.0 U	1.7	1.0 U	2.5	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/1/2017	1.0 U	1.0 U	1.0 U	1.1	1.0 U	3.0	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/15/2017	5.0 U	1.0 U	1.0 U	0.6 J	1.0 U	2.2	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/30/2018	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/7/2018	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/21/2019	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/19/2019	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/12/2020	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/22/2020	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/9/2021	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/14/2021	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	6/26/2022	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.22	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/20/2022	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/21/2023	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	12/21/2023	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	6/12/2024	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/10/2024	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

Table 5

Historical Monitoring Well Sampling Results
Former Kop-Flex Facility Site
Hanover, Maryland
(December 2016 - November 2024) (a)

Well ID	Sample Date	Chloroethane	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	1,4-Dioxane	Methylene Chloride	Tetrachloroethene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene	Vinyl chloride
Groundwater Cleanup Standards (b)		2,100	2.8	5	7	70	15 (c)	5	5	200	5	5	2
MW-42	12/7/2016	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.8	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/1/2017	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	8.0	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/15/2017	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	**19.3**	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/30/2018	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	7.4	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/7/2018	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10.3	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/21/2019	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	10.6	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/19/2019	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.6	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/12/2020	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	11.2	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	1/6/2021	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	13.2	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/9/2021	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	13.3	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/14/2021	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	12.5	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	7/15/2022	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.6	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/20/2022	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.4	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/21/2023	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.8	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/21/2023	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	4.1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/19/2024	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	3.7	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/10/2024	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	3.3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
MW-43	12/7/2016	2.0 U	**15.9**	2.1	**171**	2.0 U	**237**	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
	5/1/2017	2.0 U	**21.3**	2.1	**177**	2.0 U	**206**	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
	11/15/2017	5.0 U	**15.9**	1.3	**159**	1.0 U	**165**	5.0 U	1.0 U	1.2	1.0 U	1.0 U	1.0 U
	5/30/2018	2.0 U	**5.9**	1.0 U	**68**	1.0 U	**57.6**	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/7/2018	1.0 U	**13.8**	1.2	**118**	1.0 U	**107**	2.0 U	1.0 U	1.0 U	1.0 U	1.3	1.0 U
	5/21/2019	1.0 U	**5.2**	1.0 U	**53.9**	1.0 U	**52.0**	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/19/2019	1.0 U	**4.3**	1.0 U	**48.5**	1.0 U	**55.2**	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/12/2020	1.0 U	**3.8**	1.0 U	**46.3**	1.0 U	**49.0**	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/22/2020	1.0 U	**2.9**	1.0 U	**31.8**	1.0 U	**42.7**	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/9/2021	1.0 U	2.7	1.0 U	**31.7**	1.0 U	**34.1**	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/14/2021	1.0 U	2.6	1.0 U	**31.3**	1.0 U	**34.3**	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	6/26/2022	1.0 U	2.5	1.0 U	**29.4**	1.0 U	7.0	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/20/2022	1.0 U	1.7	1.0 U	**20.3**	1.0 U	9.6	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/21/2023	1.0 U	1.6	1.0 U	**21.2**	1.0 U	9.0	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	12/3/2023	1.0 U	1.6	1.0 U	**19.9**	1.0 U	8.5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/19/2024	1.0 U	1.5	1.0 U	**17.3**	1.0 U	6.3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/10/2024	1.0 U	1.3	1.0 U	**15.2**	1.0 U	9.6	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

Table 5

Historical Monitoring Well Sampling Results
Former Kop-Flex Facility Site
Hanover, Maryland
(December 2016 - November 2024) (a)

Well ID	Sample Date	Chloroethane	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	1,4-Dioxane	Methylene Chloride	Tetrachloroethene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene	Vinyl chloride
Groundwater Cleanup Standards (b)		2,100	2.8	5	7	70	15 (c)	5	5	200	5	5	2
MW-44	12/7/2016	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/1/2017	1.0 U	**6.6**	1.0 U	5.9	1.0 U	**49.1**	2.0 U	1.0 U	27.7	1.0 U	1.0 U	1.0 U
	5/30/2018	1.0 U	1.4	1.0 U	1.4	1.0 U	8.4	2.0 U	1.0 U	4.9	1.0 U	1.0 U	1.0 U
	5/21/2019	1.0 U	**14.9**	1.0 U	**22.4**	1.0 U	**64.4**	5.0 U	1.0 U	74.3	1.0 U	1.0 U	1.0 U
	5/13/2020	1.0 U	**3.0**	1.0 U	4.1	1.0 U	**17.7**	5.0 U	1.0 U	11.9	1.0 U	1.0 U	1.0 U
	5/9/2021	1.0 U	1.7	1.0 U	2.9	1.0 U	10.2	5.0 U	1.0 U	6.9	1.0 U	1.0 U	1.0 U
	11/14/2021	1.0 U	**3.8**	1.0 U	**7.2**	1.0 U	13.3	5.0 U	1.0 U	15.4	1.0 U	1.0 U	1.0 U
	6/26/2022	1.0 U	2.3	1.0 U	3.2	1.0 U	2.5	5.0 U	1.0 U	5.9	1.0 U	1.0 U	1.0 U
	11/20/2022	1.0 U	2.4	1.0 U	3.9	1.0 U	4.2	1.0 U	1.0 U	8.0	1.0 U	1.0 U	1.0 U
	5/21/2023	1.0 U	1.2	1.0 U	1.9	1.0 U	1.9	1.0 U	1.0 U	2.6	1.0 U	1.0 U	1.0 U
	12/3/2023	1.0 U	1.6	1.0 U	**6.8**	1.0 U	2.6	1.0 U	1.0 U	9.4	1.0 U	1.0 U	1.0 U
	5/19/2024	1.0 U	**3.3**	1.0 U	5.0	1.0 U	1.9	1.0 U	1.0 U	5.8	1.0 U	1.0 U	1.0 U
	11/10/2024	1.0 U	1.6	1.0 U	2.0	1.0 U	2.8	1.0 U	1.0 U	2.0	1.0 U	1.0 U	1.0 U
MW-1D	1/2/2017	2.0 U	**72**	4.7	**375**	2.0 U	**236**	4.0 U	2.5 U	37.5	2.0 U	2.0 U	2.0 U
	5/3/2017	2.5 U	**105**	**5.7**	**407**	2.5 U	**329**	5.0 U	2.5 U	37.1	2.5 U	2.5 U	2.5 U
	11/15/2017	5.0 U	**80**	3.8	**277**	0.6 J	**243**	5.0 U	0.519 J	29.8	0.8 J	1.7	1 U
	5/30/2018	1.0 U	**14.9**	1.0 U	**71.4**	1.0 U	**64.4**	2.0 U	1.0 U	5.3	1.0 U	1.0 U	1.0 U
	11/7/2018	1.0 U	**7.1**	1.0 U	**38.8**	1.0 U	2.0 U	2.0 U	1.0 U	3.3	1.0 U	1.0 U	1.0 U
	5/21/2019	1.0 U	2.1	1.0 U	**13.7**	1.0 U	12.8	5.0 U	1.0 U	1.1	1.0 U	1.0 U	1.0 U
	11/19/2019	1.0 U	**3.4**	1.0 U	**17.7**	1.0 U	**17.9**	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/18/2020	1.0 U	2.6	1.0 U	**16.5**	1.0 U	12.8	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

Table 5

Historical Monitoring Well Sampling Results
Former Kop-Flex Facility Site
Hanover, Maryland
(December 2016 - November 2024) (a)

Well ID	Sample Date	Chloroethane	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	1,4-Dioxane	Methylene Chloride	Tetrachloroethene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene	Vinyl chloride
Groundwater Cleanup Standards (b)		2,100	2.8	5	7	70	15 (c)	5	5	200	5	5	2
MW-1D	11/22/2020	1.0 U	**3.1**	1.0 U	**17.6**	1.0 U	**16.9**	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/9/2021	1.0 U	1.8	1.0 U	**12.2**	1.0 U	9.0	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/14/2021	1.0 U	**3.8**	1.0 U	**22.4**	1.0 U	**16.5**	5.0 U	1.0 U	1.5	1.0 U	1.0 U	1.0 U
	6/26/2022	1.0 U	**3.1**	1.0 U	**19.1**	1.0 U	4.0	5.0 U	1.0 U	1.3	1.0 U	1.0 U	1.0 U
	11/20/2022	1.0 U	**3.0**	1.0 U	**16.8**	1.0 U	6.8	1.0 U	1.0 U	1.0	1.0 U	1.0 U	1.0 U
	5/21/2023	1.0 U	**1.8**	1.0 U	**11.1**	1.0 U	4.0	1.0 U	1.0 U	1.0	1.0 U	1.0 U	1.0 U
	12/3/2023	1.0 U	**3.8**	1.0 U	**21.3**	1.0 U	6.5	1.0 U	1.0 U	1.0	1.0 U	1.0 U	1.0 U
	5/19/2024	1.0 U	2.4	1.0 U	**17.1**	1.0 U	3.1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/11/2024	1.0 U	**2.9**	1.0 U	**15.6**	1.0 U	6.2	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
MW-16D	12/8/2016	2.0 U	**56.6**	2.9	**254**	2.0 U	**202**	4.0 U	2.0 U	21	2.0 U	2.0 U	2.0 U
	5/2/2017	2.0 U	**43.7**	2.9	**235**	2.0 U	**182**	4.0 U	2.0 U	16.4	2.0 U	2.0 U	2.0 U
	11/15/2017	5.0 U	**29.7**	1.9	**179**	0.3 J	**192**	**10.0**	1.0 U	15.1	0.5 **J**	0.9 J	1.0 U
	5/30/2018	1.0 U	**26.4**	1.6	**180**	1.0 U	**153**	2.0 U	1.0 U	10.3	1.0 U	1.0 U	1.0 U
	11/7/2018	1.0 U	**27.5**	1.8	**161**	1.0 U	**158**	2.0 U	1.0 U	12.5	1.0 U	1.0 U	1.0 U
	5/22/2019	1.0 U	**28.5**	2.1	**172**	1.0 U	**148**	5.0 U	1.0 U	14.5	1.0 U	1.0 U	1.0 U
	11/19/2019	1.0 U	**25.6**	1.7	**133**	1.0 U	**140**	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/13/2020	1.0 U	**29.1**	1.9	**145**	1.0 U	**130**	5.0 U	1.0 U	11.7	1.0 U	1.0 U	1.0 U
	12/8/2020	1.0 U	**25.9**	1.6	**127**	1.0 U	**105**	5.0 U	1.0 U	10.1	1.0 U	1.0 U	1.0 U
	5/9/2021	1.0 U	**27.7**	1.7	**130**	1.0 U	**107**	5.0 U	1.0 U	9.5	1.0 U	1.0 U	1.0 U
	11/14/2021	1.0 U	**21.5**	1.1	**98.7**	1.0 U	**84.5**	5.0 U	1.0 U	6.9	1.0 U	1.0 U	1.0 U
	7/15/2022	1.0 U	**27.4**	1.7	**136.0**	1.0 U	**39.2**	1.0 U	1.0 U	8.3	1.0 U	1.0 U	1.0 U
	12/29/2022	1.0 U	**16.4**	1.0 U	**80.1**	1.0 U	**29.9**	5.0 U	1.0 U	4.7	1.0 U	1.0 U	1.0 U
	5/21/2023	1.0 U	**24.8**	1.4	**111.0**	1.0 U	**36.1**	1.0 U	1.0 U	6.5	1.0 U	1.0 U	1.0 U
Duplicate	5/21/2023	1.0 U	**24.9**	1.4	**110.0**	1.0 U	**21.3**	1.0 U	1.0 U	6.7	1.0 U	1.0 U	1.0 U
	12/3/2023	1.0 U	**21.8**	1.4	**103.0**	1.0 U	**34.5**	1.0 U	1.0 U	5.2	1.0 U	1.0 U	1.0 U
Duplicate	12/3/2023	1.0 U	**19.7**	1.0 U	**98.3**	1.0 U	**27.0**	1.0 U	1.0 U	4.7	1.0 U	1.0 U	1.0 U
	5/19/2024	1.0 U	**20.5**	1.1	**96.6**	1.0 U	**18.7**	1.0 U	1.0 U	4.5	1.0 U	1.0 U	1.0 U
Duplicate	5/19/2024	1.0 U	**20.7**	1.1	**96.6**	1.0 U	**19.1**	1.0 U	1.0 U	4.4	1.0 U	1.0 U	1.0 U
	11/11/2024	1.0 U	**16.8**	1.0 U	**68.2**	1.0 U	**21.6**	1.0 U	1.0 U	3.5	1.0 U	1.0 U	1.0 U
Duplicate	11/10/2024	1.0 U	**15.0**	1.0 U	**58.8**	1.0 U	**24.8**	1.0 U	1.0 U	3.2	1.0 U	1.0 U	1.0 U

Table 5

Historical Monitoring Well Sampling Results
Former Kop-Flex Facility Site
Hanover, Maryland
(December 2016 - November 2024) (a)

Well ID	Sample Date	Chloroethane	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	1,4-Dioxane	Methylene Chloride	Tetrachloroethene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene	Vinyl chloride
Groundwater Cleanup Standards (b)		2,100	2.8	5	7	70	15 (c)	5	5	200	5	5	2
MW-21D	12/16/2016	1.0 U	2.6	1.0 U	**23.4**	1.0 U	**18.6**	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/1/2017	1.0 U	**6.9**	1.4	**111**	1.0 U	**57.5**	2.0 U	1.0 U	2.3	1.0 U	1.0 U	1.0 U
	11/15/2017	5.0 U	2.0	1.0 U	**14.4**	1.0 U	**18.5**	5.0 U	1.0 U	0.7 J	1.0 U	1.0 U	1.0 U
	5/30/2018	1.0 U	1.0	1.0 U	**38.8**	1.0 U	**32.2**	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/7/2018	1.0 U	1.0 U	1.0 U	**30.0**	1.0 U	**18.0**	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/21/2019	1.0 U	1.0 U	1.0 U	**9.9**	1.0 U	8.4	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/19/2019	1.0 U	1.0 U	1.0 U	4.1	1.0 U	4.1	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/18/2020	1.0 U	1.0 U	1.0 U	**13.6**	1.0 U	7.6	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/22/2020	1.0 U	1.0 U	1.0 U	**7.8**	1.0 U	5.1	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/9/2021	1.0 U	1.0 U	1.0 U	4.1	1.0 U	2.8	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/14/2021	1.0 U	1.0 U	1.0 U	**18.7**	1.0 U	12.9	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	6/26/2022	1.0 U	1.0 U	1.0 U	**24.5**	1.0 U	4.2	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/20/2022	1.0 U	1.0 U	1.0 U	**17.6**	1.0 U	5.5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/21/2023	1.0 U	1.0 U	1.0 U	**26.1**	1.0 U	7.1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	12/3/2023	1.0 U	1.0 U	1.0 U	**30.8**	1.0 U	7.7	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/19/2024	1.0 U	1.0 U	1.0 U	6.3	1.0 U	4.3	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/10/2024	1.0 U	1.0 U	1.0 U	**19.8**	1.0 U	7.2	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

Table 5

Historical Monitoring Well Sampling Results
Former Kop-Flex Facility Site
Hanover, Maryland
(December 2016 - November 2024) (a)

Well ID	Sample Date	Chloroethane	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	1,4-Dioxane	Methylene Chloride	Tetrachloroethene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene	Vinyl chloride
Groundwater Cleanup Standards (b)		2,100	2.8	5	7	70	15 (c)	5	5	200	5	5	2
MW-22D	12/7/2016	1.0 U	2.5	1.0 U	**31.5**	1.0 U	**24.5**	2.0 U	1.0 U	4.1	1.0 U	1.0 U	1.0 U
	5/2/2017	1.0 U	2.5	1.0 U	**36.9**	1.0 U	**24.6**	2.0 U	1.0 U	3.7	1.0 U	1.0 U	1.0 U
	11/15/2017	5.0 U	1.72	1.0 U	**24.4**	1.0 U	**19.6**	5.0 U	1.0 U	2.8	1.0 U	1.0 U	1.0 U
	5/30/2018	1.0 U	1.0 U	1.0 U	**13.1**	1.0 U	7.9	2.0 U	1.0 U	1.1	1.0 U	1.0 U	1.0 U
	11/7/2018	1.0 U	1.0 U	1.0 U	**9.7**	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/21/2019	1.0 U	1.0 U	1.0 U	6.3	1.0 U	5.1	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/19/2019	1.0 U	1.0 U	1.0 U	5.6	1.0 U	4.9	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/18/2020	1.0 U	1.0 U	1.0 U	6.2	1.0 U	4.6	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/22/2020	1.0 U	1.0 U	1.0 U	**7.1**	1.0 U	4.9	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/9/2021	1.0 U	1.0 U	1.0 U	5.9	1.0 U	4.0	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/14/2021	1.0 U	1.0 U	1.0 U	6.2	1.0 U	5.2	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	6/26/2022	1.0 U	1.0 U	1.0 U	**9.0**	1.0 U	1.6	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/20/2022	1.0 U	1.0 U	1.0 U	6.1	1.0 U	2.7	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/21/2023	1.0 U	1.0 U	1.0 U	**8.4**	1.0 U	3.0	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	12/3/2023	1.0 U	1.0 U	1.0 U	**8.5**	1.0 U	2.0	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/19/2024	1.0 U	1.0 U	1.0 U	5.5	1.0 U	1.1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/11/2024	1.0 U	1.0 U	1.0 U	**10.8**	1.0 U	3.4	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
MW-23D	1/2/2017	2.0 U	**26.4**	2.0 U	**140**	2.0 U	**151**	**8.3**	1.0 U	17.0	2.0 U	2.0 U	2.0 U
	5/1/2017	2.0 U	**39.1**	2.4	**208**	2.0 U	**177**	4.0 U	2.0 U	19.9	2.0 U	2.0 U	2.0 U
	11/15/2017	5.0 U	**31.1**	1.9	**179**	0.3 J	**158**	5.0 U	0.417 J	19.3	0.4 **J**	0.9 J	1.0 U
	5/30/2018	1.0 U	**30.5**	1.6	**172**	1.0 U	**148**	2.0 U	1.0 U	14.8	1.0 U	1.0 U	1.0 U
	11/7/2018	1.0 U	**36.2**	1.9	**185**	1.0 U	**146**	2.0 U	1.0 U	17.0	1.0 U	1.0 U	1.0 U
	5/21/2019	1.0 U	**18.5**	1.2	**96.4**	1.0 U	**70.7**	5.0 U	1.0 U	8.6	1.0 U	1.0 U	1.0 U
	11/19/2019	1.0 U	**22.7**	1.4	**107**	1.0 U	**109**	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/13/2020	1.0 U	**35.2**	1.8	**142**	1.0 U	**112**	5.0 U	1.0 U	13.6	1.0 U	1.0 U	1.0 U
	11/22/2020	1.0 U	**26.3**	1.2	**106**	1.0 U	**96.7**	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/9/2021	1.0 U	**31.8**	1.5	**126**	1.0 U	**99.0**	5.0 U	1.0 U	11.7	1.0 U	1.0 U	1.0 U
	11/14/2021	1.0 U	**28.5**	1.1	**110**	1.0 U	**92.4**	5.0 U	1.0 U	9.2	1.0 U	1.0 U	1.0 U
	6/26/2022	1.0 U	**34.6**	1.5	**138**	1.0 U	**27.0**	5.0 U	1.0 U	10.7	1.0 U	1.0 U	1.0 U
	11/20/2022	1.0 U	**33.6**	1.7	**140**	1.0 U	**59.6**	1.0 U	1.0 U	9.7	1.0 U	1.0 U	1.0 U
	5/21/2023	1.0 U	**32.4**	1.4	**116**	1.0 U	**27.0**	1.0 U	1.0 U	8.3	1.0 U	1.0 U	1.0 U

Table 5

Historical Monitoring Well Sampling Results
Former Kop-Flex Facility Site
Hanover, Maryland
(December 2016 - November 2024) (a)

Well ID	Sample Date	Chloroethane	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	1,4-Dioxane	Methylene Chloride	Tetrachloroethene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene	Vinyl chloride
Groundwater Cleanup Standards (b)		2,100	2.8	5	7	70	15 (c)	5	5	200	5	5	2
MW-23D	12/3/2023	1.0 U	**41.2**	1.4	**177**	1.0 U	**56.1**	1.0 U	1.0 U	9.3	1.0 U	1.0 U	1.0 U
	5/19/2024	1.0 U	**32.7**	1.4	**134**	1.0 U	**24.2**	1.0 U	1.0 U	6.9	1.0 U	1.0 U	1.0 U
	11/11/2024	1.0 U	**20.1**	1.0 U	**77.6**	1.0 U	**34.1**	1.0 U	1.0 U	4.6	1.0 U	1.0 U	1.0 U
MW-27D	12/7/2016	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/1/2017	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	3.6	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/30/2018	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/21/2019	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/13/2020	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/9/2021	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/14/2021	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	6/26/2022	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.13	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/20/2022	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	12/3/2023	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/10/2024	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
MW-40D	12/9/2016	1.0 U	**2.9**	1.0 U	**18.1**	1.0 U	9.4	2.0 U		1.0 U	1.0 U	1.0 U	1.0 U
	5/1/2017	1.0 U	**3.1**	1.0 U	**17.4**	1.0 U	8.5	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/15/2017	5.0 U	0.9 J	1.0 U	5.2	1.0 U	5.2	**9.7**	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/30/2018	1.0 U	1.0 U	1.0 U	2.9	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/7/2018	1.0 U	1.0 U	1.0 U	4.4	1.0 U	2.7	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/21/2019	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/19/2019	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/18/2020	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/22/2020	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/9/2021	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/14/2021	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	6/26/2022	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.18	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/20/2022	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/21/2023	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	12/3/2023	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/10/2024	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

Table 5

Historical Monitoring Well Sampling Results
Former Kop-Flex Facility Site
Hanover, Maryland
(December 2016 - November 2024) (a)

Well ID	Sample Date	Chloroethane	1,1-Dichloroethane	1,2-Dichloroethane	1,1-Dichloroethene	cis-1,2-Dichloroethene	1,4-Dioxane	Methylene Chloride	Tetrachloroethene	1,1,1-Trichloroethane	1,1,2-Trichloroethane	Trichloroethene	Vinyl chloride
Groundwater Cleanup Standards (b)		2,100	2.8	5	7	70	15 (c)	5	5	200	5	5	2
MW-41D	12/16/2016	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.8	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/17/2017	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.4	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/30/2018	1.0 U	1.0 U	1.0 U	1.1	1.0 U	2.0 U	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/21/2019	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.1	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/18/2020	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/9/2021	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/14/2021	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	2.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	6/26/2022	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	0.62	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/20/2022	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.1	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	12/3/2023	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/10/2024	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U

a/ U = not detected above the method detection limit
Bolded values indicate an exceedence of the Groundwater Quality Standards
All sample concentrations in micrograms per liter (µg/l)
b/ All cleanup standards, except for 1,4-dioxane, are equal to the Maryland Generic Numeric Cleanup Standards for Groundwater, Type I and II Aquifers, from the State of Maryland Interim Final Guidance (October 2018). Accessed May 27, 2020: https://mde.maryland.gov/programs/LAND/MarylandBrownfieldVCP/Documents/www.mde.state.md.us/assets/document/M
c/ Numeric cleanup standards from WSP's October 2, 2015, Response Action Plan, Revision 2.

Table 6
November 2024 Recovery Well Sampling Results
Former Kop-Flex Facility
Hanover, Maryland (a)

Parameters	Groundwater Cleanup Standards (µg/L) (b)		Well ID:	Shallow Zone Wells RW-1S	RW-2S	RW-3S	Deep Zone Wells RW-1D	RW-2D
			Sampling Date:	11/10/2024	11/10/2024	---	11/10/2024	---
Chloroethane	2,100			21.0	5.0 U	NS	14.8	NS
1,1-Dichloroethane	2.8			**162**	**57.2**	NS	**100**	NS
1,1-Dichloroethene	7			**623**	**349**	NS	**384**	NS
1,4-Dioxane	15.0	(c)		**176**	**179**	NS	**50.4**	NS
1,1,1-Trichloroethane	200			56.3	**205**	NS	18.3	NS
Vinyl Chloride	3			**5.8**	5.0 U	NS	5.0 U	NS
Total Detected CVOCs + 1,4-Dioxane				*1,044*	*790*	---	*567.5*	---

a/ U = not detected above the method detection limit
NS = not sampled
Bolded values indicate an exceedence of the Groundwater Quality Standards
All sample concentrations in micrograms per liter (µg/l)

b/ All cleanup standards, except for 1,4-dioxane, are equal to the Maryland Generic Numeric Cleanup Standards for Groundwater, Type I and II Aquifers, from the State of Maryland Interim Final Guidance (October 2018). Accessed May 27, 2020: https://mde.maryland.gov/programs/LAND/MarylandBrownfieldVCP/Documents/www.mde.state.md.us/assets/document/MDE%20Soil%20a

c/ Numeric cleanup standards from WSP's October 2, 2015, Response Action Plan, Revision 2.

ENCLOSURE A – WRITTEN NOTIFICATION OF OCTOBER 2024 NON-COMPLIANCE WITH EFFLUENT LIMITATION FOR TOTAL COPPER

VIA ELECTRONIC MAIL

November 06, 2024

Compliance Program
Water and Science Administration
Maryland Department of the Environment
1800 Washington Boulevard
Suite 425
Baltimore, Maryland 21230-1708

Subject: **Non-compliance with Effluent Limitation for Copper**
State Discharge Permit No. 21-DP-3442/NPDES Permit MD0069094
7555 Harmans Road, Hanover, MD 21076

Discharge Monitoring Reports:

On behalf of EMERSUB 16, LLC (EMERSUB 16), WSP USA Inc. (WSP) is submitting this letter to provide written notice to the Maryland Department of the Environment (MDE) of an exceedance of the effluent limitation for copper set forth in National Pollutant Discharge Elimination System (NPDES) Permit MD0069094, which MDE tracks as State Discharge Permit No. 21-DP-3442 (Permit). The Permit is issued to EMERSUB 16 in connection with the operation of a groundwater extraction and treatment system (System) located at 7555 Harmans Road in Hanover, Anne Arundel County, Maryland (the Site).

More specifically, this notice is being made under General Condition II.B.2 of the Permit. As required under this provision, WSP also notified the MDE Inspection and Compliance Program of the exceedance by telephone on the afternoon of November 1, 2024. This telephone notice was timely, since WSP received the analytical results indicating the copper exceedance the same day. The following information is provided in accordance with items a through f under General Condition II.B.2.

A. DESCRIPTION OF THE NON-COMPLYING DISCHARGE

Under the MDE Voluntary Cleanup Program, response actions have been developed for the Site, including the installation and operation of the System. The purpose of the System is to hydraulically contain groundwater impacted by volatile organic compounds (VOCs) and 1,4-dioxane and prevent the affected groundwater from discharging to Stony Run or migrating off the property. Notably, copper is not a contaminant of concern with respect to the groundwater remedial action implemented at the Site. Groundwater is extracted from five recovery wells and conveyed via sub-grade piping to the treatment system located on the property. The groundwater is treated to meet the NPDES permit discharge limits by using bag filters for suspended solids removal, ion exchange resin to adsorb the VOCs and 1,4-dioxane, addition of caustic soda for pH buffering, and in-line aerators to increase dissolved oxygen levels. WSP began operation of the System in March 2017.

The System effluent is sampled monthly for all monitoring parameters, except for biochemical oxygen demand for which a sample is collected quarterly, as specified in the Permit. The analytical results of the monthly sample collected on October 18, 2024, were received from the laboratory on November 1, 2024. The total copper concentration in the discharge sample, 16.0 micrograms per liter

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(µg/L), slightly exceeded the daily maximum permit limit of 13 µg/L. To our knowledge, this single incident of discharge of the treated water with a total copper concentration slightly above its respective daily maximum limit has not resulted in any detrimental impact to Stony Run.

Monthly System effluent samples collected from January 2024 through September 2024 had total copper concentrations ranging from 1.1 µg/L (March 2024) to 6.1 µg/L (May 2024), which are less than 50% of the permit limit. Historically, the copper concentrations detected in the System effluent have generally ranged between 1 µg/L and 7 µg/L. A plot of the total copper concentrations in the treated effluent from System startup through October 2024 is provided in Figure 1. Although there is a fair degree of variability in the monthly sample results, the historical sampling data collected over the 7.5 years of System operation indicate a slight increasing trend in the copper concentrations in the discharge. This increasing concentration trend has been confirmed using the Mann-Kendall trend test method. In addition, over the last few years (2020-2024) some of the highest total copper concentrations in the effluent have been detected in samples collected during the fall months. At this time, evaluation of the data to determine the reason(s) for the increasing trend and apparent seasonal variation in the total copper concentrations in the effluent has not been conducted by WSP.

B. CAUSE OF NON-COMPLIANCE

Upon identifying the discharge with total copper above the effluent limitation, WSP initiated an evaluation of potential causes, including a review of available groundwater data and System components. Hydrogeochemical data has not been collected to determine total copper concentrations representative of natural (i.e., background) groundwater conditions as part of the current groundwater remediation activities. The concentrations of total copper were measured in groundwater extracted from the uppermost, or shallow, zone of the impacted aquifer during the initial years of operation of a prior groundwater remediation system at the Site. (This previous groundwater remediation system was located in the southwestern portion of the property and operated from 2005 to 2013.) Based on this historical data, the average total copper concentration of the shallow groundwater was 24 µg/L.

At this time, WSP cannot provide a definitive explanation as to the cause for the elevated copper concentration in the October 2024 discharge sample. We are currently investigating the non-compliance incident and will (1) notify the MDE if it identifies the cause with greater certainty and (2) if necessary, implement practical and appropriate measures to prevent a recurrence.

C. ANTICIPATED TIME FOR NON-COMPLIANCE CONDITION

Given the analytical results for October 18th sample, WSP collected another discharge sample for analysis of total copper on November 6, 2024, to assess whether the non-compliance was a transient or continuing condition. This discharge sample was submitted to the laboratory for expedited (2-day) analysis, and the analytical results should be received by the close of business on November 8, 2024. The sample results will be reviewed to determine whether the non-compliant condition no longer exists, or if the total copper concentration remains above the Permit level. WSP will provide notification to MDE regarding the results of the November 7th discharge sample no later than early the week of November 11, 2024.

D. STEPS TO REDUCE AND ELIMINATE THE NON-COMPLYING DISCHARGE

If an exceedance is detected in the November 6th sample, WSP will cease operation of the System until actions are implemented to reduce the total copper concentration in the effluent, so they comply with the Permit limitation. In the meantime, WSP is continuing to gather information on possible causes for the copper exceedance. To the extent necessary, WSP will take practical measures to eliminate and prevent a recurrence of the exceedance.

E. STEPS TO PREVENT RECURRENCE OF THE CONDITION OF NON-COMPLIANCE

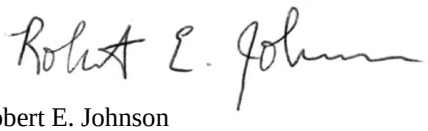
As mentioned above, EMERSUB 16 and WSP will implement appropriate corrective action to prevent future exceedances of the copper limits based on evaluation of information gathered during investigation of this non-compliance incident.

F. DESCRIPTION OF ACCELERATED OR ADDITIONAL MONITORING TO DETERMINE THE NATURE AND IMPACT OF THE NON-COMPLYING DISCHARGE

As discussed above, WSP re-sampled the System effluent on November 6, 2024, to gather additional data on the total copper in the discharge. WSP expects to receive the analytical results for this sample on November 8, 2024. The sample data will be provided in a follow-up to this notification and be included in the November 2024 Discharge Monitoring Report to MDE. Pending the results of the November 6th re-sampling, WSP believes that the non-compliant copper concentration represents a one-time anomaly.

Please do not hesitate to contact me with any questions.

Sincerely,



Robert E. Johnson
Vice President - Earth & Environment

REJ
K:\Emerson\Kop-Flex_$ONSITE AREA\NPDES Permit\MDE Exceedance Notifications\2024\

cc: Steve Clarke, EMERSUB 16, LLC
Amber Crouch, EMERSUB 16 LLC
Reza Zarghamee, Pillsbury Winthrop Shaw Pittman LLP.

FIGURE

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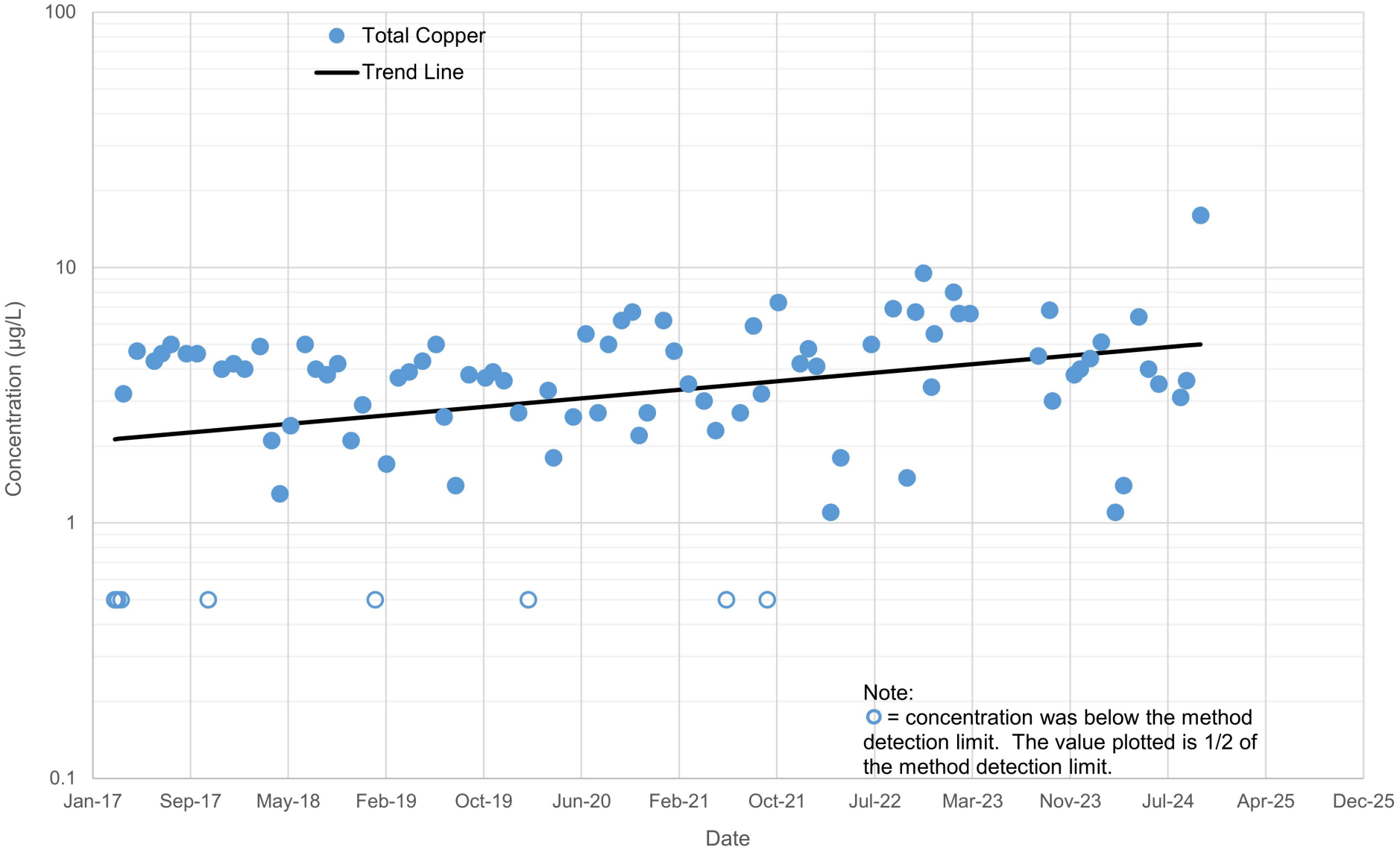

A

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FIGURE 1

EFFLUENT TOTAL COPPER CONCENTRATIONS

FORMER KOP-FLEX FACILITY
HANOVER, MARYLAND

PREPARED FOR
EMERSON
ST. LOUIS, MISSOURI

Drawn By: EGC
Checked:
Approved: RG 11/5/2024
DWG Name: 314V5608.010-085

ENCLOSURE B – WRITTEN NOTIFICATION OF DECEMBER 2024 NON-COMPLIANCE WITH EFFLUENT LIMITATION FOR TOTAL COPPER

VIA ELECTRONIC MAIL

January 07, 2025

Compliance Program
Water and Science Administration
Maryland Department of the Environment
1800 Washington Boulevard
Suite 425
Baltimore, Maryland 21230-1708

Subject: **Non-compliance with Effluent Limitation for Copper**
State Discharge Permit No. 21-DP-3442/NPDES Permit MD0069094
7555 Harmans Road, Hanover, MD 21076

Discharge Monitoring Reports:

On behalf of EMERSUB 16, LLC (EMERSUB 16), WSP USA Inc. (WSP) is submitting this letter to provide written notice to the Maryland Department of the Environment (MDE) of an exceedance of the monthly average effluent limitation for copper set forth in National Pollutant Discharge Elimination System (NPDES) Permit MD0069094, which MDE tracks as State Discharge Permit No. 21-DP-3442 (Permit). The Permit is issued to EMERSUB 16 in connection with the operation of a groundwater remediation system (System) located at 7555 Harmans Road in Hanover, Anne Arundel County, Maryland (the Site).

More specifically, this notice is being made under General Condition II.B.2 of the Permit. As required under this provision, WSP also notified the MDE Inspection and Compliance Program of the exceedance by telephone on the morning of January 3, 2025. WSP received the analytical results indicating the copper exceedance on the afternoon of January 2, 2025. The following information is provided in accordance with items a through f under General Condition II.B.2.

As stated in greater detail below, the current thinking is that the exceedance is due to background conditions in the shallow aquifer, made more prominent by an approximately 50% decrease in the amount of flow contributed by the deep aquifer zone due to one of the deep recovery wells being off-line. WSP will seek to confirm this point through additional sampling in January 2025.

A. DESCRIPTION OF THE NON-COMPLYING DISCHARGE

Under the MDE Voluntary Cleanup Program, response actions have been developed for the Site, including the installation and operation of the System. The purpose of the System is to hydraulically contain groundwater impacted by volatile organic compounds (VOCs) and 1,4-dioxane and prevent the affected groundwater from discharging to Stony Run or migrating off the property. Notably, copper is not a contaminant of concern with respect to the groundwater remedial action implemented at the Site. Groundwater is extracted from three (3) shallow recovery wells and two (2) deep recovery wells and conveyed via separate sub-grade pipelines to the treatment system located at 7555 Harmans Road. Initially, the separate flows from the shallow and deep recovery wells are placed into a flow equalization tank where the groundwaters can combine and mix. The groundwater is then treated to meet the NPDES permit discharge limits by using bag filters for suspended solids removal, ion exchange resin to adsorb the VOCs and 1,4-dioxane,

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addition of caustic soda for pH buffering, and in-line aerators to increase dissolved oxygen levels. WSP began operation of the System in March 2017.

The System effluent is sampled once a month for all monitoring parameters, except for biochemical oxygen demand for which a sample is collected quarterly, as specified in the Permit. Given that only one discharge sample is collected each month, the sample results are reported for both the average monthly and daily maximum values for all monitoring parameters in the monthly Discharge Monitoring Reports (DMRs). The analytical results for the monthly sample collected on December 16, 2024, were received from the laboratory the afternoon of January 2, 2025. The total copper concentration in the discharge sample was 12.9 micrograms per liter (µg/L). This total copper concentration exceeded the average monthly permit limit of 9 µg/L but was in compliance with the daily maximum permit limit of 13 µg/L. Based on the operational data for the System, a total of 381,000 gallons of treated groundwater was discharged to Outfall 001 between the sampling date (December 16, 2024) and December 21, 2024, when the System was shut down because of damage to one of the equipment components. To our knowledge, this very brief incident of discharge of the treated water with a total copper concentration above its average monthly limit has not resulted in any detrimental impact to Stony Run.

Historically, the copper concentrations detected in the System effluent have generally ranged between 1 µg/L and 7 µg/L. These copper levels reflect the extraction of impacted groundwater from all five (5) recovery wells or a subset of the shallow recovery wells and both deep recovery wells, with roughly 10x the flow from the deep wells (60 gallons per minute [GPM]) compared to shallow wells (6 GPM). Under these operational conditions, the mean total copper concentration in the treated effluent is 3.7 µg/L, which is less than ½ of the average monthly permit limit. Since late May 2024, groundwater extraction has only occurred from one of the deep recovery wells. The other well has been off-line because of damage to the electric submersible pump and components that provide electrical power and control the pump operation. Evaluation of the data for the June 2024 through December 2024 effluent samples indicates an average total copper concentration of 7.3 µg/L, which is approximately 2x the average copper level during normal *(i.e.*, full-scale) System operation. The average total copper concentration in the June-December 2024 samples appears to reflect the relatively high levels detected in the recent samples from October (16 µg/L), November (6.3 µg/L and 8.9 µg/L), and December (12.9 µg/L).

B. CAUSE OF NON-COMPLIANCE

Given the presence of relatively high total copper levels in recent discharge samples, WSP initiated an evaluation of potential causes, including a review of available groundwater data and System components. Historical sampling data from the Site indicate natural (*i.e.*, background) concentrations of total copper above the daily maximum effluent limitation of 13 µg/L in the shallow groundwater, particularly for water obtained from wells screened in portions of the shallow zone with abundant fine-grained (silt and clay) sediments.[1] Hydrogeochemical data has not been collected to determine the natural total copper concentrations in the deep aquifer zone. However, given the predominance of coarse-grained (sand and gravel) sediments in this portion of the aquifer, it is highly likely the total copper levels in the deep groundwater are relatively low when compared to groundwater within the shallow aquifer zone where clayey sediments are more prevalent. Based on this inferred chemical difference in the aquifer, the recent concentrations of total copper in the groundwater processed by the System could be relatively high due to an approximately 50% decrease in the amount of flow contributed by the deep aquifer zone due to one of the deep recovery wells being off-line. The reduction in the flow contribution from the deep, low copper aquifer zone would coincide with an increase in the proportion of shallow, high copper groundwater in the flow equalization tank that is subsequently treated by the System. The temporal fluctuations in the total copper concentrations in the recent treated effluent samples are believed to reflect minor variations in the amount of clayey sediments present in the process flow.

WSP plans to conduct sampling activities in the next couple of months to further assess the causal mechanism described above for the elevated copper concentration in the December 2024 discharge sample. The sampling results will be evaluated to better understand the relative contributions of copper from the shallow and deep groundwater extracted and treated by the System. The investigation findings will be provided to MDE in a separate submittal, along with practical measures to be implemented in the future to prevent a recurrence of the total copper permit limit exceedance.

[1] An average total copper concentration of 24 µg/L was detected in groundwater extracted from clayey deposits within the shallow zone of the impacted aquifer during the initial years of operation (2005 – 2007) of a prior groundwater remediation system in the same area at the Site.

C. ANTICIPATED TIME FOR NON-COMPLIANCE CONDITION

As indicated in Item A above, the System was shut down on December 21, 2024, due to equipment problems and remains off-line. WSP anticipates completing the necessary equipment maintenance and resuming full-scale operation of the System late the week of January 13th, 2025, which will include groundwater pumping from both deep recovery wells. Based on this re-start schedule, a discharge sample will be collected early the week of January 20th, 2025, or shortly after the resumption of full-scale System operation. WSP will expedite the total copper analysis for this sample and review the results to confirm the non-compliant condition no longer exists under normal System operating conditions. WSP will provide notification to MDE regarding the total copper concentration in the January discharge sample no later than one week following sample collection. Pending the results of the January sampling, WSP believes that the non-compliant copper concentration represents an anomalous condition linked to a temporary change in the flow contributions from the shallow and deep aquifer zones

D. STEPS TO REDUCE AND ELIMINATE THE NON-COMPLYING DISCHARGE

If there is an exceedance in the January 2025 sample collected following System re-start, WSP will cease operation of the System until actions are implemented to identify the source of the issue and/or reduce the total copper concentration in the effluent, so they comply with the respective Permit limitations. To the extent necessary, WSP will take practical and appropriate measures to eliminate the copper exceedance in the treated water discharge.

E. STEPS TO PREVENT RECURRENCE OF THE CONDITION OF NON-COMPLIANCE

As mentioned in Item B above, EMERSUB 16 and WSP will develop and implement a sampling plan to assess the total copper concentrations in the shallow and deep groundwater extracted and treated by the System. WSP anticipates conducting the sampling activities described in the plan during late January 2025 to late February 2025. Upon completion of the sampling program, the data will be evaluated to assess the relative contributions of total copper from the different aquifer zones targeted for groundwater extraction and develop an appropriate corrective action(s) to prevent future exceedances of the copper limits based on the 'natural' presence of this trace metal in the groundwater system. Given the apparent difference in the copper levels between the shallow and deep aquifer zones, the corrective action will likely involve adjustment in the groundwater pumping rates for the shallow and deep recovery wells, to achieve and maintain a target total copper concentration in the mixed water in the flow equalization tank before it is routed through the treatment train.

F. DESCRIPTION OF ACCELERATED OR ADDITIONAL MONITORING TO DETERMINE THE NATURE AND IMPACT OF THE NON-COMPLYING DISCHARGE

As discussed above, EMERSUB 16 and WSP plan to conduct the following sampling activities to assess the nature of the total copper exceedance in the discharge to Stony Run.

- Collection and expedited (3-day turn-around) total copper analysis of a sample of the treated effluent obtained shortly after the re-start of the System.
- Completion of sampling of (1) the extracted groundwater from the shallow and deep recovery wells and (2) combined water flow at various points in the treatment process following the resumption of System operation.

Based on the expected System re-start schedule, the treated effluent will be sampled early the week of January 20th, 2025, to gather updated information on the total copper concentration in the discharge. The analytical results for this sample should be received by the end of that week. The sample data will be provided in a follow-up to this notification to MDE and be included in the January 2025 DMR.

WSP anticipates implementing the sampling plan to further characterize the copper levels in the extracted groundwater and process flow in late January 2025, with the activities continuing into February 2025. The receipt of the laboratory analytical report(s) and evaluation of the data should be completed no later than early to mid-April 2025. After completing the data evaluation, the results of the sampling activities and planned corrective action(s) to ensure compliance with the total copper effluent limitations will be transmitted to MDE in a separate submittal. Any samples of the treated effluent discharged to Stony Run via Outfall 001 that are collected during this investigation will be included in the respective monthly DMR.

Please do not hesitate to contact me with any questions concerning the information provided in this written notification.

Sincerely,

Robert E. Johnson
Vice President - Earth & Environment

REJ
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cc: Steve Clarke, EMERSUB 16, LLC
Amber Crouch, EMERSUB 16 LLC
Reza Zarghamee, Pillsbury Winthrop Shaw Pittman LLP.

ENCLOSURE C - CERTIFIED LABORATORY ANALYTICAL REPORT FOR ONSITE MONITORING WELL AND RECOVERY WELL SAMPLES (NOVEMBER 2024)

Main Site: 301 Fulling Mill Road | Middletown, PA 17057 | Phone: 717-944-5541 | www.alsglobal.com
Associated Site: 20 Riverside Drive | Spring City, PA 19475 | Phone: 610-948-4903 |

NELAP Certifications: NJ PA010 , NY 11759 , PA 22-293 DoD ELAP: PJLA 74618
State Certifications: FL E871113 , WA C999 , MD 128 , VA 460157 , WV DW 9961-C , WV 343, NJ PA101

Analytical Results Report For **WSP USA Inc.**

Project	Kop Flex On Site
Workorder	3387069
Report ID	369475 on 11/26/2024

Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on Nov 11, 2024.

The ALS Environmental laboratory in Middletown, Pennsylvania is a National Environmental Laboratory Accreditation Program (NELAP) accredited laboratory and as such, certifies that all applicable test results meet the requirements of NELAP.

If you have any questions regarding this certificate of analysis, please contact Susan Scherer (Project Coordinator) at (717) 944-5541.

Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state requirements. The test results meet requirements of the current NELAP standards or state requirements, where applicable. For a specific list of accredited analytes, refer to the certifications section of the ALS website at www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads.

ALS Middletown: 301 Fulling Mill Road, Middletown, PA 17057 : 717-944-5541.

Recipient(s):
Elliott Martynkiewicz - WSP USA Inc.
Eric Johnson - WSP USA INC
Erik Reinert - WSP USA Inc

Susan Scherer

Susan Scherer *(ALS Digital Signature)*
Project Coordinator

This page is included as part of the Analytical Report and must be retained as a permanent record thereof.

Sample Summary

Lab ID	Sample ID	Matrix	Date Collected	Date Received	Collector	Collection Company
3387069001	MW-03	Ground Water	11/10/2024 10:55	11/11/2024 17:33	CBC	Collected By Client
3387069002	MW-27 D	Ground Water	11/10/2024 11:10	11/11/2024 17:33	CBC	Collected By Client
3387069003	MW-43	Ground Water	11/10/2024 11:25	11/11/2024 17:33	CBC	Collected By Client
3387069004	MW-39	Ground Water	11/10/2024 11:35	11/11/2024 17:33	CBC	Collected By Client
3387069005	MW-42	Ground Water	11/10/2024 11:45	11/11/2024 17:33	CBC	Collected By Client
3387069006	MW-18	Ground Water	11/10/2024 12:05	11/11/2024 17:33	CBC	Collected By Client
3387069007	MW-38R	Ground Water	11/10/2024 12:15	11/11/2024 17:33	CBC	Collected By Client
3387069008	RW-1S	Ground Water	11/10/2024 12:25	11/11/2024 17:33	CBC	Collected By Client
3387069009	RW-2S	Ground Water	11/10/2024 12:35	11/11/2024 17:33	CBC	Collected By Client
3387069010	Trip Blank A	Ground Water	11/10/2024 00:00	11/11/2024 17:33	CBC	Collected By Client
3387069011	MW-5R	Ground Water	11/10/2024 12:45	11/11/2024 17:33	CBC	Collected By Client
3387069012	MW-40 D	Ground Water	11/10/2024 12:55	11/11/2024 17:33	CBC	Collected By Client
3387069013	MW-100	Ground Water	11/10/2024 13:00	11/11/2024 17:33	CBC	Collected By Client
3387069014	MW-44	Ground Water	11/10/2024 14:00	11/11/2024 17:33	CBC	Collected By Client
3387069015	MW-21D	Ground Water	11/10/2024 14:20	11/11/2024 17:33	CBC	Collected By Client
3387069016	RW-1D	Ground Water	11/10/2024 14:30	11/11/2024 17:33	CBC	Collected By Client
3387069017	MW-41D	Ground Water	11/10/2024 14:40	11/11/2024 17:33	CBC	Collected By Client
3387069018	Trip Blank B	Ground Water	11/10/2024 00:00	11/11/2024 17:33	CBC	Collected By Client
3387069019	MW-01D	Ground Water	11/11/2024 14:50	11/11/2024 17:33	CBC	Collected By Client
3387069020	MW-01	Ground Water	11/11/2024 15:00	11/11/2024 17:33	CBC	Collected By Client
3387069021	MW-22D	Ground Water	11/11/2024 15:10	11/11/2024 17:33	CBC	Collected By Client
3387069022	MW-20	Ground Water	11/11/2024 15:40	11/11/2024 17:33	CBC	Collected By Client
3387069023	MW-4R	Ground Water	11/11/2024 15:50	11/11/2024 17:33	CBC	Collected By Client
3387069024	MW-09	Ground Water	11/11/2024 16:00	11/11/2024 17:33	CBC	Collected By Client
3387069025	MW-23D	Ground Water	11/11/2024 16:15	11/11/2024 17:33	CBC	Collected By Client
3387069026	MW-16	Ground Water	11/11/2024 16:30	11/11/2024 17:33	CBC	Collected By Client
3387069027	MW-16D	Ground Water	11/11/2024 16:40	11/11/2024 17:33	CBC	Collected By Client
3387069028	Trip Blank C	Ground Water	11/11/2024 00:00	11/11/2024 17:33	CBC	Collected By Client

Reference

Notes

- Samples collected by ALS personnel are done so in accordance with the procedures set forth in the ALS Field Sampling Plan (20 - Field Services Sampling Plan).
- Except as qualified, Clean Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 136, including but not limited to the following EPA Method reference revisions:
  EPA 300.1 Rev. 1.0-1997
  EPA 300.0 Rev. 2.1-1993
  EPA 353.2 Rev. 2.0-1993
  EPA 410.4 Rev. 1.0-1993
  EPA 420.4 Rev. 1.0-1993
  EPA 365.1 Rev. 2.0-1993
  EPA 200.7 Rev. 4.4-1994
  EPA 200.8 Rev. 5.4-1994
  EPA 245.1 Rev. 3.0-1994
- Except as qualified, Safe Drinking Water Act sample analyses are consistent with methodology requirements in 40 CFR Part 141.
- The Chain of Custody document is included as part of this report.
- All Library Search analytes should be regarded as tentative identifications based on the presumptive evidence of the mass spectra. Concentrations reported are estimated values.
- Parameters identified as "analyze immediately" require analysis within 15 minutes of collection. Any "analyze immediately" parameters not listed under the header "Field Parameters" are preformed in the laboratory and are therefore analyzed out of hold time.
- Method references listed on this report beginning with the prefix “S” followed by a method number (such as S2310B-97) refer to methods from “Standard Methods for the Examination of Water and Wastewater”.
- For microbiological analyses, the "Prepared" value is the date/time into the incubator and the "Analyzed" value is the date/time out the incubator.
- An Analysis-Prep Method Cross Reference Table is included after Analytical Results & Qualifiers section in this report.
- Unless otherwise noted, all quantitative results for soils are reported on a dry weight basis.

Standard Acronyms/Flags

J	Indicates an estimated value between the Method Detection Limit (MDL) and the Practical Quantitation Limit (PQL) for the analyte
U	Indicates that the analyte was Not Detected (ND) above the MDL
N	Indicates presumptive evidence of the presence of a compound
MDL	Method Detection Limit
PQL	Practical Quantitation Limit
RDL	Practical Quantitation Limit for this Project
ND	Not Detected - indicates that the analyte was Not Detected
Cntr	Analysis was performed using this container
RegLmt	Regulatory Limit
LCS	Laboratory Control Sample
MS	Matrix Spike
MSD	Matrix Spike Duplicate
DUP	Sample Duplicate
%Rec	Percent Recovery
RPD	Relative Percent Difference
LOD	DoD Limit of Detection
LOQ	DoD Limit of Quantitation
DL	DoD Detection Limit
I	Indicates reported value is greater than or equal to the Method Detection Limit (MDL) but less than the Report Detection Limit (RDL)
(S)	Surrogate Compound
NC	Not Calculated
*	Result outside of QC limits
#	Please reference the result in the Results Section for analyte-level flags.

Project Notations

Sample Notations

Lab ID	Sample ID

Result Notations

Notation Ref.	
1	The QC sample type LCS for method SW846 8260D was outside the control limits for the analyte Hexachlorobutadiene. The % Recovery was reported as 139 and the control limits were 55 to 128.
2	The surrogate 2-Methylnapthalene-d10 for method SW846 8270E SIM was outside of control limits. The % Recovery was reported as 0 and the control limits were 29 to 112. This result was reported at a dilution of 50.
3	The surrogate 2-Methylnapthalene-d10 for method SW846 8270E SIM was outside of control limits. The % Recovery was reported as 0 and the control limits were 29 to 112. This result was reported at a dilution of 100.
4	The surrogate 2-Methylnapthalene-d10 for method SW846 8270E SIM was outside of control limits. The % Recovery was reported as 0 and the control limits were 29 to 112. This result was reported at a dilution of 10.
5	The surrogate 2-Methylnapthalene-d10 for method SW846 8270E SIM was outside of control limits. The % Recovery was reported as 0 and the control limits were 29 to 112. This result was reported at a dilution of 20.

Detected Results Summary

Client Sample ID	MW-43	Collected	11/10/2024 11:25
Lab Sample ID	3387069003	Lab Receipt	11/11/2024 17:33

Compound	Result	Units	RDL	Method	Flag
SEMIVOLATILE SIM					
1,4-Dioxane	9.6	ug/L	1.0	SW846 8270E SIM	#
VOLATILE ORGANICS					
1,1-Dichloroethane	1.3	ug/L	1.0	SW846 8260D	#
1,1-Dichloroethene	15.2	ug/L	1.0	SW846 8260D	#
Methyl t-Butyl Ether	1.9	ug/L	1.0	SW846 8260D	#

Detected Results Summary

Client Sample ID	MW-42	Collected	11/10/2024 11:45
Lab Sample ID	3387069005	Lab Receipt	11/11/2024 17:33

Compound	Result	Units	RDL	Method	Flag
SEMIVOLATILE SIM					
1,4-Dioxane	3.3	ug/L	1.0	SW846 8270E SIM	#

Detected Results Summary

Client Sample ID	MW-38R	Collected	11/10/2024 12:15
Lab Sample ID	3387069007	Lab Receipt	11/11/2024 17:33

Compound	Result	Units	RDL	Method	Flag
SEMIVOLATILE SIM					
1,4-Dioxane	19.2	ug/L	5.2	SW846 8270E SIM	#
VOLATILE ORGANICS					
1,1-Dichloroethane	3.9	ug/L	1.0	SW846 8260D	#

Detected Results Summary

Client Sample ID	RW-1S	Collected	11/10/2024 12:25
Lab Sample ID	3387069008	Lab Receipt	11/11/2024 17:33

Compound	Result	Units	RDL	Method	Flag
SEMIVOLATILE SIM					
1,4-Dioxane	176	ug/L	50.0	SW846 8270E SIM	#
VOLATILE ORGANICS					
1,1,1-Trichloroethane	56.3	ug/L	5.0	SW846 8260D	#
1,1-Dichloroethane	162	ug/L	5.0	SW846 8260D	#
1,1-Dichloroethene	623	ug/L	5.0	SW846 8260D	#
Chloroethane	21.0	ug/L	5.0	SW846 8260D	#
Vinyl Chloride	5.8	ug/L	5.0	SW846 8260D	#

Detected Results Summary

Client Sample ID	RW-2S	Collected	11/10/2024 12:35
Lab Sample ID	3387069009	Lab Receipt	11/11/2024 17:33

Compound	Result	Units	RDL	Method	Flag
SEMIVOLATILE SIM					
1,4-Dioxane	179	ug/L	50.0	SW846 8270E SIM	#
VOLATILE ORGANICS					
1,1,1-Trichloroethane	205	ug/L	5.0	SW846 8260D	#
1,1-Dichloroethane	57.2	ug/L	5.0	SW846 8260D	#
1,1-Dichloroethene	349	ug/L	5.0	SW846 8260D	#

Detected Results Summary

Client Sample ID	MW-5R	Collected	11/10/2024 12:45
Lab Sample ID	3387069011	Lab Receipt	11/11/2024 17:33

Compound	Result	Units	RDL	Method	Flag
SEMIVOLATILE SIM					
1,4-Dioxane	1.9	ug/L	1.0	SW846 8270E SIM	#
VOLATILE ORGANICS					
1,1,1-Trichloroethane	1.1	ug/L	1.0	SW846 8260D	#

Detected Results Summary

Client Sample ID	MW-100	Collected	11/10/2024 13:00
Lab Sample ID	3387069013	Lab Receipt	11/11/2024 17:33

Compound	Result	Units	RDL	Method	Flag
SEMIVOLATILE SIM					
1,4-Dioxane	24.8	ug/L	5.0	SW846 8270E SIM	#
VOLATILE ORGANICS					
1,1,1-Trichloroethane	3.2	ug/L	1.0	SW846 8260D	#
1,1-Dichloroethane	15.0	ug/L	1.0	SW846 8260D	#
1,1-Dichloroethene	58.8	ug/L	1.0	SW846 8260D	#

Detected Results Summary

Client Sample ID	MW-44	Collected	11/10/2024 14:00
Lab Sample ID	3387069014	Lab Receipt	11/11/2024 17:33

Compound	Result	Units	RDL	Method	Flag
SEMIVOLATILE SIM					
1,4-Dioxane	2.8	ug/L	1.0	SW846 8270E SIM	#
VOLATILE ORGANICS					
1,1,1-Trichloroethane	2.0	ug/L	1.0	SW846 8260D	#
1,1-Dichloroethane	1.6	ug/L	1.0	SW846 8260D	#
1,1-Dichloroethene	2.0	ug/L	1.0	SW846 8260D	#

Detected Results Summary

Client Sample ID	MW-21D	Collected	11/10/2024 14:20
Lab Sample ID	3387069015	Lab Receipt	11/11/2024 17:33

Compound	Result	Units	RDL	Method	Flag
SEMIVOLATILE SIM					
1,4-Dioxane	7.2	ug/L	1.0	SW846 8270E SIM	#
VOLATILE ORGANICS					
1,1-Dichloroethene	19.8	ug/L	1.0	SW846 8260D	#
Methyl t-Butyl Ether	1.6	ug/L	1.0	SW846 8260D	#

Detected Results Summary

Client Sample ID	RW-1D	Collected	11/10/2024 14:30
Lab Sample ID	3387069016	Lab Receipt	11/11/2024 17:33

Compound	Result	Units	RDL	Method	Flag
SEMIVOLATILE SIM					
1,4-Dioxane	50.4	ug/L	10.0	SW846 8270E SIM	#
VOLATILE ORGANICS					
1,1,1-Trichloroethane	18.3	ug/L	5.0	SW846 8260D	#
1,1-Dichloroethane	100	ug/L	5.0	SW846 8260D	#
1,1-Dichloroethene	384	ug/L	5.0	SW846 8260D	#
Chloroethane	14.8	ug/L	5.0	SW846 8260D	#

Detected Results Summary

Client Sample ID	MW-01D	Collected	11/11/2024 14:50
Lab Sample ID	3387069019	Lab Receipt	11/11/2024 17:33

Compound	Result	Units	RDL	Method	Flag
SEMIVOLATILE SIM					
1,4-Dioxane	6.2	ug/L	1.0	SW846 8270E SIM	#
VOLATILE ORGANICS					
1,1-Dichloroethane	2.9	ug/L	1.0	SW846 8260D	#
1,1-Dichloroethene	15.6	ug/L	1.0	SW846 8260D	#

Detected Results Summary

Client Sample ID	MW-22D	Collected	11/11/2024 15:10
Lab Sample ID	3387069021	Lab Receipt	11/11/2024 17:33

Compound	Result	Units	RDL	Method	Flag
SEMIVOLATILE SIM					
1,4-Dioxane	3.4	ug/L	1.0	SW846 8270E SIM	#
VOLATILE ORGANICS					
1,1-Dichloroethene	10.8	ug/L	1.0	SW846 8260D	#

Detected Results Summary

Client Sample ID	MW-20	Collected	11/11/2024 15:40
Lab Sample ID	3387069022	Lab Receipt	11/11/2024 17:33

Compound	Result	Units	RDL	Method	Flag
SEMIVOLATILE SIM					
1,4-Dioxane	616	ug/L	104	SW846 8270E SIM	#
VOLATILE ORGANICS					
1,1-Dichloroethane	389	ug/L	5.0	SW846 8260D	#
1,1-Dichloroethene	528	ug/L	5.0	SW846 8260D	#
1,2-Dichloroethane	13.2	ug/L	5.0	SW846 8260D	#

Detected Results Summary

Client Sample ID	MW-4R	Collected	11/11/2024 15:50
Lab Sample ID	3387069023	Lab Receipt	11/11/2024 17:33

Compound	Result	Units	RDL	Method	Flag
SEMIVOLATILE SIM					
1,4-Dioxane	36.8	ug/L	5.0	SW846 8270E SIM	#
VOLATILE ORGANICS					
1,1-Dichloroethane	32.6	ug/L	1.0	SW846 8260D	#
1,1-Dichloroethene	61.6	ug/L	1.0	SW846 8260D	#

Detected Results Summary

Client Sample ID	MW-09	Collected	11/11/2024 16:00
Lab Sample ID	3387069024	Lab Receipt	11/11/2024 17:33

Compound	Result	Units	RDL	Method	Flag
SEMIVOLATILE SIM					
1,4-Dioxane	2.2	ug/L	1.0	SW846 8270E SIM	#
VOLATILE ORGANICS					
1,1-Dichloroethane	1.1	ug/L	1.0	SW846 8260D	#
1,1-Dichloroethene	18.0	ug/L	1.0	SW846 8260D	#

Detected Results Summary

Client Sample ID	MW-23D	Collected	11/11/2024 16:15
Lab Sample ID	3387069025	Lab Receipt	11/11/2024 17:33

Compound	Result	Units	RDL	Method	Flag
SEMIVOLATILE SIM					
1,4-Dioxane	34.1	ug/L	10.0	SW846 8270E SIM	#
VOLATILE ORGANICS					
1,1,1-Trichloroethane	4.6	ug/L	1.0	SW846 8260D	#
1,1-Dichloroethane	20.1	ug/L	1.0	SW846 8260D	#
1,1-Dichloroethene	77.6	ug/L	1.0	SW846 8260D	#

Detected Results Summary

Client Sample ID	MW-16	Collected	11/11/2024 16:30
Lab Sample ID	3387069026	Lab Receipt	11/11/2024 17:33

Compound	Result	Units	RDL	Method	Flag
SEMIVOLATILE SIM					
1,4-Dioxane	88.1	ug/L	29.4	SW846 8270E SIM	#
VOLATILE ORGANICS					
1,1,1-Trichloroethane	767	ug/L	20.0	SW846 8260D	#
1,1-Dichloroethane	1030	ug/L	20.0	SW846 8260D	#
1,1-Dichloroethene	1490	ug/L	20.0	SW846 8260D	#
Chloroethane	35.4	ug/L	20.0	SW846 8260D	#

Detected Results Summary

Client Sample ID	MW-16D	Collected	11/11/2024 16:40
Lab Sample ID	3387069027	Lab Receipt	11/11/2024 17:33

Compound	Result	Units	RDL	Method	Flag
SEMIVOLATILE SIM					
1,4-Dioxane	21.6	ug/L	5.2	SW846 8270E SIM	#
VOLATILE ORGANICS					
1,1,1-Trichloroethane	3.5	ug/L	1.0	SW846 8260D	#
1,1-Dichloroethane	16.8	ug/L	1.0	SW846 8260D	#
1,1-Dichloroethene	68.2	ug/L	1.0	SW846 8260D	#

Results

Client Sample ID	MW-03	Collected	11/10/2024 10:55
Lab Sample ID	3387069001	Lab Receipt	11/11/2024 17:33

SEMIVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	2.5 U	U	ug/L	2.5	SW846 8270E SIM	1	11/15/2024 23:28	M1O	D

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnapthalene-d10	7297-45-2	61.1%	29 – 112	11/15/2024 23:28	
Fluoranthene-d10	93951-69-0	76.8%	45 – 130	11/15/2024 23:28	

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:06	PDK	A
1,1,1-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:06	PDK	A
1,1,2,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:06	PDK	A
1,1,2-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:06	PDK	A
1,1-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:06	PDK	A
1,1-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:06	PDK	A
1,1-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:06	PDK	A
1,2,3-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/21/2024 03:06	PDK	A
1,2,3-Trichloropropane	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/21/2024 03:06	PDK	A
1,2,4-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/21/2024 03:06	PDK	A
1,2-Dibromo-3-chloropropane	7.0 U	U	ug/L	7.0	SW846 8260D	1	11/21/2024 03:06	PDK	A
1,2-Dibromoethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:06	PDK	A
1,2-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:06	PDK	A
1,2-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:06	PDK	A
1,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:06	PDK	A
1,3-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:06	PDK	A
1,3-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:06	PDK	A
1,4-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:06	PDK	A
2,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:06	PDK	A
2-Butanone	10.0 U	U	ug/L	10.0	SW846 8260D	1	11/21/2024 03:06	PDK	A
2-Hexanone	5.0 U	U	ug/L	5.0	SW846 8260D	1	11/21/2024 03:06	PDK	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U	ug/L	5.0	SW846 8260D	1	11/21/2024 03:06	PDK	A
Acetone	10.0 U	U	ug/L	10.0	SW846 8260D	1	11/21/2024 03:06	PDK	A
Benzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:06	PDK	A
Bromobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:06	PDK	A
Bromochloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:06	PDK	A
Bromodichloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:06	PDK	A
Bromoform	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:06	PDK	A
Bromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:06	PDK	A
Carbon Tetrachloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:06	PDK	A
Chlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:06	PDK	A
Chlorodibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:06	PDK	A
Chloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:06	PDK	A
Chloroform	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:06	PDK	A
Chloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:06	PDK	A

Results

Client Sample ID	MW-03	Collected	11/10/2024 10:55
Lab Sample ID	3387069001	Lab Receipt	11/11/2024 17:33

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
cis-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:06	PDK	A
cis-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:06	PDK	A
Dibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:06	PDK	A
Dichlorodifluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:06	PDK	A
Diisopropyl ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:06	PDK	A
Ethylbenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:06	PDK	A
Hexachlorobutadiene	5.0 U	U,1	ug/L	5.0	SW846 8260D	1	11/21/2024 03:06	PDK	A
Methyl t-Butyl Ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:06	PDK	A
Methylene Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:06	PDK	A
mp-Xylene	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/21/2024 03:06	PDK	A
Naphthalene	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/21/2024 03:06	PDK	A
o-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:06	PDK	A
o-Xylene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:06	PDK	A
p-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:06	PDK	A
p-Isopropyltoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:06	PDK	A
Styrene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:06	PDK	A
Tetrachloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:06	PDK	A
Toluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:06	PDK	A
Total Xylenes	3.0 U	U	ug/L	3.0	SW846 8260D	1	11/21/2024 03:06	PDK	A
trans-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:06	PDK	A
trans-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:06	PDK	A
Trichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:06	PDK	A
Trichlorofluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:06	PDK	A
Vinyl Acetate	5.0 U	U	ug/L	5.0	SW846 8260D	1	11/21/2024 03:06	PDK	A
Vinyl Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:06	PDK	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	102%	62 – 133	11/21/2024 03:06	
4-Bromofluorobenzene	460-00-4	100%	79 – 114	11/21/2024 03:06	
Dibromofluoromethane	1868-53-7	96.1%	78 – 116	11/21/2024 03:06	
Toluene-d8	2037-26-5	99.3%	76 – 127	11/21/2024 03:06	

Results

Client Sample ID	MW-27 D	Collected	11/10/2024 11:10
Lab Sample ID	3387069002	Lab Receipt	11/11/2024 17:33

SEMIVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	1.0 U	U	ug/L	1.0	SW846 8270E SIM	1	11/15/2024 23:56	M1O	D

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnapthalene-d10	7297-45-2	56.6%	29 – 112	11/15/2024 23:56	
Fluoranthene-d10	93951-69-0	74.4%	45 – 130	11/15/2024 23:56	

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:26	PDK	A
1,1,1-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:26	PDK	A
1,1,2,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:26	PDK	A
1,1,2-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:26	PDK	A
1,1-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:26	PDK	A
1,1-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:26	PDK	A
1,1-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:26	PDK	A
1,2,3-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/21/2024 03:26	PDK	A
1,2,3-Trichloropropane	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/21/2024 03:26	PDK	A
1,2,4-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/21/2024 03:26	PDK	A
1,2-Dibromo-3-chloropropane	7.0 U	U	ug/L	7.0	SW846 8260D	1	11/21/2024 03:26	PDK	A
1,2-Dibromoethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:26	PDK	A
1,2-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:26	PDK	A
1,2-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:26	PDK	A
1,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:26	PDK	A
1,3-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:26	PDK	A
1,3-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:26	PDK	A
1,4-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:26	PDK	A
2,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:26	PDK	A
2-Butanone	10.0 U	U	ug/L	10.0	SW846 8260D	1	11/21/2024 03:26	PDK	A
2-Hexanone	5.0 U	U	ug/L	5.0	SW846 8260D	1	11/21/2024 03:26	PDK	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U	ug/L	5.0	SW846 8260D	1	11/21/2024 03:26	PDK	A
Acetone	10.0 U	U	ug/L	10.0	SW846 8260D	1	11/21/2024 03:26	PDK	A
Benzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:26	PDK	A
Bromobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:26	PDK	A
Bromochloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:26	PDK	A
Bromodichloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:26	PDK	A
Bromoform	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:26	PDK	A
Bromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:26	PDK	A
Carbon Tetrachloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:26	PDK	A
Chlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:26	PDK	A
Chlorodibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:26	PDK	A
Chloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:26	PDK	A
Chloroform	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:26	PDK	A
Chloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:26	PDK	A

Results

Client Sample ID	MW-27 D	Collected	11/10/2024 11:10
Lab Sample ID	3387069002	Lab Receipt	11/11/2024 17:33

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
cis-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:26	PDK	A
cis-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:26	PDK	A
Dibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:26	PDK	A
Dichlorodifluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:26	PDK	A
Diisopropyl ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:26	PDK	A
Ethylbenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:26	PDK	A
Hexachlorobutadiene	5.0 U	U,1	ug/L	5.0	SW846 8260D	1	11/21/2024 03:26	PDK	A
Methyl t-Butyl Ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:26	PDK	A
Methylene Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:26	PDK	A
mp-Xylene	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/21/2024 03:26	PDK	A
Naphthalene	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/21/2024 03:26	PDK	A
o-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:26	PDK	A
o-Xylene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:26	PDK	A
p-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:26	PDK	A
p-Isopropyltoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:26	PDK	A
Styrene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:26	PDK	A
Tetrachloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:26	PDK	A
Toluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:26	PDK	A
Total Xylenes	3.0 U	U	ug/L	3.0	SW846 8260D	1	11/21/2024 03:26	PDK	A
trans-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:26	PDK	A
trans-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:26	PDK	A
Trichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:26	PDK	A
Trichlorofluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:26	PDK	A
Vinyl Acetate	5.0 U	U	ug/L	5.0	SW846 8260D	1	11/21/2024 03:26	PDK	A
Vinyl Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:26	PDK	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	102%	62 – 133	11/21/2024 03:26	
4-Bromofluorobenzene	460-00-4	103%	79 – 114	11/21/2024 03:26	
Dibromofluoromethane	1868-53-7	95.3%	78 – 116	11/21/2024 03:26	
Toluene-d8	2037-26-5	98.7%	76 – 127	11/21/2024 03:26	

Results

Client Sample ID	MW-43	Collected	11/10/2024 11:25
Lab Sample ID	3387069003	Lab Receipt	11/11/2024 17:33

SEMIVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	9.6		ug/L	1.0	SW846 8270E SIM	1	11/16/2024 00:23	M1O	D

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnapthalene-d10	7297-45-2	63.3%	29 – 112	11/16/2024 00:23	
Fluoranthene-d10	93951-69-0	78.6%	45 – 130	11/16/2024 00:23	

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:47	PDK	A
1,1,1-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:47	PDK	A
1,1,2,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:47	PDK	A
1,1,2-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:47	PDK	A
1,1-Dichloroethane	1.3		ug/L	1.0	SW846 8260D	1	11/21/2024 03:47	PDK	A
1,1-Dichloroethene	15.2		ug/L	1.0	SW846 8260D	1	11/21/2024 03:47	PDK	A
1,1-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:47	PDK	A
1,2,3-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/21/2024 03:47	PDK	A
1,2,3-Trichloropropane	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/21/2024 03:47	PDK	A
1,2,4-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/21/2024 03:47	PDK	A
1,2-Dibromo-3-chloropropane	7.0 U	U	ug/L	7.0	SW846 8260D	1	11/21/2024 03:47	PDK	A
1,2-Dibromoethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:47	PDK	A
1,2-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:47	PDK	A
1,2-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:47	PDK	A
1,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:47	PDK	A
1,3-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:47	PDK	A
1,3-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:47	PDK	A
1,4-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:47	PDK	A
2,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:47	PDK	A
2-Butanone	10.0 U	U	ug/L	10.0	SW846 8260D	1	11/21/2024 03:47	PDK	A
2-Hexanone	5.0 U	U	ug/L	5.0	SW846 8260D	1	11/21/2024 03:47	PDK	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U	ug/L	5.0	SW846 8260D	1	11/21/2024 03:47	PDK	A
Acetone	10.0 U	U	ug/L	10.0	SW846 8260D	1	11/21/2024 03:47	PDK	A
Benzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:47	PDK	A
Bromobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:47	PDK	A
Bromochloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:47	PDK	A
Bromodichloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:47	PDK	A
Bromoform	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:47	PDK	A
Bromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:47	PDK	A
Carbon Tetrachloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:47	PDK	A
Chlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:47	PDK	A
Chlorodibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:47	PDK	A
Chloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:47	PDK	A
Chloroform	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:47	PDK	A
Chloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:47	PDK	A

Results

Client Sample ID	MW-43	Collected	11/10/2024 11:25
Lab Sample ID	3387069003	Lab Receipt	11/11/2024 17:33

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
cis-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:47	PDK	A
cis-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:47	PDK	A
Dibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:47	PDK	A
Dichlorodifluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:47	PDK	A
Diisopropyl ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:47	PDK	A
Ethylbenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:47	PDK	A
Hexachlorobutadiene	5.0 U	U,1	ug/L	5.0	SW846 8260D	1	11/21/2024 03:47	PDK	A
Methyl t-Butyl Ether	1.9		ug/L	1.0	SW846 8260D	1	11/21/2024 03:47	PDK	A
Methylene Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:47	PDK	A
mp-Xylene	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/21/2024 03:47	PDK	A
Naphthalene	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/21/2024 03:47	PDK	A
o-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:47	PDK	A
o-Xylene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:47	PDK	A
p-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:47	PDK	A
p-Isopropyltoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:47	PDK	A
Styrene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:47	PDK	A
Tetrachloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:47	PDK	A
Toluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:47	PDK	A
Total Xylenes	3.0 U	U	ug/L	3.0	SW846 8260D	1	11/21/2024 03:47	PDK	A
trans-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:47	PDK	A
trans-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:47	PDK	A
Trichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:47	PDK	A
Trichlorofluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:47	PDK	A
Vinyl Acetate	5.0 U	U	ug/L	5.0	SW846 8260D	1	11/21/2024 03:47	PDK	A
Vinyl Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 03:47	PDK	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	102%	62 – 133	11/21/2024 03:47	
4-Bromofluorobenzene	460-00-4	102%	79 – 114	11/21/2024 03:47	
Dibromofluoromethane	1868-53-7	96.4%	78 – 116	11/21/2024 03:47	
Toluene-d8	2037-26-5	99.6%	76 – 127	11/21/2024 03:47	

Results

Client Sample ID	MW-39	Collected	11/10/2024 11:35
Lab Sample ID	3387069004	Lab Receipt	11/11/2024 17:33

SEMIVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	1.0 U	U	ug/L	1.0	SW846 8270E SIM	1	11/16/2024 00:50	M1O	D

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnapthalene-d10	7297-45-2	65.5%	29 – 112	11/16/2024 00:50	
Fluoranthene-d10	93951-69-0	82.9%	45 – 130	11/16/2024 00:50	

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:07	PDK	A
1,1,1-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:07	PDK	A
1,1,2,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:07	PDK	A
1,1,2-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:07	PDK	A
1,1-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:07	PDK	A
1,1-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:07	PDK	A
1,1-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:07	PDK	A
1,2,3-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/21/2024 04:07	PDK	A
1,2,3-Trichloropropane	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/21/2024 04:07	PDK	A
1,2,4-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/21/2024 04:07	PDK	A
1,2-Dibromo-3-chloropropane	7.0 U	U	ug/L	7.0	SW846 8260D	1	11/21/2024 04:07	PDK	A
1,2-Dibromoethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:07	PDK	A
1,2-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:07	PDK	A
1,2-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:07	PDK	A
1,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:07	PDK	A
1,3-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:07	PDK	A
1,3-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:07	PDK	A
1,4-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:07	PDK	A
2,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:07	PDK	A
2-Butanone	10.0 U	U	ug/L	10.0	SW846 8260D	1	11/21/2024 04:07	PDK	A
2-Hexanone	5.0 U	U	ug/L	5.0	SW846 8260D	1	11/21/2024 04:07	PDK	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U	ug/L	5.0	SW846 8260D	1	11/21/2024 04:07	PDK	A
Acetone	10.0 U	U	ug/L	10.0	SW846 8260D	1	11/21/2024 04:07	PDK	A
Benzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:07	PDK	A
Bromobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:07	PDK	A
Bromochloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:07	PDK	A
Bromodichloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:07	PDK	A
Bromoform	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:07	PDK	A
Bromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:07	PDK	A
Carbon Tetrachloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:07	PDK	A
Chlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:07	PDK	A
Chlorodibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:07	PDK	A
Chloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:07	PDK	A
Chloroform	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:07	PDK	A
Chloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:07	PDK	A

Results

Client Sample ID	MW-39	Collected	11/10/2024 11:35
Lab Sample ID	3387069004	Lab Receipt	11/11/2024 17:33

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
cis-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:07	PDK	A
cis-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:07	PDK	A
Dibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:07	PDK	A
Dichlorodifluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:07	PDK	A
Diisopropyl ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:07	PDK	A
Ethylbenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:07	PDK	A
Hexachlorobutadiene	5.0 U	U,1	ug/L	5.0	SW846 8260D	1	11/21/2024 04:07	PDK	A
Methyl t-Butyl Ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:07	PDK	A
Methylene Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:07	PDK	A
mp-Xylene	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/21/2024 04:07	PDK	A
Naphthalene	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/21/2024 04:07	PDK	A
o-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:07	PDK	A
o-Xylene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:07	PDK	A
p-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:07	PDK	A
p-Isopropyltoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:07	PDK	A
Styrene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:07	PDK	A
Tetrachloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:07	PDK	A
Toluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:07	PDK	A
Total Xylenes	3.0 U	U	ug/L	3.0	SW846 8260D	1	11/21/2024 04:07	PDK	A
trans-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:07	PDK	A
trans-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:07	PDK	A
Trichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:07	PDK	A
Trichlorofluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:07	PDK	A
Vinyl Acetate	5.0 U	U	ug/L	5.0	SW846 8260D	1	11/21/2024 04:07	PDK	A
Vinyl Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:07	PDK	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	105%	62 – 133	11/21/2024 04:07	
4-Bromofluorobenzene	460-00-4	101%	79 – 114	11/21/2024 04:07	
Dibromofluoromethane	1868-53-7	97.8%	78 – 116	11/21/2024 04:07	
Toluene-d8	2037-26-5	100%	76 – 127	11/21/2024 04:07	

Results

Client Sample ID	MW-42	Collected	11/10/2024 11:45
Lab Sample ID	3387069005	Lab Receipt	11/11/2024 17:33

SEMIVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	3.3		ug/L	1.0	SW846 8270E SIM	1	11/16/2024 01:18	M1O	D

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnapthalene-d10	7297-45-2	73.1%	29 – 112	11/16/2024 01:18	
Fluoranthene-d10	93951-69-0	96.4%	45 – 130	11/16/2024 01:18	

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:28	PDK	A
1,1,1-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:28	PDK	A
1,1,2,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:28	PDK	A
1,1,2-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:28	PDK	A
1,1-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:28	PDK	A
1,1-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:28	PDK	A
1,1-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:28	PDK	A
1,2,3-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/21/2024 04:28	PDK	A
1,2,3-Trichloropropane	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/21/2024 04:28	PDK	A
1,2,4-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/21/2024 04:28	PDK	A
1,2-Dibromo-3-chloropropane	7.0 U	U	ug/L	7.0	SW846 8260D	1	11/21/2024 04:28	PDK	A
1,2-Dibromoethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:28	PDK	A
1,2-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:28	PDK	A
1,2-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:28	PDK	A
1,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:28	PDK	A
1,3-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:28	PDK	A
1,3-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:28	PDK	A
1,4-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:28	PDK	A
2,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:28	PDK	A
2-Butanone	10.0 U	U	ug/L	10.0	SW846 8260D	1	11/21/2024 04:28	PDK	A
2-Hexanone	5.0 U	U	ug/L	5.0	SW846 8260D	1	11/21/2024 04:28	PDK	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U	ug/L	5.0	SW846 8260D	1	11/21/2024 04:28	PDK	A
Acetone	10.0 U	U	ug/L	10.0	SW846 8260D	1	11/21/2024 04:28	PDK	A
Benzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:28	PDK	A
Bromobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:28	PDK	A
Bromochloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:28	PDK	A
Bromodichloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:28	PDK	A
Bromoform	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:28	PDK	A
Bromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:28	PDK	A
Carbon Tetrachloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:28	PDK	A
Chlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:28	PDK	A
Chlorodibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:28	PDK	A
Chloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:28	PDK	A
Chloroform	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:28	PDK	A
Chloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:28	PDK	A

Results

Client Sample ID	MW-42	Collected	11/10/2024 11:45
Lab Sample ID	3387069005	Lab Receipt	11/11/2024 17:33

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
cis-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:28	PDK	A
cis-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:28	PDK	A
Dibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:28	PDK	A
Dichlorodifluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:28	PDK	A
Diisopropyl ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:28	PDK	A
Ethylbenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:28	PDK	A
Hexachlorobutadiene	5.0 U	U,1	ug/L	5.0	SW846 8260D	1	11/21/2024 04:28	PDK	A
Methyl t-Butyl Ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:28	PDK	A
Methylene Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:28	PDK	A
mp-Xylene	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/21/2024 04:28	PDK	A
Naphthalene	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/21/2024 04:28	PDK	A
o-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:28	PDK	A
o-Xylene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:28	PDK	A
p-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:28	PDK	A
p-Isopropyltoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:28	PDK	A
Styrene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:28	PDK	A
Tetrachloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:28	PDK	A
Toluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:28	PDK	A
Total Xylenes	3.0 U	U	ug/L	3.0	SW846 8260D	1	11/21/2024 04:28	PDK	A
trans-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:28	PDK	A
trans-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:28	PDK	A
Trichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:28	PDK	A
Trichlorofluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:28	PDK	A
Vinyl Acetate	5.0 U	U	ug/L	5.0	SW846 8260D	1	11/21/2024 04:28	PDK	A
Vinyl Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:28	PDK	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	103%	62 – 133	11/21/2024 04:28	
4-Bromofluorobenzene	460-00-4	100%	79 – 114	11/21/2024 04:28	
Dibromofluoromethane	1868-53-7	98%	78 – 116	11/21/2024 04:28	
Toluene-d8	2037-26-5	99.3%	76 – 127	11/21/2024 04:28	

Results

Client Sample ID	MW-18	Collected	11/10/2024 12:05
Lab Sample ID	3387069006	Lab Receipt	11/11/2024 17:33

SEMIVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	1.0 U	U	ug/L	1.0	SW846 8270E SIM	1	11/16/2024 01:45	M1O	D

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnapthalene-d10	7297-45-2	52.1%	29 – 112	11/16/2024 01:45	
Fluoranthene-d10	93951-69-0	82.5%	45 – 130	11/16/2024 01:45	

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:48	PDK	A
1,1,1-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:48	PDK	A
1,1,2,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:48	PDK	A
1,1,2-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:48	PDK	A
1,1-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:48	PDK	A
1,1-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:48	PDK	A
1,1-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:48	PDK	A
1,2,3-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/21/2024 04:48	PDK	A
1,2,3-Trichloropropane	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/21/2024 04:48	PDK	A
1,2,4-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/21/2024 04:48	PDK	A
1,2-Dibromo-3-chloropropane	7.0 U	U	ug/L	7.0	SW846 8260D	1	11/21/2024 04:48	PDK	A
1,2-Dibromoethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:48	PDK	A
1,2-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:48	PDK	A
1,2-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:48	PDK	A
1,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:48	PDK	A
1,3-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:48	PDK	A
1,3-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:48	PDK	A
1,4-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:48	PDK	A
2,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:48	PDK	A
2-Butanone	10.0 U	U	ug/L	10.0	SW846 8260D	1	11/21/2024 04:48	PDK	A
2-Hexanone	5.0 U	U	ug/L	5.0	SW846 8260D	1	11/21/2024 04:48	PDK	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U	ug/L	5.0	SW846 8260D	1	11/21/2024 04:48	PDK	A
Acetone	10.0 U	U	ug/L	10.0	SW846 8260D	1	11/21/2024 04:48	PDK	A
Benzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:48	PDK	A
Bromobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:48	PDK	A
Bromochloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:48	PDK	A
Bromodichloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:48	PDK	A
Bromoform	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:48	PDK	A
Bromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:48	PDK	A
Carbon Tetrachloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:48	PDK	A
Chlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:48	PDK	A
Chlorodibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:48	PDK	A
Chloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:48	PDK	A
Chloroform	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:48	PDK	A
Chloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:48	PDK	A

Results

Client Sample ID	MW-18	Collected	11/10/2024 12:05
Lab Sample ID	3387069006	Lab Receipt	11/11/2024 17:33

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
cis-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:48	PDK	A
cis-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:48	PDK	A
Dibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:48	PDK	A
Dichlorodifluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:48	PDK	A
Diisopropyl ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:48	PDK	A
Ethylbenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:48	PDK	A
Hexachlorobutadiene	5.0 U	U,1	ug/L	5.0	SW846 8260D	1	11/21/2024 04:48	PDK	A
Methyl t-Butyl Ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:48	PDK	A
Methylene Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:48	PDK	A
mp-Xylene	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/21/2024 04:48	PDK	A
Naphthalene	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/21/2024 04:48	PDK	A
o-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:48	PDK	A
o-Xylene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:48	PDK	A
p-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:48	PDK	A
p-Isopropyltoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:48	PDK	A
Styrene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:48	PDK	A
Tetrachloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:48	PDK	A
Toluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:48	PDK	A
Total Xylenes	3.0 U	U	ug/L	3.0	SW846 8260D	1	11/21/2024 04:48	PDK	A
trans-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:48	PDK	A
trans-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:48	PDK	A
Trichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:48	PDK	A
Trichlorofluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:48	PDK	A
Vinyl Acetate	5.0 U	U	ug/L	5.0	SW846 8260D	1	11/21/2024 04:48	PDK	A
Vinyl Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 04:48	PDK	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	104%	62 – 133	11/21/2024 04:48	
4-Bromofluorobenzene	460-00-4	104%	79 – 114	11/21/2024 04:48	
Dibromofluoromethane	1868-53-7	96.5%	78 – 116	11/21/2024 04:48	
Toluene-d8	2037-26-5	100%	76 – 127	11/21/2024 04:48	

Results

Client Sample ID	MW-38R	Collected	11/10/2024 12:15
Lab Sample ID	3387069007	Lab Receipt	11/11/2024 17:33

SEMIVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	19.2		ug/L	5.2	SW846 8270E SIM	5	11/19/2024 09:36	S7M	D

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnapthalene-d10	7297-45-2	66.2%	29 – 112	11/16/2024 02:12	
2-Methylnapthalene-d10	7297-45-2	57.5%	29 – 112	11/19/2024 09:36	
Fluoranthene-d10	93951-69-0	81.6%	45 – 130	11/16/2024 02:12	
Fluoranthene-d10	93951-69-0	73.6%	45 – 130	11/19/2024 09:36	

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 05:09	PDK	A
1,1,1-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 05:09	PDK	A
1,1,2,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 05:09	PDK	A
1,1,2-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 05:09	PDK	A
1,1-Dichloroethane	3.9		ug/L	1.0	SW846 8260D	1	11/21/2024 05:09	PDK	A
1,1-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 05:09	PDK	A
1,1-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 05:09	PDK	A
1,2,3-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/21/2024 05:09	PDK	A
1,2,3-Trichloropropane	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/21/2024 05:09	PDK	A
1,2,4-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/21/2024 05:09	PDK	A
1,2-Dibromo-3-chloropropane	7.0 U	U	ug/L	7.0	SW846 8260D	1	11/21/2024 05:09	PDK	A
1,2-Dibromoethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 05:09	PDK	A
1,2-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 05:09	PDK	A
1,2-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 05:09	PDK	A
1,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 05:09	PDK	A
1,3-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 05:09	PDK	A
1,3-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 05:09	PDK	A
1,4-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 05:09	PDK	A
2,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 05:09	PDK	A
2-Butanone	10.0 U	U	ug/L	10.0	SW846 8260D	1	11/21/2024 05:09	PDK	A
2-Hexanone	5.0 U	U	ug/L	5.0	SW846 8260D	1	11/21/2024 05:09	PDK	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U	ug/L	5.0	SW846 8260D	1	11/21/2024 05:09	PDK	A
Acetone	10.0 U	U	ug/L	10.0	SW846 8260D	1	11/21/2024 05:09	PDK	A
Benzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 05:09	PDK	A
Bromobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 05:09	PDK	A
Bromochloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 05:09	PDK	A
Bromodichloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 05:09	PDK	A
Bromoform	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 05:09	PDK	A
Bromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 05:09	PDK	A
Carbon Tetrachloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 05:09	PDK	A
Chlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 05:09	PDK	A
Chlorodibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 05:09	PDK	A
Chloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 05:09	PDK	A

Results

Client Sample ID	MW-38R	Collected	11/10/2024 12:15
Lab Sample ID	3387069007	Lab Receipt	11/11/2024 17:33

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Chloroform	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 05:09	PDK	A
Chloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 05:09	PDK	A
cis-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 05:09	PDK	A
cis-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 05:09	PDK	A
Dibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 05:09	PDK	A
Dichlorodifluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 05:09	PDK	A
Diisopropyl ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 05:09	PDK	A
Ethylbenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 05:09	PDK	A
Hexachlorobutadiene	5.0 U	U,1	ug/L	5.0	SW846 8260D	1	11/21/2024 05:09	PDK	A
Methyl t-Butyl Ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 05:09	PDK	A
Methylene Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 05:09	PDK	A
mp-Xylene	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/21/2024 05:09	PDK	A
Naphthalene	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/21/2024 05:09	PDK	A
o-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 05:09	PDK	A
o-Xylene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 05:09	PDK	A
p-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 05:09	PDK	A
p-Isopropyltoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 05:09	PDK	A
Styrene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 05:09	PDK	A
Tetrachloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 05:09	PDK	A
Toluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 05:09	PDK	A
Total Xylenes	3.0 U	U	ug/L	3.0	SW846 8260D	1	11/21/2024 05:09	PDK	A
trans-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 05:09	PDK	A
trans-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 05:09	PDK	A
Trichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 05:09	PDK	A
Trichlorofluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 05:09	PDK	A
Vinyl Acetate	5.0 U	U	ug/L	5.0	SW846 8260D	1	11/21/2024 05:09	PDK	A
Vinyl Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 05:09	PDK	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	102%	62 – 133	11/21/2024 05:09	
4-Bromofluorobenzene	460-00-4	99.3%	79 – 114	11/21/2024 05:09	
Dibromofluoromethane	1868-53-7	96.9%	78 – 116	11/21/2024 05:09	
Toluene-d8	2037-26-5	99.9%	76 – 127	11/21/2024 05:09	

Results

Client Sample ID	RW-1S	Collected	11/10/2024 12:25
Lab Sample ID	3387069008	Lab Receipt	11/11/2024 17:33

SEMIVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	176		ug/L	50.0	SW846 8270E SIM	50	11/19/2024 10:03	S7M	D

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnapthalene-d10	7297-45-2	59.9%	29 – 112	11/16/2024 02:40	
2-Methylnapthalene-d10	7297-45-2	0*%	29 – 112	11/19/2024 10:03	2
Fluoranthene-d10	93951-69-0	78.2%	45 – 130	11/16/2024 02:40	

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/21/2024 05:29	PDK	A
1,1,1-Trichloroethane	56.3		ug/L	5.0	SW846 8260D	5	11/21/2024 05:29	PDK	A
1,1,2,2-Tetrachloroethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/21/2024 05:29	PDK	A
1,1,2-Trichloroethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/21/2024 05:29	PDK	A
1,1-Dichloroethane	162		ug/L	5.0	SW846 8260D	5	11/21/2024 05:29	PDK	A
1,1-Dichloroethene	623		ug/L	5.0	SW846 8260D	5	11/21/2024 05:29	PDK	A
1,1-Dichloropropene	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/21/2024 05:29	PDK	A
1,2,3-Trichlorobenzene	10.0 U	U	ug/L	10.0	SW846 8260D	5	11/21/2024 05:29	PDK	A
1,2,3-Trichloropropane	10.0 U	U	ug/L	10.0	SW846 8260D	5	11/21/2024 05:29	PDK	A
1,2,4-Trichlorobenzene	10.0 U	U	ug/L	10.0	SW846 8260D	5	11/21/2024 05:29	PDK	A
1,2-Dibromo-3-chloropropane	35.0 U	U	ug/L	35.0	SW846 8260D	5	11/21/2024 05:29	PDK	A
1,2-Dibromoethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/21/2024 05:29	PDK	A
1,2-Dichlorobenzene	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/21/2024 05:29	PDK	A
1,2-Dichloroethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/21/2024 05:29	PDK	A
1,2-Dichloropropane	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/21/2024 05:29	PDK	A
1,3-Dichlorobenzene	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/21/2024 05:29	PDK	A
1,3-Dichloropropane	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/21/2024 05:29	PDK	A
1,4-Dichlorobenzene	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/21/2024 05:29	PDK	A
2,2-Dichloropropane	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/21/2024 05:29	PDK	A
2-Butanone	50.0 U	U	ug/L	50.0	SW846 8260D	5	11/21/2024 05:29	PDK	A
2-Hexanone	25.0 U	U	ug/L	25.0	SW846 8260D	5	11/21/2024 05:29	PDK	A
4-Methyl-2-Pentanone(MIBK)	25.0 U	U	ug/L	25.0	SW846 8260D	5	11/21/2024 05:29	PDK	A
Acetone	50.0 U	U	ug/L	50.0	SW846 8260D	5	11/21/2024 05:29	PDK	A
Benzene	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/21/2024 05:29	PDK	A
Bromobenzene	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/21/2024 05:29	PDK	A
Bromochloromethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/21/2024 05:29	PDK	A
Bromodichloromethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/21/2024 05:29	PDK	A
Bromoform	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/21/2024 05:29	PDK	A
Bromomethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/21/2024 05:29	PDK	A
Carbon Tetrachloride	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/21/2024 05:29	PDK	A
Chlorobenzene	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/21/2024 05:29	PDK	A
Chlorodibromomethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/21/2024 05:29	PDK	A
Chloroethane	21.0		ug/L	5.0	SW846 8260D	5	11/21/2024 05:29	PDK	A
Chloroform	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/21/2024 05:29	PDK	A

Results

Client Sample ID	RW-1S	Collected	11/10/2024 12:25
Lab Sample ID	3387069008	Lab Receipt	11/11/2024 17:33

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Chloromethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/21/2024 05:29	PDK	A
cis-1,2-Dichloroethene	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/21/2024 05:29	PDK	A
cis-1,3-Dichloropropene	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/21/2024 05:29	PDK	A
Dibromomethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/21/2024 05:29	PDK	A
Dichlorodifluoromethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/21/2024 05:29	PDK	A
Diisopropyl ether	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/21/2024 05:29	PDK	A
Ethylbenzene	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/21/2024 05:29	PDK	A
Hexachlorobutadiene	25.0 U	U,1	ug/L	25.0	SW846 8260D	5	11/21/2024 05:29	PDK	A
Methyl t-Butyl Ether	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/21/2024 05:29	PDK	A
Methylene Chloride	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/21/2024 05:29	PDK	A
mp-Xylene	10.0 U	U	ug/L	10.0	SW846 8260D	5	11/21/2024 05:29	PDK	A
Naphthalene	10.0 U	U	ug/L	10.0	SW846 8260D	5	11/21/2024 05:29	PDK	A
o-Chlorotoluene	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/21/2024 05:29	PDK	A
o-Xylene	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/21/2024 05:29	PDK	A
p-Chlorotoluene	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/21/2024 05:29	PDK	A
p-Isopropyltoluene	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/21/2024 05:29	PDK	A
Styrene	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/21/2024 05:29	PDK	A
Tetrachloroethene	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/21/2024 05:29	PDK	A
Toluene	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/21/2024 05:29	PDK	A
Total Xylenes	15.0 U	U	ug/L	15.0	SW846 8260D	5	11/21/2024 05:29	PDK	A
trans-1,2-Dichloroethene	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/21/2024 05:29	PDK	A
trans-1,3-Dichloropropene	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/21/2024 05:29	PDK	A
Trichloroethene	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/21/2024 05:29	PDK	A
Trichlorofluoromethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/21/2024 05:29	PDK	A
Vinyl Acetate	25.0 U	U	ug/L	25.0	SW846 8260D	5	11/21/2024 05:29	PDK	A
Vinyl Chloride	5.8		ug/L	5.0	SW846 8260D	5	11/21/2024 05:29	PDK	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	101%	62 – 133	11/21/2024 05:29	
4-Bromofluorobenzene	460-00-4	101%	79 – 114	11/21/2024 05:29	
Dibromofluoromethane	1868-53-7	94.7%	78 – 116	11/21/2024 05:29	
Toluene-d8	2037-26-5	101%	76 – 127	11/21/2024 05:29	

Results

Client Sample ID	RW-2S	Collected	11/10/2024 12:35
Lab Sample ID	3387069009	Lab Receipt	11/11/2024 17:33

SEMIVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	179		ug/L	50.0	SW846 8270E SIM	50	11/19/2024 10:31	S7M	D

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnapthalene-d10	7297-45-2	66%	29 – 112	11/16/2024 03:07	
2-Methylnapthalene-d10	7297-45-2	0*%	29 – 112	11/19/2024 10:31	2
Fluoranthene-d10	93951-69-0	89.7%	45 – 130	11/16/2024 03:07	

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/21/2024 05:49	PDK	A
1,1,1-Trichloroethane	205		ug/L	5.0	SW846 8260D	5	11/21/2024 05:49	PDK	A
1,1,2,2-Tetrachloroethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/21/2024 05:49	PDK	A
1,1,2-Trichloroethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/21/2024 05:49	PDK	A
1,1-Dichloroethane	57.2		ug/L	5.0	SW846 8260D	5	11/21/2024 05:49	PDK	A
1,1-Dichloroethene	349		ug/L	5.0	SW846 8260D	5	11/21/2024 05:49	PDK	A
1,1-Dichloropropene	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/21/2024 05:49	PDK	A
1,2,3-Trichlorobenzene	10.0 U	U	ug/L	10.0	SW846 8260D	5	11/21/2024 05:49	PDK	A
1,2,3-Trichloropropane	10.0 U	U	ug/L	10.0	SW846 8260D	5	11/21/2024 05:49	PDK	A
1,2,4-Trichlorobenzene	10.0 U	U	ug/L	10.0	SW846 8260D	5	11/21/2024 05:49	PDK	A
1,2-Dibromo-3-chloropropane	35.0 U	U	ug/L	35.0	SW846 8260D	5	11/21/2024 05:49	PDK	A
1,2-Dibromoethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/21/2024 05:49	PDK	A
1,2-Dichlorobenzene	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/21/2024 05:49	PDK	A
1,2-Dichloroethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/21/2024 05:49	PDK	A
1,2-Dichloropropane	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/21/2024 05:49	PDK	A
1,3-Dichlorobenzene	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/21/2024 05:49	PDK	A
1,3-Dichloropropane	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/21/2024 05:49	PDK	A
1,4-Dichlorobenzene	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/21/2024 05:49	PDK	A
2,2-Dichloropropane	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/21/2024 05:49	PDK	A
2-Butanone	50.0 U	U	ug/L	50.0	SW846 8260D	5	11/21/2024 05:49	PDK	A
2-Hexanone	25.0 U	U	ug/L	25.0	SW846 8260D	5	11/21/2024 05:49	PDK	A
4-Methyl-2-Pentanone(MIBK)	25.0 U	U	ug/L	25.0	SW846 8260D	5	11/21/2024 05:49	PDK	A
Acetone	50.0 U	U	ug/L	50.0	SW846 8260D	5	11/21/2024 05:49	PDK	A
Benzene	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/21/2024 05:49	PDK	A
Bromobenzene	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/21/2024 05:49	PDK	A
Bromochloromethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/21/2024 05:49	PDK	A
Bromodichloromethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/21/2024 05:49	PDK	A
Bromoform	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/21/2024 05:49	PDK	A
Bromomethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/21/2024 05:49	PDK	A
Carbon Tetrachloride	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/21/2024 05:49	PDK	A
Chlorobenzene	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/21/2024 05:49	PDK	A
Chlorodibromomethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/21/2024 05:49	PDK	A
Chloroethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/21/2024 05:49	PDK	A
Chloroform	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/21/2024 05:49	PDK	A

Results

Client Sample ID	RW-2S	Collected	11/10/2024 12:35
Lab Sample ID	3387069009	Lab Receipt	11/11/2024 17:33

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Chloromethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/21/2024 05:49	PDK	A
cis-1,2-Dichloroethene	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/21/2024 05:49	PDK	A
cis-1,3-Dichloropropene	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/21/2024 05:49	PDK	A
Dibromomethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/21/2024 05:49	PDK	A
Dichlorodifluoromethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/21/2024 05:49	PDK	A
Diisopropyl ether	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/21/2024 05:49	PDK	A
Ethylbenzene	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/21/2024 05:49	PDK	A
Hexachlorobutadiene	25.0 U	U,1	ug/L	25.0	SW846 8260D	5	11/21/2024 05:49	PDK	A
Methyl t-Butyl Ether	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/21/2024 05:49	PDK	A
Methylene Chloride	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/21/2024 05:49	PDK	A
mp-Xylene	10.0 U	U	ug/L	10.0	SW846 8260D	5	11/21/2024 05:49	PDK	A
Naphthalene	10.0 U	U	ug/L	10.0	SW846 8260D	5	11/21/2024 05:49	PDK	A
o-Chlorotoluene	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/21/2024 05:49	PDK	A
o-Xylene	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/21/2024 05:49	PDK	A
p-Chlorotoluene	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/21/2024 05:49	PDK	A
p-Isopropyltoluene	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/21/2024 05:49	PDK	A
Styrene	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/21/2024 05:49	PDK	A
Tetrachloroethene	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/21/2024 05:49	PDK	A
Toluene	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/21/2024 05:49	PDK	A
Total Xylenes	15.0 U	U	ug/L	15.0	SW846 8260D	5	11/21/2024 05:49	PDK	A
trans-1,2-Dichloroethene	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/21/2024 05:49	PDK	A
trans-1,3-Dichloropropene	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/21/2024 05:49	PDK	A
Trichloroethene	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/21/2024 05:49	PDK	A
Trichlorofluoromethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/21/2024 05:49	PDK	A
Vinyl Acetate	25.0 U	U	ug/L	25.0	SW846 8260D	5	11/21/2024 05:49	PDK	A
Vinyl Chloride	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/21/2024 05:49	PDK	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	101%	62 – 133	11/21/2024 05:49	
4-Bromofluorobenzene	460-00-4	101%	79 – 114	11/21/2024 05:49	
Dibromofluoromethane	1868-53-7	95.6%	78 – 116	11/21/2024 05:49	
Toluene-d8	2037-26-5	99.4%	76 – 127	11/21/2024 05:49	

Results

Client Sample ID	Trip Blank A	Collected	11/10/2024 00:00
Lab Sample ID	3387069010	Lab Receipt	11/11/2024 17:33

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 00:02	PDK	A
1,1,1-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 00:02	PDK	A
1,1,2,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 00:02	PDK	A
1,1,2-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 00:02	PDK	A
1,1-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 00:02	PDK	A
1,1-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 00:02	PDK	A
1,1-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 00:02	PDK	A
1,2,3-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/21/2024 00:02	PDK	A
1,2,3-Trichloropropane	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/21/2024 00:02	PDK	A
1,2,4-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/21/2024 00:02	PDK	A
1,2-Dibromo-3-chloropropane	7.0 U	U	ug/L	7.0	SW846 8260D	1	11/21/2024 00:02	PDK	A
1,2-Dibromoethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 00:02	PDK	A
1,2-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 00:02	PDK	A
1,2-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 00:02	PDK	A
1,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 00:02	PDK	A
1,3-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 00:02	PDK	A
1,3-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 00:02	PDK	A
1,4-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 00:02	PDK	A
2,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 00:02	PDK	A
2-Butanone	10.0 U	U	ug/L	10.0	SW846 8260D	1	11/21/2024 00:02	PDK	A
2-Hexanone	5.0 U	U	ug/L	5.0	SW846 8260D	1	11/21/2024 00:02	PDK	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U	ug/L	5.0	SW846 8260D	1	11/21/2024 00:02	PDK	A
Acetone	10.0 U	U	ug/L	10.0	SW846 8260D	1	11/21/2024 00:02	PDK	A
Benzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 00:02	PDK	A
Bromobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 00:02	PDK	A
Bromochloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 00:02	PDK	A
Bromodichloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 00:02	PDK	A
Bromoform	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 00:02	PDK	A
Bromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 00:02	PDK	A
Carbon Tetrachloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 00:02	PDK	A
Chlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 00:02	PDK	A
Chlorodibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 00:02	PDK	A
Chloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 00:02	PDK	A
Chloroform	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 00:02	PDK	A
Chloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 00:02	PDK	A
cis-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 00:02	PDK	A
cis-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 00:02	PDK	A
Dibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 00:02	PDK	A
Dichlorodifluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 00:02	PDK	A
Diisopropyl ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 00:02	PDK	A
Ethylbenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 00:02	PDK	A
Hexachlorobutadiene	5.0 U	U,1	ug/L	5.0	SW846 8260D	1	11/21/2024 00:02	PDK	A
Methyl t-Butyl Ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 00:02	PDK	A
Methylene Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 00:02	PDK	A
mp-Xylene	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/21/2024 00:02	PDK	A
Naphthalene	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/21/2024 00:02	PDK	A
o-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 00:02	PDK	A

Results

Client Sample ID	Trip Blank A	Collected	11/10/2024 00:00
Lab Sample ID	3387069010	Lab Receipt	11/11/2024 17:33

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
o-Xylene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 00:02	PDK	A
p-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 00:02	PDK	A
p-Isopropyltoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 00:02	PDK	A
Styrene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 00:02	PDK	A
Tetrachloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 00:02	PDK	A
Toluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 00:02	PDK	A
Total Xylenes	3.0 U	U	ug/L	3.0	SW846 8260D	1	11/21/2024 00:02	PDK	A
trans-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 00:02	PDK	A
trans-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 00:02	PDK	A
Trichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 00:02	PDK	A
Trichlorofluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 00:02	PDK	A
Vinyl Acetate	5.0 U	U	ug/L	5.0	SW846 8260D	1	11/21/2024 00:02	PDK	A
Vinyl Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/21/2024 00:02	PDK	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	107%	62 – 133	11/21/2024 00:02	
4-Bromofluorobenzene	460-00-4	105%	79 – 114	11/21/2024 00:02	
Dibromofluoromethane	1868-53-7	99.8%	78 – 116	11/21/2024 00:02	
Toluene-d8	2037-26-5	104%	76 – 127	11/21/2024 00:02	

Results

Client Sample ID	MW-5R	Collected	11/10/2024 12:45
Lab Sample ID	3387069011	Lab Receipt	11/11/2024 17:33

SEMIVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	1.9		ug/L	1.0	SW846 8270E SIM	1	11/16/2024 03:35	M1O	D

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnapthalene-d10	7297-45-2	54%	29 – 112	11/16/2024 03:35	
Fluoranthene-d10	93951-69-0	67.2%	45 – 130	11/16/2024 03:35	

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:35	ILY	A
1,1,1-Trichloroethane	1.1		ug/L	1.0	SW846 8260D	1	11/22/2024 12:35	ILY	A
1,1,2,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:35	ILY	A
1,1,2-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:35	ILY	A
1,1-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:35	ILY	A
1,1-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:35	ILY	A
1,1-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:35	ILY	A
1,2,3-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/22/2024 12:35	ILY	A
1,2,3-Trichloropropane	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/22/2024 12:35	ILY	A
1,2,4-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/22/2024 12:35	ILY	A
1,2-Dibromo-3-chloropropane	7.0 U	U	ug/L	7.0	SW846 8260D	1	11/22/2024 12:35	ILY	A
1,2-Dibromoethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:35	ILY	A
1,2-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:35	ILY	A
1,2-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:35	ILY	A
1,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:35	ILY	A
1,3-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:35	ILY	A
1,3-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:35	ILY	A
1,4-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:35	ILY	A
2,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:35	ILY	A
2-Butanone	10.0 U	U	ug/L	10.0	SW846 8260D	1	11/22/2024 12:35	ILY	A
2-Hexanone	5.0 U	U	ug/L	5.0	SW846 8260D	1	11/22/2024 12:35	ILY	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U	ug/L	5.0	SW846 8260D	1	11/22/2024 12:35	ILY	A
Acetone	10.0 U	U	ug/L	10.0	SW846 8260D	1	11/22/2024 12:35	ILY	A
Benzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:35	ILY	A
Bromobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:35	ILY	A
Bromochloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:35	ILY	A
Bromodichloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:35	ILY	A
Bromoform	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:35	ILY	A
Bromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:35	ILY	A
Carbon Tetrachloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:35	ILY	A
Chlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:35	ILY	A
Chlorodibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:35	ILY	A
Chloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:35	ILY	A
Chloroform	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:35	ILY	A
Chloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:35	ILY	A

Results

Client Sample ID	MW-5R	Collected	11/10/2024 12:45
Lab Sample ID	3387069011	Lab Receipt	11/11/2024 17:33

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
cis-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:35	ILY	A
cis-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:35	ILY	A
Dibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:35	ILY	A
Dichlorodifluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:35	ILY	A
Diisopropyl ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:35	ILY	A
Ethylbenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:35	ILY	A
Hexachlorobutadiene	5.0 U	U	ug/L	5.0	SW846 8260D	1	11/22/2024 12:35	ILY	A
Methyl t-Butyl Ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:35	ILY	A
Methylene Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:35	ILY	A
mp-Xylene	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/22/2024 12:35	ILY	A
Naphthalene	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/22/2024 12:35	ILY	A
o-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:35	ILY	A
o-Xylene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:35	ILY	A
p-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:35	ILY	A
p-Isopropyltoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:35	ILY	A
Styrene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:35	ILY	A
Tetrachloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:35	ILY	A
Toluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:35	ILY	A
Total Xylenes	3.0 U	U	ug/L	3.0	SW846 8260D	1	11/22/2024 12:35	ILY	A
trans-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:35	ILY	A
trans-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:35	ILY	A
Trichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:35	ILY	A
Trichlorofluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:35	ILY	A
Vinyl Acetate	5.0 U	U	ug/L	5.0	SW846 8260D	1	11/22/2024 12:35	ILY	A
Vinyl Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:35	ILY	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	100%	62 – 133	11/22/2024 12:35	
4-Bromofluorobenzene	460-00-4	99.1%	79 – 114	11/22/2024 12:35	
Dibromofluoromethane	1868-53-7	95.9%	78 – 116	11/22/2024 12:35	
Toluene-d8	2037-26-5	99.9%	76 – 127	11/22/2024 12:35	

Results

Client Sample ID	MW-40 D	Collected	11/10/2024 12:55
Lab Sample ID	3387069012	Lab Receipt	11/11/2024 17:33

SEMIVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	1.0 U	U	ug/L	1.0	SW846 8270E SIM	1	11/16/2024 04:02	M1O	D

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnapthalene-d10	7297-45-2	73.5%	29 – 112	11/16/2024 04:02	
Fluoranthene-d10	93951-69-0	89.4%	45 – 130	11/16/2024 04:02	

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:55	ILY	A
1,1,1-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:55	ILY	A
1,1,2,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:55	ILY	A
1,1,2-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:55	ILY	A
1,1-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:55	ILY	A
1,1-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:55	ILY	A
1,1-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:55	ILY	A
1,2,3-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/22/2024 12:55	ILY	A
1,2,3-Trichloropropane	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/22/2024 12:55	ILY	A
1,2,4-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/22/2024 12:55	ILY	A
1,2-Dibromo-3-chloropropane	7.0 U	U	ug/L	7.0	SW846 8260D	1	11/22/2024 12:55	ILY	A
1,2-Dibromoethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:55	ILY	A
1,2-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:55	ILY	A
1,2-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:55	ILY	A
1,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:55	ILY	A
1,3-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:55	ILY	A
1,3-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:55	ILY	A
1,4-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:55	ILY	A
2,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:55	ILY	A
2-Butanone	10.0 U	U	ug/L	10.0	SW846 8260D	1	11/22/2024 12:55	ILY	A
2-Hexanone	5.0 U	U	ug/L	5.0	SW846 8260D	1	11/22/2024 12:55	ILY	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U	ug/L	5.0	SW846 8260D	1	11/22/2024 12:55	ILY	A
Acetone	10.0 U	U	ug/L	10.0	SW846 8260D	1	11/22/2024 12:55	ILY	A
Benzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:55	ILY	A
Bromobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:55	ILY	A
Bromochloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:55	ILY	A
Bromodichloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:55	ILY	A
Bromoform	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:55	ILY	A
Bromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:55	ILY	A
Carbon Tetrachloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:55	ILY	A
Chlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:55	ILY	A
Chlorodibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:55	ILY	A
Chloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:55	ILY	A
Chloroform	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:55	ILY	A
Chloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:55	ILY	A

Results

Client Sample ID	MW-40 D	Collected	11/10/2024 12:55
Lab Sample ID	3387069012	Lab Receipt	11/11/2024 17:33

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
cis-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:55	ILY	A
cis-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:55	ILY	A
Dibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:55	ILY	A
Dichlorodifluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:55	ILY	A
Diisopropyl ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:55	ILY	A
Ethylbenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:55	ILY	A
Hexachlorobutadiene	5.0 U	U	ug/L	5.0	SW846 8260D	1	11/22/2024 12:55	ILY	A
Methyl t-Butyl Ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:55	ILY	A
Methylene Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:55	ILY	A
mp-Xylene	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/22/2024 12:55	ILY	A
Naphthalene	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/22/2024 12:55	ILY	A
o-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:55	ILY	A
o-Xylene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:55	ILY	A
p-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:55	ILY	A
p-Isopropyltoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:55	ILY	A
Styrene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:55	ILY	A
Tetrachloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:55	ILY	A
Toluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:55	ILY	A
Total Xylenes	3.0 U	U	ug/L	3.0	SW846 8260D	1	11/22/2024 12:55	ILY	A
trans-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:55	ILY	A
trans-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:55	ILY	A
Trichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:55	ILY	A
Trichlorofluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:55	ILY	A
Vinyl Acetate	5.0 U	U	ug/L	5.0	SW846 8260D	1	11/22/2024 12:55	ILY	A
Vinyl Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:55	ILY	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	102%	62 – 133	11/22/2024 12:55	
4-Bromofluorobenzene	460-00-4	98.5%	79 – 114	11/22/2024 12:55	
Dibromofluoromethane	1868-53-7	97.4%	78 – 116	11/22/2024 12:55	
Toluene-d8	2037-26-5	99.5%	76 – 127	11/22/2024 12:55	

Results

Client Sample ID	MW-100	Collected	11/10/2024 13:00
Lab Sample ID	3387069013	Lab Receipt	11/11/2024 17:33

SEMIVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	24.8		ug/L	5.0	SW846 8270E SIM	5	11/19/2024 10:58	S7M	D

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnapthalene-d10	7297-45-2	55.4%	29 – 112	11/16/2024 04:29	
2-Methylnapthalene-d10	7297-45-2	76.7%	29 – 112	11/19/2024 10:58	
Fluoranthene-d10	93951-69-0	64.9%	45 – 130	11/16/2024 04:29	
Fluoranthene-d10	93951-69-0	60.5%	45 – 130	11/19/2024 10:58	

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:15	ILY	A
1,1,1-Trichloroethane	3.2		ug/L	1.0	SW846 8260D	1	11/22/2024 13:15	ILY	A
1,1,2,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:15	ILY	A
1,1,2-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:15	ILY	A
1,1-Dichloroethane	15.0		ug/L	1.0	SW846 8260D	1	11/22/2024 13:15	ILY	A
1,1-Dichloroethene	58.8		ug/L	1.0	SW846 8260D	1	11/22/2024 13:15	ILY	A
1,1-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:15	ILY	A
1,2,3-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/22/2024 13:15	ILY	A
1,2,3-Trichloropropane	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/22/2024 13:15	ILY	A
1,2,4-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/22/2024 13:15	ILY	A
1,2-Dibromo-3-chloropropane	7.0 U	U	ug/L	7.0	SW846 8260D	1	11/22/2024 13:15	ILY	A
1,2-Dibromoethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:15	ILY	A
1,2-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:15	ILY	A
1,2-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:15	ILY	A
1,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:15	ILY	A
1,3-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:15	ILY	A
1,3-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:15	ILY	A
1,4-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:15	ILY	A
2,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:15	ILY	A
2-Butanone	10.0 U	U	ug/L	10.0	SW846 8260D	1	11/22/2024 13:15	ILY	A
2-Hexanone	5.0 U	U	ug/L	5.0	SW846 8260D	1	11/22/2024 13:15	ILY	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U	ug/L	5.0	SW846 8260D	1	11/22/2024 13:15	ILY	A
Acetone	10.0 U	U	ug/L	10.0	SW846 8260D	1	11/22/2024 13:15	ILY	A
Benzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:15	ILY	A
Bromobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:15	ILY	A
Bromochloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:15	ILY	A
Bromodichloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:15	ILY	A
Bromoform	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:15	ILY	A
Bromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:15	ILY	A
Carbon Tetrachloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:15	ILY	A
Chlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:15	ILY	A
Chlorodibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:15	ILY	A
Chloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:15	ILY	A

Results

Client Sample ID	MW-100	Collected	11/10/2024 13:00
Lab Sample ID	3387069013	Lab Receipt	11/11/2024 17:33

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Chloroform	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:15	ILY	A
Chloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:15	ILY	A
cis-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:15	ILY	A
cis-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:15	ILY	A
Dibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:15	ILY	A
Dichlorodifluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:15	ILY	A
Diisopropyl ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:15	ILY	A
Ethylbenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:15	ILY	A
Hexachlorobutadiene	5.0 U	U	ug/L	5.0	SW846 8260D	1	11/22/2024 13:15	ILY	A
Methyl t-Butyl Ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:15	ILY	A
Methylene Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:15	ILY	A
mp-Xylene	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/22/2024 13:15	ILY	A
Naphthalene	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/22/2024 13:15	ILY	A
o-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:15	ILY	A
o-Xylene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:15	ILY	A
p-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:15	ILY	A
p-Isopropyltoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:15	ILY	A
Styrene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:15	ILY	A
Tetrachloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:15	ILY	A
Toluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:15	ILY	A
Total Xylenes	3.0 U	U	ug/L	3.0	SW846 8260D	1	11/22/2024 13:15	ILY	A
trans-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:15	ILY	A
trans-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:15	ILY	A
Trichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:15	ILY	A
Trichlorofluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:15	ILY	A
Vinyl Acetate	5.0 U	U	ug/L	5.0	SW846 8260D	1	11/22/2024 13:15	ILY	A
Vinyl Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:15	ILY	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	101%	62 – 133	11/22/2024 13:15	
4-Bromofluorobenzene	460-00-4	99.1%	79 – 114	11/22/2024 13:15	
Dibromofluoromethane	1868-53-7	95.8%	78 – 116	11/22/2024 13:15	
Toluene-d8	2037-26-5	99.8%	76 – 127	11/22/2024 13:15	

Results

Client Sample ID	MW-44	Collected	11/10/2024 14:00
Lab Sample ID	3387069014	Lab Receipt	11/11/2024 17:33

SEMIVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	2.8		ug/L	1.0	SW846 8270E SIM	1	11/16/2024 04:57	M1O	J

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnapthalene-d10	7297-45-2	68.3%	29 – 112	11/16/2024 04:57	
Fluoranthene-d10	93951-69-0	79.9%	45 – 130	11/16/2024 04:57	

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:36	ILY	A
1,1,1-Trichloroethane	2.0		ug/L	1.0	SW846 8260D	1	11/22/2024 13:36	ILY	A
1,1,2,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:36	ILY	A
1,1,2-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:36	ILY	A
1,1-Dichloroethane	1.6		ug/L	1.0	SW846 8260D	1	11/22/2024 13:36	ILY	A
1,1-Dichloroethene	2.0		ug/L	1.0	SW846 8260D	1	11/22/2024 13:36	ILY	A
1,1-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:36	ILY	A
1,2,3-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/22/2024 13:36	ILY	A
1,2,3-Trichloropropane	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/22/2024 13:36	ILY	A
1,2,4-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/22/2024 13:36	ILY	A
1,2-Dibromo-3-chloropropane	7.0 U	U	ug/L	7.0	SW846 8260D	1	11/22/2024 13:36	ILY	A
1,2-Dibromoethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:36	ILY	A
1,2-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:36	ILY	A
1,2-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:36	ILY	A
1,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:36	ILY	A
1,3-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:36	ILY	A
1,3-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:36	ILY	A
1,4-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:36	ILY	A
2,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:36	ILY	A
2-Butanone	10.0 U	U	ug/L	10.0	SW846 8260D	1	11/22/2024 13:36	ILY	A
2-Hexanone	5.0 U	U	ug/L	5.0	SW846 8260D	1	11/22/2024 13:36	ILY	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U	ug/L	5.0	SW846 8260D	1	11/22/2024 13:36	ILY	A
Acetone	10.0 U	U	ug/L	10.0	SW846 8260D	1	11/22/2024 13:36	ILY	A
Benzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:36	ILY	A
Bromobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:36	ILY	A
Bromochloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:36	ILY	A
Bromodichloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:36	ILY	A
Bromoform	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:36	ILY	A
Bromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:36	ILY	A
Carbon Tetrachloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:36	ILY	A
Chlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:36	ILY	A
Chlorodibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:36	ILY	A
Chloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:36	ILY	A
Chloroform	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:36	ILY	A
Chloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:36	ILY	A

Results

Client Sample ID	MW-44	Collected	11/10/2024 14:00
Lab Sample ID	3387069014	Lab Receipt	11/11/2024 17:33

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
cis-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:36	ILY	A
cis-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:36	ILY	A
Dibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:36	ILY	A
Dichlorodifluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:36	ILY	A
Diisopropyl ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:36	ILY	A
Ethylbenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:36	ILY	A
Hexachlorobutadiene	5.0 U	U	ug/L	5.0	SW846 8260D	1	11/22/2024 13:36	ILY	A
Methyl t-Butyl Ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:36	ILY	A
Methylene Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:36	ILY	A
mp-Xylene	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/22/2024 13:36	ILY	A
Naphthalene	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/22/2024 13:36	ILY	A
o-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:36	ILY	A
o-Xylene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:36	ILY	A
p-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:36	ILY	A
p-Isopropyltoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:36	ILY	A
Styrene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:36	ILY	A
Tetrachloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:36	ILY	A
Toluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:36	ILY	A
Total Xylenes	3.0 U	U	ug/L	3.0	SW846 8260D	1	11/22/2024 13:36	ILY	A
trans-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:36	ILY	A
trans-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:36	ILY	A
Trichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:36	ILY	A
Trichlorofluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:36	ILY	A
Vinyl Acetate	5.0 U	U	ug/L	5.0	SW846 8260D	1	11/22/2024 13:36	ILY	A
Vinyl Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:36	ILY	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	103%	62 – 133	11/22/2024 13:36	
4-Bromofluorobenzene	460-00-4	102%	79 – 114	11/22/2024 13:36	
Dibromofluoromethane	1868-53-7	96.6%	78 – 116	11/22/2024 13:36	
Toluene-d8	2037-26-5	101%	76 – 127	11/22/2024 13:36	

Results

Client Sample ID	MW-21D	Collected	11/10/2024 14:20
Lab Sample ID	3387069015	Lab Receipt	11/11/2024 17:33

SEMIVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	7.2		ug/L	1.0	SW846 8270E SIM	1	11/16/2024 06:19	M1O	D

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnapthalene-d10	7297-45-2	66.6%	29 – 112	11/16/2024 06:19	
Fluoranthene-d10	93951-69-0	76.5%	45 – 130	11/16/2024 06:19	

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:56	ILY	A
1,1,1-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:56	ILY	A
1,1,2,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:56	ILY	A
1,1,2-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:56	ILY	A
1,1-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:56	ILY	A
1,1-Dichloroethene	19.8		ug/L	1.0	SW846 8260D	1	11/22/2024 13:56	ILY	A
1,1-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:56	ILY	A
1,2,3-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/22/2024 13:56	ILY	A
1,2,3-Trichloropropane	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/22/2024 13:56	ILY	A
1,2,4-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/22/2024 13:56	ILY	A
1,2-Dibromo-3-chloropropane	7.0 U	U	ug/L	7.0	SW846 8260D	1	11/22/2024 13:56	ILY	A
1,2-Dibromoethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:56	ILY	A
1,2-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:56	ILY	A
1,2-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:56	ILY	A
1,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:56	ILY	A
1,3-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:56	ILY	A
1,3-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:56	ILY	A
1,4-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:56	ILY	A
2,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:56	ILY	A
2-Butanone	10.0 U	U	ug/L	10.0	SW846 8260D	1	11/22/2024 13:56	ILY	A
2-Hexanone	5.0 U	U	ug/L	5.0	SW846 8260D	1	11/22/2024 13:56	ILY	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U	ug/L	5.0	SW846 8260D	1	11/22/2024 13:56	ILY	A
Acetone	10.0 U	U	ug/L	10.0	SW846 8260D	1	11/22/2024 13:56	ILY	A
Benzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:56	ILY	A
Bromobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:56	ILY	A
Bromochloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:56	ILY	A
Bromodichloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:56	ILY	A
Bromoform	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:56	ILY	A
Bromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:56	ILY	A
Carbon Tetrachloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:56	ILY	A
Chlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:56	ILY	A
Chlorodibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:56	ILY	A
Chloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:56	ILY	A
Chloroform	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:56	ILY	A
Chloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:56	ILY	A

Results

Client Sample ID	MW-21D	Collected	11/10/2024 14:20
Lab Sample ID	3387069015	Lab Receipt	11/11/2024 17:33

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
cis-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:56	ILY	A
cis-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:56	ILY	A
Dibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:56	ILY	A
Dichlorodifluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:56	ILY	A
Diisopropyl ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:56	ILY	A
Ethylbenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:56	ILY	A
Hexachlorobutadiene	5.0 U	U	ug/L	5.0	SW846 8260D	1	11/22/2024 13:56	ILY	A
Methyl t-Butyl Ether	1.6		ug/L	1.0	SW846 8260D	1	11/22/2024 13:56	ILY	A
Methylene Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:56	ILY	A
mp-Xylene	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/22/2024 13:56	ILY	A
Naphthalene	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/22/2024 13:56	ILY	A
o-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:56	ILY	A
o-Xylene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:56	ILY	A
p-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:56	ILY	A
p-Isopropyltoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:56	ILY	A
Styrene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:56	ILY	A
Tetrachloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:56	ILY	A
Toluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:56	ILY	A
Total Xylenes	3.0 U	U	ug/L	3.0	SW846 8260D	1	11/22/2024 13:56	ILY	A
trans-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:56	ILY	A
trans-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:56	ILY	A
Trichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:56	ILY	A
Trichlorofluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:56	ILY	A
Vinyl Acetate	5.0 U	U	ug/L	5.0	SW846 8260D	1	11/22/2024 13:56	ILY	A
Vinyl Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 13:56	ILY	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	102%	62 – 133	11/22/2024 13:56	
4-Bromofluorobenzene	460-00-4	100%	79 – 114	11/22/2024 13:56	
Dibromofluoromethane	1868-53-7	98.4%	78 – 116	11/22/2024 13:56	
Toluene-d8	2037-26-5	99.6%	76 – 127	11/22/2024 13:56	

Results

Client Sample ID	RW-1D	Collected	11/10/2024 14:30
Lab Sample ID	3387069016	Lab Receipt	11/11/2024 17:33

SEMIVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	50.4		ug/L	10.0	SW846 8270E SIM	10	11/19/2024 11:25	S7M	D

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnapthalene-d10	7297-45-2	63.6%	29 – 112	11/16/2024 06:46	
2-Methylnapthalene-d10	7297-45-2	81%	29 – 112	11/19/2024 11:25	
Fluoranthene-d10	93951-69-0	78.4%	45 – 130	11/16/2024 06:46	
Fluoranthene-d10	93951-69-0	72.3%	45 – 130	11/19/2024 11:25	

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/22/2024 18:01	ILY	A
1,1,1-Trichloroethane	18.3		ug/L	5.0	SW846 8260D	5	11/22/2024 18:01	ILY	A
1,1,2,2-Tetrachloroethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/22/2024 18:01	ILY	A
1,1,2-Trichloroethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/22/2024 18:01	ILY	A
1,1-Dichloroethane	100		ug/L	5.0	SW846 8260D	5	11/22/2024 18:01	ILY	A
1,1-Dichloroethene	384		ug/L	5.0	SW846 8260D	5	11/22/2024 18:01	ILY	A
1,1-Dichloropropene	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/22/2024 18:01	ILY	A
1,2,3-Trichlorobenzene	10.0 U	U	ug/L	10.0	SW846 8260D	5	11/22/2024 18:01	ILY	A
1,2,3-Trichloropropane	10.0 U	U	ug/L	10.0	SW846 8260D	5	11/22/2024 18:01	ILY	A
1,2,4-Trichlorobenzene	10.0 U	U	ug/L	10.0	SW846 8260D	5	11/22/2024 18:01	ILY	A
1,2-Dibromo-3-chloropropane	35.0 U	U	ug/L	35.0	SW846 8260D	5	11/22/2024 18:01	ILY	A
1,2-Dibromoethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/22/2024 18:01	ILY	A
1,2-Dichlorobenzene	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/22/2024 18:01	ILY	A
1,2-Dichloroethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/22/2024 18:01	ILY	A
1,2-Dichloropropane	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/22/2024 18:01	ILY	A
1,3-Dichlorobenzene	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/22/2024 18:01	ILY	A
1,3-Dichloropropane	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/22/2024 18:01	ILY	A
1,4-Dichlorobenzene	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/22/2024 18:01	ILY	A
2,2-Dichloropropane	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/22/2024 18:01	ILY	A
2-Butanone	50.0 U	U	ug/L	50.0	SW846 8260D	5	11/22/2024 18:01	ILY	A
2-Hexanone	25.0 U	U	ug/L	25.0	SW846 8260D	5	11/22/2024 18:01	ILY	A
4-Methyl-2-Pentanone(MIBK)	25.0 U	U	ug/L	25.0	SW846 8260D	5	11/22/2024 18:01	ILY	A
Acetone	50.0 U	U	ug/L	50.0	SW846 8260D	5	11/22/2024 18:01	ILY	A
Benzene	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/22/2024 18:01	ILY	A
Bromobenzene	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/22/2024 18:01	ILY	A
Bromochloromethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/22/2024 18:01	ILY	A
Bromodichloromethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/22/2024 18:01	ILY	A
Bromoform	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/22/2024 18:01	ILY	A
Bromomethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/22/2024 18:01	ILY	A
Carbon Tetrachloride	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/22/2024 18:01	ILY	A
Chlorobenzene	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/22/2024 18:01	ILY	A
Chlorodibromomethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/22/2024 18:01	ILY	A
Chloroethane	14.8		ug/L	5.0	SW846 8260D	5	11/22/2024 18:01	ILY	A

Results

Client Sample ID	RW-1D	Collected	11/10/2024 14:30
Lab Sample ID	3387069016	Lab Receipt	11/11/2024 17:33

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Chloroform	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/22/2024 18:01	ILY	A
Chloromethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/22/2024 18:01	ILY	A
cis-1,2-Dichloroethene	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/22/2024 18:01	ILY	A
cis-1,3-Dichloropropene	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/22/2024 18:01	ILY	A
Dibromomethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/22/2024 18:01	ILY	A
Dichlorodifluoromethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/22/2024 18:01	ILY	A
Diisopropyl ether	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/22/2024 18:01	ILY	A
Ethylbenzene	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/22/2024 18:01	ILY	A
Hexachlorobutadiene	25.0 U	U	ug/L	25.0	SW846 8260D	5	11/22/2024 18:01	ILY	A
Methyl t-Butyl Ether	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/22/2024 18:01	ILY	A
Methylene Chloride	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/22/2024 18:01	ILY	A
mp-Xylene	10.0 U	U	ug/L	10.0	SW846 8260D	5	11/22/2024 18:01	ILY	A
Naphthalene	10.0 U	U	ug/L	10.0	SW846 8260D	5	11/22/2024 18:01	ILY	A
o-Chlorotoluene	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/22/2024 18:01	ILY	A
o-Xylene	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/22/2024 18:01	ILY	A
p-Chlorotoluene	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/22/2024 18:01	ILY	A
p-Isopropyltoluene	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/22/2024 18:01	ILY	A
Styrene	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/22/2024 18:01	ILY	A
Tetrachloroethene	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/22/2024 18:01	ILY	A
Toluene	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/22/2024 18:01	ILY	A
Total Xylenes	15.0 U	U	ug/L	15.0	SW846 8260D	5	11/22/2024 18:01	ILY	A
trans-1,2-Dichloroethene	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/22/2024 18:01	ILY	A
trans-1,3-Dichloropropene	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/22/2024 18:01	ILY	A
Trichloroethene	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/22/2024 18:01	ILY	A
Trichlorofluoromethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/22/2024 18:01	ILY	A
Vinyl Acetate	25.0 U	U	ug/L	25.0	SW846 8260D	5	11/22/2024 18:01	ILY	A
Vinyl Chloride	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/22/2024 18:01	ILY	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	104%	62 – 133	11/22/2024 18:01	
4-Bromofluorobenzene	460-00-4	100%	79 – 114	11/22/2024 18:01	
Dibromofluoromethane	1868-53-7	98.8%	78 – 116	11/22/2024 18:01	
Toluene-d8	2037-26-5	99.8%	76 – 127	11/22/2024 18:01	

Results

Client Sample ID	MW-41D	Collected	11/10/2024 14:40
Lab Sample ID	3387069017	Lab Receipt	11/11/2024 17:33

SEMIVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	1.0 U	U	ug/L	1.0	SW846 8270E SIM	1	11/16/2024 07:14	M1O	D

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnapthalene-d10	7297-45-2	61.2%	29 – 112	11/16/2024 07:14	
Fluoranthene-d10	93951-69-0	75.9%	45 – 130	11/16/2024 07:14	

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:17	ILY	A
1,1,1-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:17	ILY	A
1,1,2,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:17	ILY	A
1,1,2-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:17	ILY	A
1,1-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:17	ILY	A
1,1-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:17	ILY	A
1,1-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:17	ILY	A
1,2,3-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/22/2024 14:17	ILY	A
1,2,3-Trichloropropane	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/22/2024 14:17	ILY	A
1,2,4-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/22/2024 14:17	ILY	A
1,2-Dibromo-3-chloropropane	7.0 U	U	ug/L	7.0	SW846 8260D	1	11/22/2024 14:17	ILY	A
1,2-Dibromoethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:17	ILY	A
1,2-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:17	ILY	A
1,2-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:17	ILY	A
1,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:17	ILY	A
1,3-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:17	ILY	A
1,3-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:17	ILY	A
1,4-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:17	ILY	A
2,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:17	ILY	A
2-Butanone	10.0 U	U	ug/L	10.0	SW846 8260D	1	11/22/2024 14:17	ILY	A
2-Hexanone	5.0 U	U	ug/L	5.0	SW846 8260D	1	11/22/2024 14:17	ILY	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U	ug/L	5.0	SW846 8260D	1	11/22/2024 14:17	ILY	A
Acetone	10.0 U	U	ug/L	10.0	SW846 8260D	1	11/22/2024 14:17	ILY	A
Benzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:17	ILY	A
Bromobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:17	ILY	A
Bromochloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:17	ILY	A
Bromodichloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:17	ILY	A
Bromoform	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:17	ILY	A
Bromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:17	ILY	A
Carbon Tetrachloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:17	ILY	A
Chlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:17	ILY	A
Chlorodibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:17	ILY	A
Chloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:17	ILY	A
Chloroform	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:17	ILY	A
Chloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:17	ILY	A

Results

Client Sample ID	MW-41D	Collected	11/10/2024 14:40
Lab Sample ID	3387069017	Lab Receipt	11/11/2024 17:33

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
cis-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:17	ILY	A
cis-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:17	ILY	A
Dibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:17	ILY	A
Dichlorodifluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:17	ILY	A
Diisopropyl ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:17	ILY	A
Ethylbenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:17	ILY	A
Hexachlorobutadiene	5.0 U	U	ug/L	5.0	SW846 8260D	1	11/22/2024 14:17	ILY	A
Methyl t-Butyl Ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:17	ILY	A
Methylene Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:17	ILY	A
mp-Xylene	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/22/2024 14:17	ILY	A
Naphthalene	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/22/2024 14:17	ILY	A
o-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:17	ILY	A
o-Xylene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:17	ILY	A
p-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:17	ILY	A
p-Isopropyltoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:17	ILY	A
Styrene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:17	ILY	A
Tetrachloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:17	ILY	A
Toluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:17	ILY	A
Total Xylenes	3.0 U	U	ug/L	3.0	SW846 8260D	1	11/22/2024 14:17	ILY	A
trans-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:17	ILY	A
trans-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:17	ILY	A
Trichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:17	ILY	A
Trichlorofluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:17	ILY	A
Vinyl Acetate	5.0 U	U	ug/L	5.0	SW846 8260D	1	11/22/2024 14:17	ILY	A
Vinyl Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:17	ILY	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	102%	62 – 133	11/22/2024 14:17	
4-Bromofluorobenzene	460-00-4	98.8%	79 – 114	11/22/2024 14:17	
Dibromofluoromethane	1868-53-7	96.5%	78 – 116	11/22/2024 14:17	
Toluene-d8	2037-26-5	98.4%	76 – 127	11/22/2024 14:17	

Results

Client Sample ID	Trip Blank B	Collected	11/10/2024 00:00
Lab Sample ID	3387069018	Lab Receipt	11/11/2024 17:33

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 11:54	ILY	A
1,1,1-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 11:54	ILY	A
1,1,2,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 11:54	ILY	A
1,1,2-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 11:54	ILY	A
1,1-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 11:54	ILY	A
1,1-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 11:54	ILY	A
1,1-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 11:54	ILY	A
1,2,3-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/22/2024 11:54	ILY	A
1,2,3-Trichloropropane	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/22/2024 11:54	ILY	A
1,2,4-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/22/2024 11:54	ILY	A
1,2-Dibromo-3-chloropropane	7.0 U	U	ug/L	7.0	SW846 8260D	1	11/22/2024 11:54	ILY	A
1,2-Dibromoethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 11:54	ILY	A
1,2-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 11:54	ILY	A
1,2-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 11:54	ILY	A
1,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 11:54	ILY	A
1,3-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 11:54	ILY	A
1,3-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 11:54	ILY	A
1,4-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 11:54	ILY	A
2,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 11:54	ILY	A
2-Butanone	10.0 U	U	ug/L	10.0	SW846 8260D	1	11/22/2024 11:54	ILY	A
2-Hexanone	5.0 U	U	ug/L	5.0	SW846 8260D	1	11/22/2024 11:54	ILY	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U	ug/L	5.0	SW846 8260D	1	11/22/2024 11:54	ILY	A
Acetone	10.0 U	U	ug/L	10.0	SW846 8260D	1	11/22/2024 11:54	ILY	A
Benzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 11:54	ILY	A
Bromobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 11:54	ILY	A
Bromochloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 11:54	ILY	A
Bromodichloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 11:54	ILY	A
Bromoform	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 11:54	ILY	A
Bromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 11:54	ILY	A
Carbon Tetrachloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 11:54	ILY	A
Chlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 11:54	ILY	A
Chlorodibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 11:54	ILY	A
Chloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 11:54	ILY	A
Chloroform	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 11:54	ILY	A
Chloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 11:54	ILY	A
cis-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 11:54	ILY	A
cis-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 11:54	ILY	A
Dibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 11:54	ILY	A
Dichlorodifluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 11:54	ILY	A
Diisopropyl ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 11:54	ILY	A
Ethylbenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 11:54	ILY	A
Hexachlorobutadiene	5.0 U	U	ug/L	5.0	SW846 8260D	1	11/22/2024 11:54	ILY	A
Methyl t-Butyl Ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 11:54	ILY	A
Methylene Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 11:54	ILY	A
mp-Xylene	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/22/2024 11:54	ILY	A
Naphthalene	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/22/2024 11:54	ILY	A
o-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 11:54	ILY	A

Results

Client Sample ID	Trip Blank B	Collected	11/10/2024 00:00
Lab Sample ID	3387069018	Lab Receipt	11/11/2024 17:33

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
o-Xylene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 11:54	ILY	A
p-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 11:54	ILY	A
p-Isopropyltoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 11:54	ILY	A
Styrene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 11:54	ILY	A
Tetrachloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 11:54	ILY	A
Toluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 11:54	ILY	A
Total Xylenes	3.0 U	U	ug/L	3.0	SW846 8260D	1	11/22/2024 11:54	ILY	A
trans-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 11:54	ILY	A
trans-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 11:54	ILY	A
Trichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 11:54	ILY	A
Trichlorofluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 11:54	ILY	A
Vinyl Acetate	5.0 U	U	ug/L	5.0	SW846 8260D	1	11/22/2024 11:54	ILY	A
Vinyl Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 11:54	ILY	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	103%	62 – 133	11/22/2024 11:54	
4-Bromofluorobenzene	460-00-4	101%	79 – 114	11/22/2024 11:54	
Dibromofluoromethane	1868-53-7	98%	78 – 116	11/22/2024 11:54	
Toluene-d8	2037-26-5	101%	76 – 127	11/22/2024 11:54	

Results

Client Sample ID	MW-01D	Collected	11/11/2024 14:50
Lab Sample ID	3387069019	Lab Receipt	11/11/2024 17:33

SEMIVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	6.2		ug/L	1.0	SW846 8270E SIM	1	11/16/2024 07:41	M1O	D

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnapthalene-d10	7297-45-2	62.3%	29 – 112	11/16/2024 07:41	
Fluoranthene-d10	93951-69-0	76.1%	45 – 130	11/16/2024 07:41	

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:37	ILY	A
1,1,1-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:37	ILY	A
1,1,2,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:37	ILY	A
1,1,2-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:37	ILY	A
1,1-Dichloroethane	2.9		ug/L	1.0	SW846 8260D	1	11/22/2024 14:37	ILY	A
1,1-Dichloroethene	15.6		ug/L	1.0	SW846 8260D	1	11/22/2024 14:37	ILY	A
1,1-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:37	ILY	A
1,2,3-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/22/2024 14:37	ILY	A
1,2,3-Trichloropropane	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/22/2024 14:37	ILY	A
1,2,4-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/22/2024 14:37	ILY	A
1,2-Dibromo-3-chloropropane	7.0 U	U	ug/L	7.0	SW846 8260D	1	11/22/2024 14:37	ILY	A
1,2-Dibromoethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:37	ILY	A
1,2-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:37	ILY	A
1,2-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:37	ILY	A
1,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:37	ILY	A
1,3-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:37	ILY	A
1,3-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:37	ILY	A
1,4-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:37	ILY	A
2,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:37	ILY	A
2-Butanone	10.0 U	U	ug/L	10.0	SW846 8260D	1	11/22/2024 14:37	ILY	A
2-Hexanone	5.0 U	U	ug/L	5.0	SW846 8260D	1	11/22/2024 14:37	ILY	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U	ug/L	5.0	SW846 8260D	1	11/22/2024 14:37	ILY	A
Acetone	10.0 U	U	ug/L	10.0	SW846 8260D	1	11/22/2024 14:37	ILY	A
Benzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:37	ILY	A
Bromobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:37	ILY	A
Bromochloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:37	ILY	A
Bromodichloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:37	ILY	A
Bromoform	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:37	ILY	A
Bromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:37	ILY	A
Carbon Tetrachloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:37	ILY	A
Chlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:37	ILY	A
Chlorodibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:37	ILY	A
Chloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:37	ILY	A
Chloroform	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:37	ILY	A
Chloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:37	ILY	A

Results

Client Sample ID	MW-01D	Collected	11/11/2024 14:50
Lab Sample ID	3387069019	Lab Receipt	11/11/2024 17:33

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
cis-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:37	ILY	A
cis-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:37	ILY	A
Dibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:37	ILY	A
Dichlorodifluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:37	ILY	A
Diisopropyl ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:37	ILY	A
Ethylbenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:37	ILY	A
Hexachlorobutadiene	5.0 U	U	ug/L	5.0	SW846 8260D	1	11/22/2024 14:37	ILY	A
Methyl t-Butyl Ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:37	ILY	A
Methylene Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:37	ILY	A
mp-Xylene	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/22/2024 14:37	ILY	A
Naphthalene	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/22/2024 14:37	ILY	A
o-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:37	ILY	A
o-Xylene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:37	ILY	A
p-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:37	ILY	A
p-Isopropyltoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:37	ILY	A
Styrene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:37	ILY	A
Tetrachloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:37	ILY	A
Toluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:37	ILY	A
Total Xylenes	3.0 U	U	ug/L	3.0	SW846 8260D	1	11/22/2024 14:37	ILY	A
trans-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:37	ILY	A
trans-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:37	ILY	A
Trichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:37	ILY	A
Trichlorofluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:37	ILY	A
Vinyl Acetate	5.0 U	U	ug/L	5.0	SW846 8260D	1	11/22/2024 14:37	ILY	A
Vinyl Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:37	ILY	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	103%	62 – 133	11/22/2024 14:37	
4-Bromofluorobenzene	460-00-4	99.5%	79 – 114	11/22/2024 14:37	
Dibromofluoromethane	1868-53-7	97.2%	78 – 116	11/22/2024 14:37	
Toluene-d8	2037-26-5	100%	76 – 127	11/22/2024 14:37	

Results

Client Sample ID	MW-01	Collected	11/11/2024 15:00
Lab Sample ID	3387069020	Lab Receipt	11/11/2024 17:33

SEMIVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	1.0 U	U	ug/L	1.0	SW846 8270E SIM	1	11/16/2024 08:08	M1O	D

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnapthalene-d10	7297-45-2	62%	29 – 112	11/16/2024 08:08	
Fluoranthene-d10	93951-69-0	79.5%	45 – 130	11/16/2024 08:08	

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:58	ILY	A
1,1,1-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:58	ILY	A
1,1,2,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:58	ILY	A
1,1,2-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:58	ILY	A
1,1-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:58	ILY	A
1,1-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:58	ILY	A
1,1-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:58	ILY	A
1,2,3-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/22/2024 14:58	ILY	A
1,2,3-Trichloropropane	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/22/2024 14:58	ILY	A
1,2,4-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/22/2024 14:58	ILY	A
1,2-Dibromo-3-chloropropane	7.0 U	U	ug/L	7.0	SW846 8260D	1	11/22/2024 14:58	ILY	A
1,2-Dibromoethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:58	ILY	A
1,2-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:58	ILY	A
1,2-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:58	ILY	A
1,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:58	ILY	A
1,3-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:58	ILY	A
1,3-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:58	ILY	A
1,4-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:58	ILY	A
2,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:58	ILY	A
2-Butanone	10.0 U	U	ug/L	10.0	SW846 8260D	1	11/22/2024 14:58	ILY	A
2-Hexanone	5.0 U	U	ug/L	5.0	SW846 8260D	1	11/22/2024 14:58	ILY	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U	ug/L	5.0	SW846 8260D	1	11/22/2024 14:58	ILY	A
Acetone	10.0 U	U	ug/L	10.0	SW846 8260D	1	11/22/2024 14:58	ILY	A
Benzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:58	ILY	A
Bromobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:58	ILY	A
Bromochloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:58	ILY	A
Bromodichloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:58	ILY	A
Bromoform	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:58	ILY	A
Bromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:58	ILY	A
Carbon Tetrachloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:58	ILY	A
Chlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:58	ILY	A
Chlorodibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:58	ILY	A
Chloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:58	ILY	A
Chloroform	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:58	ILY	A
Chloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:58	ILY	A

Results

Client Sample ID	MW-01	Collected	11/11/2024 15:00
Lab Sample ID	3387069020	Lab Receipt	11/11/2024 17:33

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
cis-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:58	ILY	A
cis-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:58	ILY	A
Dibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:58	ILY	A
Dichlorodifluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:58	ILY	A
Diisopropyl ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:58	ILY	A
Ethylbenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:58	ILY	A
Hexachlorobutadiene	5.0 U	U	ug/L	5.0	SW846 8260D	1	11/22/2024 14:58	ILY	A
Methyl t-Butyl Ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:58	ILY	A
Methylene Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:58	ILY	A
mp-Xylene	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/22/2024 14:58	ILY	A
Naphthalene	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/22/2024 14:58	ILY	A
o-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:58	ILY	A
o-Xylene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:58	ILY	A
p-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:58	ILY	A
p-Isopropyltoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:58	ILY	A
Styrene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:58	ILY	A
Tetrachloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:58	ILY	A
Toluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:58	ILY	A
Total Xylenes	3.0 U	U	ug/L	3.0	SW846 8260D	1	11/22/2024 14:58	ILY	A
trans-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:58	ILY	A
trans-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:58	ILY	A
Trichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:58	ILY	A
Trichlorofluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:58	ILY	A
Vinyl Acetate	5.0 U	U	ug/L	5.0	SW846 8260D	1	11/22/2024 14:58	ILY	A
Vinyl Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 14:58	ILY	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	104%	62 – 133	11/22/2024 14:58	
4-Bromofluorobenzene	460-00-4	102%	79 – 114	11/22/2024 14:58	
Dibromofluoromethane	1868-53-7	99.2%	78 – 116	11/22/2024 14:58	
Toluene-d8	2037-26-5	99.7%	76 – 127	11/22/2024 14:58	

Results

Client Sample ID	MW-22D	Collected	11/11/2024 15:10
Lab Sample ID	3387069021	Lab Receipt	11/11/2024 17:33

SEMIVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	3.4		ug/L	1.0	SW846 8270E SIM	1	11/16/2024 08:35	M1O	D

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnapthalene-d10	7297-45-2	69.6%	29 – 112	11/16/2024 08:35	
Fluoranthene-d10	93951-69-0	81.2%	45 – 130	11/16/2024 08:35	

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:18	ILY	A
1,1,1-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:18	ILY	A
1,1,2,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:18	ILY	A
1,1,2-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:18	ILY	A
1,1-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:18	ILY	A
1,1-Dichloroethene	10.8		ug/L	1.0	SW846 8260D	1	11/22/2024 15:18	ILY	A
1,1-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:18	ILY	A
1,2,3-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/22/2024 15:18	ILY	A
1,2,3-Trichloropropane	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/22/2024 15:18	ILY	A
1,2,4-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/22/2024 15:18	ILY	A
1,2-Dibromo-3-chloropropane	7.0 U	U	ug/L	7.0	SW846 8260D	1	11/22/2024 15:18	ILY	A
1,2-Dibromoethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:18	ILY	A
1,2-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:18	ILY	A
1,2-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:18	ILY	A
1,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:18	ILY	A
1,3-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:18	ILY	A
1,3-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:18	ILY	A
1,4-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:18	ILY	A
2,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:18	ILY	A
2-Butanone	10.0 U	U	ug/L	10.0	SW846 8260D	1	11/22/2024 15:18	ILY	A
2-Hexanone	5.0 U	U	ug/L	5.0	SW846 8260D	1	11/22/2024 15:18	ILY	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U	ug/L	5.0	SW846 8260D	1	11/22/2024 15:18	ILY	A
Acetone	10.0 U	U	ug/L	10.0	SW846 8260D	1	11/22/2024 15:18	ILY	A
Benzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:18	ILY	A
Bromobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:18	ILY	A
Bromochloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:18	ILY	A
Bromodichloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:18	ILY	A
Bromoform	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:18	ILY	A
Bromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:18	ILY	A
Carbon Tetrachloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:18	ILY	A
Chlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:18	ILY	A
Chlorodibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:18	ILY	A
Chloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:18	ILY	A
Chloroform	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:18	ILY	A
Chloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:18	ILY	A

Results

Client Sample ID	MW-22D	Collected	11/11/2024 15:10
Lab Sample ID	3387069021	Lab Receipt	11/11/2024 17:33

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
cis-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:18	ILY	A
cis-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:18	ILY	A
Dibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:18	ILY	A
Dichlorodifluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:18	ILY	A
Diisopropyl ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:18	ILY	A
Ethylbenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:18	ILY	A
Hexachlorobutadiene	5.0 U	U	ug/L	5.0	SW846 8260D	1	11/22/2024 15:18	ILY	A
Methyl t-Butyl Ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:18	ILY	A
Methylene Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:18	ILY	A
mp-Xylene	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/22/2024 15:18	ILY	A
Naphthalene	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/22/2024 15:18	ILY	A
o-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:18	ILY	A
o-Xylene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:18	ILY	A
p-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:18	ILY	A
p-Isopropyltoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:18	ILY	A
Styrene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:18	ILY	A
Tetrachloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:18	ILY	A
Toluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:18	ILY	A
Total Xylenes	3.0 U	U	ug/L	3.0	SW846 8260D	1	11/22/2024 15:18	ILY	A
trans-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:18	ILY	A
trans-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:18	ILY	A
Trichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:18	ILY	A
Trichlorofluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:18	ILY	A
Vinyl Acetate	5.0 U	U	ug/L	5.0	SW846 8260D	1	11/22/2024 15:18	ILY	A
Vinyl Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:18	ILY	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	102%	62 – 133	11/22/2024 15:18	
4-Bromofluorobenzene	460-00-4	101%	79 – 114	11/22/2024 15:18	
Dibromofluoromethane	1868-53-7	97.6%	78 – 116	11/22/2024 15:18	
Toluene-d8	2037-26-5	100%	76 – 127	11/22/2024 15:18	

Results

Client Sample ID	MW-20	Collected	11/11/2024 15:40
Lab Sample ID	3387069022	Lab Receipt	11/11/2024 17:33

SEMIVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	616		ug/L	104	SW846 8270E SIM	100	11/19/2024 11:52	S7M	D

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnapthalene-d10	7297-45-2	55%	29 – 112	11/16/2024 09:02	
2-Methylnapthalene-d10	7297-45-2	0*%	29 – 112	11/19/2024 11:52	3
Fluoranthene-d10	93951-69-0	64.6%	45 – 130	11/16/2024 09:02	

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/22/2024 17:41	ILY	A
1,1,1-Trichloroethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/22/2024 17:41	ILY	A
1,1,2,2-Tetrachloroethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/22/2024 17:41	ILY	A
1,1,2-Trichloroethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/22/2024 17:41	ILY	A
1,1-Dichloroethane	389		ug/L	5.0	SW846 8260D	5	11/22/2024 17:41	ILY	A
1,1-Dichloroethene	528		ug/L	5.0	SW846 8260D	5	11/22/2024 17:41	ILY	A
1,1-Dichloropropene	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/22/2024 17:41	ILY	A
1,2,3-Trichlorobenzene	10.0 U	U	ug/L	10.0	SW846 8260D	5	11/22/2024 17:41	ILY	A
1,2,3-Trichloropropane	10.0 U	U	ug/L	10.0	SW846 8260D	5	11/22/2024 17:41	ILY	A
1,2,4-Trichlorobenzene	10.0 U	U	ug/L	10.0	SW846 8260D	5	11/22/2024 17:41	ILY	A
1,2-Dibromo-3-chloropropane	35.0 U	U	ug/L	35.0	SW846 8260D	5	11/22/2024 17:41	ILY	A
1,2-Dibromoethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/22/2024 17:41	ILY	A
1,2-Dichlorobenzene	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/22/2024 17:41	ILY	A
1,2-Dichloroethane	13.2		ug/L	5.0	SW846 8260D	5	11/22/2024 17:41	ILY	A
1,2-Dichloropropane	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/22/2024 17:41	ILY	A
1,3-Dichlorobenzene	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/22/2024 17:41	ILY	A
1,3-Dichloropropane	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/22/2024 17:41	ILY	A
1,4-Dichlorobenzene	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/22/2024 17:41	ILY	A
2,2-Dichloropropane	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/22/2024 17:41	ILY	A
2-Butanone	50.0 U	U	ug/L	50.0	SW846 8260D	5	11/22/2024 17:41	ILY	A
2-Hexanone	25.0 U	U	ug/L	25.0	SW846 8260D	5	11/22/2024 17:41	ILY	A
4-Methyl-2-Pentanone(MIBK)	25.0 U	U	ug/L	25.0	SW846 8260D	5	11/22/2024 17:41	ILY	A
Acetone	50.0 U	U	ug/L	50.0	SW846 8260D	5	11/22/2024 17:41	ILY	A
Benzene	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/22/2024 17:41	ILY	A
Bromobenzene	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/22/2024 17:41	ILY	A
Bromochloromethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/22/2024 17:41	ILY	A
Bromodichloromethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/22/2024 17:41	ILY	A
Bromoform	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/22/2024 17:41	ILY	A
Bromomethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/22/2024 17:41	ILY	A
Carbon Tetrachloride	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/22/2024 17:41	ILY	A
Chlorobenzene	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/22/2024 17:41	ILY	A
Chlorodibromomethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/22/2024 17:41	ILY	A
Chloroethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/22/2024 17:41	ILY	A
Chloroform	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/22/2024 17:41	ILY	A

Results

Client Sample ID	MW-20	Collected	11/11/2024 15:40
Lab Sample ID	3387069022	Lab Receipt	11/11/2024 17:33

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Chloromethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/22/2024 17:41	ILY	A
cis-1,2-Dichloroethene	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/22/2024 17:41	ILY	A
cis-1,3-Dichloropropene	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/22/2024 17:41	ILY	A
Dibromomethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/22/2024 17:41	ILY	A
Dichlorodifluoromethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/22/2024 17:41	ILY	A
Diisopropyl ether	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/22/2024 17:41	ILY	A
Ethylbenzene	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/22/2024 17:41	ILY	A
Hexachlorobutadiene	25.0 U	U	ug/L	25.0	SW846 8260D	5	11/22/2024 17:41	ILY	A
Methyl t-Butyl Ether	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/22/2024 17:41	ILY	A
Methylene Chloride	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/22/2024 17:41	ILY	A
mp-Xylene	10.0 U	U	ug/L	10.0	SW846 8260D	5	11/22/2024 17:41	ILY	A
Naphthalene	10.0 U	U	ug/L	10.0	SW846 8260D	5	11/22/2024 17:41	ILY	A
o-Chlorotoluene	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/22/2024 17:41	ILY	A
o-Xylene	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/22/2024 17:41	ILY	A
p-Chlorotoluene	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/22/2024 17:41	ILY	A
p-Isopropyltoluene	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/22/2024 17:41	ILY	A
Styrene	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/22/2024 17:41	ILY	A
Tetrachloroethene	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/22/2024 17:41	ILY	A
Toluene	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/22/2024 17:41	ILY	A
Total Xylenes	15.0 U	U	ug/L	15.0	SW846 8260D	5	11/22/2024 17:41	ILY	A
trans-1,2-Dichloroethene	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/22/2024 17:41	ILY	A
trans-1,3-Dichloropropene	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/22/2024 17:41	ILY	A
Trichloroethene	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/22/2024 17:41	ILY	A
Trichlorofluoromethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/22/2024 17:41	ILY	A
Vinyl Acetate	25.0 U	U	ug/L	25.0	SW846 8260D	5	11/22/2024 17:41	ILY	A
Vinyl Chloride	5.0 U	U	ug/L	5.0	SW846 8260D	5	11/22/2024 17:41	ILY	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	103%	62 – 133	11/22/2024 17:41	
4-Bromofluorobenzene	460-00-4	99.5%	79 – 114	11/22/2024 17:41	
Dibromofluoromethane	1868-53-7	98.6%	78 – 116	11/22/2024 17:41	
Toluene-d8	2037-26-5	99.9%	76 – 127	11/22/2024 17:41	

Results

Client Sample ID	MW-4R	Collected	11/11/2024 15:50
Lab Sample ID	3387069023	Lab Receipt	11/11/2024 17:33

SEMIVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	36.8		ug/L	5.0	SW846 8270E SIM	5	11/19/2024 12:19	S7M	D

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnapthalene-d10	7297-45-2	53.2%	29 – 112	11/19/2024 12:19	
Fluoranthene-d10	93951-69-0	73.1%	45 – 130	11/19/2024 12:19	

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:38	ILY	A
1,1,1-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:38	ILY	A
1,1,2,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:38	ILY	A
1,1,2-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:38	ILY	A
1,1-Dichloroethane	32.6		ug/L	1.0	SW846 8260D	1	11/22/2024 15:38	ILY	A
1,1-Dichloroethene	61.6		ug/L	1.0	SW846 8260D	1	11/22/2024 15:38	ILY	A
1,1-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:38	ILY	A
1,2,3-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/22/2024 15:38	ILY	A
1,2,3-Trichloropropane	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/22/2024 15:38	ILY	A
1,2,4-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/22/2024 15:38	ILY	A
1,2-Dibromo-3-chloropropane	7.0 U	U	ug/L	7.0	SW846 8260D	1	11/22/2024 15:38	ILY	A
1,2-Dibromoethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:38	ILY	A
1,2-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:38	ILY	A
1,2-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:38	ILY	A
1,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:38	ILY	A
1,3-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:38	ILY	A
1,3-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:38	ILY	A
1,4-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:38	ILY	A
2,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:38	ILY	A
2-Butanone	10.0 U	U	ug/L	10.0	SW846 8260D	1	11/22/2024 15:38	ILY	A
2-Hexanone	5.0 U	U	ug/L	5.0	SW846 8260D	1	11/22/2024 15:38	ILY	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U	ug/L	5.0	SW846 8260D	1	11/22/2024 15:38	ILY	A
Acetone	10.0 U	U	ug/L	10.0	SW846 8260D	1	11/22/2024 15:38	ILY	A
Benzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:38	ILY	A
Bromobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:38	ILY	A
Bromochloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:38	ILY	A
Bromodichloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:38	ILY	A
Bromoform	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:38	ILY	A
Bromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:38	ILY	A
Carbon Tetrachloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:38	ILY	A
Chlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:38	ILY	A
Chlorodibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:38	ILY	A
Chloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:38	ILY	A
Chloroform	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:38	ILY	A
Chloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:38	ILY	A

Results

Client Sample ID	MW-4R	Collected	11/11/2024 15:50
Lab Sample ID	3387069023	Lab Receipt	11/11/2024 17:33

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
cis-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:38	ILY	A
cis-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:38	ILY	A
Dibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:38	ILY	A
Dichlorodifluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:38	ILY	A
Diisopropyl ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:38	ILY	A
Ethylbenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:38	ILY	A
Hexachlorobutadiene	5.0 U	U	ug/L	5.0	SW846 8260D	1	11/22/2024 15:38	ILY	A
Methyl t-Butyl Ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:38	ILY	A
Methylene Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:38	ILY	A
mp-Xylene	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/22/2024 15:38	ILY	A
Naphthalene	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/22/2024 15:38	ILY	A
o-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:38	ILY	A
o-Xylene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:38	ILY	A
p-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:38	ILY	A
p-Isopropyltoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:38	ILY	A
Styrene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:38	ILY	A
Tetrachloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:38	ILY	A
Toluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:38	ILY	A
Total Xylenes	3.0 U	U	ug/L	3.0	SW846 8260D	1	11/22/2024 15:38	ILY	A
trans-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:38	ILY	A
trans-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:38	ILY	A
Trichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:38	ILY	A
Trichlorofluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:38	ILY	A
Vinyl Acetate	5.0 U	U	ug/L	5.0	SW846 8260D	1	11/22/2024 15:38	ILY	A
Vinyl Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:38	ILY	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	101%	62 – 133	11/22/2024 15:38	
4-Bromofluorobenzene	460-00-4	99.4%	79 – 114	11/22/2024 15:38	
Dibromofluoromethane	1868-53-7	96.3%	78 – 116	11/22/2024 15:38	
Toluene-d8	2037-26-5	99.1%	76 – 127	11/22/2024 15:38	

Results

Client Sample ID	MW-09	Collected	11/11/2024 16:00
Lab Sample ID	3387069024	Lab Receipt	11/11/2024 17:33

SEMIVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	2.2		ug/L	1.0	SW846 8270E SIM	1	11/18/2024 12:36	S7M	D

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnapthalene-d10	7297-45-2	48.6%	29 – 112	11/18/2024 12:36	
Fluoranthene-d10	93951-69-0	60.4%	45 – 130	11/18/2024 12:36	

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:59	ILY	A
1,1,1-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:59	ILY	A
1,1,2,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:59	ILY	A
1,1,2-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:59	ILY	A
1,1-Dichloroethane	1.1		ug/L	1.0	SW846 8260D	1	11/22/2024 15:59	ILY	A
1,1-Dichloroethene	18.0		ug/L	1.0	SW846 8260D	1	11/22/2024 15:59	ILY	A
1,1-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:59	ILY	A
1,2,3-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/22/2024 15:59	ILY	A
1,2,3-Trichloropropane	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/22/2024 15:59	ILY	A
1,2,4-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/22/2024 15:59	ILY	A
1,2-Dibromo-3-chloropropane	7.0 U	U	ug/L	7.0	SW846 8260D	1	11/22/2024 15:59	ILY	A
1,2-Dibromoethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:59	ILY	A
1,2-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:59	ILY	A
1,2-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:59	ILY	A
1,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:59	ILY	A
1,3-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:59	ILY	A
1,3-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:59	ILY	A
1,4-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:59	ILY	A
2,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:59	ILY	A
2-Butanone	10.0 U	U	ug/L	10.0	SW846 8260D	1	11/22/2024 15:59	ILY	A
2-Hexanone	5.0 U	U	ug/L	5.0	SW846 8260D	1	11/22/2024 15:59	ILY	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U	ug/L	5.0	SW846 8260D	1	11/22/2024 15:59	ILY	A
Acetone	10.0 U	U	ug/L	10.0	SW846 8260D	1	11/22/2024 15:59	ILY	A
Benzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:59	ILY	A
Bromobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:59	ILY	A
Bromochloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:59	ILY	A
Bromodichloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:59	ILY	A
Bromoform	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:59	ILY	A
Bromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:59	ILY	A
Carbon Tetrachloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:59	ILY	A
Chlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:59	ILY	A
Chlorodibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:59	ILY	A
Chloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:59	ILY	A
Chloroform	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:59	ILY	A
Chloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:59	ILY	A

Results

Client Sample ID	MW-09	Collected	11/11/2024 16:00
Lab Sample ID	3387069024	Lab Receipt	11/11/2024 17:33

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
cis-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:59	ILY	A
cis-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:59	ILY	A
Dibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:59	ILY	A
Dichlorodifluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:59	ILY	A
Diisopropyl ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:59	ILY	A
Ethylbenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:59	ILY	A
Hexachlorobutadiene	5.0 U	U	ug/L	5.0	SW846 8260D	1	11/22/2024 15:59	ILY	A
Methyl t-Butyl Ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:59	ILY	A
Methylene Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:59	ILY	A
mp-Xylene	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/22/2024 15:59	ILY	A
Naphthalene	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/22/2024 15:59	ILY	A
o-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:59	ILY	A
o-Xylene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:59	ILY	A
p-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:59	ILY	A
p-Isopropyltoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:59	ILY	A
Styrene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:59	ILY	A
Tetrachloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:59	ILY	A
Toluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:59	ILY	A
Total Xylenes	3.0 U	U	ug/L	3.0	SW846 8260D	1	11/22/2024 15:59	ILY	A
trans-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:59	ILY	A
trans-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:59	ILY	A
Trichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:59	ILY	A
Trichlorofluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:59	ILY	A
Vinyl Acetate	5.0 U	U	ug/L	5.0	SW846 8260D	1	11/22/2024 15:59	ILY	A
Vinyl Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 15:59	ILY	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	104%	62 – 133	11/22/2024 15:59	
4-Bromofluorobenzene	460-00-4	101%	79 – 114	11/22/2024 15:59	
Dibromofluoromethane	1868-53-7	98.1%	78 – 116	11/22/2024 15:59	
Toluene-d8	2037-26-5	101%	76 – 127	11/22/2024 15:59	

Results

Client Sample ID	MW-23D	Collected	11/11/2024 16:15
Lab Sample ID	3387069025	Lab Receipt	11/11/2024 17:33

SEMIVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	34.1		ug/L	10.0	SW846 8270E SIM	10	11/19/2024 12:46	S7M	D

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnapthalene-d10	7297-45-2	61.4%	29 – 112	11/18/2024 13:04	
2-Methylnapthalene-d10	7297-45-2	0*%	29 – 112	11/19/2024 12:46	4
Fluoranthene-d10	93951-69-0	76.5%	45 – 130	11/18/2024 13:04	
Fluoranthene-d10	93951-69-0	72.8%	45 – 130	11/19/2024 12:46	

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 16:19	ILY	A
1,1,1-Trichloroethane	4.6		ug/L	1.0	SW846 8260D	1	11/22/2024 16:19	ILY	A
1,1,2,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 16:19	ILY	A
1,1,2-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 16:19	ILY	A
1,1-Dichloroethane	20.1		ug/L	1.0	SW846 8260D	1	11/22/2024 16:19	ILY	A
1,1-Dichloroethene	77.6		ug/L	1.0	SW846 8260D	1	11/22/2024 16:19	ILY	A
1,1-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 16:19	ILY	A
1,2,3-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/22/2024 16:19	ILY	A
1,2,3-Trichloropropane	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/22/2024 16:19	ILY	A
1,2,4-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/22/2024 16:19	ILY	A
1,2-Dibromo-3-chloropropane	7.0 U	U	ug/L	7.0	SW846 8260D	1	11/22/2024 16:19	ILY	A
1,2-Dibromoethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 16:19	ILY	A
1,2-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 16:19	ILY	A
1,2-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 16:19	ILY	A
1,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 16:19	ILY	A
1,3-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 16:19	ILY	A
1,3-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 16:19	ILY	A
1,4-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 16:19	ILY	A
2,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 16:19	ILY	A
2-Butanone	10.0 U	U	ug/L	10.0	SW846 8260D	1	11/22/2024 16:19	ILY	A
2-Hexanone	5.0 U	U	ug/L	5.0	SW846 8260D	1	11/22/2024 16:19	ILY	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U	ug/L	5.0	SW846 8260D	1	11/22/2024 16:19	ILY	A
Acetone	10.0 U	U	ug/L	10.0	SW846 8260D	1	11/22/2024 16:19	ILY	A
Benzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 16:19	ILY	A
Bromobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 16:19	ILY	A
Bromochloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 16:19	ILY	A
Bromodichloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 16:19	ILY	A
Bromoform	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 16:19	ILY	A
Bromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 16:19	ILY	A
Carbon Tetrachloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 16:19	ILY	A
Chlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 16:19	ILY	A
Chlorodibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 16:19	ILY	A
Chloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 16:19	ILY	A

Results

Client Sample ID	MW-23D	Collected	11/11/2024 16:15
Lab Sample ID	3387069025	Lab Receipt	11/11/2024 17:33

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Chloroform	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 16:19	ILY	A
Chloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 16:19	ILY	A
cis-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 16:19	ILY	A
cis-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 16:19	ILY	A
Dibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 16:19	ILY	A
Dichlorodifluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 16:19	ILY	A
Diisopropyl ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 16:19	ILY	A
Ethylbenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 16:19	ILY	A
Hexachlorobutadiene	5.0 U	U	ug/L	5.0	SW846 8260D	1	11/22/2024 16:19	ILY	A
Methyl t-Butyl Ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 16:19	ILY	A
Methylene Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 16:19	ILY	A
mp-Xylene	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/22/2024 16:19	ILY	A
Naphthalene	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/22/2024 16:19	ILY	A
o-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 16:19	ILY	A
o-Xylene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 16:19	ILY	A
p-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 16:19	ILY	A
p-Isopropyltoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 16:19	ILY	A
Styrene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 16:19	ILY	A
Tetrachloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 16:19	ILY	A
Toluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 16:19	ILY	A
Total Xylenes	3.0 U	U	ug/L	3.0	SW846 8260D	1	11/22/2024 16:19	ILY	A
trans-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 16:19	ILY	A
trans-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 16:19	ILY	A
Trichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 16:19	ILY	A
Trichlorofluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 16:19	ILY	A
Vinyl Acetate	5.0 U	U	ug/L	5.0	SW846 8260D	1	11/22/2024 16:19	ILY	A
Vinyl Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 16:19	ILY	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	103%	62 – 133	11/22/2024 16:19	
4-Bromofluorobenzene	460-00-4	101%	79 – 114	11/22/2024 16:19	
Dibromofluoromethane	1868-53-7	97.1%	78 – 116	11/22/2024 16:19	
Toluene-d8	2037-26-5	101%	76 – 127	11/22/2024 16:19	

Results

Client Sample ID	MW-16	Collected	11/11/2024 16:30
Lab Sample ID	3387069026	Lab Receipt	11/11/2024 17:33

SEMIVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	88.1		ug/L	29.4	SW846 8270E SIM	20	11/19/2024 13:13	S7M	D

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnapthalene-d10	7297-45-2	60.3%	29 – 112	11/18/2024 13:31	
2-Methylnapthalene-d10	7297-45-2	0*%	29 – 112	11/19/2024 13:13	5
Fluoranthene-d10	93951-69-0	76%	45 – 130	11/18/2024 13:31	

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	20.0 U	U	ug/L	20.0	SW846 8260D	20	11/22/2024 18:22	ILY	A
1,1,1-Trichloroethane	767		ug/L	20.0	SW846 8260D	20	11/22/2024 18:22	ILY	A
1,1,2,2-Tetrachloroethane	20.0 U	U	ug/L	20.0	SW846 8260D	20	11/22/2024 18:22	ILY	A
1,1,2-Trichloroethane	20.0 U	U	ug/L	20.0	SW846 8260D	20	11/22/2024 18:22	ILY	A
1,1-Dichloroethane	1030		ug/L	20.0	SW846 8260D	20	11/22/2024 18:22	ILY	A
1,1-Dichloroethene	1490		ug/L	20.0	SW846 8260D	20	11/22/2024 18:22	ILY	A
1,1-Dichloropropene	20.0 U	U	ug/L	20.0	SW846 8260D	20	11/22/2024 18:22	ILY	A
1,2,3-Trichlorobenzene	40.0 U	U	ug/L	40.0	SW846 8260D	20	11/22/2024 18:22	ILY	A
1,2,3-Trichloropropane	40.0 U	U	ug/L	40.0	SW846 8260D	20	11/22/2024 18:22	ILY	A
1,2,4-Trichlorobenzene	40.0 U	U	ug/L	40.0	SW846 8260D	20	11/22/2024 18:22	ILY	A
1,2-Dibromo-3-chloropropane	140 U	U	ug/L	140	SW846 8260D	20	11/22/2024 18:22	ILY	A
1,2-Dibromoethane	20.0 U	U	ug/L	20.0	SW846 8260D	20	11/22/2024 18:22	ILY	A
1,2-Dichlorobenzene	20.0 U	U	ug/L	20.0	SW846 8260D	20	11/22/2024 18:22	ILY	A
1,2-Dichloroethane	20.0 U	U	ug/L	20.0	SW846 8260D	20	11/22/2024 18:22	ILY	A
1,2-Dichloropropane	20.0 U	U	ug/L	20.0	SW846 8260D	20	11/22/2024 18:22	ILY	A
1,3-Dichlorobenzene	20.0 U	U	ug/L	20.0	SW846 8260D	20	11/22/2024 18:22	ILY	A
1,3-Dichloropropane	20.0 U	U	ug/L	20.0	SW846 8260D	20	11/22/2024 18:22	ILY	A
1,4-Dichlorobenzene	20.0 U	U	ug/L	20.0	SW846 8260D	20	11/22/2024 18:22	ILY	A
2,2-Dichloropropane	20.0 U	U	ug/L	20.0	SW846 8260D	20	11/22/2024 18:22	ILY	A
2-Butanone	200 U	U	ug/L	200	SW846 8260D	20	11/22/2024 18:22	ILY	A
2-Hexanone	100 U	U	ug/L	100	SW846 8260D	20	11/22/2024 18:22	ILY	A
4-Methyl-2-Pentanone(MIBK)	100 U	U	ug/L	100	SW846 8260D	20	11/22/2024 18:22	ILY	A
Acetone	200 U	U	ug/L	200	SW846 8260D	20	11/22/2024 18:22	ILY	A
Benzene	20.0 U	U	ug/L	20.0	SW846 8260D	20	11/22/2024 18:22	ILY	A
Bromobenzene	20.0 U	U	ug/L	20.0	SW846 8260D	20	11/22/2024 18:22	ILY	A
Bromochloromethane	20.0 U	U	ug/L	20.0	SW846 8260D	20	11/22/2024 18:22	ILY	A
Bromodichloromethane	20.0 U	U	ug/L	20.0	SW846 8260D	20	11/22/2024 18:22	ILY	A
Bromoform	20.0 U	U	ug/L	20.0	SW846 8260D	20	11/22/2024 18:22	ILY	A
Bromomethane	20.0 U	U	ug/L	20.0	SW846 8260D	20	11/22/2024 18:22	ILY	A
Carbon Tetrachloride	20.0 U	U	ug/L	20.0	SW846 8260D	20	11/22/2024 18:22	ILY	A
Chlorobenzene	20.0 U	U	ug/L	20.0	SW846 8260D	20	11/22/2024 18:22	ILY	A
Chlorodibromomethane	20.0 U	U	ug/L	20.0	SW846 8260D	20	11/22/2024 18:22	ILY	A
Chloroethane	35.4		ug/L	20.0	SW846 8260D	20	11/22/2024 18:22	ILY	A
Chloroform	20.0 U	U	ug/L	20.0	SW846 8260D	20	11/22/2024 18:22	ILY	A

Results

Client Sample ID	MW-16	Collected	11/11/2024 16:30
Lab Sample ID	3387069026	Lab Receipt	11/11/2024 17:33

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Chloromethane	20.0 U	U	ug/L	20.0	SW846 8260D	20	11/22/2024 18:22	ILY	A
cis-1,2-Dichloroethene	20.0 U	U	ug/L	20.0	SW846 8260D	20	11/22/2024 18:22	ILY	A
cis-1,3-Dichloropropene	20.0 U	U	ug/L	20.0	SW846 8260D	20	11/22/2024 18:22	ILY	A
Dibromomethane	20.0 U	U	ug/L	20.0	SW846 8260D	20	11/22/2024 18:22	ILY	A
Dichlorodifluoromethane	20.0 U	U	ug/L	20.0	SW846 8260D	20	11/22/2024 18:22	ILY	A
Diisopropyl ether	20.0 U	U	ug/L	20.0	SW846 8260D	20	11/22/2024 18:22	ILY	A
Ethylbenzene	20.0 U	U	ug/L	20.0	SW846 8260D	20	11/22/2024 18:22	ILY	A
Hexachlorobutadiene	100 U	U	ug/L	100	SW846 8260D	20	11/22/2024 18:22	ILY	A
Methyl t-Butyl Ether	20.0 U	U	ug/L	20.0	SW846 8260D	20	11/22/2024 18:22	ILY	A
Methylene Chloride	20.0 U	U	ug/L	20.0	SW846 8260D	20	11/22/2024 18:22	ILY	A
mp-Xylene	40.0 U	U	ug/L	40.0	SW846 8260D	20	11/22/2024 18:22	ILY	A
Naphthalene	40.0 U	U	ug/L	40.0	SW846 8260D	20	11/22/2024 18:22	ILY	A
o-Chlorotoluene	20.0 U	U	ug/L	20.0	SW846 8260D	20	11/22/2024 18:22	ILY	A
o-Xylene	20.0 U	U	ug/L	20.0	SW846 8260D	20	11/22/2024 18:22	ILY	A
p-Chlorotoluene	20.0 U	U	ug/L	20.0	SW846 8260D	20	11/22/2024 18:22	ILY	A
p-Isopropyltoluene	20.0 U	U	ug/L	20.0	SW846 8260D	20	11/22/2024 18:22	ILY	A
Styrene	20.0 U	U	ug/L	20.0	SW846 8260D	20	11/22/2024 18:22	ILY	A
Tetrachloroethene	20.0 U	U	ug/L	20.0	SW846 8260D	20	11/22/2024 18:22	ILY	A
Toluene	20.0 U	U	ug/L	20.0	SW846 8260D	20	11/22/2024 18:22	ILY	A
Total Xylenes	60.0 U	U	ug/L	60.0	SW846 8260D	20	11/22/2024 18:22	ILY	A
trans-1,2-Dichloroethene	20.0 U	U	ug/L	20.0	SW846 8260D	20	11/22/2024 18:22	ILY	A
trans-1,3-Dichloropropene	20.0 U	U	ug/L	20.0	SW846 8260D	20	11/22/2024 18:22	ILY	A
Trichloroethene	20.0 U	U	ug/L	20.0	SW846 8260D	20	11/22/2024 18:22	ILY	A
Trichlorofluoromethane	20.0 U	U	ug/L	20.0	SW846 8260D	20	11/22/2024 18:22	ILY	A
Vinyl Acetate	100 U	U	ug/L	100	SW846 8260D	20	11/22/2024 18:22	ILY	A
Vinyl Chloride	20.0 U	U	ug/L	20.0	SW846 8260D	20	11/22/2024 18:22	ILY	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	101%	62 – 133	11/22/2024 18:22	
4-Bromofluorobenzene	460-00-4	99.5%	79 – 114	11/22/2024 18:22	
Dibromofluoromethane	1868-53-7	98.5%	78 – 116	11/22/2024 18:22	
Toluene-d8	2037-26-5	99.2%	76 – 127	11/22/2024 18:22	

Results

Client Sample ID	MW-16D	Collected	11/11/2024 16:40
Lab Sample ID	3387069027	Lab Receipt	11/11/2024 17:33

SEMIVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	21.6		ug/L	5.2	SW846 8270E SIM	5	11/19/2024 13:40	S7M	D

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnapthalene-d10	7297-45-2	54%	29 – 112	11/18/2024 13:59	
2-Methylnapthalene-d10	7297-45-2	61.4%	29 – 112	11/19/2024 13:40	
Fluoranthene-d10	93951-69-0	78.1%	45 – 130	11/18/2024 13:59	
Fluoranthene-d10	93951-69-0	73.7%	45 – 130	11/19/2024 13:40	

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 16:40	ILY	A
1,1,1-Trichloroethane	3.5		ug/L	1.0	SW846 8260D	1	11/22/2024 16:40	ILY	A
1,1,2,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 16:40	ILY	A
1,1,2-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 16:40	ILY	A
1,1-Dichloroethane	16.8		ug/L	1.0	SW846 8260D	1	11/22/2024 16:40	ILY	A
1,1-Dichloroethene	68.2		ug/L	1.0	SW846 8260D	1	11/22/2024 16:40	ILY	A
1,1-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 16:40	ILY	A
1,2,3-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/22/2024 16:40	ILY	A
1,2,3-Trichloropropane	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/22/2024 16:40	ILY	A
1,2,4-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/22/2024 16:40	ILY	A
1,2-Dibromo-3-chloropropane	7.0 U	U	ug/L	7.0	SW846 8260D	1	11/22/2024 16:40	ILY	A
1,2-Dibromoethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 16:40	ILY	A
1,2-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 16:40	ILY	A
1,2-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 16:40	ILY	A
1,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 16:40	ILY	A
1,3-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 16:40	ILY	A
1,3-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 16:40	ILY	A
1,4-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 16:40	ILY	A
2,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 16:40	ILY	A
2-Butanone	10.0 U	U	ug/L	10.0	SW846 8260D	1	11/22/2024 16:40	ILY	A
2-Hexanone	5.0 U	U	ug/L	5.0	SW846 8260D	1	11/22/2024 16:40	ILY	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U	ug/L	5.0	SW846 8260D	1	11/22/2024 16:40	ILY	A
Acetone	10.0 U	U	ug/L	10.0	SW846 8260D	1	11/22/2024 16:40	ILY	A
Benzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 16:40	ILY	A
Bromobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 16:40	ILY	A
Bromochloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 16:40	ILY	A
Bromodichloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 16:40	ILY	A
Bromoform	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 16:40	ILY	A
Bromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 16:40	ILY	A
Carbon Tetrachloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 16:40	ILY	A
Chlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 16:40	ILY	A
Chlorodibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 16:40	ILY	A
Chloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 16:40	ILY	A

Results

Client Sample ID	MW-16D	Collected	11/11/2024 16:40
Lab Sample ID	3387069027	Lab Receipt	11/11/2024 17:33

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Chloroform	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 16:40	ILY	A
Chloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 16:40	ILY	A
cis-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 16:40	ILY	A
cis-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 16:40	ILY	A
Dibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 16:40	ILY	A
Dichlorodifluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 16:40	ILY	A
Diisopropyl ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 16:40	ILY	A
Ethylbenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 16:40	ILY	A
Hexachlorobutadiene	5.0 U	U	ug/L	5.0	SW846 8260D	1	11/22/2024 16:40	ILY	A
Methyl t-Butyl Ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 16:40	ILY	A
Methylene Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 16:40	ILY	A
mp-Xylene	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/22/2024 16:40	ILY	A
Naphthalene	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/22/2024 16:40	ILY	A
o-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 16:40	ILY	A
o-Xylene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 16:40	ILY	A
p-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 16:40	ILY	A
p-Isopropyltoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 16:40	ILY	A
Styrene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 16:40	ILY	A
Tetrachloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 16:40	ILY	A
Toluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 16:40	ILY	A
Total Xylenes	3.0 U	U	ug/L	3.0	SW846 8260D	1	11/22/2024 16:40	ILY	A
trans-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 16:40	ILY	A
trans-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 16:40	ILY	A
Trichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 16:40	ILY	A
Trichlorofluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 16:40	ILY	A
Vinyl Acetate	5.0 U	U	ug/L	5.0	SW846 8260D	1	11/22/2024 16:40	ILY	A
Vinyl Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 16:40	ILY	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	103%	62 – 133	11/22/2024 16:40	
4-Bromofluorobenzene	460-00-4	101%	79 – 114	11/22/2024 16:40	
Dibromofluoromethane	1868-53-7	99.4%	78 – 116	11/22/2024 16:40	
Toluene-d8	2037-26-5	99.8%	76 – 127	11/22/2024 16:40	

Results

Client Sample ID	Trip Blank C	Collected	11/11/2024 00:00
Lab Sample ID	3387069028	Lab Receipt	11/11/2024 17:33

VOLATILE ORGANICS

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,1,1,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:14	ILY	A
1,1,1-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:14	ILY	A
1,1,2,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:14	ILY	A
1,1,2-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:14	ILY	A
1,1-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:14	ILY	A
1,1-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:14	ILY	A
1,1-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:14	ILY	A
1,2,3-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/22/2024 12:14	ILY	A
1,2,3-Trichloropropane	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/22/2024 12:14	ILY	A
1,2,4-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/22/2024 12:14	ILY	A
1,2-Dibromo-3-chloropropane	7.0 U	U	ug/L	7.0	SW846 8260D	1	11/22/2024 12:14	ILY	A
1,2-Dibromoethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:14	ILY	A
1,2-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:14	ILY	A
1,2-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:14	ILY	A
1,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:14	ILY	A
1,3-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:14	ILY	A
1,3-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:14	ILY	A
1,4-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:14	ILY	A
2,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:14	ILY	A
2-Butanone	10.0 U	U	ug/L	10.0	SW846 8260D	1	11/22/2024 12:14	ILY	A
2-Hexanone	5.0 U	U	ug/L	5.0	SW846 8260D	1	11/22/2024 12:14	ILY	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U	ug/L	5.0	SW846 8260D	1	11/22/2024 12:14	ILY	A
Acetone	10.0 U	U	ug/L	10.0	SW846 8260D	1	11/22/2024 12:14	ILY	A
Benzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:14	ILY	A
Bromobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:14	ILY	A
Bromochloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:14	ILY	A
Bromodichloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:14	ILY	A
Bromoform	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:14	ILY	A
Bromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:14	ILY	A
Carbon Tetrachloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:14	ILY	A
Chlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:14	ILY	A
Chlorodibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:14	ILY	A
Chloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:14	ILY	A
Chloroform	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:14	ILY	A
Chloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:14	ILY	A
cis-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:14	ILY	A
cis-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:14	ILY	A
Dibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:14	ILY	A
Dichlorodifluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:14	ILY	A
Diisopropyl ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:14	ILY	A
Ethylbenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:14	ILY	A
Hexachlorobutadiene	5.0 U	U	ug/L	5.0	SW846 8260D	1	11/22/2024 12:14	ILY	A
Methyl t-Butyl Ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:14	ILY	A
Methylene Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:14	ILY	A
mp-Xylene	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/22/2024 12:14	ILY	A
Naphthalene	2.0 U	U	ug/L	2.0	SW846 8260D	1	11/22/2024 12:14	ILY	A
o-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:14	ILY	A

Results

Client Sample ID	Trip Blank C	Collected	11/11/2024 00:00
Lab Sample ID	3387069028	Lab Receipt	11/11/2024 17:33

VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
o-Xylene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:14	ILY	A
p-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:14	ILY	A
p-Isopropyltoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:14	ILY	A
Styrene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:14	ILY	A
Tetrachloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:14	ILY	A
Toluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:14	ILY	A
Total Xylenes	3.0 U	U	ug/L	3.0	SW846 8260D	1	11/22/2024 12:14	ILY	A
trans-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:14	ILY	A
trans-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:14	ILY	A
Trichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:14	ILY	A
Trichlorofluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:14	ILY	A
Vinyl Acetate	5.0 U	U	ug/L	5.0	SW846 8260D	1	11/22/2024 12:14	ILY	A
Vinyl Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	11/22/2024 12:14	ILY	A

SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	103%	62 – 133	11/22/2024 12:14	
4-Bromofluorobenzene	460-00-4	101%	79 – 114	11/22/2024 12:14	
Dibromofluoromethane	1868-53-7	98.3%	78 – 116	11/22/2024 12:14	
Toluene-d8	2037-26-5	101%	76 – 127	11/22/2024 12:14	

Sample - Method Cross Reference Table

Lab ID	Sample ID	Analysis Method	Preparation Method	Leachate Method
3387069001	MW-03	SW846 8270E SIM SW846 8260D	SW846 3510C N/A	
3387069002	MW-27 D	SW846 8270E SIM SW846 8260D	SW846 3510C N/A	
3387069003	MW-43	SW846 8270E SIM SW846 8260D	SW846 3510C N/A	
3387069004	MW-39	SW846 8270E SIM SW846 8260D	SW846 3510C N/A	
3387069005	MW-42	SW846 8270E SIM SW846 8260D	SW846 3510C N/A	
3387069006	MW-18	SW846 8270E SIM SW846 8260D	SW846 3510C N/A	
3387069007	MW-38R	SW846 8270E SIM SW846 8260D	SW846 3510C N/A	
3387069008	RW-1S	SW846 8270E SIM SW846 8260D	SW846 3510C N/A	
3387069009	RW-2S	SW846 8270E SIM SW846 8260D	SW846 3510C N/A	
3387069010	Trip Blank A	SW846 8260D	N/A	
3387069011	MW-5R	SW846 8270E SIM SW846 8260D	SW846 3510C N/A	
3387069012	MW-40 D	SW846 8270E SIM SW846 8260D	SW846 3510C N/A	
3387069013	MW-100	SW846 8270E SIM SW846 8260D	SW846 3510C N/A	
3387069014	MW-44	SW846 8270E SIM SW846 8260D	SW846 3510C N/A	
3387069015	MW-21D	SW846 8270E SIM SW846 8260D	SW846 3510C N/A	
3387069016	RW-1D	SW846 8270E SIM SW846 8260D	SW846 3510C N/A	
3387069017	MW-41D	SW846 8270E SIM SW846 8260D	SW846 3510C N/A	
3387069018	Trip Blank B	SW846 8260D	N/A	
3387069019	MW-01D	SW846 8270E SIM SW846 8260D	SW846 3510C N/A	
3387069020	MW-01	SW846 8270E SIM SW846 8260D	SW846 3510C N/A	
3387069021	MW-22D	SW846 8270E SIM SW846 8260D	SW846 3510C N/A	
3387069022	MW-20	SW846 8270E SIM SW846 8260D	SW846 3510C N/A	
3387069023	MW-4R	SW846 8270E SIM SW846 8260D	SW846 3510C N/A	
3387069024	MW-09	SW846 8270E SIM SW846 8260D	SW846 3510C N/A	
3387069025	MW-23D	SW846 8270E SIM SW846 8260D	SW846 3510C N/A	

Lab ID	Sample ID	Analysis Method	Preparation Method	Leachate Method
3387069026	MW-16	SW846 8270E SIM	SW846 3510C	
		SW846 8260D	N/A	
3387069027	MW-16D	SW846 8270E SIM	SW846 3510C	
		SW846 8260D	N/A	
3387069028	Trip Blank C	SW846 8260D	N/A	

QUALITY CONTROL SAMPLES

SEMIVOLATILE SIM

QC Batch

QC Batch	1332155	Prep Method	SW846 3510C
Date	11/14/2024 09:10	Analysis Method	SW846 8270E SIM
Tech.	DEC		

Associated Samples

3387069001	3387069005	3387069002	3387069006
3387069007	3387069003	3387069008	3387069004
3387069009	3387069019	3387069011	3387069020
3387069012	3387069021	3387069022	3387069013
3387069014	3387069015	3387069016	3387069017

Method Blank 3905189 (MB) Created on 11/14/2024 07:17 For QC Batch 1332155

RESULTS

Compound	CAS No		Result	Units	RDL	Qualifiers
1,4-Dioxane	123-91-1	BLK	1.0 U	ug/L	1.0	U

SURROGATES

Compound	CAS No		Result (ug/L)	Expected (ug/L)	Rec. (%)	Limits (%)	Qualifiers
2-Methylnapthalene-d10	7297-45-2	BLK	0.56	1	55.9	29 - 112	
Fluoranthene-d10	93951-69-0	BLK	0.78	1	78.3	45 - 130	

Lab Control Standard 3905190 (LCS) Created on 11/14/2024 07:17 For QC Batch 1332155

RESULTS

Compound	CAS No		Result (ug/L)	Orig. Result (ug/L)	Spk Added (ug/L)	Rec. (%)	Limits (%)	RPD Limit (%)	Qualifiers
1,4-Dioxane	123-91-1	LCS	0.62		1	61.8	22 - 75		U

SURROGATES

Compound	CAS No		Result (ug/L)	Expected (ug/L)	Rec. (%)	Limits (%)	Qualifiers
2-Methylnapthalene-d10	7297-45-2	LCS	0.66	1	66.1	29 - 112	
Fluoranthene-d10	93951-69-0	LCS	0.94	1	94	45 - 130	

Matrix Spike 3905191 (MS) 3387069014 For QC Batch 1332155

****NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

Matrix Spike Duplicate 3905192 (MSD) 3387069014 For QC Batch 1332155

RESULTS

Compound	CAS No		Result (ug/L)	Orig. Result (ug/L)	Spk Added (ug/L)	Rec. (%)	Limits (%)	RPD Limit (%)	Qualifiers
1,4-Dioxane	123-91-1	MS	3.4	2.80	1	62.6	22 - 75		
1,4-Dioxane	123-91-1	MSD	3.4	2.80	1	57.3	22 - 75	RPD 2.33 (Max-30)	

QUALITY CONTROL SAMPLES

SEMIVOLATILE SIM (cont.)

SURROGATES

Compound	CAS No		Result (ug/L)	Expected (ug/L)	Rec. (%)	Limits (%)	Qualifiers
2-Methylnapthalene-d10	7297-45-2	MS	0.69	1	66.3	29 - 112	
2-Methylnapthalene-d10	7297-45-2	MSD	0.67	1	66.8	29 - 112	
Fluoranthene-d10	93951-69-0	MS	0.7	1	67.3	45 - 130	
Fluoranthene-d10	93951-69-0	MSD	0.72	1	72.5	45 - 130	

QC Batch

QC Batch	1332545	Prep Method	SW846 3510C
Date	11/15/2024 08:20	Analysis Method	SW846 8270E SIM
Tech.	DEC		

Associated Samples

3387069026 3387069027 3387069023 3387069024 3387069025

Matrix Spike 3905828 (MS) 3387075001 (non-Project Sample) For QC Batch 1332545

****NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

RESULTS

Compound	CAS No		Result (ug/L)	Orig. Result (ug/L)	Spk Added (ug/L)	Rec. (%)	Limits (%)	RPD Limit (%)	Qualifiers
1,4-Dioxane	123-91-1	MS	0.68	0	1	68	22 - 75		U

SURROGATES

Compound	CAS No		Result (ug/L)	Expected (ug/L)	Rec. (%)	Limits (%)	Qualifiers
2-Methylnapthalene-d10	7297-45-2	MS	0.7	1	70.5	29 - 112	
Fluoranthene-d10	93951-69-0	MS	0.87	1	87.3	45 - 130	

Duplicate 3905829 (DUP) 3387075003 (non-Project Sample) For QC Batch 1332545

****NOTE - The Original Result and Duplicate Result shown below are raw results and are only used for the purpose of calculating Sample Duplicate percent recoveries. This result is not a final value and cannot be used as such.

RESULTS

Compound	CAS No		Result (ug/L)	Orig. Result (ug/L)		Qualifiers
1,4-Dioxane	123-91-1	DUP	3.7262	3.8990	RPD 4.53 (Max-30)	

SURROGATES

Compound	CAS No		Result (ug/L)	Expected (ug/L)	Rec. (%)	Limits (%)	Qualifiers
2-Methylnapthalene-d10	7297-45-2	DUP	0.53	1	53.2	29 - 112	
Fluoranthene-d10	93951-69-0	DUP	0.69	1	68.9	45 - 130	

QUALITY CONTROL SAMPLES

SEMIVOLATILE SIM (cont.)

Method Blank 3905826 (MB) Created on 11/15/2024 06:47 For QC Batch 1332545

RESULTS

Compound	CAS No		Result	Units	RDL	Qualifiers
1,4-Dioxane	123-91-1	BLK	1.0 U	ug/L	1.0	U

SURROGATES

Compound	CAS No		Result (ug/L)	Expected (ug/L)	Rec. (%)	Limits (%)	Qualifiers
2-Methylnapthalene-d10	7297-45-2	BLK	0.54	1	54.4	29 - 112	
Fluoranthene-d10	93951-69-0	BLK	0.78	1	77.6	45 - 130	

Lab Control Standard 3905827 (LCS) Created on 11/15/2024 06:47 For QC Batch 1332545

RESULTS

Compound	CAS No		Result (ug/L)	Orig. Result (ug/L)	Spk Added (ug/L)	Rec. (%)	Limits (%)	RPD Limit (%)	Qualifiers
1,4-Dioxane	123-91-1	LCS	0.48		1	47.8	22 - 75		U

SURROGATES

Compound	CAS No		Result (ug/L)	Expected (ug/L)	Rec. (%)	Limits (%)	Qualifiers
2-Methylnapthalene-d10	7297-45-2	LCS	0.47	1	47.4	29 - 112	
Fluoranthene-d10	93951-69-0	LCS	0.67	1	66.9	45 - 130	

QUALITY CONTROL SAMPLES

VOLATILE ORGANICS

QC Batch

QC Batch	1332651	Prep Method	N/A
Date	N/A	Analysis Method	SW846 8260D
Tech.			

Associated Samples

3387069004	3387069001	3387069005	3387069002
3387069006	3387069007	3387069003	3387069008
3387069009	3387069010		

Duplicate 3908263 (DUP) 3387167001 (non-Project Sample) For QC Batch 1332651

****NOTE - The Original Result and Duplicate Result shown below are raw results and are only used for the purpose of calculating Sample Duplicate percent recoveries. This result is not a final value and cannot be used as such.

RESULTS

Compound	CAS No		Result (ug/L)	Orig. Result (ug/L)				Qualifiers
1,1,1,2-Tetrachloroethane	630-20-6	DUP	0	0	RPD	0	(Max-)	U
1,1,1-Trichloroethane	71-55-6	DUP	0	0	RPD	0	(Max-)	U
1,1,2,2-Tetrachloroethane	79-34-5	DUP	0	0	RPD	0	(Max-)	U
1,1,2-Trichloroethane	79-00-5	DUP	0	0	RPD	0	(Max-)	U
1,1-Dichloroethane	75-34-3	DUP	0	0	RPD	0	(Max-)	U
1,1-Dichloroethene	75-35-4	DUP	0	0	RPD	0	(Max-)	U
1,1-Dichloropropene	563-58-6	DUP	0	0	RPD	0	(Max-)	U
1,2,3-Trichlorobenzene	87-61-6	DUP	0	0	RPD	0	(Max-)	U
1,2,3-Trichloropropane	96-18-4	DUP	0	0	RPD	0	(Max-)	U
1,2,4-Trichlorobenzene	120-82-1	DUP	0	0	RPD	0	(Max-)	U
1,2-Dibromo-3-chloropropane	96-12-8	DUP	0	0	RPD	0	(Max-)	U
1,2-Dibromoethane	106-93-4	DUP	0	0	RPD	0	(Max-)	U
1,2-Dichlorobenzene	95-50-1	DUP	0	0	RPD	0	(Max-)	U
1,2-Dichloroethane	107-06-2	DUP	0	0	RPD	0	(Max-)	U
1,2-Dichloropropane	78-87-5	DUP	0	0	RPD	0	(Max-)	U
1,3-Dichlorobenzene	541-73-1	DUP	0	0	RPD	0	(Max-)	U
1,3-Dichloropropane	142-28-9	DUP	0	0	RPD	0	(Max-)	U
1,4-Dichlorobenzene	106-46-7	DUP	0	0.2925	RPD	200	(Max-)	U
2,2-Dichloropropane	594-20-7	DUP	0	0	RPD	0	(Max-)	U
2-Butanone	78-93-3	DUP	0	0	RPD	0	(Max-)	U
2-Hexanone	591-78-6	DUP	0	0	RPD	0	(Max-)	U
4-Methyl-2-Pentanone(MIBK)	108-10-1	DUP	0	0	RPD	0	(Max-)	U
Acetone	67-64-1	DUP	5.6108	5.2554	RPD	6.54	(Max-)	U
Benzene	71-43-2	DUP	0	0	RPD	0	(Max-)	U
Bromobenzene	108-86-1	DUP	0	0	RPD	0	(Max-)	U
Bromochloromethane	74-97-5	DUP	0	0	RPD	0	(Max-)	U
Bromodichloromethane	75-27-4	DUP	5.2421	5.2621	RPD	0.38	(Max-)	
Bromoform	75-25-2	DUP	0	0	RPD	0	(Max-)	U
Bromomethane	74-83-9	DUP	0.7982	0.6739	RPD	16.90	(Max-)	U
Carbon Tetrachloride	56-23-5	DUP	0	0	RPD	0	(Max-)	U
Chlorobenzene	108-90-7	DUP	0	0	RPD	0	(Max-)	U
Chlorodibromomethane	124-48-1	DUP	2.0280	2.0126	RPD	0.76	(Max-)	
Chloroethane	75-00-3	DUP	0	0	RPD	0	(Max-)	U
Chloroform	67-66-3	DUP	6.6395	6.6845	RPD	0.68	(Max-)	
Chloromethane	74-87-3	DUP	0	0	RPD	0	(Max-)	U

QUALITY CONTROL SAMPLES

VOLATILE ORGANICS (cont.)

RESULTS

Compound	CAS No		Result (ug/L)	Orig. Result (ug/L)				Qualifiers
cis-1,2-Dichloroethene	156-59-2	DUP	0	0	RPD	0	(Max-)	U
cis-1,3-Dichloropropene	10061-01-5	DUP	0	0	RPD	0	(Max-)	U
Dibromomethane	74-95-3	DUP	0	0	RPD	0	(Max-)	U
Dichlorodifluoromethane	75-71-8	DUP	0	0	RPD	0	(Max-)	U
Diisopropyl ether	108-20-3	DUP	0	0	RPD	0	(Max-)	U
Ethylbenzene	100-41-4	DUP	0	0	RPD	0	(Max-)	U
Hexachlorobutadiene	87-68-3	DUP	0	0	RPD	0	(Max-)	U
Methyl t-Butyl Ether	1634-04-4	DUP	0	0	RPD	0	(Max-)	U
Methylene Chloride	75-09-2	DUP	0	0	RPD	0	(Max-)	U
mp-Xylene	108383/106423	DUP	0	0	RPD	0	(Max-)	U
Naphthalene	91-20-3	DUP	0	0	RPD	0	(Max-)	U
o-Chlorotoluene	95-49-8	DUP	0	0	RPD	0	(Max-)	U
o-Xylene	95-47-6	DUP	0	0	RPD	0	(Max-)	U
p-Chlorotoluene	106-43-4	DUP	0	0	RPD	0	(Max-)	U
p-Isopropyltoluene	99-87-6	DUP	0	0	RPD	0	(Max-)	U
Styrene	100-42-5	DUP	0	0	RPD	0	(Max-)	U
Tetrachloroethene	127-18-4	DUP	0	0	RPD	0	(Max-)	U
Toluene	108-88-3	DUP	0	0	RPD	0	(Max-)	U
Total Xylenes	1330-20-7	DUP	0	0	RPD	0	(Max-)	U
trans-1,2-Dichloroethene	156-60-5	DUP	0	0	RPD	0	(Max-)	U
trans-1,3-Dichloropropene	10061-02-6	DUP	0	0	RPD	0	(Max-)	U
Trichloroethene	79-01-6	DUP	0	0	RPD	0	(Max-)	U
Trichlorofluoromethane	75-69-4	DUP	0	0	RPD	0	(Max-)	U
Vinyl Acetate	108-05-4	DUP	0	0	RPD	0	(Max-)	U
Vinyl Chloride	75-01-4	DUP	0	0	RPD	0	(Max-)	U

SURROGATES

Compound	CAS No		Result (ug/L)	Expected (ug/L)	Rec. (%)	Limits (%)	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	DUP	31	30	103	62 - 133	
4-Bromofluorobenzene	460-00-4	DUP	30.3	30	101	79 - 114	
Dibromofluoromethane	1868-53-7	DUP	29.3	30	97.7	78 - 116	
Toluene-d8	2037-26-5	DUP	29.9	30	99.7	76 - 127	

Method Blank 3905933 (MB) Created on 11/15/2024 09:27 For QC Batch 1332651

RESULTS

Compound	CAS No		Result	Units	RDL	Qualifiers
1,1,1,2-Tetrachloroethane	630-20-6	BLK	1.0 U	ug/L	1.0	U
1,1,1-Trichloroethane	71-55-6	BLK	1.0 U	ug/L	1.0	U
1,1,2,2-Tetrachloroethane	79-34-5	BLK	1.0 U	ug/L	1.0	U
1,1,2-Trichloroethane	79-00-5	BLK	1.0 U	ug/L	1.0	U
1,1-Dichloroethane	75-34-3	BLK	1.0 U	ug/L	1.0	U
1,1-Dichloroethene	75-35-4	BLK	1.0 U	ug/L	1.0	U
1,1-Dichloropropene	563-58-6	BLK	1.0 U	ug/L	1.0	U

QUALITY CONTROL SAMPLES

VOLATILE ORGANICS (cont.)

RESULTS

Compound	CAS No		Result	Units	RDL	Qualifiers
1,2,3-Trichlorobenzene	87-61-6	BLK	2.0 U	ug/L	2.0	U
1,2,3-Trichloropropane	96-18-4	BLK	2.0 U	ug/L	2.0	U
1,2,4-Trichlorobenzene	120-82-1	BLK	2.0 U	ug/L	2.0	U
1,2-Dibromo-3-chloropropane	96-12-8	BLK	7.0 U	ug/L	7.0	U
1,2-Dibromoethane	106-93-4	BLK	1.0 U	ug/L	1.0	U
1,2-Dichlorobenzene	95-50-1	BLK	1.0 U	ug/L	1.0	U
1,2-Dichloroethane	107-06-2	BLK	1.0 U	ug/L	1.0	U
1,2-Dichloropropane	78-87-5	BLK	1.0 U	ug/L	1.0	U
1,3-Dichlorobenzene	541-73-1	BLK	1.0 U	ug/L	1.0	U
1,3-Dichloropropane	142-28-9	BLK	1.0 U	ug/L	1.0	U
1,4-Dichlorobenzene	106-46-7	BLK	1.0 U	ug/L	1.0	U
2,2-Dichloropropane	594-20-7	BLK	1.0 U	ug/L	1.0	U
2-Butanone	78-93-3	BLK	10.0 U	ug/L	10.0	U
2-Hexanone	591-78-6	BLK	5.0 U	ug/L	5.0	U
4-Methyl-2-Pentanone(MIBK)	108-10-1	BLK	5.0 U	ug/L	5.0	U
Acetone	67-64-1	BLK	10.0 U	ug/L	10.0	U
Benzene	71-43-2	BLK	1.0 U	ug/L	1.0	U
Bromobenzene	108-86-1	BLK	1.0 U	ug/L	1.0	U
Bromochloromethane	74-97-5	BLK	1.0 U	ug/L	1.0	U
Bromodichloromethane	75-27-4	BLK	1.0 U	ug/L	1.0	U
Bromoform	75-25-2	BLK	1.0 U	ug/L	1.0	U
Bromomethane	74-83-9	BLK	1.0 U	ug/L	1.0	U
Carbon Tetrachloride	56-23-5	BLK	1.0 U	ug/L	1.0	U
Chlorobenzene	108-90-7	BLK	1.0 U	ug/L	1.0	U
Chlorodibromomethane	124-48-1	BLK	1.0 U	ug/L	1.0	U
Chloroethane	75-00-3	BLK	1.0 U	ug/L	1.0	U
Chloroform	67-66-3	BLK	1.0 U	ug/L	1.0	U
Chloromethane	74-87-3	BLK	1.0 U	ug/L	1.0	U
cis-1,2-Dichloroethene	156-59-2	BLK	1.0 U	ug/L	1.0	U
cis-1,3-Dichloropropene	10061-01-5	BLK	1.0 U	ug/L	1.0	U
Dibromomethane	74-95-3	BLK	1.0 U	ug/L	1.0	U
Dichlorodifluoromethane	75-71-8	BLK	1.0 U	ug/L	1.0	U
Diisopropyl ether	108-20-3	BLK	1.0 U	ug/L	1.0	U
Ethylbenzene	100-41-4	BLK	1.0 U	ug/L	1.0	U
Hexachlorobutadiene	87-68-3	BLK	5.0 U	ug/L	5.0	U
Methyl t-Butyl Ether	1634-04-4	BLK	1.0 U	ug/L	1.0	U
Methylene Chloride	75-09-2	BLK	1.0 U	ug/L	1.0	U
mp-Xylene	108383/106423	BLK	2.0 U	ug/L	2.0	U
Naphthalene	91-20-3	BLK	2.0 U	ug/L	2.0	U
o-Chlorotoluene	95-49-8	BLK	1.0 U	ug/L	1.0	U
o-Xylene	95-47-6	BLK	1.0 U	ug/L	1.0	U
p-Chlorotoluene	106-43-4	BLK	1.0 U	ug/L	1.0	U
p-Isopropyltoluene	99-87-6	BLK	1.0 U	ug/L	1.0	U
Styrene	100-42-5	BLK	1.0 U	ug/L	1.0	U
Tetrachloroethene	127-18-4	BLK	1.0 U	ug/L	1.0	U
Toluene	108-88-3	BLK	1.0 U	ug/L	1.0	U
Total Xylenes	1330-20-7	BLK	3.0 U	ug/L	3.0	U
trans-1,2-Dichloroethene	156-60-5	BLK	1.0 U	ug/L	1.0	U

QUALITY CONTROL SAMPLES

VOLATILE ORGANICS (cont.)

RESULTS

Compound	CAS No		Result	Units	RDL	Qualifiers
trans-1,3-Dichloropropene	10061-02-6	BLK	1.0 U	ug/L	1.0	U
Trichloroethene	79-01-6	BLK	1.0 U	ug/L	1.0	U
Trichlorofluoromethane	75-69-4	BLK	1.0 U	ug/L	1.0	U
Vinyl Acetate	108-05-4	BLK	5.0 U	ug/L	5.0	U
Vinyl Chloride	75-01-4	BLK	1.0 U	ug/L	1.0	U

SURROGATES

Compound	CAS No		Result (ug/L)	Expected (ug/L)	Rec. (%)	Limits (%)	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	BLK	30.9	30	103	62 - 133	
4-Bromofluorobenzene	460-00-4	BLK	31	30	103	79 - 114	
Dibromofluoromethane	1868-53-7	BLK	29.5	30	98.2	78 - 116	
Toluene-d8	2037-26-5	BLK	30.6	30	102	76 - 127	

Lab Control Standard 3905934 (LCS) Created on 11/15/2024 09:27 For QC Batch 1332651

RESULTS

Compound	CAS No		Result (ug/L)	Orig. Result (ug/L)	Spk Added (ug/L)	Rec. (%)	Limits (%)	RPD Limit (%)	Qualifiers
1,1,1,2-Tetrachloroethane	630-20-6	LCS	22.3		20	112	78 - 121		
1,1,1-Trichloroethane	71-55-6	LCS	23.1		20	116	66 - 130		
1,1,2,2-Tetrachloroethane	79-34-5	LCS	22.8		20	114	74 - 135		
1,1,2-Trichloroethane	79-00-5	LCS	21.9		20	109	82 - 126		
1,1-Dichloroethane	75-34-3	LCS	20.6		20	103	78 - 124		
1,1-Dichloroethene	75-35-4	LCS	22		20	110	63 - 128		
1,1-Dichloropropene	563-58-6	LCS	22.1		20	111	76 - 126		
1,2,3-Trichlorobenzene	87-61-6	LCS	21.5		20	107	61 - 126		
1,2,3-Trichloropropane	96-18-4	LCS	22.2		20	111	75 - 132		
1,2,4-Trichlorobenzene	120-82-1	LCS	23.5		20	118	67 - 123		
1,2-Dibromo-3-chloropropane	96-12-8	LCS	21		20	105	59 - 133		
1,2-Dibromoethane	106-93-4	LCS	22.6		20	113	80 - 124		
1,2-Dichlorobenzene	95-50-1	LCS	20.8		20	104	82 - 118		
1,2-Dichloroethane	107-06-2	LCS	20.1		20	101	70 - 133		
1,2-Dichloropropane	78-87-5	LCS	20.4		20	102	81 - 127		
1,3-Dichlorobenzene	541-73-1	LCS	20.7		20	103	81 - 118		
1,3-Dichloropropane	142-28-9	LCS	21.8		20	109	82 - 126		
1,4-Dichlorobenzene	106-46-7	LCS	20.6		20	103	81 - 116		
2,2-Dichloropropane	594-20-7	LCS	25		20	125	64 - 129		
2-Butanone	78-93-3	LCS	117		100	117	50 - 152		
2-Hexanone	591-78-6	LCS	115		100	115	65 - 154		
4-Methyl-2-Pentanone(MIBK)	108-10-1	LCS	107		100	107	71 - 146		
Acetone	67-64-1	LCS	124		100	124	40 - 151		
Benzene	71-43-2	LCS	20.7		20	104	80 - 124		
Bromobenzene	108-86-1	LCS	21.5		20	107	81 - 119		
Bromochloromethane	74-97-5	LCS	21.2		20	106	73 - 117		
Bromodichloromethane	75-27-4	LCS	22.2		20	111	79 - 126		

QUALITY CONTROL SAMPLES

VOLATILE ORGANICS (cont.)

RESULTS

Compound	CAS No		Result (ug/L)	Orig. Result (ug/L)	Spk Added (ug/L)	Rec. (%)	Limits (%)	RPD Limit (%)	Qualifiers
Bromoform	75-25-2	LCS	18.8		20	93.9	70 - 123		
Bromomethane	74-83-9	LCS	17.8		20	89.2	45 - 148		
Carbon Tetrachloride	56-23-5	LCS	20.8		20	104	62 - 132		
Chlorobenzene	108-90-7	LCS	21.4		20	107	85 - 117		
Chlorodibromomethane	124-48-1	LCS	18.8		20	94	77 - 122		
Chloroethane	75-00-3	LCS	22		20	110	51 - 142		
Chloroform	67-66-3	LCS	20.4		20	102	78 - 122		
Chloromethane	74-87-3	LCS	20.8		20	104	38 - 156		
cis-1,2-Dichloroethene	156-59-2	LCS	20.9		20	104	78 - 125		
cis-1,3-Dichloropropene	10061-01-5	LCS	22.3		20	112	81 - 121		
Dibromomethane	74-95-3	LCS	20.9		20	105	81 - 125		
Dichlorodifluoromethane	75-71-8	LCS	22.5		20	113	17 - 166		
Diisopropyl ether	108-20-3	LCS	20.6		20	103	74 - 131		
Ethylbenzene	100-41-4	LCS	22.3		20	112	80 - 124		
Hexachlorobutadiene	87-68-3	LCS	27.7		20	139*	55 - 128		
Methyl t-Butyl Ether	1634-04-4	LCS	21.8		20	109	69 - 115		
Methylene Chloride	75-09-2	LCS	20.6		20	103	76 - 121		
mp-Xylene	108383/106423	LCS	44.8		40	112	79 - 125		
Naphthalene	91-20-3	LCS	20.5		20	102	56 - 134		
o-Chlorotoluene	95-49-8	LCS	21.8		20	109	78 - 126		
o-Xylene	95-47-6	LCS	21.8		20	109	79 - 124		
p-Chlorotoluene	106-43-4	LCS	21.8		20	109	78 - 125		
p-Isopropyltoluene	99-87-6	LCS	23.4		20	117	72 - 123		
Styrene	100-42-5	LCS	23.2		20	116	79 - 123		
Tetrachloroethene	127-18-4	LCS	21.2		20	106	72 - 124		
Toluene	108-88-3	LCS	21.8		20	109	80 - 125		
Total Xylenes	1330-20-7	LCS	66.6		60	111	79 - 125		
trans-1,2-Dichloroethene	156-60-5	LCS	21		20	105	71 - 122		
trans-1,3-Dichloropropene	10061-02-6	LCS	20		20	100	78 - 126		
Trichloroethene	79-01-6	LCS	20.5		20	102	77 - 124		
Trichlorofluoromethane	75-69-4	LCS	24.4		20	122	38 - 123		
Vinyl Acetate	108-05-4	LCS	19.4		20	97.2	58 - 136		
Vinyl Chloride	75-01-4	LCS	23.5		20	118	27 - 138		

SURROGATES

Compound	CAS No		Result (ug/L)	Expected (ug/L)	Rec. (%)	Limits (%)	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	LCS	29.4	30	98	62 - 133	
4-Bromofluorobenzene	460-00-4	LCS	29.7	30	98.9	79 - 114	
Dibromofluoromethane	1868-53-7	LCS	30.2	30	101	78 - 116	
Toluene-d8	2037-26-5	LCS	30.2	30	101	76 - 127	

Matrix Spike 3908264 (MS) 3387069006 For QC Batch 1332651

****NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

QUALITY CONTROL SAMPLES

VOLATILE ORGANICS (cont.)

RESULTS

Compound	CAS No		Result (ug/L)	Orig. Result (ug/L)	Spk Added (ug/L)	Rec. (%)	Limits (%)	RPD Limit (%)	Qualifiers
1,1,1,2-Tetrachloroethane	630-20-6	MS	22.8	0	20	114	78 - 121		
1,1,1-Trichloroethane	71-55-6	MS	23.8	0	20	119	66 - 130		
1,1,2,2-Tetrachloroethane	79-34-5	MS	22.8	0	20	114	74 - 135		
1,1,2-Trichloroethane	79-00-5	MS	22.1	0	20	111	82 - 126		
1,1-Dichloroethane	75-34-3	MS	21.7	0	20	109	78 - 124		
1,1-Dichloroethene	75-35-4	MS	22.3	0	20	112	63 - 128		
1,1-Dichloropropene	563-58-6	MS	21.7	0	20	108	76 - 126		
1,2,3-Trichlorobenzene	87-61-6	MS	19.6	0	20	98.2	61 - 126		
1,2,3-Trichloropropane	96-18-4	MS	22	0	20	110	75 - 132		
1,2,4-Trichlorobenzene	120-82-1	MS	22.5	0	20	113	67 - 123		
1,2-Dibromo-3-chloropropane	96-12-8	MS	20.9	0	20	104	59 - 133		
1,2-Dibromoethane	106-93-4	MS	22.2	0	20	111	80 - 124		
1,2-Dichlorobenzene	95-50-1	MS	21.9	0	20	109	82 - 118		
1,2-Dichloroethane	107-06-2	MS	20.5	0	20	102	70 - 133		
1,2-Dichloropropane	78-87-5	MS	21.4	0	20	107	81 - 127		
1,3-Dichlorobenzene	541-73-1	MS	20.6	0	20	103	81 - 118		
1,3-Dichloropropane	142-28-9	MS	22	0	20	110	82 - 126		
1,4-Dichlorobenzene	106-46-7	MS	20.8	0	20	104	81 - 116		
2,2-Dichloropropane	594-20-7	MS	22.4	0	20	112	64 - 129		
2-Butanone	78-93-3	MS	95.4	0	100	95.4	50 - 152		
2-Hexanone	591-78-6	MS	101	0	100	101	65 - 154		
4-Methyl-2-Pentanone(MIBK)	108-10-1	MS	102	0	100	102	71 - 146		
Acetone	67-64-1	MS	82.5	0	100	82.5	40 - 151		
Benzene	71-43-2	MS	21.7	0	20	108	80 - 124		
Bromobenzene	108-86-1	MS	21.8	0	20	109	81 - 119		
Bromochloromethane	74-97-5	MS	22.1	0	20	111	73 - 117		
Bromodichloromethane	75-27-4	MS	22.5	0	20	113	79 - 126		
Bromoform	75-25-2	MS	18.2	0	20	90.8	70 - 123		
Bromomethane	74-83-9	MS	17.5	0	20	87.6	45 - 148		
Carbon Tetrachloride	56-23-5	MS	21.4	0	20	107	62 - 132		
Chlorobenzene	108-90-7	MS	21.8	0	20	109	85 - 117		
Chlorodibromomethane	124-48-1	MS	18.7	0	20	93.4	77 - 122		
Chloroethane	75-00-3	MS	24.1	0	20	120	51 - 142		
Chloroform	67-66-3	MS	20.9	0	20	105	78 - 122		
Chloromethane	74-87-3	MS	19.8	0	20	99.1	38 - 156		
cis-1,2-Dichloroethene	156-59-2	MS	21.9	0	20	109	78 - 125		
cis-1,3-Dichloropropene	10061-01-5	MS	22.3	0	20	111	81 - 121		
Dibromomethane	74-95-3	MS	21.1	0	20	105	81 - 125		
Dichlorodifluoromethane	75-71-8	MS	20.2	0	20	101	17 - 166		
Diisopropyl ether	108-20-3	MS	21.2	0	20	106	74 - 131		
Ethylbenzene	100-41-4	MS	22.4	0	20	112	80 - 124		
Hexachlorobutadiene	87-68-3	MS	20.2	0	20	101	55 - 128		
Methyl t-Butyl Ether	1634-04-4	MS	21.3	0	20	106	69 - 115		
Methylene Chloride	75-09-2	MS	21.2	0	20	106	76 - 121		
mp-Xylene	108383/106423	MS	45.1	0	40	113	79 - 125		
Naphthalene	91-20-3	MS	19.8	0	20	99.1	56 - 134		
o-Chlorotoluene	95-49-8	MS	22.4	0	20	112	78 - 126		

QUALITY CONTROL SAMPLES

VOLATILE ORGANICS (cont.)

RESULTS

Compound	CAS No		Result (ug/L)	Orig. Result (ug/L)	Spk Added (ug/L)	Rec. (%)	Limits (%)	RPD Limit (%)	Qualifiers
o-Xylene	95-47-6	MS	22.3	0	20	112	79 - 124		
p-Chlorotoluene	106-43-4	MS	22.1	0	20	110	78 - 125		
p-Isopropyltoluene	99-87-6	MS	21.9	0	20	109	72 - 123		
Styrene	100-42-5	MS	24	0	20	120	79 - 123		
Tetrachloroethene	127-18-4	MS	18.9	0	20	94.4	72 - 124		
Toluene	108-88-3	MS	22.2	0	20	111	80 - 125		
Total Xylenes	1330-20-7	MS	67.4	0	60	112	79 - 125		
trans-1,2-Dichloroethene	156-60-5	MS	21.5	0	20	108	71 - 122		
trans-1,3-Dichloropropene	10061-02-6	MS	19.6	0	20	98.1	78 - 126		
Trichloroethene	79-01-6	MS	20.8	0	20	104	77 - 124		
Trichlorofluoromethane	75-69-4	MS	22.6	0	20	113	38 - 123		
Vinyl Acetate	108-05-4	MS	17.5	0	20	87.7	58 - 136		
Vinyl Chloride	75-01-4	MS	22.6	0	20	113	27 - 138		

SURROGATES

Compound	CAS No		Result (ug/L)	Expected (ug/L)	Rec. (%)	Limits (%)	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	MS	32	30	107	62 - 133	
4-Bromofluorobenzene	460-00-4	MS	31	30	103	79 - 114	
Dibromofluoromethane	1868-53-7	MS	30.8	30	103	78 - 116	
Toluene-d8	2037-26-5	MS	30.7	30	102	76 - 127	

QC Batch

QC Batch	1337882	Prep Method	N/A
Date	N/A	Analysis Method	SW846 8260D
Tech.			

Associated Samples

3387069017	3387069026	3387069018	3387069027
3387069019	3387069028	3387069011	3387069020
3387069012	3387069021	3387069013	3387069022
3387069023	3387069014	3387069015	3387069024
3387069025	3387069016		

Matrix Spike 3905935 (MS) 3387069014 For QC Batch 1337882

****NOTE - The Original Result shown below is a raw result and is only used for the purpose of calculating Matrix Spike percent recoveries. This result is not a final value and cannot be used as such.

Matrix Spike Duplicate 3905936 (MSD) 3387069014 For QC Batch 1337882

RESULTS

Compound	CAS No		Result (ug/L)	Orig. Result (ug/L)	Spk Added (ug/L)	Rec. (%)	Limits (%)	RPD Limit (%)	Qualifiers
1,1,1,2-Tetrachloroethane	630-20-6	MS	22.8	0	20	114	78 - 121		
1,1,1,2-Tetrachloroethane	630-20-6	MSD	22.9	0	20	114	78 - 121	RPD 0.40 (Max-16)	
1,1,1-Trichloroethane	71-55-6	MS	24.9	2	20	114	66 - 130		
1,1,1-Trichloroethane	71-55-6	MSD	24.7	2	20	114	66 - 130	RPD 0.64 (Max-20)	
1,1,2,2-Tetrachloroethane	79-34-5	MS	22.5	0	20	113	74 - 135		

QUALITY CONTROL SAMPLES

VOLATILE ORGANICS (cont.)

RESULTS

Compound	CAS No		Result (ug/L)	Orig. Result (ug/L)	Spk Added (ug/L)	Rec. (%)	Limits (%)	RPD Limit (%)	Qualifiers
1,1,2,2-Tetrachloroethane	79-34-5	MSD	22.7	0	20	114	74 - 135	RPD 0.84 (Max-16)	
1,1,2-Trichloroethane	79-00-5	MS	22.9	0	20	114	82 - 126		
1,1,2-Trichloroethane	79-00-5	MSD	23	0	20	115	82 - 126	RPD 0.37 (Max-15)	
1,1-Dichloroethane	75-34-3	MS	23.9	1.60	20	111	78 - 124		
1,1-Dichloroethane	75-34-3	MSD	23.4	1.60	20	109	78 - 124	RPD 2.10 (Max-15)	
1,1-Dichloroethene	75-35-4	MS	23.8	2	20	109	63 - 128		
1,1-Dichloroethene	75-35-4	MSD	23.3	2	20	107	63 - 128	RPD 1.98 (Max-21)	
1,1-Dichloropropene	563-58-6	MS	21.7	0	20	109	76 - 126		
1,1-Dichloropropene	563-58-6	MSD	21.5	0	20	107	76 - 126	RPD 1.22 (Max-16)	
1,2,3-Trichlorobenzene	87-61-6	MS	20.1	0	20	101	61 - 126		
1,2,3-Trichlorobenzene	87-61-6	MSD	20.1	0	20	101	61 - 126	RPD 0.09 (Max-36)	
1,2,3-Trichloropropane	96-18-4	MS	21.6	0	20	108	75 - 132		
1,2,3-Trichloropropane	96-18-4	MSD	22.4	0	20	112	75 - 132	RPD 3.29 (Max-19)	
1,2,4-Trichlorobenzene	120-82-1	MS	23	0	20	115	67 - 123		
1,2,4-Trichlorobenzene	120-82-1	MSD	23.1	0	20	116	67 - 123	RPD 0.62 (Max-22)	
1,2-Dibromo-3-chloropropane	96-12-8	MS	19.9	0	20	99.5	59 - 133		
1,2-Dibromo-3-chloropropane	96-12-8	MSD	19.8	0	20	99.2	59 - 133	RPD 0.31 (Max-26)	
1,2-Dibromoethane	106-93-4	MS	22.9	0	20	115	80 - 124		
1,2-Dibromoethane	106-93-4	MSD	22.5	0	20	113	80 - 124	RPD 1.74 (Max-19)	
1,2-Dichlorobenzene	95-50-1	MS	21.8	0	20	109	82 - 118		
1,2-Dichlorobenzene	95-50-1	MSD	21.3	0	20	107	82 - 118	RPD 2.33 (Max-15)	
1,2-Dichloroethane	107-06-2	MS	20.9	0	20	104	70 - 133		
1,2-Dichloroethane	107-06-2	MSD	20.7	0	20	103	70 - 133	RPD 0.97 (Max-19)	
1,2-Dichloropropane	78-87-5	MS	21.5	0	20	107	81 - 127		
1,2-Dichloropropane	78-87-5	MSD	21.3	0	20	106	81 - 127	RPD 1.03 (Max-15)	
1,3-Dichlorobenzene	541-73-1	MS	20.9	0	20	104	81 - 118		
1,3-Dichlorobenzene	541-73-1	MSD	21	0	20	105	81 - 118	RPD 0.74 (Max-16)	
1,3-Dichloropropane	142-28-9	MS	22.6	0	20	113	82 - 126		
1,3-Dichloropropane	142-28-9	MSD	22.4	0	20	112	82 - 126	RPD 0.75 (Max-15)	
1,4-Dichlorobenzene	106-46-7	MS	21.5	0	20	107	81 - 116		
1,4-Dichlorobenzene	106-46-7	MSD	20.9	0	20	104	81 - 116	RPD 2.93 (Max-15)	
2,2-Dichloropropane	594-20-7	MS	24	0	20	120	64 - 129		
2,2-Dichloropropane	594-20-7	MSD	24.1	0	20	120	64 - 129	RPD 0.20 (Max-18)	
2-Butanone	78-93-3	MS	108	0	100	108	50 - 152		
2-Butanone	78-93-3	MSD	104	0	100	104	50 - 152	RPD 3.42 (Max-16)	
2-Hexanone	591-78-6	MS	107	0	100	107	65 - 154		
2-Hexanone	591-78-6	MSD	106	0	100	106	65 - 154	RPD 1.06 (Max-17)	
4-Methyl-2-Pentanone(MIBK)	108-10-1	MS	107	0	100	107	71 - 146		
4-Methyl-2-Pentanone(MIBK)	108-10-1	MSD	107	0	100	107	71 - 146	RPD 0.52 (Max-16)	
Acetone	67-64-1	MS	93.2	0	100	93.2	40 - 151		
Acetone	67-64-1	MSD	91.2	0	100	91.2	40 - 151	RPD 2.11 (Max-40)	
Benzene	71-43-2	MS	21.9	0	20	110	80 - 124		
Benzene	71-43-2	MSD	21.6	0	20	108	80 - 124	RPD 1.35 (Max-26)	
Bromobenzene	108-86-1	MS	21.9	0	20	110	81 - 119		
Bromobenzene	108-86-1	MSD	21.7	0	20	109	81 - 119	RPD 0.87 (Max-17)	
Bromochloromethane	74-97-5	MS	23.2	0	20	116	73 - 117		
Bromochloromethane	74-97-5	MSD	22.6	0	20	113	73 - 117	RPD 2.66 (Max-19)	
Bromodichloromethane	75-27-4	MS	22.9	0	20	114	79 - 126		
Bromodichloromethane	75-27-4	MSD	22.6	0	20	113	79 - 126	RPD 1.22 (Max-16)	

QUALITY CONTROL SAMPLES

VOLATILE ORGANICS (cont.)

RESULTS

Compound	CAS No		Result (ug/L)	Orig. Result (ug/L)	Spk Added (ug/L)	Rec. (%)	Limits (%)	RPD Limit (%)	Qualifiers
Bromoform	75-25-2	MS	17.9	0	20	89.5	70 - 123		
Bromoform	75-25-2	MSD	18	0	20	89.9	70 - 123	RPD 0.44 (Max-16)	
Bromomethane	74-83-9	MS	15.4	0	20	77.1	45 - 148		
Bromomethane	74-83-9	MSD	15.4	0	20	76.9	45 - 148	RPD 0.30 (Max-26)	
Carbon Tetrachloride	56-23-5	MS	20.1	0	20	101	62 - 132		
Carbon Tetrachloride	56-23-5	MSD	20.2	0	20	101	62 - 132	RPD 0.19 (Max-17)	
Chlorobenzene	108-90-7	MS	22.5	0	20	112	85 - 117		
Chlorobenzene	108-90-7	MSD	22.2	0	20	111	85 - 117	RPD 1.14 (Max-15)	
Chlorodibromomethane	124-48-1	MS	19.1	0	20	95.3	77 - 122		
Chlorodibromomethane	124-48-1	MSD	19	0	20	95.1	77 - 122	RPD 0.20 (Max-15)	
Chloroethane	75-00-3	MS	21.8	0	20	109	51 - 142		
Chloroethane	75-00-3	MSD	20.2	0	20	101	51 - 142	RPD 7.66 (Max-24)	
Chloroform	67-66-3	MS	21.9	0.50	20	107	78 - 122		
Chloroform	67-66-3	MSD	21.4	0.50	20	104	78 - 122	RPD 2.66 (Max-16)	
Chloromethane	74-87-3	MS	21.5	0	20	107	38 - 156		
Chloromethane	74-87-3	MSD	20.2	0	20	101	38 - 156	RPD 5.95 (Max-27)	
cis-1,2-Dichloroethene	156-59-2	MS	22	0	20	110	78 - 125		
cis-1,2-Dichloroethene	156-59-2	MSD	21.9	0	20	109	78 - 125	RPD 0.65 (Max-21)	
cis-1,3-Dichloropropene	10061-01-5	MS	22.6	0	20	113	81 - 121		
cis-1,3-Dichloropropene	10061-01-5	MSD	22.6	0	20	113	81 - 121	RPD 0.04 (Max-16)	
Dibromomethane	74-95-3	MS	21.8	0	20	109	81 - 125		
Dibromomethane	74-95-3	MSD	21.8	0	20	109	81 - 125	RPD 0.01 (Max-16)	
Dichlorodifluoromethane	75-71-8	MS	19.4	0	20	97.1	17 - 166		
Dichlorodifluoromethane	75-71-8	MSD	17.7	0	20	88.6	17 - 166	RPD 9.21 (Max-24)	
Diisopropyl ether	108-20-3	MS	21.5	0	20	108	74 - 131		
Diisopropyl ether	108-20-3	MSD	21.4	0	20	107	74 - 131	RPD 0.67 (Max-15)	
Ethylbenzene	100-41-4	MS	22.7	0	20	114	80 - 124		
Ethylbenzene	100-41-4	MSD	22.9	0	20	114	80 - 124	RPD 0.76 (Max-19)	
Hexachlorobutadiene	87-68-3	MS	20.6	0	20	103	55 - 128		
Hexachlorobutadiene	87-68-3	MSD	22.2	0	20	111	55 - 128	RPD 7.61 (Max-35)	
Methyl t-Butyl Ether	1634-04-4	MS	21.9	0	20	110	69 - 115		
Methyl t-Butyl Ether	1634-04-4	MSD	21.7	0	20	109	69 - 115	RPD 1.07 (Max-20)	
Methylene Chloride	75-09-2	MS	21.8	0	20	109	76 - 121		
Methylene Chloride	75-09-2	MSD	21.4	0	20	107	76 - 121	RPD 1.99 (Max-17)	
mp-Xylene	108383/106423	MS	45.4	0	40	114	79 - 125		
mp-Xylene	108383/106423	MSD	45.3	0	40	113	79 - 125	RPD 0.28 (Max-21)	
Naphthalene	91-20-3	MS	18.3	0	20	91.7	56 - 134		
Naphthalene	91-20-3	MSD	18.8	0	20	93.9	56 - 134	RPD 2.39 (Max-40)	
o-Chlorotoluene	95-49-8	MS	21.8	0	20	109	78 - 126		
o-Chlorotoluene	95-49-8	MSD	21.9	0	20	109	78 - 126	RPD 0.04 (Max-17)	
o-Xylene	95-47-6	MS	22.4	0	20	112	79 - 124		
o-Xylene	95-47-6	MSD	22.1	0	20	111	79 - 124	RPD 1.17 (Max-19)	
p-Chlorotoluene	106-43-4	MS	21.6	0	20	108	78 - 125		
p-Chlorotoluene	106-43-4	MSD	21.8	0	20	109	78 - 125	RPD 1.07 (Max-16)	
p-Isopropyltoluene	99-87-6	MS	21.6	0	20	108	72 - 123		
p-Isopropyltoluene	99-87-6	MSD	22.1	0	20	111	72 - 123	RPD 2.65 (Max-17)	
Styrene	100-42-5	MS	23.3	0	20	117	79 - 123		
Styrene	100-42-5	MSD	23.4	0	20	117	79 - 123	RPD 0.34 (Max-16)	

QUALITY CONTROL SAMPLES

VOLATILE ORGANICS (cont.)

RESULTS

Compound	CAS No		Result (ug/L)	Orig. Result (ug/L)	Spk Added (ug/L)	Rec. (%)	Limits (%)	RPD Limit (%)	Qualifiers
Tetrachloroethene	127-18-4	MS	19.2	0	20	95.8	72 - 124		
Tetrachloroethene	127-18-4	MSD	19.6	0	20	97.9	72 - 124	RPD 2.20 (Max-38)	
Toluene	108-88-3	MS	22.2	0	20	111	80 - 125		
Toluene	108-88-3	MSD	22.2	0	20	111	80 - 125	RPD 0.32 (Max-20)	
Total Xylenes	1330-20-7	MS	67.8	0	60	113	79 - 125		
Total Xylenes	1330-20-7	MSD	67.5	0	60	112	79 - 125	RPD 0.57 (Max-35)	
trans-1,2-Dichloroethene	156-60-5	MS	21.9	0	20	110	71 - 122		
trans-1,2-Dichloroethene	156-60-5	MSD	21.6	0	20	108	71 - 122	RPD 1.31 (Max-22)	
trans-1,3-Dichloropropene	10061-02-6	MS	20.6	0	20	103	78 - 126		
trans-1,3-Dichloropropene	10061-02-6	MSD	20.5	0	20	103	78 - 126	RPD 0.32 (Max-18)	
Trichloroethene	79-01-6	MS	21.5	0	20	108	77 - 124		
Trichloroethene	79-01-6	MSD	21.2	0	20	106	77 - 124	RPD 1.37 (Max-18)	
Trichlorofluoromethane	75-69-4	MS	22	0	20	110	38 - 123		
Trichlorofluoromethane	75-69-4	MSD	19.9	0	20	99.4	38 - 123	RPD 10.30 (Max-23)	
Vinyl Acetate	108-05-4	MS	19.3	0	20	96.5	58 - 136		
Vinyl Acetate	108-05-4	MSD	18.7	0	20	93.5	58 - 136	RPD 3.16 (Max-17)	
Vinyl Chloride	75-01-4	MS	22.3	0	20	111	27 - 138		
Vinyl Chloride	75-01-4	MSD	20.6	0	20	103	27 - 138	RPD 7.63 (Max-40)	

SURROGATES

Compound	CAS No		Result (ug/L)	Expected (ug/L)	Rec. (%)	Limits (%)	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	MS	31.7	30	106	62 - 133	
1,2-Dichloroethane-d4	17060-07-0	MSD	30.8	30	103	62 - 133	
4-Bromofluorobenzene	460-00-4	MS	30.3	30	101	79 - 114	
4-Bromofluorobenzene	460-00-4	MSD	29.7	30	98.9	79 - 114	
Dibromofluoromethane	1868-53-7	MS	30.4	30	101	78 - 116	
Dibromofluoromethane	1868-53-7	MSD	29.9	30	99.7	78 - 116	
Toluene-d8	2037-26-5	MS	30.2	30	101	76 - 127	
Toluene-d8	2037-26-5	MSD	30	30	99.9	76 - 127	

Method Blank 3909072 (MB) Created on 11/22/2024 10:43 For QC Batch 1337882

RESULTS

Compound	CAS No		Result	Units	RDL	Qualifiers
1,1,1,2-Tetrachloroethane	630-20-6	BLK	1.0 U	ug/L	1.0	U
1,1,1-Trichloroethane	71-55-6	BLK	1.0 U	ug/L	1.0	U
1,1,2,2-Tetrachloroethane	79-34-5	BLK	1.0 U	ug/L	1.0	U
1,1,2-Trichloroethane	79-00-5	BLK	1.0 U	ug/L	1.0	U
1,1-Dichloroethane	75-34-3	BLK	1.0 U	ug/L	1.0	U
1,1-Dichloroethene	75-35-4	BLK	1.0 U	ug/L	1.0	U
1,1-Dichloropropene	563-58-6	BLK	1.0 U	ug/L	1.0	U
1,2,3-Trichlorobenzene	87-61-6	BLK	2.0 U	ug/L	2.0	U
1,2,3-Trichloropropane	96-18-4	BLK	2.0 U	ug/L	2.0	U
1,2,4-Trichlorobenzene	120-82-1	BLK	2.0 U	ug/L	2.0	U
1,2-Dibromo-3-chloropropane	96-12-8	BLK	7.0 U	ug/L	7.0	U

QUALITY CONTROL SAMPLES

VOLATILE ORGANICS (cont.)

RESULTS

Compound	CAS No		Result	Units	RDL	Qualifiers
1,2-Dibromoethane	106-93-4	BLK	1.0 U	ug/L	1.0	U
1,2-Dichlorobenzene	95-50-1	BLK	1.0 U	ug/L	1.0	U
1,2-Dichloroethane	107-06-2	BLK	1.0 U	ug/L	1.0	U
1,2-Dichloropropane	78-87-5	BLK	1.0 U	ug/L	1.0	U
1,3-Dichlorobenzene	541-73-1	BLK	1.0 U	ug/L	1.0	U
1,3-Dichloropropane	142-28-9	BLK	1.0 U	ug/L	1.0	U
1,4-Dichlorobenzene	106-46-7	BLK	1.0 U	ug/L	1.0	U
2,2-Dichloropropane	594-20-7	BLK	1.0 U	ug/L	1.0	U
2-Butanone	78-93-3	BLK	10.0 U	ug/L	10.0	U
2-Hexanone	591-78-6	BLK	5.0 U	ug/L	5.0	U
4-Methyl-2-Pentanone(MIBK)	108-10-1	BLK	5.0 U	ug/L	5.0	U
Acetone	67-64-1	BLK	10.0 U	ug/L	10.0	U
Benzene	71-43-2	BLK	1.0 U	ug/L	1.0	U
Bromobenzene	108-86-1	BLK	1.0 U	ug/L	1.0	U
Bromochloromethane	74-97-5	BLK	1.0 U	ug/L	1.0	U
Bromodichloromethane	75-27-4	BLK	1.0 U	ug/L	1.0	U
Bromoform	75-25-2	BLK	1.0 U	ug/L	1.0	U
Bromomethane	74-83-9	BLK	1.0 U	ug/L	1.0	U
Carbon Tetrachloride	56-23-5	BLK	1.0 U	ug/L	1.0	U
Chlorobenzene	108-90-7	BLK	1.0 U	ug/L	1.0	U
Chlorodibromomethane	124-48-1	BLK	1.0 U	ug/L	1.0	U
Chloroethane	75-00-3	BLK	1.0 U	ug/L	1.0	U
Chloroform	67-66-3	BLK	1.0 U	ug/L	1.0	U
Chloromethane	74-87-3	BLK	1.0 U	ug/L	1.0	U
cis-1,2-Dichloroethene	156-59-2	BLK	1.0 U	ug/L	1.0	U
cis-1,3-Dichloropropene	10061-01-5	BLK	1.0 U	ug/L	1.0	U
Dibromomethane	74-95-3	BLK	1.0 U	ug/L	1.0	U
Dichlorodifluoromethane	75-71-8	BLK	1.0 U	ug/L	1.0	U
Diisopropyl ether	108-20-3	BLK	1.0 U	ug/L	1.0	U
Ethylbenzene	100-41-4	BLK	1.0 U	ug/L	1.0	U
Hexachlorobutadiene	87-68-3	BLK	5.0 U	ug/L	5.0	U
Methyl t-Butyl Ether	1634-04-4	BLK	1.0 U	ug/L	1.0	U
Methylene Chloride	75-09-2	BLK	1.0 U	ug/L	1.0	U
mp-Xylene	108383/106423	BLK	2.0 U	ug/L	2.0	U
Naphthalene	91-20-3	BLK	2.0 U	ug/L	2.0	U
o-Chlorotoluene	95-49-8	BLK	1.0 U	ug/L	1.0	U
o-Xylene	95-47-6	BLK	1.0 U	ug/L	1.0	U
p-Chlorotoluene	106-43-4	BLK	1.0 U	ug/L	1.0	U
p-Isopropyltoluene	99-87-6	BLK	1.0 U	ug/L	1.0	U
Styrene	100-42-5	BLK	1.0 U	ug/L	1.0	U
Tetrachloroethene	127-18-4	BLK	1.0 U	ug/L	1.0	U
Toluene	108-88-3	BLK	1.0 U	ug/L	1.0	U
Total Xylenes	1330-20-7	BLK	3.0 U	ug/L	3.0	U
trans-1,2-Dichloroethene	156-60-5	BLK	1.0 U	ug/L	1.0	U
trans-1,3-Dichloropropene	10061-02-6	BLK	1.0 U	ug/L	1.0	U
Trichloroethene	79-01-6	BLK	1.0 U	ug/L	1.0	U
Trichlorofluoromethane	75-69-4	BLK	1.0 U	ug/L	1.0	U
Vinyl Acetate	108-05-4	BLK	5.0 U	ug/L	5.0	U

QUALITY CONTROL SAMPLES

VOLATILE ORGANICS (cont.)

RESULTS

Compound	CAS No		Result	Units	RDL	Qualifiers
Vinyl Chloride	75-01-4	BLK	1.0 U	ug/L	1.0	U

SURROGATES

Compound	CAS No		Result (ug/L)	Expected (ug/L)	Rec. (%)	Limits (%)	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	BLK	30.9	30	103	62 - 133	
4-Bromofluorobenzene	460-00-4	BLK	29.7	30	99.1	79 - 114	
Dibromofluoromethane	1868-53-7	BLK	29	30	96.6	78 - 116	
Toluene-d8	2037-26-5	BLK	30	30	99.9	76 - 127	

Lab Control Standard 3909073 (LCS) Created on 11/22/2024 10:43 For QC Batch 1337882

RESULTS

Compound	CAS No		Result (ug/L)	Orig. Result (ug/L)	Spk Added (ug/L)	Rec. (%)	Limits (%)	RPD Limit (%)	Qualifiers
1,1,1,2-Tetrachloroethane	630-20-6	LCS	22.5		20	112	78 - 121		
1,1,1-Trichloroethane	71-55-6	LCS	21.6		20	108	66 - 130		
1,1,2,2-Tetrachloroethane	79-34-5	LCS	21.4		20	107	74 - 135		
1,1,2-Trichloroethane	79-00-5	LCS	21.7		20	109	82 - 126		
1,1-Dichloroethane	75-34-3	LCS	20.8		20	104	78 - 124		
1,1-Dichloroethene	75-35-4	LCS	20.2		20	101	63 - 128		
1,1-Dichloropropene	563-58-6	LCS	21		20	105	76 - 126		
1,2,3-Trichlorobenzene	87-61-6	LCS	20.3		20	102	61 - 126		
1,2,3-Trichloropropane	96-18-4	LCS	20.7		20	104	75 - 132		
1,2,4-Trichlorobenzene	120-82-1	LCS	23.8		20	119	67 - 123		
1,2-Dibromo-3-chloropropane	96-12-8	LCS	19		20	95.1	59 - 133		
1,2-Dibromoethane	106-93-4	LCS	21.9		20	109	80 - 124		
1,2-Dichlorobenzene	95-50-1	LCS	21.8		20	109	82 - 118		
1,2-Dichloroethane	107-06-2	LCS	20.3		20	102	70 - 133		
1,2-Dichloropropane	78-87-5	LCS	20.5		20	103	81 - 127		
1,3-Dichlorobenzene	541-73-1	LCS	21.2		20	106	81 - 118		
1,3-Dichloropropane	142-28-9	LCS	21.4		20	107	82 - 126		
1,4-Dichlorobenzene	106-46-7	LCS	21.1		20	106	81 - 116		
2,2-Dichloropropane	594-20-7	LCS	23.3		20	116	64 - 129		
2-Butanone	78-93-3	LCS	107		100	107	50 - 152		
2-Hexanone	591-78-6	LCS	97.5		100	97.5	65 - 154		
4-Methyl-2-Pentanone(MIBK)	108-10-1	LCS	91.7		100	91.7	71 - 146		
Acetone	67-64-1	LCS	115		100	115	40 - 151		
Benzene	71-43-2	LCS	20.9		20	105	80 - 124		
Bromobenzene	108-86-1	LCS	21.9		20	110	81 - 119		
Bromochloromethane	74-97-5	LCS	22.7		20	113	73 - 117		
Bromodichloromethane	75-27-4	LCS	22.2		20	111	79 - 126		
Bromoform	75-25-2	LCS	17.8		20	89	70 - 123		
Bromomethane	74-83-9	LCS	16.9		20	84.4	45 - 148		
Carbon Tetrachloride	56-23-5	LCS	19.7		20	98.6	62 - 132		
Chlorobenzene	108-90-7	LCS	21.6		20	108	85 - 117		

QUALITY CONTROL SAMPLES

VOLATILE ORGANICS (cont.)

RESULTS

Compound	CAS No		Result (ug/L)	Orig. Result (ug/L)	Spk Added (ug/L)	Rec. (%)	Limits (%)	RPD Limit (%)	Qualifiers
Chlorodibromomethane	124-48-1	LCS	19		20	95	77 - 122		
Chloroethane	75-00-3	LCS	20.8		20	104	51 - 142		
Chloroform	67-66-3	LCS	20.6		20	103	78 - 122		
Chloromethane	74-87-3	LCS	20.2		20	101	38 - 156		
cis-1,2-Dichloroethene	156-59-2	LCS	21.1		20	106	78 - 125		
cis-1,3-Dichloropropene	10061-01-5	LCS	22.1		20	111	81 - 121		
Dibromomethane	74-95-3	LCS	20.8		20	104	81 - 125		
Dichlorodifluoromethane	75-71-8	LCS	19.6		20	97.9	17 - 166		
Diisopropyl ether	108-20-3	LCS	20.8		20	104	74 - 131		
Ethylbenzene	100-41-4	LCS	21.8		20	109	80 - 124		
Hexachlorobutadiene	87-68-3	LCS	22.6		20	113	55 - 128		
Methyl t-Butyl Ether	1634-04-4	LCS	21.1		20	105	69 - 115		
Methylene Chloride	75-09-2	LCS	20.9		20	105	76 - 121		
mp-Xylene	108383/106423	LCS	44.3		40	111	79 - 125		
Naphthalene	91-20-3	LCS	18.1		20	90.5	56 - 134		
o-Chlorotoluene	95-49-8	LCS	21.9		20	109	78 - 126		
o-Xylene	95-47-6	LCS	22		20	110	79 - 124		
p-Chlorotoluene	106-43-4	LCS	21.6		20	108	78 - 125		
p-Isopropyltoluene	99-87-6	LCS	22		20	110	72 - 123		
Styrene	100-42-5	LCS	23.3		20	117	79 - 123		
Tetrachloroethene	127-18-4	LCS	20.2		20	101	72 - 124		
Toluene	108-88-3	LCS	21.2		20	106	80 - 125		
Total Xylenes	1330-20-7	LCS	66.3		60	111	79 - 125		
trans-1,2-Dichloroethene	156-60-5	LCS	20.8		20	104	71 - 122		
trans-1,3-Dichloropropene	10061-02-6	LCS	20.1		20	101	78 - 126		
Trichloroethene	79-01-6	LCS	20.6		20	103	77 - 124		
Trichlorofluoromethane	75-69-4	LCS	21.8		20	109	38 - 123		
Vinyl Acetate	108-05-4	LCS	18.2		20	91.1	58 - 136		
Vinyl Chloride	75-01-4	LCS	21.6		20	108	27 - 138		

SURROGATES

Compound	CAS No		Result (ug/L)	Expected (ug/L)	Rec. (%)	Limits (%)	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	LCS	29.1	30	97.1	62 - 133	
4-Bromofluorobenzene	460-00-4	LCS	30.1	30	100	79 - 114	
Dibromofluoromethane	1868-53-7	LCS	29.8	30	99.5	78 - 116	
Toluene-d8	2037-26-5	LCS	29.6	30	98.7	76 - 127	

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Lab ID	Sample ID	Preparation Method	Prep Batch	Prep Date/Time	By	Analysis Method	Anly Batch
3387069001	MW-03	SW846 3510C	1332155	11/14/2024 09:10	DEC	SW846 8270E SIM	1333241
		N/A	N/A	N/A		SW846 8260D	1332651
3387069002	MW-27 D	SW846 3510C	1332155	11/14/2024 09:10	DEC	SW846 8270E SIM	1333241
		N/A	N/A	N/A		SW846 8260D	1332651
3387069003	MW-43	SW846 3510C	1332155	11/14/2024 09:10	DEC	SW846 8270E SIM	1333241
		N/A	N/A	N/A		SW846 8260D	1332651
3387069004	MW-39	SW846 3510C	1332155	11/14/2024 09:10	DEC	SW846 8270E SIM	1333241
		N/A	N/A	N/A		SW846 8260D	1332651
3387069005	MW-42	SW846 3510C	1332155	11/14/2024 09:10	DEC	SW846 8270E SIM	1333241
		N/A	N/A	N/A		SW846 8260D	1332651
3387069006	MW-18	SW846 3510C	1332155	11/14/2024 09:10	DEC	SW846 8270E SIM	1333241
		N/A	N/A	N/A		SW846 8260D	1332651
3387069007	MW-38R	SW846 3510C	1332155	11/14/2024 09:10	DEC	SW846 8270E SIM	1333241
		SW846 3510C	1332155	11/14/2024 09:10	DEC	SW846 8270E SIM	1335342
		N/A	N/A	N/A		SW846 8260D	1332651
3387069008	RW-1S	SW846 3510C	1332155	11/14/2024 09:10	DEC	SW846 8270E SIM	1333241
		SW846 3510C	1332155	11/14/2024 09:10	DEC	SW846 8270E SIM	1335342
		N/A	N/A	N/A		SW846 8260D	1332651
3387069009	RW-2S	SW846 3510C	1332155	11/14/2024 09:10	DEC	SW846 8270E SIM	1333241
		SW846 3510C	1332155	11/14/2024 09:10	DEC	SW846 8270E SIM	1335342
		N/A	N/A	N/A		SW846 8260D	1332651
3387069010	Trip Blank A	N/A	N/A	N/A		SW846 8260D	1332651
3387069011	MW-5R	SW846 3510C	1332155	11/14/2024 09:10	DEC	SW846 8270E SIM	1333241
		N/A	N/A	N/A		SW846 8260D	1337882
3387069012	MW-40 D	SW846 3510C	1332155	11/14/2024 09:10	DEC	SW846 8270E SIM	1333241
		N/A	N/A	N/A		SW846 8260D	1337882
3387069013	MW-100	SW846 3510C	1332155	11/14/2024 09:10	DEC	SW846 8270E SIM	1333241
		SW846 3510C	1332155	11/14/2024 09:10	DEC	SW846 8270E SIM	1335342
		N/A	N/A	N/A		SW846 8260D	1337882
3387069014	MW-44	SW846 3510C	1332155	11/14/2024 09:10	DEC	SW846 8270E SIM	1333241
		N/A	N/A	N/A		SW846 8260D	1337882
3387069015	MW-21D	SW846 3510C	1332155	11/14/2024 09:10	DEC	SW846 8270E SIM	1333241
		N/A	N/A	N/A		SW846 8260D	1337882
3387069016	RW-1D	SW846 3510C	1332155	11/14/2024 09:10	DEC	SW846 8270E SIM	1333241
		SW846 3510C	1332155	11/14/2024 09:10	DEC	SW846 8270E SIM	1335342
		N/A	N/A	N/A		SW846 8260D	1337882
3387069017	MW-41D	SW846 3510C	1332155	11/14/2024 09:10	DEC	SW846 8270E SIM	1333241
		N/A	N/A	N/A		SW846 8260D	1337882
3387069018	Trip Blank B	N/A	N/A	N/A		SW846 8260D	1337882
3387069019	MW-01D	SW846 3510C	1332155	11/14/2024 09:10	DEC	SW846 8270E SIM	1333241
		N/A	N/A	N/A		SW846 8260D	1337882
3387069020	MW-01	SW846 3510C	1332155	11/14/2024 09:10	DEC	SW846 8270E SIM	1333241
		N/A	N/A	N/A		SW846 8260D	1337882
3387069021	MW-22D	SW846 3510C	1332155	11/14/2024 09:10	DEC	SW846 8270E SIM	1333241
		N/A	N/A	N/A		SW846 8260D	1337882
3387069022	MW-20	SW846 3510C	1332155	11/14/2024 09:10	DEC	SW846 8270E SIM	1333241
		SW846 3510C	1332155	11/14/2024 09:10	DEC	SW846 8270E SIM	1335342
		N/A	N/A	N/A		SW846 8260D	1337882
3387069023	MW-4R	SW846 3510C	1332545	11/15/2024 08:20	DEC	SW846 8270E SIM	1335342
		N/A	N/A	N/A		SW846 8260D	1337882
3387069024	MW-09	SW846 3510C	1332545	11/15/2024 08:20	DEC	SW846 8270E SIM	1334510
		N/A	N/A	N/A		SW846 8260D	1337882
3387069025	MW-23D	SW846 3510C	1332545	11/15/2024 08:20	DEC	SW846 8270E SIM	1334510
		SW846 3510C	1332545	11/15/2024 08:20	DEC	SW846 8270E SIM	1335342
		N/A	N/A	N/A		SW846 8260D	1337882

Lab ID	Sample ID	Preparation Method	Prep Batch	Prep Date/Time	By	Analysis Method	Anly Batch
3387069026	MW-16	SW846 3510C	1332545	11/15/2024 08:20	DEC	SW846 8270E SIM	1334510
		SW846 3510C	1332545	11/15/2024 08:20	DEC	SW846 8270E SIM	1335342
		N/A	N/A	N/A		SW846 8260D	1337882
3387069027	MW-16D	SW846 3510C	1332545	11/15/2024 08:20	DEC	SW846 8270E SIM	1334510
		SW846 3510C	1332545	11/15/2024 08:20	DEC	SW846 8270E SIM	1335342
		N/A	N/A	N/A		SW846 8260D	1337882
3387069028	Trip Blank C	N/A	N/A	N/A		SW846 8260D	1337882

3387069
Logged By: D1G
PM: SJB

301 Fulling Mill Rd, Suite A
Middletown, PA 17057
P. 717-944-5541

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

COC #: 1
ALS Quote #:

Client Name: WSP USA
Address: 13530 Dulles Technology Dr. Suite 300 Herndon, VA
Contact: Eric Johnson
Phone#: (703) 709-5600
Project Name/#: Kop Flex ON SITE
Bill To:
Purchase Order #: P 102389 US001
TAT: ☑ Normal-Standard TAT is 10-12 business days. ☐ Rush-Subject to ALS approval and surcharges.
Date Required: Approved?
Email? ☑ eric.johnson@wsp.com

	Container Type	G	A	G
	Container Size	40mL	250mL	40mL
	Preservative	HCl	[illegible]	HCl

DB 11/11/24

Orthophosphate Filtered? Yes No — Hexavalent Chromium Filtered? Yes No

ANALYSIS / METHOD REQUESTED — Enter Number of Containers

#	Sample Description/Location (as it will appear on the lab report)	Date Collected mm/dd/yy	Time hh:mm	SDWA Sample Type (see key)	*G or C	**Matrix (see bottom of COC)	VOCS 8260	1,4 dioxane 8270	VOCS TRIP BLANK
1	MW-03	11/10/24	1055		G	GW	3	2	
2	MW-27D	11/10/24	1110		G	GW	3	2	
3	MW-43	11/10	1125		G	GW	3	2	
4	MW-39	11/10	1135		G	GW	3	2	
5	MW-42	11/10	1145		G	GW	3	2	
6	MW-18	11/10	1205		G	GW	3	2	
7	MW-38R	11/10	1215		G	GW	3	2	
8	RW-1S	11/10	1225		G	GW	3	2	
9	RW-2S	11/10	1235		G	GW	3	2	
10	TRIP BLANK A								2

Receipt label:

Temp By:	WO Temp (°C)	Therm ID
DB	2°	569

Receipt Info Completed By:	DPB
Cooler Custody Seal Intact	Y N NA (NA circled)
Sample Custody Seal Intact	Y N NA (NA circled)
Received on Ice	Y (circled) N NA
Cooler & Samples Intact	Y N (Y)
Correct Containers Provided	Y N (Y)
Sample Label/COC Agree	Y N (Y)
Adequate Sample Volumes	Y N (Y)
CR6 Samples Filtered	Y N NA (NA circled)
OP Samples Filtered	Y N NA (NA circled)
VOA Trip Blank	Y (circled) N NA
NJ≤ 4 Days?	Y N (N circled)
Rad Screen (uCi)	
Courier/Tracking #:	
SDWA Compliance	Y N (N)
PWSID	
WV Containers 0-6°C	Y N NA (NA circled)

Receipt Information

Temp Taken By: Therm ID: 569 WO Temp (°C) 2
Receipt Info completed by: ____
WV Containers 0-6°C Y N NA

Cooler Custody Seals Intact	Y	N	NA
Sample Custody Seal Intact	Y	N	NA
Received on Ice	Y	N	NA
Coolers & Samples Intact	Y	N	
Correct Containers Provided	Y	N	
Sample Label/COC Agree	Y	N	
Adequate Sample Volumes	Y	N	
VOA only: Trip Blank	Y	N	NA
NJ ≤ 4 days?	Y	N	

Courier/Tracking #
Deviations? NO YES — If YES, list below
Client contact:
Date/Tech:

Sample(s) for Radiation testing? Y N — Rad Screen (uCi)____
Reportable SDWA Sample(s)? Y N — New Source? Y N
SDWA State of Origin?____ — New Source Contact:
PWSID #____
PWS Contact:____ PWS Phone #:____

SDWA Sample Type Key: D=Distribution E=Entry Point R=Raw P=Plant C=Check S=Special A=Annual Startup

Sample/COC Remarks

No Sampler DB 11/11/24

Contains Short Hold Testing YES (NO)
Internal Use: If less than 48 hours - notify lab upon receipt

Circle Sample Collector: ALS Tech / Client
Name: ____ ID: ____
Comments:

Date:	Time		Relinquished By / Company Name		Received By / Company Name
11/11/24	3:25	1	[signature]	2	[signature] ALS 11-11-24 1525
11-11-24	1733	3	[signature] ALS	4	DAG/ALS
		5		6	
		7		8	
		9		10	

Data Deliverables: ☐ Standard Lvl 1 ☐ Standard Lvl 2 ☐ Standard Lvl 3 ☐ Standard Lvl 4 ☐ CLP-like ☐ DOD ☐ NJ RED ☐ NJ Full ☐ HSCA ☐ Landfill ☐ NJ GW ☐ ____
EDDS: ☐ Excel Summary ☐ Equis ☐ Custom
EDDS: Format Type ____
Sample Disposal: Lab ☐ Special ☐
State Samples Collected In: ☐ NY ☐ NJ ☐ PA ☐ WV ☐ FL ____ other

* G=Grab; C=Composite **Matrix - A=Air; D=Drinking Water; GW=Groundwater; O=Oil; LW=Liquid Waste; S=Solid/Soil/Sludge; SW=Surface Water; WP=Wipe; WW=Wastewater

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Rev 05.01.2024

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Middletown, PA 17057
P. 717-944-5541

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

COC #: 2 3387069 of

ALS Quote #:

Client Name: WSP USA

Address: 13530 Dulles Technology Dr. suite 300 Herndon, VA

Contact: Eric Johnson

Phone#: (703) 709-5600

Project Name/#: KopFlex - ON SITE

Bill To:

Purchase Order #: P102389US001

TAT: [✓] Normal-Standard TAT is 10-12 business days. [ ] Rush-Subject to ALS approval and surcharges.

Date Required: Approved?

Email? [✓] eric.johnson@wsp.com

Container Type	G	A	G
Container Size	40ml	250ml	40ml
Preservative	HCl	NP	HCl

Orthophosphate Filtered? Yes No Hexavalent Chromium Filtered? Yes No

ANALYSIS / METHOD REQUESTED

Enter Number of Containers Per Sample or Field Results Below.

	Sample Description/Location (as it will appear on the lab report)	Date Collected mm/dd/yy	Time hh:mm	SDWA Sample Type (see key)	*G or C	**Matrix (See bottom of COC)	VOCs 8260	1,4dioxane 8270	VOCs Trip Blank
1	MW-5R	11/10	1245		G	GW	3	2	
2	MW-40 D	11/10	1255		G	GW	3	2	
3	MW-100	11/10	1300		G	GW	3	1	
4	MW-44	11/10	1400		G	GW	3	2	
5	MW-44MS	11/10	1400		G	GW	3	1	
6	MW-44MSD	11/10	1400		G	GW	3	2	
7	MW-21D	11/10	1420		G	GW	3	2	
8	RW-1D	11/10	1430		G	GW	3	2	
9	MW-41D	11/10	1440		G	GW	3	2	
10	TRIP BLANK B								2

Circle Sample Collector: ALS Tech / Client

Name: ID:

Comments:

Date:	Time		Relinquished By / Company Name		Received By / Company Name
11/11/24	3:25	1	[signature]	2	[signature] ALS 11-11-24 1525
11-11-24	1733	3	[signature] ALS	4	DAG / ALS
		5		6	
		7		8	
		9		10	

Receipt Information (completed by Receiving Lab)

Temp Taken By: Therm ID: WO Temp (°C)

Receipt Info completed by:______ WV Containers 0-6°C Y N NA

Cooler Custody Seals Intact	Y	N	NA
Sample Custody Seal Intact	Y	N	NA
Received on Ice	Y	N	NA
Coolers & Samples Intact	Y	N	
Correct Containers Provided	Y	N	
Sample Label/COC Agree	Y	N	
Adequate Sample Volumes	Y	N	
VOA only: Trip Blank	Y	N	NA
NJ ≤ 4 days?	Y	N	

Deviations? NO YES If YES, list below

Client contact: Date/Tech

Courier/Tracking #

Sample(s) for Radiation testing? Y N — Rad Screen (uCi)______

Reportable SDWA Sample(s)? Y N — New Source? Y N

SDWA State of Origin?______ — New Source Contact:

PWSID #__

PWS Contact:______ PWS Phone #:______

SDWA Sample Type Key: D=Distribution E=Entry Point R=Raw P=Plant C=Check S=Special A=Annual Startup

Sample/COC Remarks

Contains Short Hold Testing YES NO (circled)

Internal Use: If less than 48 hours - notify lab upon receipt

Data Deliverables: [ ] Standard Lvl 1 [ ] Standard Lvl 2 [ ] Standard Lvl 3 [ ] Standard Lvl 4 [ ] CLP-like [ ] DOD [ ] NJ RED [ ] NJ Full [ ] HSCA [ ] Landfill [ ] NJ GW [ ] ______

EDDs: [ ] Excel Summary [ ] Equis [ ] Custom

Sample Disposal: Lab [ ] Special [ ]

EDDS: Format Type

State Samples Collected In: [ ] NY [ ] NJ [ ] PA [ ] WV [ ] FL ___ other

* G=Grab; C=Composite **Matrix - A=Air; D=Drinking Water; GW=Groundwater; O=Oil; LW=Liquid Waste; S=Solid/Soil/Sludge; SW=Surface Water; WP=Wipe; WW=Wastewater

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Rev 05.01.2024

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Middletown, PA 17057
P. 717-944-5541

CHAIN OF CUSTODY/ REQUEST FOR ANALYSIS

ALL SHADED AREAS MUST BE COMPLETED BY THE CLIENT / SAMPLER. INSTRUCTIONS ON THE BACK.

COC #: 3 3387069 of

ALS Quote #:

Client Name: WSP USA

Address: 13530 Dulles Technology Dr. Suite 300 Herndon, VA

Contact: Eric Johnson

Phone#: (703) 709-5600

Project Name/#: Kop Flex - ON SITE

Bill To:

Purchase Order #: P102389 US 001

TAT: ☑ Normal-Standard TAT is 10-12 business days. ☐ Rush-Subject to ALS approval and surcharges.

Date Required: Approved?

Email? ☑ eric.johnson@wsp.com

	Col 1	Col 2	Col 3	Col 4
Container Type	G	A	G	
Container Size	40mL	250mL	40mL	
Preservative	HCL	UNP	HCL	DS 11/11/24

Orthophosphate Filtered? Yes No — Hexavalent Chromium Filtered? Yes No

ANALYSIS / METHOD REQUESTED

Enter Number of Containers Per Sample or Field Results Below.

#	Sample Description/Location (as it will appear on the lab report)	Date Collected mm/dd/yy	Time hh:mm	SDWA Sample Type (see key)	*G or C	**Matrix (See bottom of COC)	VOCS 8260	1,4 dioxane 8270	VOCS TRIPBLANK
1	MW-01D	11/11/24	1450		G	GW	3	2	
2	MW-01	11/11/24	1500		G	GW	3	2	
3	MW-22D	11/11/24	1510		G	GW	3	2	
4	MW-20	11/11/24	1540		↓	↓	3	2	
5	MW-4R	11/11/24	1550		↓	↓	3	2	
6	MW-09	11/11/24	1600		↓	↓	3	2	
7	MW-23D	11/11/24	1615		↓	↓	3	2	
8	MW-16	11/11/24	1630		↓	↓	3	2	
9	MW-16D	11/11/24	1640		↓	↓	3	2	
10	TRIP BLANK								2

Circle Sample Collector: ALS Tech / Client

Name: ID:

Comments:

Date	Time	#	Relinquished By / Company Name	#	Received By / Company Name
11/11/24	3:25	1	[signature]	2	[signature] ALS 11-11-24 1525
11-11-24	1733	3	[signature] ALS	4	DAG / ALS
		5		6	
		7		8	
		9		10	

Receipt Information (completed by Receiving Lab)

Temp Taken By: Therm ID: WO Temp (°C)

Receipt Info completed by:______

WV Containers 0-6°C Y N NA

Cooler Custody Seals Intact	Y	N	NA
Sample Custody Seal Intact	Y	N	NA
Received on Ice	Y	N	NA
Coolers & Samples Intact	Y	N	
Correct Containers Provided	Y	N	
Sample Label/COC Agree	Y	N	
Adequate Sample Volumes	Y	N	
VOA only: Trip Blank	Y	N	NA
NJ ≤ 4 days?	Y	N	

Courier/Tracking #

Deviations? NO YES — If YES, list below

Client contact:

Date/Tech:

Sample(s) for Radiation testing? Y N — Rad Screen (uCi)______

Reportable SDWA Sample(s)? Y N — New Source? Y N

SDWA State of Origin?__________ — New Source Contact:

PWSID #__

PWS Contact:__________ PWS Phone #:__________

SDWA Sample Type Key: D=Distribution E=Entry Point R=Raw P=Plant C=Check S=Special A=Annual Startup

Sample/COC Remarks

Contains Short Hold Testing YES (NO)

Internal Use: If less than 48 hours - notify lab upon receipt

Data Deliverables: ☐ Standard Lvl 1 ☐ Standard Lvl 2 ☐ Standard Lvl 3 ☐ Standard Lvl 4 ☐ CLP-like ☐ DOD ☐ NJ RED ☐ NJ Full ☐ HSCA ☐ Landfill ☐ NJ GW ☐ ______

EDDs: ☐ Excel Summary ☐ Equis ☐ Custom

Sample Disposal: Lab ☐ Special ☐

EDDS: Format Type

State Samples Collected In: ☐ NY ☐ NJ ☐ PA ☐ WV ☐ FL ____ other

* G=Grab; C=Composite **Matrix - A=Air; D=Drinking Water; GW=Groundwater; O=Oil; LW=Liquid Waste; S=Solid/Soil/Sludge; SW=Surface Water; WP=Wipe; WW=Wastewater

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