



**VIA ELECTRONIC MAIL**

March 15, 2024

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Remedial Project Manager  
U.S. Environmental Protection Agency, Region III  
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Mail Code – 3LD10  
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**Subject:**      **Quarterly Progress Report No. 29**  
**Former Kop-Flex Facility Site, Hanover, Maryland**  
**USEPA ID No. MDD043373935**  
**Administrative Order on Consent, Docket No. RCRA-03-2016-0170 CA**

Dear Oduwole:

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 fourth quarter of calendar year 2023 (October 1<sup>st</sup> through December 31<sup>st</sup>) 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 first quarter of calendar year 2024 (January 1<sup>st</sup> through March 31<sup>st</sup>).

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  
Ms. Barbara Brown, Maryland Department of the Environment  
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

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## Quarterly Progress Report No. 29

Former Kop-Flex Facility Site

October 2023 through December 2023

**Site Name:** Former Kop-Flex Facility

**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 2023 – DECEMBER 2023 REPORTING PERIOD

### 1.1 HYDRAULIC CONTAINMENT SYSTEM OPERATION

- The hydraulic containment system (System) operated for 71 of the 92 days during the fourth quarter of 2023, which equates to a 77% run-time efficiency over this 3-month period. The air compressor that generates compressed air to control the operation of the automated process valves for the treatment equipment stopped working and caused an unexpected shutdown of the System in early October. Within 5 days, the air compressor was subsequently replaced, and the system was brought back online. There were also a few brief (1-2 day) shutdowns during the fourth quarter due to faulting of the System regeneration steam re heater, alarming of System controls, and to allow for completion of routine System maintenance. As during the previous reporting periods, there was no extraction of groundwater from shallow recovery well RW-3S during the fourth quarter of 2023. Given the adequate hydraulic influence via pumping of RW-1S and RW-2S and minimal contaminant mass recovery from RW-3S, WSP plans to keep this well temporarily shut-down to further evaluate the cause(s) for the reduced well yield noted in the summer of 2022 and determine the appropriate corrective action(s) to improve well performance.

During early November, there was a scheduled 10-day shutdown period to perform *ex-situ* chemical cleaning of the System treatment resin. Routine cleaning removes natural organic constituents and fine-grained particulates that have accumulated in the resin media as part of normal System operation, thus maintaining treatment efficacy. Detailed information on the *ex-situ* resin cleaning process is provided in Quarterly Progress Report No. 20, dated November 1, 2021 (WSP 2021).

- A total of approximately 6.14 million gallons of impacted groundwater were extracted and treated during the fourth quarter of 2023, with the combined average daily withdrawal rate during full-scale operation ranging from 59 gallons per minute (GPM) to 64 GPM. Effluent samples were collected monthly for chemical analysis in accordance with the requirements specified in the National Pollutant Discharge Elimination System (NPDES) Permit for the System. During October, the effluent sample was collected and analyzed in accordance with the extended NPDES Permit (effective date November 1, 2016). During November and December, the effluent samples were collected and analyzed in accordance with the new NPDES Permit (effective date November 1, 2023). The analytical results for all monitoring parameters complied with the effluent limitations specified in the respective NPDES Permit.
- To monitor volatile organic compounds (VOCs) 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. An influent water sample was collected for analysis in early October 2023 while all shallow zone (excluding RW-3S) and deep zone recovery wells were in operation; monthly effluent samples were collected from October through December 2023 in accordance with the NPDES Permit. The total concentration of chlorinated VOCs (CVOCs) and 1,4-dioxane in the influent sample was 427 micrograms per liter ( $\mu\text{g}/\text{L}$ ), which is slightly higher than the results for the samples collected during the 1<sup>st</sup> and 3<sup>rd</sup> Quarters of 2023 but still less than the levels in the quarterly samples from the second half of 2022. As stated in the previous quarterly progress report, the slight increase in



contaminant levels in the extracted groundwater during the second half of 2023 is related to the lingering redistribution, or back diffusion, of CVOCs and 1,4-dioxane between the low and high permeability aquifer materials when the System was shut down from April to mid-August 2023. As of the end of December 2023, an estimated total of 499 pounds of CVOCs and 206 pounds of 1,4-dioxane have been recovered from the Lower Patapsco aquifer.

- Concentrations for the site related CVOCs and 1,4-dioxane in the October 2023 effluent sample were 1.7 µg/L and 14.0 µg/L. Non-detect results for these constituents were reported for the effluent samples collected in November and December 2023. The analytical results for 1,4-dioxane were all below the site-specific cleanup level of 15 µg/L and generally consistent with concentrations detected in previous samples of the treated groundwater. The non-detect concentrations of CVOCs and 1,4-dioxane in the samples collected during November and December reflect the effectiveness of the chemical cleaning completed in early November for maintaining the treatment capacity of the System resin.

## 1.2 NPDES PERMIT RENEWAL

As discussed in the previous quarterly progress report, the new NPDES Permit became effective on November 1, 2023. In accordance with the new Permit, the boiler blowdown water is now routed to the flow equalization tank to be combined with the extracted groundwater for treatment through the System. The new NPDES Permit made the following changes to the monitoring requirements for the System discharge:

- o Added monthly sampling for total residual chlorine (TRC) and 1,4-dioxane.
- o Eliminated monitoring for dissolved metals and hardness.
- o Reduced the monitoring frequency for biochemical oxygen demand (BOD) from monthly to quarterly.

## 1.3 RW-3S INVESTIGATION

In late October and early November 2023, WSP conducted downhole logging and hydraulic testing of shallow recovery well RW-3S, which has been off-line since September 2022 due to a reduction in performance since its installation. WSP hypothesized that the reduced performance of RW-3S was due to clogging of the sand filter pack and/or borehole wall by clayey sediments. The tests were designed to gather data to confirm or disprove this assessment. The investigation activities included a downhole camera survey, slug testing, and step drawdown testing. Preliminary analysis indicates that the filter pack of the well is compromised due to clogging with fine-grained material, and/or iron mineralization within the pore spaces of the sand pack material. WSP is completing the evaluation of the field data to determine whether further work is deemed necessary to address the well condition.

## 1.4 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 all monitoring wells and recovery well piezometers the week of December 3, 2023. The water level data for this and previous measurement rounds is provided in Table 1. No water level measurement was collected from the piezometer co-located with shallow recovery well RW-3S. In addition, a measurement could not be obtained at the RW-2D piezometer due to the presence of the transducer cable. During the next round of water level readings, this will be assessed to ensure water level readings can be obtained during each measurement event.
- 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 December 3<sup>rd</sup> 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 early December 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. Based on the recent head contours for the lower portion of the shallow zone, the southern extent of the recovery well inflow, or capture, area continues to extend to the area of monitoring well MW-44, even with recovery well RW-3S remaining off-line.

The water table contour map (Figure 1) indicates a generally west-northwest 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.

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 centered around 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 December 2023 contour map for the lower portion of the shallow zone depicts a hydraulic capture zone extending northward toward monitoring well MW-43 and underneath the western portion of Catalent Building 1 and southward below Catalent Building 2 toward MW-44 and the property boundary (Figure 2). The capture area also extends westward toward Stony Run and its bordering flood zone. 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.

- The potentiometric surface contour map for the deep, confined zone of the Lower Patapsco aquifer generated from the December 2023 water level data is provided in Figure 3. The hydraulic head distribution shows the recurrence of a slightly elongated depression, or lowering, in the potentiometric surface along the southern property boundary in response to groundwater withdrawals from the two deep recovery wells, RW-1D and RW-2D. Evaluation of the head distribution indicates drawdown of the potentiometric surface extending south onto the adjoining William Scotsman property. The decline in the head caused by the pumping at RW-1D and RW-2D results in the movement of groundwater toward these extraction wells.

## 1.5 GROUNDWATER QUALITY MONITORING

- In accordance with the Groundwater Monitoring Plan, groundwater quality samples were collected in December 2023 from the onsite monitoring wells identified for annual sampling. Samples were also obtained of the groundwater discharge from the operating shallow and deep recovery wells to assess the contaminant concentrations at each extraction point.
- Groundwater samples from the shallow and deep monitoring wells were collected using HydraSleeve™ passive samplers. Since initiation of the passive sampling method in late 2016, the groundwater samples were collected using standard-size HydraSleeve™ samplers that were 30-inches (2.5 feet) in length. In 2022, the analytical method used to analyze the groundwater samples for 1,4-dioxane was changed from USEPA SW-846 Method 8260D with selected ion monitoring (SIM) to the better, more accurate USEPA SW-846 Method 8270E with SIM. Given the larger sample volume necessary for the 1,4-dioxane analysis using the 8270E test method, the standard HydraSleeve™ was not able to retrieve enough water for both the VOC and 1,4-dioxane laboratory analyses and provide a sample aliquot for measurement of field hydrogeochemical parameters. Consequently, in December 2023, WSP switched to using longer (38-inch or 3.2-foot) HydraSleeve™ samplers to provide sufficient volume for all required laboratory and field analyses, except for well MW-16 (4.3-foot-long sampler) that was designated for the collection of a matrix spike/matrix spike duplicate (MS/MSD) sample. For this well and MW-16D where a field duplicate was collected, insufficient volume was left over to collect field parameters.

Previous deployment depths for the standard-size HydraSleeves™ were such that retrieval would fill the sampler near the midpoint of the screened interval in each well. Given the slightly greater length of the new HydraSleeves™, these depths were adjusted from those for the previous (standard-size) HydraSleeve™ samplers in order to accommodate space for the sampler and weight assembly and to ensure that the samplers were not touching the bottoms of the wells. The new HydraSleeves™ were suspended with the inlet port of the sampler placed at the midpoint of the 10-foot screened interl in each well such that retrieval would fill the sampler through the overlying interval equal to the length of the sampler (Table 2).

- Samples from the monitoring wells 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 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. Specific conductance measurements were not collected from several of the wells due to a field transposition error involving the collection of information from the incorrect probe.

Samples of the groundwater discharge from each recovery well, excluding RW-3S which was off-line, were collected via sampling ports located in the well head piping. A small amount of water was purged from each 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 EPA SW-846 Test Method 8260D and 1,4-dioxane using EPA Test Method 8270E with SIM.

- Analytical results for the site-related CVOCs and 1,4-dioxane are summarized in Table 4 for the monitoring well samples. A copy of the certified laboratory analytical report for the samples is included in Enclosure A. 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. The certified analytical results for these samples are included in the laboratory report provided in Enclosure B.
- The distribution of CVOC and 1,4-dioxane concentrations in the December 2023 groundwater samples from the monitoring wells in the shallow zone of the Lower Patuxent Aquifer is similar to levels detected in the May 2023 samples (Table 5; Figure 4). As with previous sampling events, the highest concentrations of site-related contaminants of concern (COCs) were detected in the samples collected from MW-16, which had a total concentration of CVOCs and 1,4-dioxane of 9,471 µg/l (Table 4). This total concentration reflects an increase in COC levels from May to December 2023, with concentrations of 1,1-dichloroethane (1,1-DCA) and 1,1-dichlorothene (1,1-DCE) increasing by 36 and 59 percent, respectively, and 1,4-dioxane showing a very slight increase (7.6 percent). In contrast, 1,1,1-trichloroethane (1,1,1-TCA) and trichloroethene concentrations were relatively similar for the 2023 sampling events (Figure 4; Table 5). Overall, the recent concentrations in this well remain elevated approximately threefold relative to concentrations observed in samples collected between 2019 and 2022. The increasing COC levels may be related to extended downtime of the System in 2023.

In the eastern part of the Site upgradient of the recovery wells, concentrations of 1,1-DCA (432 µg/l) and 1,1-DCE (631 µg/l) increased between May 2023 and December 2023 at the MW-20 location by 70 percent and 110 percent, respectively, which represent the highest increases in concentrations of these compounds between events throughout the sampling history of the well. Although the historical data indicate a possible increasing trend in the 1,1-DCA and 1,1-DCE concentrations, the increases in the December sample indicate a marked change from the long-term trend. A possible explanation for higher VOC 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 VOC concentrations could be related to subtle differences in the sandy aquifer materials within the screened interval and matrix diffusion effects from a clayey layer immediately overlying the sandy deposits. The concentration of 1,4-dioxane (404 µg/l), remained nearly constant for the sampling events. This relative stability may be because 1,4-dioxane is more mobile in groundwater than the CVOCs, and therefore less susceptible to vertical changes in concentration. The results of the December 2023 sample collected from MW-04R continue to indicate lower concentrations of 1,1-DCA (31.3 µg/l), 1,1-DCE (65.8 µg/l), and 1,4-dioxane (35.9 µg/l) compared to the historical samples collected from MW-04 (Table 5; Figure 4). Concentrations of 1,1-DCA and 1,1-DCE have fluctuated by 10 percent or less in MW-04R with slightly greater

variations (on the order of 20 to 50 percent) in the concentrations of 1,4-dioxane. Generally, these variations are less than those that were historically observed in 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 continue to exceed its groundwater quality criterion at well MW-09, which is located northwest of MW-04R and the SWMA.

Overall, lower COC concentrations were detected in 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, MW-43, and MW-44. At MW-43, concentrations of 1,1-DCA (1.6 µg/l) and 1,1-DCE (1.9 µg/l), and 1,4-dioxane (8.5 µg/l) remain essentially unchanged during the last three sampling events and are at or near historical lows. These results are consistent with a trend of decreasing VOC concentrations in this well throughout its sampling history.

- For the deep monitoring well samples, the CVOC and 1,4-dioxane concentrations in the December 2023 results are generally similar to levels detected historically with some exceptions (Table 5; Figure 5). At MW-16D, which has the highest concentrations of site-related COCs, the latest results indicate slight (<15 percent) decreases in 1,1-DCA (21.8 µg/l), 1,1-DCE (103 µg/l) and 1,4-dioxane (34.5 µg/l) relative to the May 2023 sample. These declines are consistent with the historical trend of decreasing concentrations of COCs at this location throughout its sampling history.

In the upgradient portion of the plume (MW-23D), typical seasonal variations resulted in the concentration of 1,4-dioxane increasing between May and December 2023, from 27 µg/l to 56 µg/l.<sup>1</sup> Concentrations of 1,1-DCA (41.2 µg/l) and 1,1-DCE (177 µg/l) increased by 27 percent and 53 percent, respectively, in this well between the May 2023 and December 2023 sampling events. The concentration of 1,1-DCE is the highest that has been observed at MW-23D since 2019 and could be the result of a change in the sampling interval depth accompanying the use of the new HydraSleeve samplers. The groundwater obtained by the newly deployed HydraSleeve is largely derived from highly permeable layers of gravelly sand, which would constitute the primary pathways (zones) for contaminant migration while the previously collected sample is associated with fine-grained sand and silt deposits that are characterized by a slightly lower permeability and contaminant migration.

In the southern portion of the Site, the concentrations of 1,1-DCE (30.8 µg/l) and 1,4-dioxane (7.7 µg/l) in the December sample from well MW-21D increased slightly relative to May 2023. The recent increases are consistent with a trend of increasing concentrations observed in the sample results since 2022. The sample collected from MW-22D, which is situated near the eastern boundary of the COC plume, had concentrations of 1,1-DCE (8.5 µg/l) slightly above the comparative criterion and 1,4-dioxane (2.0 µg/l) below the comparative criterion. The sample collected from MW-40D near the western plume boundary was non-detect for all site-related COCs. These results are comparable to prior sampling and indicate that there is no apparent change in the plume width.

No site-related COCs were detected in the sample collected from MW-41D, which is the deepest onsite well, indicating that there has been no change in the vertical extent of the plume. During prior sampling events, 1,4-dioxane has occasionally been detected at trace to very low concentrations (<3 µg/l) in samples from this well, but the concentrations have been decreasing through time.

- The deep recovery wells were not sampled during the last sampling event in May 2023 because the system was shut down. Total concentrations of detectable CVOCs and 1,4-dioxane in the December 2023 samples from recovery wells RW-1S and RW-2S were 1,156 µg/l and 1,029 µg/l, respectively, which are higher than the concentrations detected in previous samples from November 2022. The COC concentrations in the deep recovery well samples are also higher than the previous (November 2022) data, with 1,1-DCA, 1,1-DCE, and 1,4-dioxane detected at concentrations above the comparative criteria (Table 6; Figure 6). The increased COC levels in the December 2023 samples are believed to reflect the diffusion of constituents from stagnant zones and low permeability layers to groundwater present in high permeability flow intervals when the System was shut down from April 2023 to mid-August 2023. This mass re-distribution would result in a transient slug of groundwater with relatively higher COC concentrations moving through the high permeability intervals to the recovery wells during the resumption of remedial pumping. As with previous sampling rounds, the sample results indicate higher levels of chlorinated CVOCs – primarily 1,1-DCA and 1,1-

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<sup>1</sup> This change is similar to a seasonal variation of the same magnitude in the 2022 samples.



DCE – in the discharge from well RW-1D (580.4 µg/l) in the southwestern portion of the Site compared to RW-2D (211.5 µg/l) located near the southeastern corner. The 1,4-dioxane concentrations are similar in the discharge samples from both deep recovery wells.

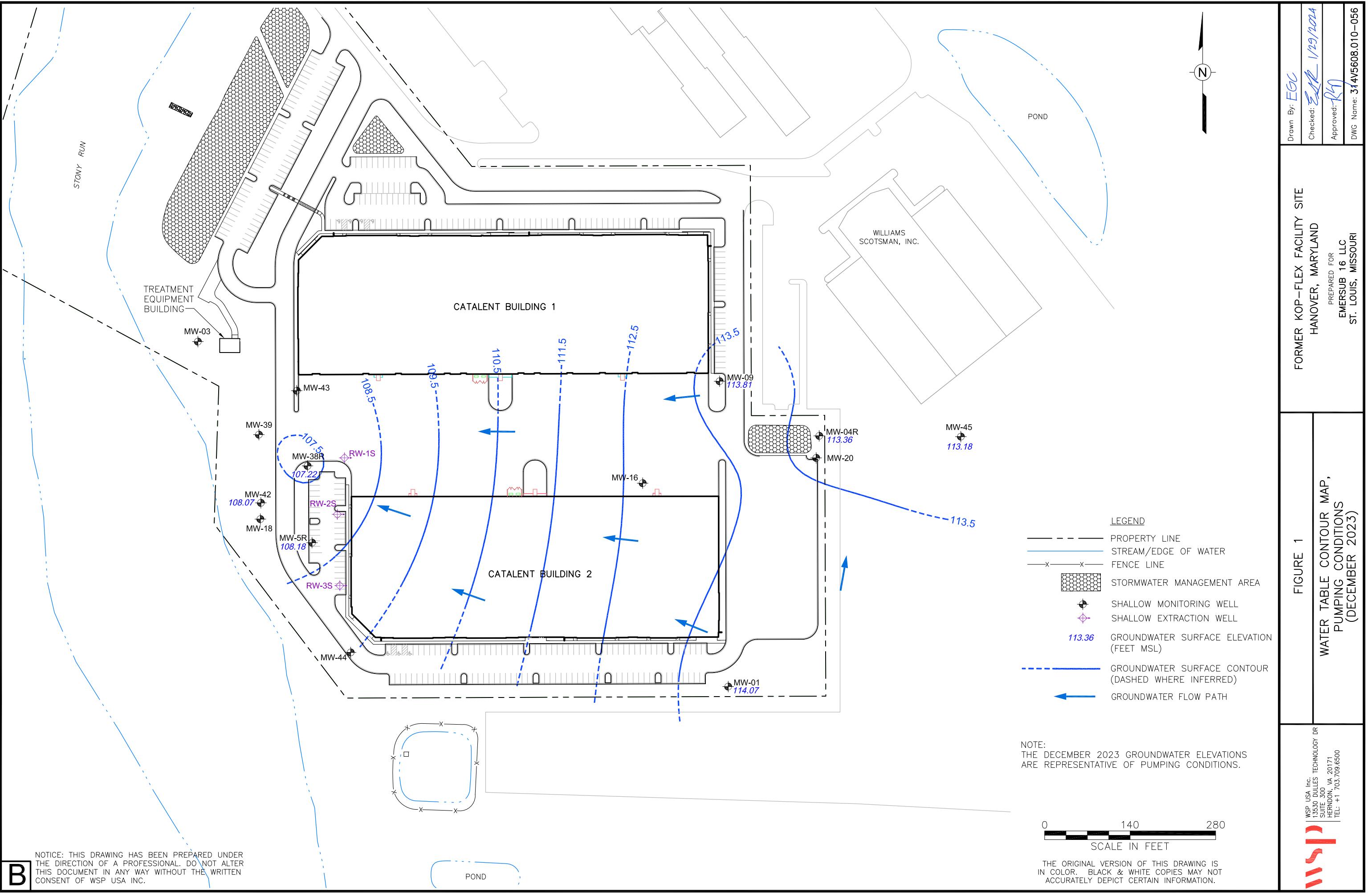
## 2.0 PLANNED ONSITE ACTIVITIES FOR THE FIRST QUARTER OF 2024

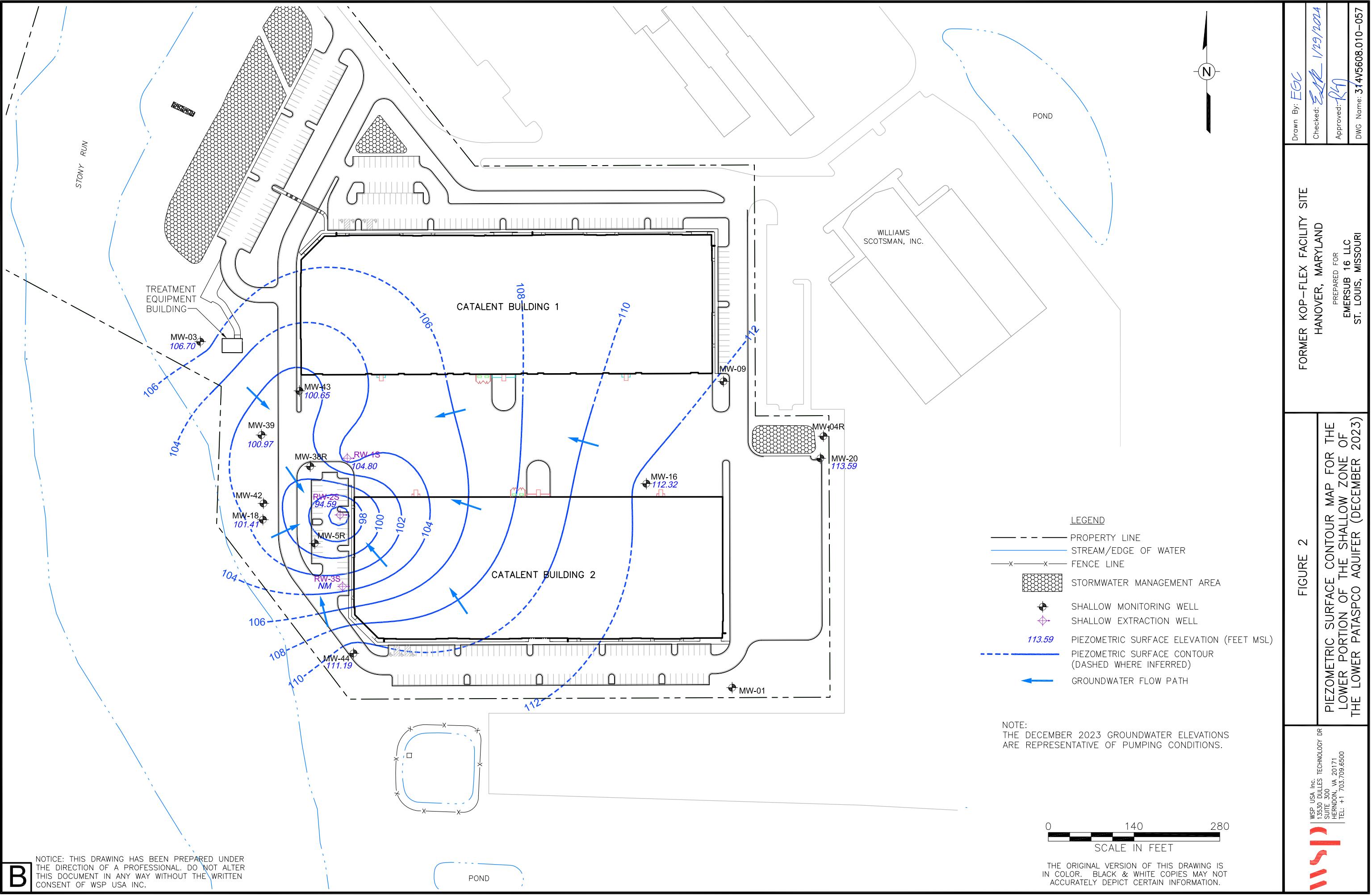
- Continue with the operation and as needed maintenance activities for the System, along with the collection and assessment of operational data to evaluate System performance.
- Conduct the required monthly effluent monitoring and reporting pursuant to the new NPDES Permit.
- Complete the evaluation of the data from the recently conducted investigation activities on shallow recovery well RW-3S and assess next steps regarding the status and possible rehabilitation to improve well performance.

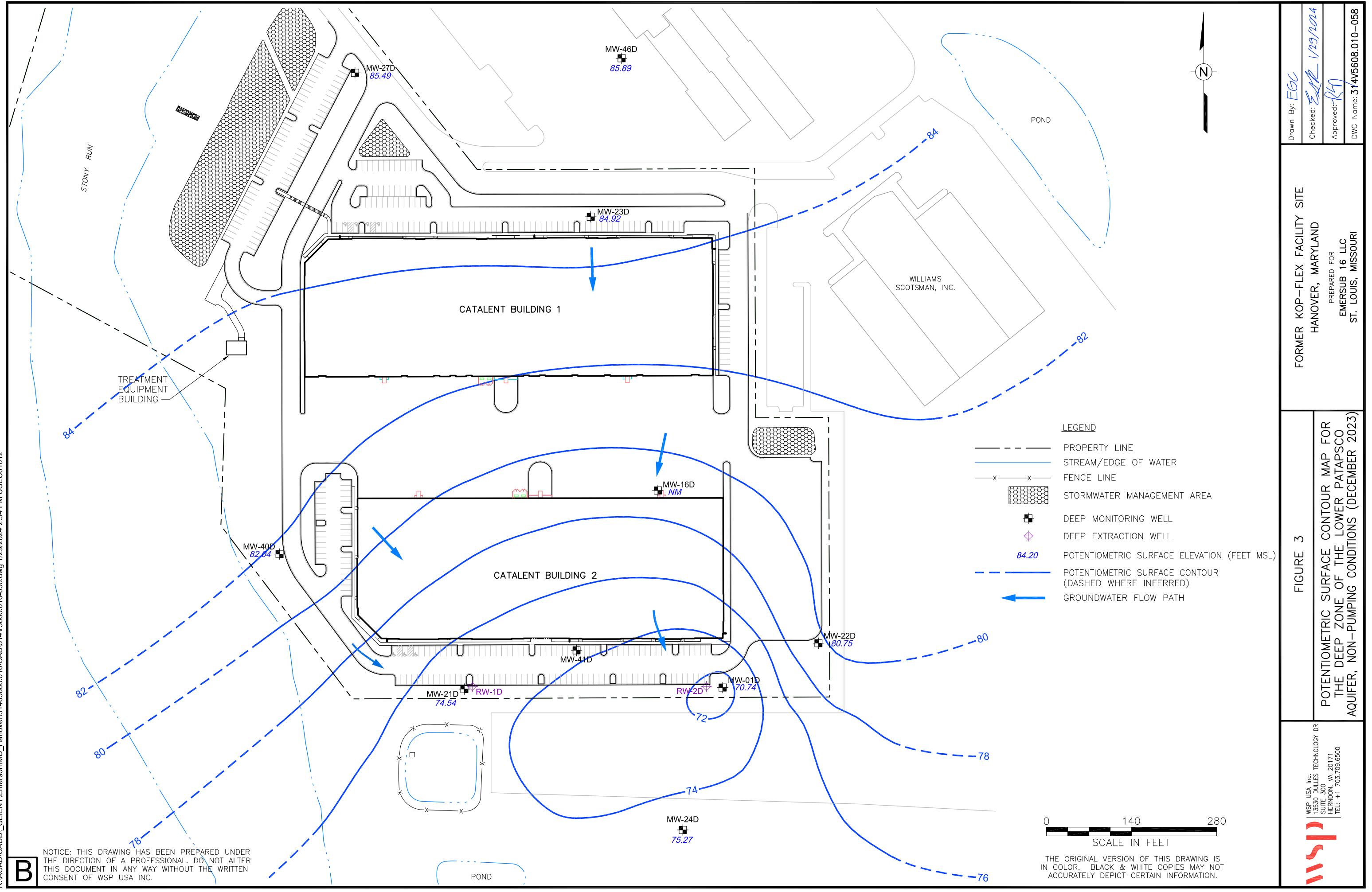
## 3.0 KEY PERSONNEL/FACILITY CHANGES

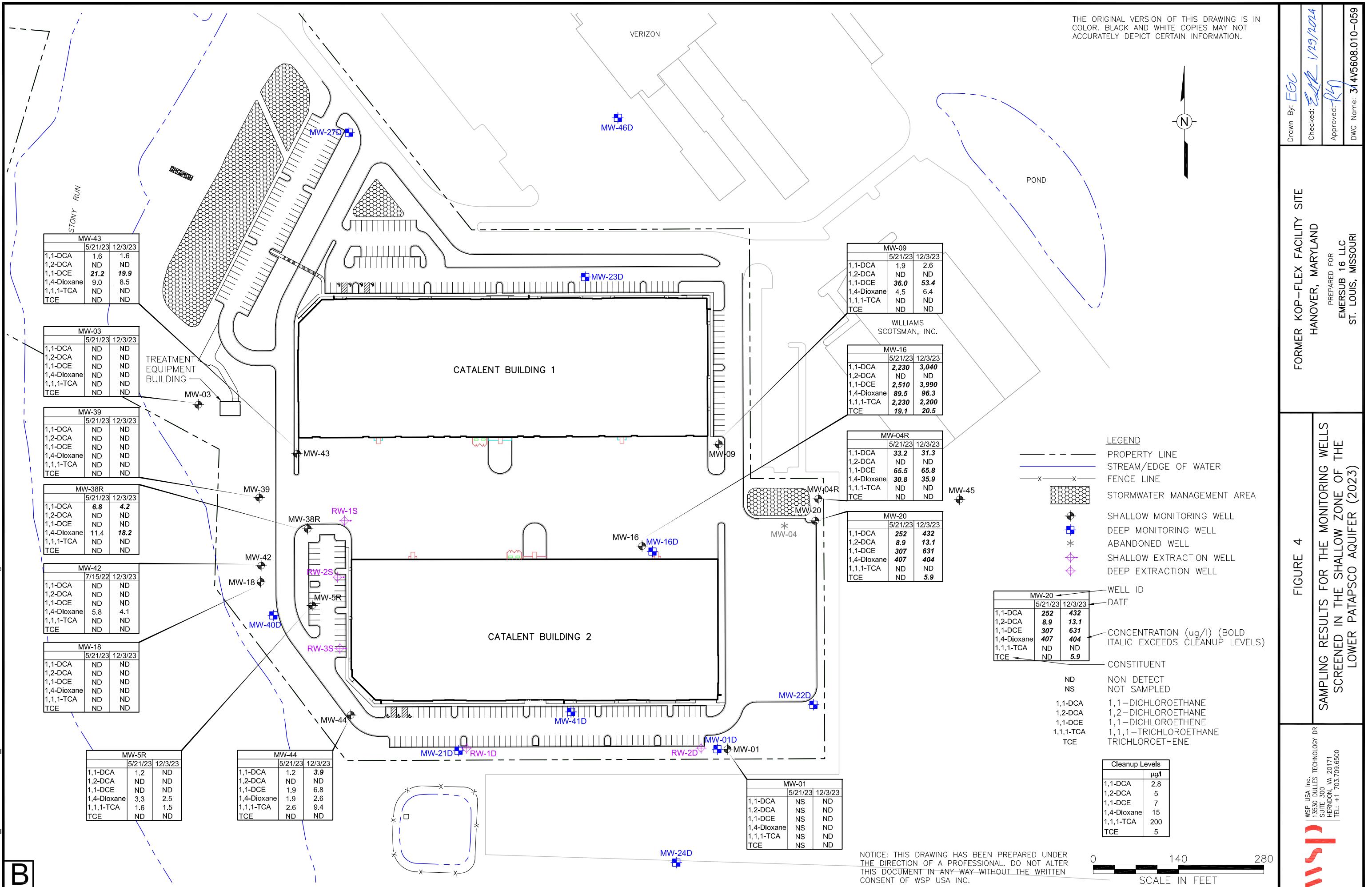
There were no changes to the key personnel for the corrective action or onsite conditions related to the activities conducted by the facility owner/operator.

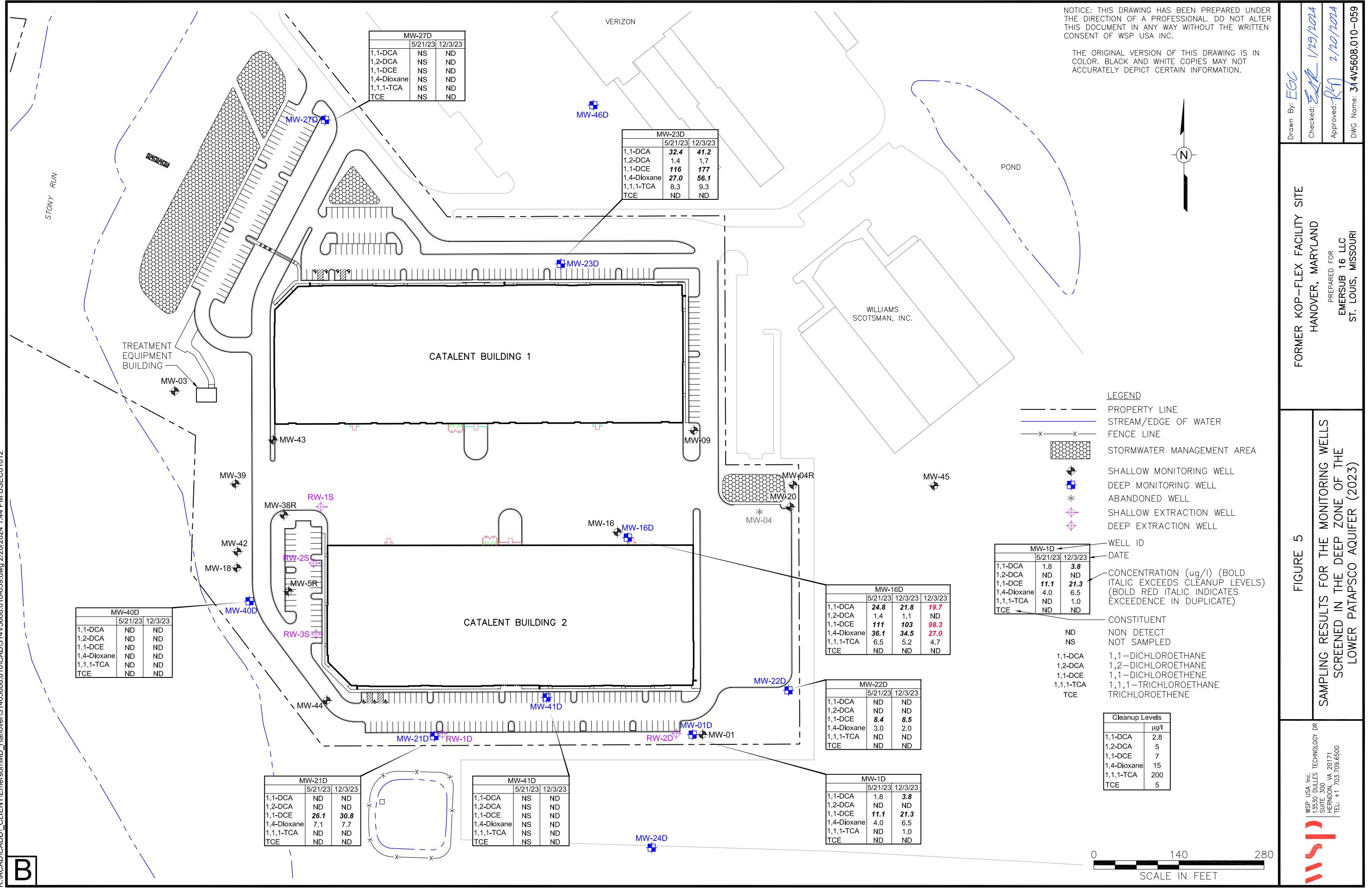
## FIGURES

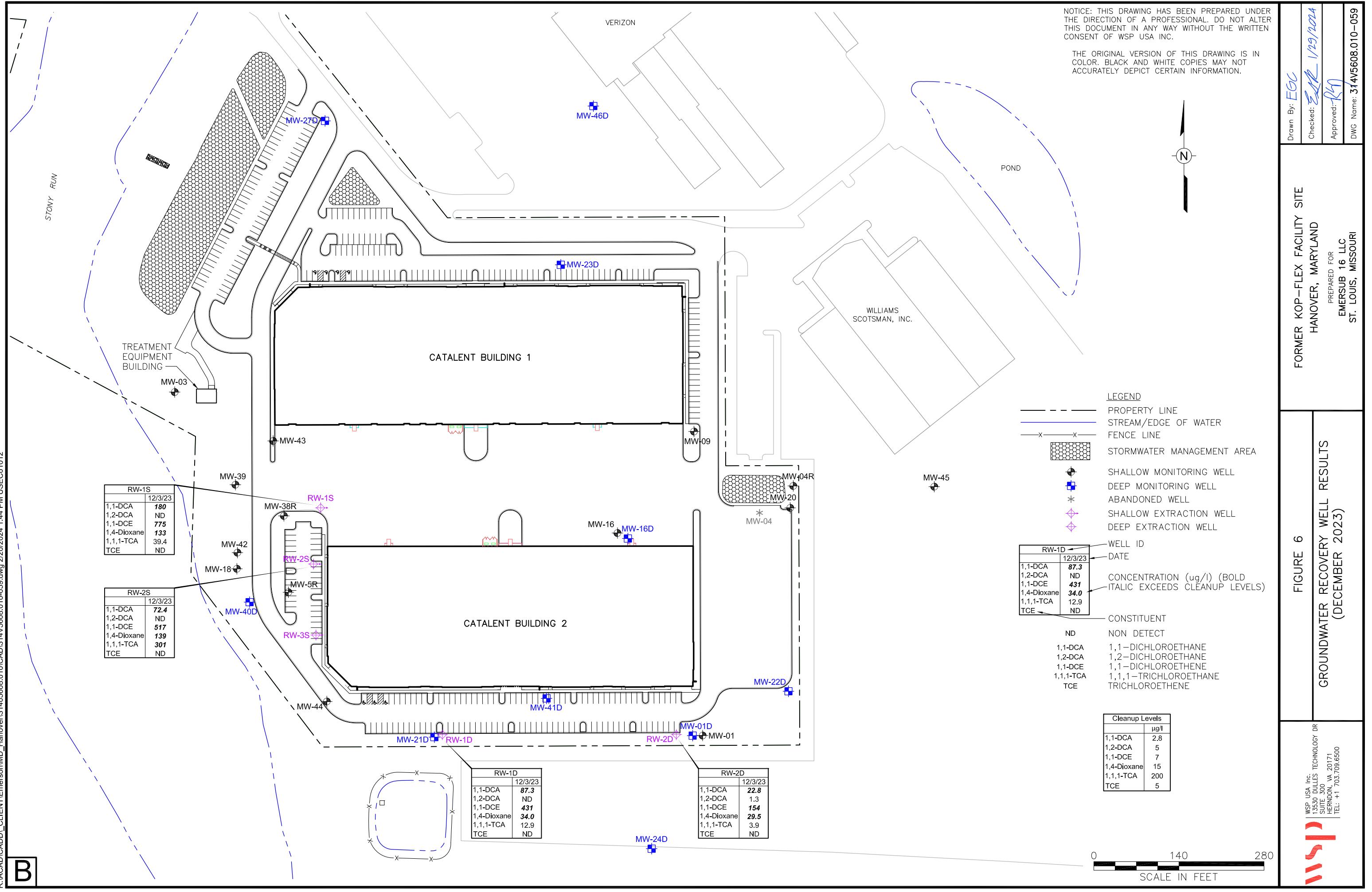












## TABLES

Table 1

**Historical Water Level Measurements in  
Onsite Monitoring Wells and Recovery Well Piezometers  
Former Kop-Flex Facility Site  
Hanover, Maryland  
(December 2016 to December 2023) (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								
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	-								
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-1D	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	-								
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 December 2023) (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									
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-1D	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 December 2023) (a)**

Well ID	Zone	TOC elevation	10/25/2017		11/14/2017		5/30/2018		11/7/2018		5/21/2019	
			Depth to Water	Groundwater Elevation								
MW-01	Shallow		129.8	NA	14.17	115.63	15.52	114.28	13.99	115.81	13.98	115.82
MW-03	Shallow		113.6	NA	7.27	106.33	7.17	106.43	6.43	107.17	7.08	106.52
MW-04	Shallow		124.4	NA	10.97	113.43	10.19	114.21	9.16	115.24	8.80	115.60
MW-04R (b)	Shallow		127.5	NA	-	NA	-	NA	-	NA	-	-
MW-5R	Shallow		123.5	NA	16.78	106.72	15.89	107.61	15.51	107.99	15.74	107.76
MW-09	Shallow		125.1	NA	NA	NA	10.78	114.32	9.16	115.94	9.61	115.49
MW-16	Shallow		124.0	NA	NA	12.00	112.00	11.76	112.24	10.96	113.04	9.37
MW-18	Shallow		125.1	NA	NA	24.41	100.69	23.80	101.30	23.13	101.97	22.97
MW-20	Shallow		125.4	NA	NA	11.98	113.42	12.15	113.25	11.74	113.66	10.64
MW-38R	Shallow		125.4	NA	NA	19.93	105.47	19.35	106.05	18.67	106.73	19.13
MW-39	Shallow		124.6	NA	NA	23.93	100.67	23.72	100.88	23.09	101.51	23.00
MW-42	Shallow		125.9	NA	NA	19.82	106.08	19.16	106.74	18.55	107.35	18.91
MW-43	Shallow		122.8	NA	NA	21.66	101.14	20.47	102.33	20.60	102.20	21.46
MW-44	Shallow		127.1	NA	NA	17.00	110.10	16.32	110.78	15.78	111.32	15.91
MW-45	Shallow		126.7	NA	NA	13.80	112.92	12.98	113.74	12.00	114.72	11.75
RW-1S	Shallow		122.9	NA	NA	21.98	100.92	22.88	100.02	23.97	98.93	26.42
RW-2S	Shallow		123.5	NA	NA	30.76	92.74	28.37	95.13	27.48	96.02	31.16
RW-3S	Shallow		125.4	NA	NA	28.47	96.93	26.91	98.49	24.39	101.01	22.10
MW-1D	Deep		129.4	58.17	71.23	58.09	71.31	58.03	71.37	57.22	72.18	56.55
MW-16D	Deep		124.1	40.71	83.39	40.63	83.47	40.37	83.73	39.33	84.77	38.30
MW-21D	Deep		126.3	50.61	75.69	50.53	75.77	50.38	75.92	49.61	76.69	48.38
MW-22D	Deep		128.9	46.74	82.11	46.25	82.60	46.30	82.55	35.31	93.54	44.02
MW-23D	Deep		125.2	39.21	85.99	39.04	86.16	38.87	86.33	37.72	87.48	36.88
MW-24D	Deep		129.1	52.15	76.95	51.99	77.11	50.94	78.16	50.72	78.38	49.67
MW-27D	Deep		117.2	30.52	86.68	30.34	86.86	30.20	87.00	29.17	88.03	28.15
MW-40D	Deep		124.1	40.75	83.35	40.50	83.60	40.44	83.66	39.60	84.50	38.50
MW-41D	Deep		127.1	47.94	79.16	47.71	79.39	47.56	79.54	46.56	80.54	45.42
MW-46D	Deep		124.8	NM	-	NM	-	37.37	87.40	32.65	92.12	35.47
RW-1D	Deep		126.9	62.62	64.28	63.62	63.28	62.75	64.15	62.97	63.93	62.44
RW-2D	Deep		127.4	68.90	58.50	68.95	58.45	69.21	58.19	68.34	59.06	68.19

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 December 2023) (a)**

Well ID	Zone	TOC elevation	11/19/2019		5/12/2020		11/22/2020		5/9/2021		11/14/2021 (c)		
			Depth to Water	Groundwater Elevation									
MW-01	Shallow		129.8	16.47	113.33	15.67	114.13	15.58	114.22	14.75	115.05	15.35	114.45
MW-03	Shallow		113.6	7.02	106.58	6.09	107.51	6.1	107.50	6.4	107.20	5.86	107.74
MW-04	Shallow		124.4	11.07	113.33	11.00	113.40	10.85	113.55	9.75	114.65	10.43	113.97
MW-04R (b)	Shallow		127.5	NA	-	NA	-	NA	-	NA	-	NA	-
MW-5R	Shallow		123.5	16.61	106.89	16.55	106.95	15.84	107.66	NM	-	13.52	109.98
MW-09	Shallow		125.1	12.00	113.10	11.57	113.53	11.23	113.87	10.35	114.75	10.85	114.25
MW-16	Shallow		124.0	12.43	111.57	11.66	112.34	11.68	112.32	11.15	112.85	11.05	112.95
MW-18	Shallow		125.1	21.12	103.98	23.10	102.00	23.80	101.30	26.71	98.39	21.42	103.68
MW-20	Shallow		125.4	12.98	112.42	12.57	112.83	12.11	113.29	11.22	114.18	11.34	114.06
MW-38R	Shallow		125.4	19.83	105.57	19.03	106.37	19.25	106.15	18.55	106.85	15.63	109.77
MW-39	Shallow		124.6	23.94	100.66	23.04	101.56	23.52	101.08	22.98	101.62	21.29	103.31
MW-42	Shallow		125.9	19.44	106.46	18.85	107.05	NM	-	17.98	107.92	15.64	110.26
MW-43	Shallow		122.8	22.04	100.76	20.98	101.82	21.91	100.89	21.02	101.78	20.10	102.70
MW-44	Shallow		127.1	17.24	109.86	16.30	110.80	16.52	110.58	16.26	110.84	15.21	111.89
MW-45	Shallow		126.7	14.55	112.17	NM	-	13.61	113.11	12.69	114.03	13.35	113.37
RW-1S	Shallow		122.9	28.64	94.26	29.16	93.74	28.13	94.77	25.00	97.90	13.28	109.62
RW-2S	Shallow		123.5	31.70	91.80	33.33	90.17	35.31	88.19	34.85	88.65	16.02	107.48
RW-3S	Shallow		125.4	23.24	102.16	22.85	102.55	26.72	98.68	25.36	100.04	15.69	109.71
MW-1D	Deep		129.4	59.49	69.91	57.17	72.23	59.91	69.49	57.46	71.94	45.20	84.20
MW-16D	Deep		124.1	40.99	83.11	38.67	85.43	39.97	84.13	38.81	85.29	37.06	87.04
MW-21D	Deep		126.3	50.75	75.55	48.50	77.80	50.37	75.93	48.64	77.66	41.50	84.80
MW-22D	Deep		128.9	46.20	82.65	44.05	84.80	46.55	82.30	44.72	84.13	43.36	85.49
MW-23D	Deep		125.2	39.40	85.80	37.16	88.04	39.22	85.98	37.36	87.84	36.73	88.47
MW-24D	Deep		129.1	51.12	77.98	48.80	80.30	53.02	76.08	50.01	79.09	49.40	79.70
MW-27D	Deep		117.2	30.68	86.52	28.64	88.56	30.62	86.58	28.89	88.31	28.72	88.48
MW-40D	Deep		124.1	41.16	82.94	38.59	85.51	40.97	83.13	39.00	85.10	37.48	86.62
MW-41D	Deep		127.1	48.50	78.60	45.28	81.82	48.65	78.45	45.95	81.15	44.51	82.59
MW-46D	Deep		124.8	37.90	86.87	35.73	89.04	37.72	87.05	35.95	88.82	35.62	89.15
RW-1D	Deep		126.9	64.86	62.04	NM	-	NM	-	NM	-	41.71	85.19
RW-2D	Deep		127.4	71.36	56.04	69.35	58.05	69.72	57.68	69.41	57.99	43.90	83.50

a/ Vertical datum is NAVD-88

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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 December 2023) (a)**

Well ID	Zone	TOC elevation	6/26/2022 (c)		11/7/2022		11/20/2022		5/21/2023		12/3/2023	
			Depth to Water	Groundwater Elevation								
MW-01	Shallow	129.8	14.85	114.95	15.66	114.14	15.65	114.15	15.22	114.58	15.73	114.07
MW-03	Shallow	113.6	6.21	107.39	6.39	107.21	6.29	107.31	6.63	106.97	6.9	106.70
MW-04	Shallow	124.4	9.90	114.50	-	- (b)						
MW-04R (b)	Shallow	127.5	NA	-	13.93	113.54	14.01	113.46	13.60	113.87	14.11	113.36
MW-5R	Shallow	123.5	14.36	109.14	NM	-	15.95	107.55	13.53	109.97	15.32	108.18
MW-09	Shallow	125.1	10.50	114.60	10.81	114.29	11.08	114.02	10.90	114.20	11.29	113.81
MW-16	Shallow	124.0	11.22	112.78	11.84	112.16	11.75	112.25	11.79	112.21	11.68	112.32
MW-18	Shallow	125.1	22.05	103.05	23.37	101.73	23.39	101.71	21.46	103.64	23.69	101.41
MW-20	Shallow	125.4	14.41	110.99	11.35	114.05	11.73	113.67	11.80	113.60	11.81	113.59
MW-38R	Shallow	125.4	17.66	107.74	19.32	106.08	19.01	106.39	16.76	108.64	18.18	107.22
MW-39	Shallow	124.6	22.22	102.38	23.74	100.86	23.49	101.11	21.72	102.88	23.63	100.97
MW-42	Shallow	125.9	NM	-	18.68	107.22	18.48	107.42	15.89	110.01	17.83	108.07
MW-43	Shallow	122.8	20.47	102.33	21.58	101.22	21.51	101.29	20.10	102.70	22.15	100.65
MW-44	Shallow	127.1	15.80	111.30	16.12	110.98	15.85	111.25	15.30	111.80	15.91	111.19
MW-45	Shallow	126.7	12.91	113.81	NM	-	13.54	113.18	13.08	113.64	13.54	113.18
RW-1S	Shallow	122.9	NM	-	20.77	102.13	20.41	102.49	13.22	109.68	18.10	104.80
RW-2S	Shallow	123.5	NM	-	29.30	94.20	28.82	94.68	14.70	108.80	28.91	94.59
RW-3S	Shallow	125.4	NM	-	NM	-	16.94	108.46	15.82	109.58	NM	-
MW-1D	Deep	129.4	47.46	81.94	NM	-	60.02	69.38	45.61	83.79	58.66	70.74
MW-16D	Deep	124.1	NM	-	NM	-	NM	-	37.56	86.54	41.89	82.21
MW-21D	Deep	126.3	43.11	83.19	NM	-	51.95	74.35	40.86	85.44	51.76	74.54
MW-22D	Deep	128.9	44.90	83.95	NM	-	46.90	81.95	43.52	85.33	48.10	80.75
MW-23D	Deep	125.2	38.36	86.84	NM	-	39.85	85.35	37.31	87.89	40.28	84.92
MW-24D	Deep	129.1	51.06	78.04	NM	-	53.11	75.99	49.42	79.68	53.83	75.27
MW-27D	Deep	117.2	29.82	87.38	NM	-	31.18	86.02	29.24	87.96	31.71	85.49
MW-40D	Deep	124.1	40.04	84.06	NM	-	41.58	82.52	37.80	86.30	42.06	82.04
MW-41D	Deep	127.1	46.96	80.14	NM	-	48.78	78.32	44.84	82.26	49.37	77.73
MW-46D	Deep	124.8	37.13	87.64	NM	-	38.38	86.39	36.26	88.51	38.88	85.89
RW-1D	Deep	126.9	NM	-	NM	-	64.80	62.10	42.00	84.90	64.03	62.87
RW-2D	Deep	127.4	NM	-	NM	-	71.59	55.81	45.25	82.15	NM	-

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.

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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)
<b>Shallow Wells</b>				
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
<b>Deep Wells</b>				
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**  
**December 2023 (a)**

Well ID	Sample Date	Temp (°C)	pH	Sp. Cond (mS/cm)	Turb (NTU)
Shallow Wells					
MW-01	12/3/2023	12.74	4.32	0.147	0
MW-03	12/3/2023	12.12	5.83	NM	297
MW-04	12/3/2023	13.24	5.98	0.429	65.1
MW-09	12/3/2023	14.87	6.45	1.01	11.3
MW-16	12/3/2023	NM	NM	NM	NM
MW-18	12/3/2023	12.21	4.42	NM	14.8
MW-20	12/3/2023	13.26	6.07	0.16	151
MW-38R	12/3/2023	13.66	3.78	NM	42.9
MW-39	12/20/2023	NM	NM	NM	NM
MW-42	12/3/2023	12.91	3.8	NM	9.7
MW-43	12/3/2023	12.93	3.9	NM	46.4
MW-44	12/3/2023	12.8	5.38	0.402	0
MW-5R	12/3/2023	13	3.75	0.581	111
RW-1S	12/3/2023	13.65	4.27	NM	0.4
RW-2S	12/3/2023	13.3	4.07	0.321	0
Deep Wells					
MW-01D	12/3/2023	12.47	4.86	0.151	156
MW-16D	12/3/2023	NM	NM	NM	NM
MW-21D	12/3/2023	12.51	4.46	0.191	0
MW-22D	12/3/2023	12.38	4.68	0.156	39
MW-23D	12/3/2023	13.24	5.66	0.216	130
MW-27D	12/3/2023	11.76	5.67	NM	42.8
MW-40D	12/3/2023	11.94	4.3	0.248	2.6
MW-41D	12/3/2023	12.95	4.41	0.168	13
MW-46D	12/3/2023	12.36	4.95	NM	135
RW-1D	12/3/2023	13.17	4.7	0.2	0
RW-2D	12/3/2023	12.98	4.32	0.147	0

a/ Temp = temperature; °C = degrees Celsius; Sp. Cond = specific conductance; mS/cm = millSiemens/centimeter; ORP = oxidation-reduction potential; mV = millivolts; Turb = Turbidity; NTU = nephelometric turbidity units.

Table 4

**December 2023 Monitoring Well Sampling Results**  
**Former Kop-Flex Facility Site**  
**Hanover, Maryland (a)**

<b>Parameters</b>	<b>Groundwater</b>		<b>Shallow Wells</b>												
	<b>Cleanup Standards</b> <b>(µg/L) (b)</b>	<b>Well ID:</b> <b>Sampling Date:</b>	<b>MW-01</b> <b>12/3/2023</b>	<b>MW-03</b> <b>12/3/2023</b>	<b>MW-04R</b> <b>(d)</b>	<b>MW-05R</b> <b>12/3/2023</b>	<b>MW-09</b> <b>12/3/2023</b>	<b>MW-16</b> <b>12/3/2023</b>	<b>MW-18</b> <b>12/3/2023</b>	<b>MW-20</b> <b>12/3/2023</b>	<b>MW-38R</b> <b>12/3/2023</b>	<b>MW-39</b> <b>12/21/2023</b>	<b>MW-42</b> <b>12/3/2023</b>	<b>MW-43</b> <b>12/3/2023</b>	<b>MW-44</b> <b>12/3/2023</b>
Chloroethane	2,100		1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	124	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	<b>31.3</b>	1.0 U	2.6	<b>3,040</b>	1.0 U	<b>432</b>	<b>4.2</b>	1.0 U	1.0 U	1.6	<b>3.9</b>
1,2-Dichloroethane	5		1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	20.0 U	1.0 U	<b>13.1</b>	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	<b>65.8</b>	1.0 U	<b>53.4</b>	<b>3,990</b>	1.0 U	<b>631</b>	1.0 U	1.0 U	1.0 U	<b>19.9</b>	6.8
1,4-Dioxane	15	(c)	1.0 U	1.1 U	<b>35.9</b>	2.5	6.4	<b>96.3</b>	1.0 U	<b>404</b>	<b>18.2</b>	1.0 U	4.1	8.5	2.6
Methyl t-Butyl Ether	20		1.0 U	1.0 U	5.0 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	1.8	1.0 U
1,1,1-Trichloroethane	200		1.0 U	1.0 U	5.0 U	1.5	1.0 U	<b>2,200</b>	1.0 U	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	9.4
Trichloroethene	5		1.0 U	1.0 U	5.0 U	1.0 U	1.0 U	<b>20.5</b>	1.0 U	<b>5.9</b>	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
<b>Total CVOCs &amp; 1,4-Dioxane</b>	<b>ND</b>	<b>ND</b>	<b>133</b>	<b>4.0</b>	<b>62.4</b>	<b>9,471</b>	<b>ND</b>	<b>1,486</b>	<b>22.4</b>	<b>ND</b>	<b>4.1</b>	<b>30</b>	<b>22.7</b>		

a/ U = not detected above the method detection limit; NS = not sampled; ID = identification

**Bolded values indicate an exceedance 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.s>

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/ DUP-120323 is a blind duplicate of MW-16D

Table 4

**December 2023 Monitoring Well Sampling Results**  
**Former Kop-Flex Facility Site**  
**Hanover, Maryland (a)**

<u>Parameters</u>	<u>Groundwater Cleanup Standards (µg/L) (b)</u>	Well ID: Sampling Date:	<u>Deep Wells</u>								
			MW-01D 12/3/2023	MW-16D 12/3/2023	DUP-120323 (e) 12/3/2023	MW-21D 12/3/2023	MW-22D 12/3/2023	MW-23D 12/3/2023	MW-27D 12/3/2023	MW-40D 12/3/2023	MW-41D 12/3/2023
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		<b>3.8</b>	<b>21.8</b>	<b>19.7</b>	1.0 U	1.0 U	<b>41.2</b>	1.0 U	1.0 U	1.0 U
1,2-Dichloroethane	5		1.0 U	1.1	1.0 U	1.0 U	1.0 U	1.7	1.0 U	1.0 U	1.0 U
1,1-Dichloroethene	7		<b>21.3</b>	<b>103</b>	<b>98.3</b>	<b>30.8</b>	<b>8.5</b>	<b>177</b>	1.0 U	1.0 U	1.0 U
1,4-Dioxane	15	(c)	6.5	<b>34.5</b>	<b>27.0</b>	7.7	2.0	<b>56.1</b>	1.0 U	1.0 U	1.0 U
Methyl t-Butyl Ether	20		1.0 U	1.0	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
1,1,1-Trichloroethane	200		1.0	5.2	4.7	1.0 U	1.0 U	9.3	1.0 U	1.0 U	1.0 U
Trichloroethene	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
<b>Total CVOCs &amp; 1,4-Dioxane</b>	<b>32.6</b>		<b>166</b>	<b>149.7</b>	<b>38.5</b>	<b>10.5</b>	<b>285.3</b>	<b>ND</b>	<b>ND</b>	<b>ND</b>	

a/ U = not detected above the method detection limit; NS = not sampled; ID = identification

**Bolded values indicate an exceedance 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.sta>

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/ DUP-120323 is a blind duplicate of MW-16D

Table 5

**Historical Monitoring Well Sampling Results**  
**Former Kop-Flex Facility Site**  
**Hanover, Maryland**  
**(December 2016 - December 2023) (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		
	<b>Groundwater Cleanup Standards (b)</b>	2,100	2.8	5	7	70	15 (c)	5	5	200	5	5	2		
<b>MW-01</b>	5/14/2020 5/9/2021 11/14/2021 6/26/2022 11/20/2022 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	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	1.0 U 1.0 U 1.0 U 0.23 1.0 U 1.0 U	2.0 U 2.0 U 2.0 U 2.0 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 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 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 1.0 U 1.0 U 1.0 U		
<b>MW-03</b>	12/8/2016 5/1/2017 5/30/2018 5/21/2019 5/12/2020 5/9/2021 11/14/2021 6/26/2022 11/20/2022 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 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 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 1.0 U 1.0 U 1.0 U 1.0 U	4.6 2.0 U 2.0 U 2.0 U 2.0 U 2.0 U 2.0 U 2.0 U 2.0 U 2.0 U	2.0 U 2.0 U 2.0 U 5.0 U 5.0 U 5.0 U 5.0 U 5.0 U 5.0 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 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 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 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 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 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 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
<b>MW-04</b>	12/7/2016 5/2/2017 11/15/2017 5/30/2018 11/7/2018 5/21/2019 11/19/2019 5/13/2020 11/22/2020 5/9/2021 11/14/2021 6/26/2022	10.0 U 4.0 U 5.0 U 1.0 U 1.0 U 1.0 U 1.0 U 1.0 U 1.0 U 2.5 U 1.0 U 1.0 U	<b>259</b> <b>103</b> <b>29.2</b> <b>33.3</b> <b>23.3</b> <b>57.7</b> <b>45.1</b> <b>58.6</b> <b>62.0</b> <b>130</b> <b>82.7</b> <b>173</b>	10.0 U 4.0 U 1.0 J 1.0 U 1.0 U 1.1 1.1 1.3 1.6 2.9 1.2 3.1	<b>1,020</b> <b>459</b> <b>151</b> <b>153</b> <b>89.9</b> <b>142</b> <b>126</b> <b>149</b> <b>141</b> <b>361</b> <b>175</b> <b>339</b>	10.0 U 4.0 U 1.0 U 1.0 U 1.0 U 1.0 U 1.0 U 1.0 U 1.0 U 2.5 U 1.0 U 1.0 U	<b>576</b> <b>252</b> <b>121</b> <b>92.7</b> <b>111</b> <b>111</b> <b>94.2</b> <b>84.6</b> <b>151</b> <b>303</b> <b>134</b> <b>86.8</b>	20.0 U 8.0 U <b>10.5</b> 2.0 U 5.0 U 5.0 U 5.0 U 5.0 U 5.0 U 12.5 U 5.0 U 5.0 U	4.0 U 4.0 U 0.687 J 1.0 U 1.0 U 1.0 U 1.0 U 1.0 U 1.0 U 2.5 U 1.0 U 1.0 U	31.7 13.0 4.3 4.0 1.6 1.7 1.0 U 1.4 1.0 U 3.4 1.0 U 1.8	10.0 U 4.0 U 1.0 U 1.0 U 1.0 U 1.0 U 1.0 U 1.2 1.0 U 2.5 U 1.0 U 1.0 U	10.0 U 4.0 U 1.4 1.0 U 1.0 U 1.1 1.0 U 1.2 1.2 2.5 U 1.5 3.0	10.0 U 4.0 U 1.0 U 1.0 U 1.0 U 1.0 U 1.0 U 1.0 U 1.0 U 2.5 U 1.0 U 1.0 U	10.0 U 4.0 U 1.0 U 1.0 U 1.0 U 1.0 U 1.0 U 1.0 U 1.0 U 2.5 U 1.0 U 1.0 U	
<b>MW-04R</b>	11/20/2022 5/21/2023 12/3/2023	1.0 U 1.0 U 1.0 U	<b>37.4</b> <b>33.2</b> <b>31.3</b>	1.1 1.0 U 1.1	<b>76.0</b> <b>65.5</b> <b>65.8</b>	1.0 U 1.0 U 1.0 U	<b>57.3</b> <b>30.8</b> <b>35.9</b>	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	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 - December 2023) (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
<b>MW-5R</b>	12/7/2016	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	<b>16.5</b>	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	<b>16.5</b>	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	<b>10.2</b>	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
<b>MW-09</b>	12/8/2016	1.0 U	<b>4.5</b>	1.0 U	<b>104</b>	1.0 U	<b>95.5</b>	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/2/2017	1.0 U	<b>2.9</b>	1.0 U	<b>63.8</b>	1.0 U	<b>20.8</b>	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/15/2017	5.0 U	<b>3.1</b>	0.4 J	<b>60.2</b>	1.0 U	<b>32.4</b>	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	<b>49.2</b>	1.0 U	<b>23.4</b>	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/7/2018	1.0 U	<b>4.5</b>	1.0 U	<b>75.9</b>	1.0 U	<b>37.4</b>	2.0 U	1.0 U	1.1	1.0 U	1.0 U	1.0 U
	5/21/2019	1.0 U	<b>3.6</b>	1.0 U	<b>70.8</b>	1.0 U	<b>32.8</b>	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	<b>48.7</b>	1.0 U	<b>24.4</b>	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	<b>50.5</b>	1.0 U	<b>18.7</b>	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	<b>56.4</b>	1.0 U	<b>25.7</b>	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/9/2021	1.0 U	<b>3.0</b>	1.0 U	<b>56.3</b>	1.0 U	<b>23.6</b>	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	<b>53.3</b>	1.0 U	<b>22.6</b>	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	6/26/2022	1.0 U	<b>3.0</b>	1.0 U	<b>57.7</b>	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	<b>35.7</b>	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	<b>36.0</b>	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	<b>53.4</b>	1.0 U	6.4	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 - December 2023) (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
<b>MW-16</b>	12/8/2016	200 U	<b>6,420</b>	200 U	<b>26,200</b>	200 U	<b>1,450</b>	400 U	100 U	<b>4,390</b>	200 U	200 U	200 U
	5/2/2017	225	<b>7,910</b>	100 U	<b>10,500</b>	100 U	<b>971</b>	200 U	100 U	<b>8,930</b>	100 U	100 U	100 U
	11/15/2017	732	<b>7,110</b>	22	<b>7,740</b>	46	<b>836</b>	11	<b>18.4</b>	<b>5,590</b>	1.0 U	<b>69</b>	<b>19</b>
	5/30/2018	249	<b>6,250</b>	50 U	<b>4,690</b>	50 U	<b>636</b>	100 U	50 U	<b>7,360</b>	50 U	50 U	50 U
	11/7/2018	275	<b>7,360</b>	50 U	<b>7,800</b>	50 U	<b>866</b>	100 U	50 U	<b>6,420</b>	50 U	<b>74.2</b>	50 U
	5/22/2019	10 U	<b>343</b>	10 U	<b>1,160</b>	10 U	<b>1,230</b>	50 U	10 U	<b>216</b>	10 U	<b>13.7</b>	10 U
	11/19/2019	23.4	<b>608</b>	10 U	<b>1,440</b>	10 U	<b>81.9</b>	50 U	10 U	<b>314</b>	10 U	<b>18.3</b>	10 U
	5/13/2020	10.9	<b>394</b>	5 U	<b>571</b>	5 U	<b>39.2</b>	5 U	5 U	<b>487</b>	5 U	<b>10.7</b>	5 U
	11/22/2020	20.0 U	<b>1,560</b>	20 U	<b>1,130</b>	20 U	<b>84.2</b>	100 U	20 U	<b>2,060</b>	5 U	20.0 U	20 U
	5/9/2021	4.2	<b>169</b>	2 U	<b>276</b>	2.1	<b>19.3</b>	10 U	2.2	123	2 U	<b>6.2</b>	2 U
	11/14/2021	12.5 U	<b>1,350</b>	12.5 U	<b>1,630</b>	12.5 U	<b>76.0</b>	62.5 U	12.5 U	<b>1,720</b>	12.5 U	12.5 U	12.5 U
	6/26/2022	42.6	<b>1,030</b>	1.0 U	<b>1,210</b>	1.0 U	<b>26.4</b>	1.4	<b>5.5</b>	<b>1,610</b>	1.0 U	<b>13.8</b>	<b>2.3</b>
	11/20/2022	136.0	<b>3,290</b>	1.0 U	<b>4,290</b>	1.0 U	<b>143.0</b>	2.2	<b>9.4</b>	<b>2,960</b>	1.0 U	<b>28.0</b>	<b>13.2</b>
	5/21/2023	96.1	<b>2,230</b>	1.0 U	<b>2,510</b>	1.0 U	<b>89.5</b>	3.7	<b>6.3</b>	<b>2,230</b>	1.0 U	<b>19.1</b>	<b>6.7</b>
	12/3/2023	124.0	<b>3,040</b>	20.0 U	<b>3,990</b>	20.0 U	<b>96.3</b>	20.0 U	20.0 U	<b>2,200</b>	20.0 U	<b>20.5</b>	20 U
<b>MW-18</b>	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	<b>24.9</b>	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

Table 5

**Historical Monitoring Well Sampling Results**  
**Former Kop-Flex Facility Site**  
**Hanover, Maryland**  
**(December 2016 - December 2023) (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
	<b>Groundwater Cleanup Standards (b)</b>	2,100	2.8	5	7	70	15 (c)	5	5	200	5	5	2
<b>MW-20</b>	12/9/2016	2.0 U	<b>99.7</b>	<b>5.1</b>	<b>173</b>	2.0 U	<b>767</b>	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
	5/2/2017	2.0 U	<b>161</b>	<b>7.3</b>	<b>286</b>	2.0 U	<b>967</b>	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
	11/15/2017	5.0 U	<b>136</b>	<b>5.7</b>	<b>223</b>	1.4	<b>969</b>	5.0 U	1.0 U	1.0 U	1.9	1.0 U	1.0 U
	5/30/2018	2.0 U	<b>115</b>	<b>5.5</b>	<b>205</b>	2.0 U	<b>966</b>	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
	11/7/2018	2.5 U	<b>145</b>	<b>6.3</b>	<b>233</b>	2.5 U	<b>986</b>	5.0 U	2.5 U	2.5 U	2.5 U	2.5 U	2.5 U
	5/21/2019	2.0 U	<b>157</b>	<b>6.5</b>	<b>226</b>	2.0 U	<b>1,620</b>	10.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
	11/19/2019	2.0 U	<b>175</b>	<b>7.5</b>	<b>244</b>	2.0 U	<b>1,220</b>	10.0 U	2.0 U	2.0 U	2.1	2.0 U	2.0 U
	5/13/2020	2.0 U	<b>188</b>	<b>7.7</b>	<b>232</b>	2.0 U	<b>1,000</b>	10.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
	11/22/2020	2.0 U	<b>205</b>	<b>7.5</b>	<b>272</b>	2.0 U	<b>1,260</b>	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
	5/9/2021	2.0 U	<b>214</b>	<b>7.5</b>	<b>267</b>	2.2	<b>1,010</b>	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
	11/14/2021	2.0 U	<b>256</b>	<b>8.7</b>	<b>321</b>	2.0 U	<b>1,210</b>	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
	6/26/2022	1.0 U	<b>294</b>	<b>10.8</b>	<b>426</b>	2.9	<b>377</b>	5.0 U	1.0 U	1.0 U	2.7	2.7	1.0 U
	11/20/2022	1.0 U	<b>258</b>	<b>9.7</b>	<b>348</b>	2.6	<b>560</b>	1.0 U	1.0 U	1.0 U	2.4	2.7	1.0 U
	5/21/2023	1.0 U	<b>252</b>	<b>8.9</b>	<b>307</b>	1.0 U	<b>407</b>	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	12/3/2023	5.0 U	<b>432</b>	<b>13.1</b>	<b>631</b>	5.0 U	<b>404</b>	5.0 U	5.0 U	5.0 U	5.0 U	5.9 U	1.0 U
<b>MW-38R</b>	12/9/2016	1.0 U	<b>3.8</b>	1.0 U	1.0 U	1.0 U	<b>18.3</b>	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/1/2017	1.0 U	<b>6.0</b>	1.0 U	1.0 U	1.0 U	<b>42.6</b>	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/15/2017	5.0 U	<b>8.3</b>	1.0 U	1.0 U	1.0 U	<b>62.5</b>	<b>8.1</b>	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/30/2018	1.0 U	<b>4.3</b>	1.0 U	1.0 U	1.0 U	<b>40.7</b>	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/7/2018	1.0 U	<b>6.9</b>	1.0 U	1.0 U	1.0 U	<b>39.4</b>	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/21/2019	1.0 U	<b>4.7</b>	1.0 U	1.0 U	1.0 U	<b>43.2</b>	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/19/2019	1.0 U	<b>7.7</b>	1.0 U	1.0 U	1.0 U	<b>51.5</b>	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/12/2020	1.0 U	<b>6.2</b>	1.0 U	1.0 U	1.0 U	<b>40.8</b>	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/22/2020	1.0 U	<b>6.5</b>	1.0 U	1.0 U	1.0 U	<b>40.9</b>	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/9/2021	1.0 U	<b>5.5</b>	1.0 U	1.0 U	1.0 U	<b>47.0</b>	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/19/2021	1.0 U	<b>6.7</b>	1.0 U	1.0 U	1.0 U	<b>46.2</b>	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	6/26/2022	1.0 U	<b>7.6</b>	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	<b>7.1</b>	1.0 U	1.0 U	1.0 U	<b>20.1</b>	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/21/2023	1.0 U	<b>6.8</b>	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	<b>4.2</b>	1.0 U	1.0 U	1.0 U	<b>18.2</b>	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 - December 2023) (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
	<b>Groundwater Cleanup Standards (b)</b>	2,100	2.8	5	7	70	15 (c)	5	5	200	5	5	2
<b>MW-39</b>	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
<b>MW-42</b>	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	<b>19.3</b>	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

Table 5

**Historical Monitoring Well Sampling Results**  
**Former Kop-Flex Facility Site**  
**Hanover, Maryland**  
**(December 2016 - December 2023) (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
<b>MW-43</b>	12/7/2016	2.0 U	<b>15.9</b>	2.1	<b>171</b>	2.0 U	<b>237</b>	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
	5/1/2017	2.0 U	<b>21.3</b>	2.1	<b>177</b>	2.0 U	<b>206</b>	4.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
	11/15/2017	5.0 U	<b>15.9</b>	1.3	<b>159</b>	1.0 U	<b>165</b>	5.0 U	1.0 U	1.2	1.0 U	1.0 U	1.0 U
	5/30/2018	2.0 U	<b>5.9</b>	1.0 U	<b>68</b>	1.0 U	<b>57.6</b>	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/7/2018	1.0 U	<b>13.8</b>	1.2	<b>118</b>	1.0 U	<b>107</b>	2.0 U	1.0 U	1.0 U	1.0 U	1.3	1.0 U
	5/21/2019	1.0 U	<b>5.2</b>	1.0 U	<b>53.9</b>	1.0 U	<b>52.0</b>	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/19/2019	1.0 U	<b>4.3</b>	1.0 U	<b>48.5</b>	1.0 U	<b>55.2</b>	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/12/2020	1.0 U	<b>3.8</b>	1.0 U	<b>46.3</b>	1.0 U	<b>49.0</b>	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	11/22/2020	1.0 U	<b>2.9</b>	1.0 U	<b>31.8</b>	1.0 U	<b>42.7</b>	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	<b>31.7</b>	1.0 U	<b>34.1</b>	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	<b>31.3</b>	1.0 U	<b>34.3</b>	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	<b>29.4</b>	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	<b>20.3</b>	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	<b>21.2</b>	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	<b>19.9</b>	1.0 U	8.5	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
<b>MW-44</b>	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	<b>6.6</b>	1.0 U	5.9	1.0 U	<b>49.1</b>	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	<b>14.9</b>	1.0 U	<b>22.4</b>	1.0 U	<b>64.4</b>	5.0 U	1.0 U	74.3	1.0 U	1.0 U	1.0 U
	5/13/2020	1.0 U	<b>3.0</b>	1.0 U	4.1	1.0 U	<b>17.7</b>	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	<b>3.8</b>	1.0 U	<b>7.2</b>	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	<b>6.8</b>	1.0 U	2.6	1.0 U	1.0 U	9.4	1.0 U	1.0 U	1.0 U
<b>MW-1D</b>	1/2/2017	2.0 U	<b>72</b>	4.7	<b>375</b>	2.0 U	<b>236</b>	4.0 U	2.5 U	37.5	2.0 U	2.0 U	2.0 U
	5/3/2017	2.5 U	<b>105</b>	<b>5.7</b>	<b>407</b>	2.5 U	<b>329</b>	5.0 U	2.5 U	37.1	2.5 U	2.5 U	2.5 U
	11/15/2017	5.0 U	<b>80</b>	3.8	<b>277</b>	0.6 J	<b>243</b>	5.0 U	0.519 J	29.8	0.8 J	1.7	1 U
	5/30/2018	1.0 U	<b>14.9</b>	1.0 U	<b>71.4</b>	1.0 U	<b>64.4</b>	2.0 U	1.0 U	5.3	1.0 U	1.0 U	1.0 U
	11/7/2018	1.0 U	<b>7.1</b>	1.0 U	<b>38.8</b>	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	<b>13.7</b>	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	<b>3.4</b>	1.0 U	<b>17.7</b>	1.0 U	<b>17.9</b>	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	<b>16.5</b>	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 - December 2023) (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
<b>MW-1D</b>	11/22/2020	1.0 U	<b>3.1</b>	1.0 U	<b>17.6</b>	1.0 U	<b>16.9</b>	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	<b>12.2</b>	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	<b>3.8</b>	1.0 U	<b>22.4</b>	1.0 U	<b>16.5</b>	5.0 U	1.0 U	1.5	1.0 U	1.0 U	1.0 U
	6/26/2022	1.0 U	<b>3.1</b>	1.0 U	<b>19.1</b>	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	<b>3.0</b>	1.0 U	<b>16.8</b>	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	<b>1.8</b>	1.0 U	<b>11.1</b>	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	<b>3.8</b>	1.0 U	<b>21.3</b>	1.0 U	6.5	1.0 U	1.0 U	1.0	1.0 U	1.0 U	1.0 U
<b>MW-16D</b>	12/8/2016	2.0 U	<b>56.6</b>	2.9	<b>254</b>	2.0 U	<b>202</b>	4.0 U	2.0 U	21	2.0 U	2.0 U	2.0 U
	5/2/2017	2.0 U	<b>43.7</b>	2.9	<b>235</b>	2.0 U	<b>182</b>	4.0 U	2.0 U	16.4	2.0 U	2.0 U	2.0 U
	11/15/2017	5.0 U	<b>29.7</b>	1.9	<b>179</b>	0.3 J	<b>192</b>	<b>10.0</b>	1.0 U	15.1	0.5 J	0.9 J	1.0 U
	5/30/2018	1.0 U	<b>26.4</b>	1.6	<b>180</b>	1.0 U	<b>153</b>	2.0 U	1.0 U	10.3	1.0 U	1.0 U	1.0 U
	11/7/2018	1.0 U	<b>27.5</b>	1.8	<b>161</b>	1.0 U	<b>158</b>	2.0 U	1.0 U	12.5	1.0 U	1.0 U	1.0 U
	5/22/2019	1.0 U	<b>28.5</b>	2.1	<b>172</b>	1.0 U	<b>148</b>	5.0 U	1.0 U	14.5	1.0 U	1.0 U	1.0 U
	11/19/2019	1.0 U	<b>25.6</b>	1.7	<b>133</b>	1.0 U	<b>140</b>	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/13/2020	1.0 U	<b>29.1</b>	1.9	<b>145</b>	1.0 U	<b>130</b>	5.0 U	1.0 U	11.7	1.0 U	1.0 U	1.0 U
	12/8/2020	1.0 U	<b>25.9</b>	1.6	<b>127</b>	1.0 U	<b>105</b>	5.0 U	1.0 U	10.1	1.0 U	1.0 U	1.0 U
	5/9/2021	1.0 U	<b>27.7</b>	1.7	<b>130</b>	1.0 U	<b>107</b>	5.0 U	1.0 U	9.5	1.0 U	1.0 U	1.0 U
	11/14/2021	1.0 U	<b>21.5</b>	1.1	<b>98.7</b>	1.0 U	<b>84.5</b>	5.0 U	1.0 U	6.9	1.0 U	1.0 U	1.0 U
	7/15/2022	1.0 U	<b>27.4</b>	1.7	<b>136.0</b>	1.0 U	<b>39.2</b>	1.0 U	1.0 U	8.3	1.0 U	1.0 U	1.0 U
	12/29/2022	1.0 U	<b>16.4</b>	1.0 U	<b>80.1</b>	1.0 U	<b>29.9</b>	5.0 U	1.0 U	4.7	1.0 U	1.0 U	1.0 U
	5/21/2023	1.0 U	<b>24.8</b>	1.4	<b>111.0</b>	1.0 U	<b>36.1</b>	1.0 U	1.0 U	6.5	1.0 U	1.0 U	1.0 U
<i>Duplicate</i>	5/21/2023	1.0 U	<b>24.9</b>	1.4	<b>110.0</b>	1.0 U	<b>21.3</b>	1.0 U	1.0 U	6.7	1.0 U	1.0 U	1.0 U
	12/3/2023	1.0 U	<b>21.8</b>	1.4	<b>103.0</b>	1.0 U	<b>34.5</b>	1.0 U	1.0 U	5.2	1.0 U	1.0 U	1.0 U
<i>Duplicate</i>	12/3/2023	1.0 U	<b>19.7</b>	1.0 U	<b>98.3</b>	1.0 U	<b>27.0</b>	1.0 U	1.0 U	4.7	1.0 U	1.0 U	1.0 U
<b>MW-21D</b>	12/16/2016	1.0 U	2.6	1.0 U	<b>23.4</b>	1.0 U	<b>18.6</b>	2.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/1/2017	1.0 U	<b>6.9</b>	1.4	<b>111</b>	1.0 U	<b>57.5</b>	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	<b>14.4</b>	1.0 U	<b>18.5</b>	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	<b>38.8</b>	1.0 U	<b>32.2</b>	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	<b>30.0</b>	1.0 U	<b>18.0</b>	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	<b>9.9</b>	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	<b>13.6</b>	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	<b>7.8</b>	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

Table 5

**Historical Monitoring Well Sampling Results**  
**Former Kop-Flex Facility Site**  
**Hanover, Maryland**  
**(December 2016 - December 2023) (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
	<b>Groundwater Cleanup Standards (b)</b>	2,100	2.8	5	7	70	15 (c)	5	5	200	5	5	2
<b>MW-21D</b>	11/14/2021	1.0 U	1.0 U	1.0 U	<b>18.7</b>	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	<b>24.5</b>	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	<b>17.6</b>	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	<b>26.1</b>	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	<b>30.8</b>	1.0 U	7.7	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
<b>MW-22D</b>	12/7/2016	1.0 U	2.5	1.0 U	<b>31.5</b>	1.0 U	<b>24.5</b>	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	<b>36.9</b>	1.0 U	<b>24.6</b>	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	<b>24.4</b>	1.0 U	<b>19.6</b>	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	<b>13.1</b>	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	<b>9.7</b>	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	<b>7.1</b>	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	<b>9.0</b>	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	<b>8.4</b>	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	<b>8.5</b>	1.0 U	2.0	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
<b>MW-23D</b>	1/2/2017	2.0 U	<b>26.4</b>	2.0 U	<b>140</b>	2.0 U	<b>151</b>	<b>8.3</b>	1.0 U	17.0	2.0 U	2.0 U	2.0 U
	5/1/2017	2.0 U	<b>39.1</b>	2.4	<b>208</b>	2.0 U	<b>177</b>	4.0 U	2.0 U	19.9	2.0 U	2.0 U	2.0 U
	11/15/2017	5.0 U	<b>31.1</b>	1.9	<b>179</b>	0.3 J	<b>158</b>	5.0 U	0.417 J	19.3	0.4 J	0.9 J	1.0 U
	5/30/2018	1.0 U	<b>30.5</b>	1.6	<b>172</b>	1.0 U	<b>148</b>	2.0 U	1.0 U	14.8	1.0 U	1.0 U	1.0 U
	11/7/2018	1.0 U	<b>36.2</b>	1.9	<b>185</b>	1.0 U	<b>146</b>	2.0 U	1.0 U	17.0	1.0 U	1.0 U	1.0 U
	5/21/2019	1.0 U	<b>18.5</b>	1.2	<b>96.4</b>	1.0 U	<b>70.7</b>	5.0 U	1.0 U	8.6	1.0 U	1.0 U	1.0 U
	11/19/2019	1.0 U	<b>22.7</b>	1.4	<b>107</b>	1.0 U	<b>109</b>	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/13/2020	1.0 U	<b>35.2</b>	1.8	<b>142</b>	1.0 U	<b>112</b>	5.0 U	1.0 U	13.6	1.0 U	1.0 U	1.0 U
	11/22/2020	1.0 U	<b>26.3</b>	1.2	<b>106</b>	1.0 U	<b>96.7</b>	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U
	5/9/2021	1.0 U	<b>31.8</b>	1.5	<b>126</b>	1.0 U	<b>99.0</b>	5.0 U	1.0 U	11.7	1.0 U	1.0 U	1.0 U
	11/14/2021	1.0 U	<b>28.5</b>	1.1	<b>110</b>	1.0 U	<b>92.4</b>	5.0 U	1.0 U	9.2	1.0 U	1.0 U	1.0 U
	6/26/2022	1.0 U	<b>34.6</b>	1.5	<b>138</b>	1.0 U	<b>27.0</b>	5.0 U	1.0 U	10.7	1.0 U	1.0 U	1.0 U
	11/20/2022	1.0 U	<b>33.6</b>	1.7	<b>140</b>	1.0 U	<b>59.6</b>	1.0 U	1.0 U	9.7	1.0 U	1.0 U	1.0 U
	5/21/2023	1.0 U	<b>32.4</b>	1.4	<b>116</b>	1.0 U	<b>27.0</b>	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 - December 2023) (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
<b>MW-23D</b>	12/3/2023	1.0 U	<b>41.2</b>	1.4	<b>177</b>	1.0 U	<b>56.1</b>	1.0 U	1.0 U	9.3	1.0 U	1.0 U	1.0 U
<b>MW-27D</b>	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
<b>MW-40D</b>	12/9/2016	1.0 U	<b>2.9</b>	1.0 U	<b>18.1</b>	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	<b>3.1</b>	1.0 U	<b>17.4</b>	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	<b>9.7</b>	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

Table 5

**Historical Monitoring Well Sampling Results**  
**Former Kop-Flex Facility Site**  
**Hanover, Maryland**  
**(December 2016 - December 2023) (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
	<b>Groundwater Cleanup Standards (b)</b>	2,100	2.8	5	7	70	15 (c)	5	5	200	5	5	2
<b>MW-41D</b>	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

a/ U = not detected above the method detection limit

**Bolded values indicate an exceedance of the Groundwater Quality Standards**

All sample concentrations in micrograms per liter ( $\mu\text{g/l}$ )

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/MD>

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

Table 6

## December 2023 Recovery Well Sampling Results

Former Kop-Flex Facility  
Hanover, Maryland (a)

<u>Parameters</u>	<u>Groundwater Cleanup Standards (µg/L) (b)</u>	<u>Well ID:</u> <u>Sampling Date:</u>	<u>Shallow Zone Wells</u>			<u>Deep Zone Wells</u>	
			RW-1S 12/3/2023	RW-2S 12/3/2023	RW-3S 12/3/2023	RW-1D 12/3/2023	RW-2D 12/3/2023
Chloroethane	2,100		22.4	5.0 U	NS	15.2	1.0 U
1,1-Dichloroethane	2.8		<b>180</b>	<b>72.4</b>	NS	<b>87.3</b>	<b>22.8</b>
1,2-Dichloroethane	5		5.0 U	5.0 U	NS	5.0 U	1.3
1,1-Dichloroethene	7		<b>775</b>	<b>517</b>	NS	<b>431</b>	<b>154</b>
1,4-Dioxane	15.0	(c)	<b>133</b>	<b>139</b>	NS	<b>34.0</b>	<b>29.5</b>
1,1,1-Trichloroethane	200		39.4	<b>301</b>	NS	12.9	3.9
Vinyl Chloride	3		<b>6.4</b>	5.0 U	NS	5.0 U	1.0 U
<b>Total Detected CVOCs + 1,4-Dioxane</b>			<b>1,156</b>	<b>1,029</b>	NS	<b>580.4</b>	<b>211.5</b>

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%20Interim%20Guidance%20for%20Type%20I%20and%20II%20Aquifer%20Cleanup%20Standards%20-%20Final%20Guidance%20-%20October%202018.pdf>

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

**ENCLOSURE A – CERTIFIED LABORATORY ANALYTICAL REPORTS FOR ONSITE  
MONITORING WELL SAMPLES (DECEMBER 2023)**



Main Site: 301 Fulling Mill Road | Middletown, PA 17057 | Phone: 717-944-5541 | Fax: 717-944-1430 | [www.alsglobal.com](http://www.alsglobal.com)  
Associated Site: 20 Riverside Drive | Spring City, PA 19475 | Phone: 610-948-4903 | Fax: 717-944-1430 |

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

Analytical Results Report For

**WSP USA Inc.**

Project      Former KOP-Flex Facility Onsit  
Workorder    3335533  
Report ID    288683 on 12/13/2023

### Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on Dec 04, 2023.

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](http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads).

This laboratory report may not be reproduced, except in full, without the written approval of ALS Global.  
ALS Middletown: 301 Fulling Mill Road, Middletown, PA 17057 : 717-944-5541.

Recipient(s):

Elliott Martynkiewicz - WSP USA Inc.  
Eric Johnson - WSP USA INC

*Susan Scherer*

**Susan Scherer**  
Project Coordinator

(ALS Digital Signature)

*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
3335533001	MW-01	Ground Water	12/03/2023 14:25	12/04/2023 18:15	CBC	Collected By Client
3335533002	MW-03	Ground Water	12/03/2023 09:50	12/04/2023 18:15	CBC	Collected By Client
3335533003	MW-04R	Ground Water	12/03/2023 15:10	12/04/2023 18:15	CBC	Collected By Client
3335533004	MW-05R	Ground Water	12/03/2023 12:05	12/04/2023 18:15	CBC	Collected By Client
3335533005	MW-09	Ground Water	12/03/2023 15:30	12/04/2023 18:15	CBC	Collected By Client
3335533006	MW-16	Ground Water	12/03/2023 16:05	12/04/2023 18:15	CBC	Collected By Client
3335533007	MW-18	Ground Water	12/03/2023 11:40	12/04/2023 18:15	CBC	Collected By Client
3335533008	MW-20	Ground Water	12/03/2023 15:15	12/04/2023 18:15	CBC	Collected By Client
3335533009	MW-38R	Ground Water	12/03/2023 11:20	12/04/2023 18:15	CBC	Collected By Client
3335533010	MW-42	Ground Water	12/03/2023 11:35	12/04/2023 18:15	CBC	Collected By Client
3335533011	MW-43	Ground Water	12/03/2023 10:50	12/04/2023 18:15	CBC	Collected By Client
3335533012	MW-44	Ground Water	12/03/2023 13:30	12/04/2023 18:15	CBC	Collected By Client
3335533013	MW-45	Ground Water	12/04/2023 13:30	12/04/2023 18:15	CBC	Collected By Client
3335533014	MW-01D	Ground Water	12/03/2023 14:30	12/04/2023 18:15	CBC	Collected By Client
3335533015	MW-16D	Ground Water	12/03/2023 16:15	12/04/2023 18:15	CBC	Collected By Client
3335533016	MW-21D	Ground Water	12/03/2023 13:55	12/04/2023 18:15	CBC	Collected By Client
3335533017	MW-22D	Ground Water	12/03/2023 14:55	12/04/2023 18:15	CBC	Collected By Client
3335533018	MW-23D	Ground Water	12/03/2023 15:40	12/04/2023 18:15	CBC	Collected By Client
3335533019	MW-27D	Ground Water	12/03/2023 10:00	12/04/2023 18:15	CBC	Collected By Client
3335533020	MW-40D	Ground Water	12/03/2023 11:50	12/04/2023 18:15	CBC	Collected By Client
3335533021	MW-41D	Ground Water	12/03/2023 14:05	12/04/2023 18:15	CBC	Collected By Client
3335533022	MW-46D	Ground Water	12/03/2023 10:35	12/04/2023 18:15	CBC	Collected By Client
3335533023	DUP-120323	Ground Water	12/03/2023 12:30	12/04/2023 18:15	CBC	Collected By Client
3335533024	Trip Blank A	Ground Water	12/03/2023 00:00	12/04/2023 18:15	CBC	Collected By Client
3335533025	Trip Blank B	Ground Water	12/03/2023 00:00	12/04/2023 18:15	CBC	Collected By Client
3335533026	Trip Blank C	Ground Water	12/03/2023 00:00	12/04/2023 18:15	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 performed 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 Former KOP-Flex Facility Onsit  
Workorder 3335533

### Project Notations

### Sample Notations

Lab ID      Sample ID



## Result Notations

### Notation Ref.

- 1 The Initial Calibration Verification recovery was outside limits for method SW846 8260D for the analyte Chloroethane.
- 2 The QC sample type LCS for method SW846 8260D was outside the control limits for the analyte Hexachlorobutadiene. The % Recovery was reported as 129 and the control limits were 55 to 128.
- 3 The Method Blank for method SW846 8270E SIM reported a value greater than the reporting level for the analyte 1,4-Dioxane. The concentration was 0.115 ug/L.
- 4 The surrogate 2-Methylnaphthalene-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.
- 5 The surrogate Fluoranthene-d10 for method SW846 8270E SIM was outside of control limits. The % Recovery was reported as 0 and the control limits were 45 to 130. This result was reported at a dilution of 50.
- 6 The surrogate 2-Methylnaphthalene-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.
- 7 The surrogate Fluoranthene-d10 for method SW846 8270E SIM was outside of control limits. The % Recovery was reported as 0 and the control limits were 45 to 130. This result was reported at a dilution of 100.
- 8 The QC sample type DUP for method SW846 8270E SIM was outside the control limits for the analyte 1,4-Dioxane. The RPD was reported as 53.5 and the upper control limit is 30.
- 9 The QC sample type MS for method SW846 8260D was outside the control limits for the analyte Benzene. The % Recovery was reported as 126 and the control limits were 80 to 124.
- 10 The QC sample type MS for method SW846 8260D was outside the control limits for the analyte Bromochloromethane. The % Recovery was reported as 120 and the control limits were 73 to 117.
- 11 The QC sample type MS for method SW846 8260D was outside the control limits for the analyte 1,1-Dichloroethane. The % Recovery was reported as 129 and the control limits were 78 to 124.
- 12 The QC sample type MS for method SW846 8260D was outside the control limits for the analyte 1,1-Dichloroethene. The % Recovery was reported as 131 and the control limits were 63 to 128.
- 13 The QC sample type MS for method SW846 8260D was outside the control limits for the analyte cis-1,2-Dichloroethene. The % Recovery was reported as 130 and the control limits were 78 to 125.
- 14 The QC sample type MS for method SW846 8260D was outside the control limits for the analyte trans-1,2-Dichloroethene. The % Recovery was reported as 134 and the control limits were 71 to 122.
- 15 The QC sample type MSD for method SW846 8260D was outside the control limits for the analyte trans-1,2-Dichloroethene. The % Recovery was reported as 127 and the control limits were 71 to 122.
- 16 The QC sample type MS for method SW846 8260D was outside the control limits for the analyte 1,1-Dichloropropene. The % Recovery was reported as 131 and the control limits were 76 to 126.
- 17 The QC sample type MS for method SW846 8260D was outside the control limits for the analyte Methyl t-Butyl Ether. The % Recovery was reported as 121 and the control limits were 69 to 115.
- 18 The QC sample type MSD for method SW846 8260D was outside the control limits for the analyte Methyl t-Butyl Ether. The % Recovery was reported as 119 and the control limits were 69 to 115.
- 19 The QC sample type MS for method SW846 8260D was outside the control limits for the analyte Methylene Chloride. The % Recovery was reported as 122 and the control limits were 76 to 121.
- 20 The Method Blank for method SW846 8270E SIM reported a value greater than the reporting level for the analyte 1,4-Dioxane. The concentration was 0.257 ug/L.

## Detected Results Summary

Client Sample ID	MW-04R	Collected	12/03/2023 15:10
Lab Sample ID	3335533003	Lab Receipt	12/04/2023 18:15

<u>Compound</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>	<u>Method</u>	<u>Flag</u>
<b>SEMICVOLATILE SIM</b>					
1,4-Dioxane	35.9	ug/L	10.2	SW846 8270E SIM	#
<b>VOLATILE ORGANICS</b>					
1,1-Dichloroethane	31.3	ug/L	5.0	SW846 8260D	#
1,1-Dichloroethene	65.8	ug/L	5.0	SW846 8260D	#

Project Former KOP-Flex Facility Onsit  
Workorder 3335533



## Detected Results Summary

Client Sample ID	MW-05R	Collected	12/03/2023 12:05
Lab Sample ID	3335533004	Lab Receipt	12/04/2023 18:15

Compound	Result	Units	RDL	Method	Flag
<b>SEMICVOLATILE SIM</b>					
1,4-Dioxane	2.5	ug/L	1.0	SW846 8270E SIM	#
<b>VOLATILE ORGANICS</b>					
1,1,1-Trichloroethane	1.5	ug/L	1.0	SW846 8260D	#

## Detected Results Summary

Client Sample ID	MW-09	Collected	12/03/2023 15:30
Lab Sample ID	3335533005	Lab Receipt	12/04/2023 18:15

<u>Compound</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>	<u>Method</u>	<u>Flag</u>
<b>SEMIVOLATILE SIM</b>					
1,4-Dioxane	6.4	ug/L	1.0	SW846 8270E SIM	#
<b>VOLATILE ORGANICS</b>					
1,1-Dichloroethane	2.6	ug/L	1.0	SW846 8260D	#
1,1-Dichloroethene	53.4	ug/L	1.0	SW846 8260D	#

## Detected Results Summary

Client Sample ID	MW-16	Collected	12/03/2023 16:05
Lab Sample ID	3335533006	Lab Receipt	12/04/2023 18:15

<u>Compound</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>	<u>Method</u>	<u>Flag</u>
<b>SEMICVOLATILE SIM</b>					
1,4-Dioxane	96.3	ug/L	50.4	SW846 8270E SIM	#
<b>VOLATILE ORGANICS</b>					
1,1,1-Trichloroethane	2200	ug/L	20.0	SW846 8260D	#
1,1-Dichloroethane	3040	ug/L	20.0	SW846 8260D	#
1,1-Dichloroethene	3990	ug/L	20.0	SW846 8260D	#
Chloroethane	124	ug/L	20.0	SW846 8260D	#
Trichloroethene	20.5	ug/L	20.0	SW846 8260D	#

## Detected Results Summary

Client Sample ID	MW-20	Collected	12/03/2023 15:15
Lab Sample ID	3335533008	Lab Receipt	12/04/2023 18:15

<u>Compound</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>	<u>Method</u>	<u>Flag</u>
<b>SEMICVOLATILE SIM</b>					
1,4-Dioxane	404	ug/L	102	SW846 8270E SIM	#
<b>VOLATILE ORGANICS</b>					
1,1-Dichloroethane	432	ug/L	5.0	SW846 8260D	#
1,1-Dichloroethene	631	ug/L	5.0	SW846 8260D	#
1,2-Dichloroethane	13.1	ug/L	5.0	SW846 8260D	#
Trichloroethene	5.9	ug/L	5.0	SW846 8260D	#

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## Detected Results Summary

Client Sample ID	MW-38R	Collected	12/03/2023 11:20		
Lab Sample ID	3335533009	Lab Receipt	12/04/2023 18:15		
Compound	Result	Units	RDL	Method	Flag
<b>SEMICVOLATILE SIM</b>					
1,4-Dioxane	18.2	ug/L	10.5	SW846 8270E SIM	#
<b>VOLATILE ORGANICS</b>					
1,1-Dichloroethane	4.2	ug/L	1.0	SW846 8260D	#

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## Detected Results Summary

Client Sample ID	MW-42	Collected	12/03/2023 11:35
Lab Sample ID	3335533010	Lab Receipt	12/04/2023 18:15

<u>Compound</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>	<u>Method</u>	<u>Flag</u>
<b>SEMICVOLATILE SIM</b>					
1,4-Dioxane	4.1	ug/L	1.0	SW846 8270E SIM	#

## Detected Results Summary

Client Sample ID	MW-43	Collected	12/03/2023 10:50
Lab Sample ID	3335533011	Lab Receipt	12/04/2023 18:15

Compound	Result	Units	RDL	Method	Flag
<b>SEMICVOLATILE SIM</b>					
1,4-Dioxane	8.5	ug/L	1.1	SW846 8270E SIM	#
<b>VOLATILE ORGANICS</b>					
1,1-Dichloroethane	1.6	ug/L	1.0	SW846 8260D	#
1,1-Dichloroethene	19.9	ug/L	1.0	SW846 8260D	#
Methyl t-Butyl Ether	1.8	ug/L	1.0	SW846 8260D	#

## Detected Results Summary

Client Sample ID	MW-44	Collected	12/03/2023 13:30
Lab Sample ID	3335533012	Lab Receipt	12/04/2023 18:15

<u>Compound</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>	<u>Method</u>	<u>Flag</u>
<b>SEMICVOLATILE SIM</b>					
1,4-Dioxane	2.6	ug/L	1.0	SW846 8270E SIM	#
<b>VOLATILE ORGANICS</b>					
1,1,1-Trichloroethane	9.4	ug/L	1.0	SW846 8260D	#
1,1-Dichloroethane	3.9	ug/L	1.0	SW846 8260D	#
1,1-Dichloroethene	6.8	ug/L	1.0	SW846 8260D	#

## Detected Results Summary

Client Sample ID	MW-01D	Collected	12/03/2023 14:30
Lab Sample ID	3335533014	Lab Receipt	12/04/2023 18:15

Compound	Result	Units	RDL	Method	Flag
<b>SEMICVOLATILE SIM</b>					
1,4-Dioxane	6.5	ug/L	1.0	SW846 8270E SIM	#
<b>VOLATILE ORGANICS</b>					
1,1,1-Trichloroethane	1.0	ug/L	1.0	SW846 8260D	#
1,1-Dichloroethane	3.8	ug/L	1.0	SW846 8260D	#
1,1-Dichloroethene	21.3	ug/L	1.0	SW846 8260D	#

## Detected Results Summary

Client Sample ID	MW-16D	Collected	12/03/2023 16:15
Lab Sample ID	3335533015	Lab Receipt	12/04/2023 18:15

Compound	Result	Units	RDL	Method	Flag
<b>SEMIVOLATILE SIM</b>					
1,4-Dioxane	34.5	ug/L	10.4	SW846 8270E SIM	#
<b>VOLATILE ORGANICS</b>					
1,1,1-Trichloroethane	5.2	ug/L	1.0	SW846 8260D	#
1,1-Dichloroethane	21.8	ug/L	1.0	SW846 8260D	#
1,1-Dichloroethene	103	ug/L	1.0	SW846 8260D	#
1,2-Dichloroethane	1.1	ug/L	1.0	SW846 8260D	#
Methyl t-Butyl Ether	1.0	ug/L	1.0	SW846 8260D	#

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## Detected Results Summary

Client Sample ID	MW-21D	Collected	12/03/2023 13:55		
Lab Sample ID	3335533016	Lab Receipt	12/04/2023 18:15		
Compound	Result	Units	RDL	Method	Flag
<b>SEMICVOLATILE SIM</b>					
1,4-Dioxane	7.7	ug/L	1.0	SW846 8270E SIM	#
<b>VOLATILE ORGANICS</b>					
1,1-Dichloroethene	30.8	ug/L	1.0	SW846 8260D	#

## Detected Results Summary

Client Sample ID	MW-22D	Collected	12/03/2023 14:55
Lab Sample ID	3335533017	Lab Receipt	12/04/2023 18:15

<u>Compound</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>	<u>Method</u>	<u>Flag</u>
<b>SEMICVOLATILE SIM</b>					
1,4-Dioxane	2.0	ug/L	1.0	SW846 8270E SIM	#
<b>VOLATILE ORGANICS</b>					
1,1-Dichloroethene	8.5	ug/L	1.0	SW846 8260D	#

## Detected Results Summary

Client Sample ID	MW-23D	Collected	12/03/2023 15:40
Lab Sample ID	3335533018	Lab Receipt	12/04/2023 18:15

Compound	Result	Units	RDL	Method	Flag
<b>SEMICVOLATILE SIM</b>					
1,4-Dioxane	56.1	ug/L	10.4	SW846 8270E SIM	#
<b>VOLATILE ORGANICS</b>					
1,1,1-Trichloroethane	9.3	ug/L	1.0	SW846 8260D	#
1,1-Dichloroethane	41.2	ug/L	1.0	SW846 8260D	#
1,1-Dichloroethene	177	ug/L	1.0	SW846 8260D	#
1,2-Dichloroethane	1.7	ug/L	1.0	SW846 8260D	#

## Detected Results Summary

Client Sample ID	MW-46D	Collected	12/03/2023 10:35
Lab Sample ID	3335533022	Lab Receipt	12/04/2023 18:15

<u>Compound</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>	<u>Method</u>	<u>Flag</u>
<b>SEMICVOLATILE SIM</b>					
1,4-Dioxane	27.3	ug/L	10.2	SW846 8270E SIM	#
<b>VOLATILE ORGANICS</b>					
1,1,1-Trichloroethane	1.6	ug/L	1.0	SW846 8260D	#
1,1-Dichloroethane	8.7	ug/L	1.0	SW846 8260D	#
1,1-Dichloroethene	51.5	ug/L	1.0	SW846 8260D	#

## Detected Results Summary

Client Sample ID	DUP-120323	Collected	12/03/2023 12:30
Lab Sample ID	3335533023	Lab Receipt	12/04/2023 18:15

<u>Compound</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>	<u>Method</u>	<u>Flag</u>
<b>SEMICVOLATILE SIM</b>					
1,4-Dioxane	27.0	ug/L	10.2	SW846 8270E SIM	#
<b>VOLATILE ORGANICS</b>					
1,1,1-Trichloroethane	4.7	ug/L	1.0	SW846 8260D	#
1,1-Dichloroethane	19.7	ug/L	1.0	SW846 8260D	#
1,1-Dichloroethene	98.3	ug/L	1.0	SW846 8260D	#



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## Results

Client Sample ID	MW-01	Collected	12/03/2023 14:25
Lab Sample ID	3335533001	Lab Receipt	12/04/2023 18:15

### SEMIVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	1.0 U	U,3	ug/L	1.0	SW846 8270E SIM	1	12/08/2023 09:21	S7M	C

### SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnaphthalene-d10	7297-45-2	73.5%	29 – 112	12/08/2023 09:21	
Fluoranthene-d10	93951-69-0	72.4%	45 – 130	12/08/2023 09:21	

### 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	12/12/2023 13:50	ILY	A
1,1,1-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 13:50	ILY	A
1,1,2,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 13:50	ILY	A
1,1,2-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 13:50	ILY	A
1,1-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 13:50	ILY	A
1,1-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 13:50	ILY	A
1,1-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 13:50	ILY	A
1,2,3-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 13:50	ILY	A
1,2,3-Trichloropropane	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 13:50	ILY	A
1,2,4-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 13:50	ILY	A
1,2-Dibromo-3-chloropropane	7.0 U	U	ug/L	7.0	SW846 8260D	1	12/12/2023 13:50	ILY	A
1,2-Dibromoethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 13:50	ILY	A
1,2-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 13:50	ILY	A
1,2-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 13:50	ILY	A
1,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 13:50	ILY	A
1,3-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 13:50	ILY	A
1,3-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 13:50	ILY	A
1,4-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 13:50	ILY	A
2,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 13:50	ILY	A
2-Butanone	10.0 U	U	ug/L	10.0	SW846 8260D	1	12/12/2023 13:50	ILY	A
2-Hexanone	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/12/2023 13:50	ILY	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/12/2023 13:50	ILY	A
Acetone	10.0 U	U	ug/L	10.0	SW846 8260D	1	12/12/2023 13:50	ILY	A
Benzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 13:50	ILY	A
Bromobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 13:50	ILY	A
Bromochloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 13:50	ILY	A
Bromodichloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 13:50	ILY	A
Bromoform	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 13:50	ILY	A
Bromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 13:50	ILY	A
Carbon Tetrachloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 13:50	ILY	A
Chlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 13:50	ILY	A
Chlorodibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 13:50	ILY	A
Chloroethane	1.0 U	U,1	ug/L	1.0	SW846 8260D	1	12/12/2023 13:50	ILY	A
Chloroform	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 13:50	ILY	A
Chloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 13:50	ILY	A



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## Results

Client Sample ID	MW-01	Collected	12/03/2023 14:25
Lab Sample ID	3335533001	Lab Receipt	12/04/2023 18:15

### 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	12/12/2023 13:50	ILY	A
cis-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 13:50	ILY	A
Dibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 13:50	ILY	A
Dichlorodifluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 13:50	ILY	A
Diisopropyl ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 13:50	ILY	A
Ethylbenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 13:50	ILY	A
Hexachlorobutadiene	5.0 U	U,2	ug/L	5.0	SW846 8260D	1	12/12/2023 13:50	ILY	A
Methyl t-Butyl Ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 13:50	ILY	A
Methylene Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 13:50	ILY	A
mp-Xylene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 13:50	ILY	A
Naphthalene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 13:50	ILY	A
o-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 13:50	ILY	A
o-Xylene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 13:50	ILY	A
p-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 13:50	ILY	A
p-Isopropyltoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 13:50	ILY	A
Styrene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 13:50	ILY	A
Tetrachloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 13:50	ILY	A
Toluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 13:50	ILY	A
Total Xylenes	3.0 U	U	ug/L	3.0	SW846 8260D	1	12/12/2023 13:50	ILY	A
trans-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 13:50	ILY	A
trans-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 13:50	ILY	A
Trichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 13:50	ILY	A
Trichlorofluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 13:50	ILY	A
Vinyl Acetate	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/12/2023 13:50	ILY	A
Vinyl Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 13:50	ILY	A

### SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	94.6%	62 – 133	12/12/2023 13:50	
4-Bromofluorobenzene	460-00-4	104%	79 – 114	12/12/2023 13:50	
Dibromofluoromethane	1868-53-7	102%	78 – 116	12/12/2023 13:50	
Toluene-d8	2037-26-5	103%	76 – 127	12/12/2023 13:50	



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## Results

Client Sample ID	MW-03	Collected	12/03/2023 09:50
Lab Sample ID	3335533002	Lab Receipt	12/04/2023 18:15

### SEMIVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	1.1 U	U,3	ug/L	1.1	SW846 8270E SIM	1	12/08/2023 09:47	S7M	C

### SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnaphthalene-d10	7297-45-2	59.7%	29 – 112	12/08/2023 09:47	
Fluoranthene-d10	93951-69-0	81.7%	45 – 130	12/08/2023 09:47	

### 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	12/12/2023 14:13	ILY	A
1,1,1-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:13	ILY	A
1,1,2,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:13	ILY	A
1,1,2-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:13	ILY	A
1,1-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:13	ILY	A
1,1-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:13	ILY	A
1,1-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:13	ILY	A
1,2,3-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 14:13	ILY	A
1,2,3-Trichloropropane	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 14:13	ILY	A
1,2,4-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 14:13	ILY	A
1,2-Dibromo-3-chloropropane	7.0 U	U	ug/L	7.0	SW846 8260D	1	12/12/2023 14:13	ILY	A
1,2-Dibromoethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:13	ILY	A
1,2-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:13	ILY	A
1,2-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:13	ILY	A
1,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:13	ILY	A
1,3-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:13	ILY	A
1,3-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:13	ILY	A
1,4-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:13	ILY	A
2,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:13	ILY	A
2-Butanone	10.0 U	U	ug/L	10.0	SW846 8260D	1	12/12/2023 14:13	ILY	A
2-Hexanone	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/12/2023 14:13	ILY	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/12/2023 14:13	ILY	A
Acetone	10.0 U	U	ug/L	10.0	SW846 8260D	1	12/12/2023 14:13	ILY	A
Benzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:13	ILY	A
Bromobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:13	ILY	A
Bromochloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:13	ILY	A
Bromodichloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:13	ILY	A
Bromoform	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:13	ILY	A
Bromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:13	ILY	A
Carbon Tetrachloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:13	ILY	A
Chlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:13	ILY	A
Chlorodibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:13	ILY	A
Chloroethane	1.0 U	U,1	ug/L	1.0	SW846 8260D	1	12/12/2023 14:13	ILY	A
Chloroform	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:13	ILY	A
Chloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:13	ILY	A



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## Results

Client Sample ID	MW-03	Collected	12/03/2023 09:50
Lab Sample ID	3335533002	Lab Receipt	12/04/2023 18:15

### 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	12/12/2023 14:13	ILY	A
cis-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:13	ILY	A
Dibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:13	ILY	A
Dichlorodifluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:13	ILY	A
Diisopropyl ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:13	ILY	A
Ethylbenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:13	ILY	A
Hexachlorobutadiene	5.0 U	U,2	ug/L	5.0	SW846 8260D	1	12/12/2023 14:13	ILY	A
Methyl t-Butyl Ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:13	ILY	A
Methylene Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:13	ILY	A
mp-Xylene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 14:13	ILY	A
Naphthalene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 14:13	ILY	A
o-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:13	ILY	A
o-Xylene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:13	ILY	A
p-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:13	ILY	A
p-Isopropyltoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:13	ILY	A
Styrene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:13	ILY	A
Tetrachloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:13	ILY	A
Toluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:13	ILY	A
Total Xylenes	3.0 U	U	ug/L	3.0	SW846 8260D	1	12/12/2023 14:13	ILY	A
trans-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:13	ILY	A
trans-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:13	ILY	A
Trichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:13	ILY	A
Trichlorofluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:13	ILY	A
Vinyl Acetate	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/12/2023 14:13	ILY	A
Vinyl Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:13	ILY	A

### SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	95.3%	62 – 133	12/12/2023 14:13	
4-Bromofluorobenzene	460-00-4	106%	79 – 114	12/12/2023 14:13	
Dibromofluoromethane	1868-53-7	102%	78 – 116	12/12/2023 14:13	
Toluene-d8	2037-26-5	103%	76 – 127	12/12/2023 14:13	



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## Results

Client Sample ID	MW-04R	Collected	12/03/2023 15:10
Lab Sample ID	3335533003	Lab Receipt	12/04/2023 18:15

### SEMOVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	35.9	3	ug/L	10.2	SW846 8270E SIM	10	12/12/2023 08:07	S7M	C

### SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnaphthalene-d10	7297-45-2	89.3%	29 – 112	12/12/2023 08:07	
2-Methylnaphthalene-d10	7297-45-2	73.2%	29 – 112	12/08/2023 10:13	
Fluoranthene-d10	93951-69-0	87.1%	45 – 130	12/08/2023 10:13	
Fluoranthene-d10	93951-69-0	98.1%	45 – 130	12/12/2023 08:07	

### 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	12/12/2023 20:26	ILY	A
1,1,1-Trichloroethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/12/2023 20:26	ILY	A
1,1,2,2-Tetrachloroethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/12/2023 20:26	ILY	A
1,1,2-Trichloroethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/12/2023 20:26	ILY	A
1,1-Dichloroethane	31.3		ug/L	5.0	SW846 8260D	5	12/12/2023 20:26	ILY	A
1,1-Dichloroethene	65.8		ug/L	5.0	SW846 8260D	5	12/12/2023 20:26	ILY	A
1,1-Dichloropropene	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/12/2023 20:26	ILY	A
1,2,3-Trichlorobenzene	10.0 U	U	ug/L	10.0	SW846 8260D	5	12/12/2023 20:26	ILY	A
1,2,3-Trichloropropane	10.0 U	U	ug/L	10.0	SW846 8260D	5	12/12/2023 20:26	ILY	A
1,2,4-Trichlorobenzene	10.0 U	U	ug/L	10.0	SW846 8260D	5	12/12/2023 20:26	ILY	A
1,2-Dibromo-3-chloropropane	35.0 U	U	ug/L	35.0	SW846 8260D	5	12/12/2023 20:26	ILY	A
1,2-Dibromoethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/12/2023 20:26	ILY	A
1,2-Dichlorobenzene	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/12/2023 20:26	ILY	A
1,2-Dichloroethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/12/2023 20:26	ILY	A
1,2-Dichloropropane	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/12/2023 20:26	ILY	A
1,3-Dichlorobenzene	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/12/2023 20:26	ILY	A
1,3-Dichloropropane	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/12/2023 20:26	ILY	A
1,4-Dichlorobenzene	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/12/2023 20:26	ILY	A
2,2-Dichloropropane	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/12/2023 20:26	ILY	A
2-Butanone	50.0 U	U	ug/L	50.0	SW846 8260D	5	12/12/2023 20:26	ILY	A
2-Hexanone	25.0 U	U	ug/L	25.0	SW846 8260D	5	12/12/2023 20:26	ILY	A
4-Methyl-2-Pentanone(MIBK)	25.0 U	U	ug/L	25.0	SW846 8260D	5	12/12/2023 20:26	ILY	A
Acetone	50.0 U	U	ug/L	50.0	SW846 8260D	5	12/12/2023 20:26	ILY	A
Benzene	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/12/2023 20:26	ILY	A
Bromobenzene	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/12/2023 20:26	ILY	A
Bromochloromethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/12/2023 20:26	ILY	A
Bromodichloromethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/12/2023 20:26	ILY	A
Bromoform	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/12/2023 20:26	ILY	A
Bromomethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/12/2023 20:26	ILY	A
Carbon Tetrachloride	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/12/2023 20:26	ILY	A
Chlorobenzene	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/12/2023 20:26	ILY	A
Chlorodibromomethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/12/2023 20:26	ILY	A
Chloroethane	5.0 U	U,1	ug/L	5.0	SW846 8260D	5	12/12/2023 20:26	ILY	A



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## Results

Client Sample ID	MW-04R	Collected	12/03/2023 15:10
Lab Sample ID	3335533003	Lab Receipt	12/04/2023 18:15

### 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	12/12/2023 20:26	ILY	A
Chloromethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/12/2023 20:26	ILY	A
cis-1,2-Dichloroethene	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/12/2023 20:26	ILY	A
cis-1,3-Dichloropropene	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/12/2023 20:26	ILY	A
Dibromomethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/12/2023 20:26	ILY	A
Dichlorodifluoromethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/12/2023 20:26	ILY	A
Diisopropyl ether	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/12/2023 20:26	ILY	A
Ethylbenzene	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/12/2023 20:26	ILY	A
Hexachlorobutadiene	25.0 U	U,2	ug/L	25.0	SW846 8260D	5	12/12/2023 20:26	ILY	A
Methyl t-Butyl Ether	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/12/2023 20:26	ILY	A
Methylene Chloride	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/12/2023 20:26	ILY	A
mp-Xylene	10.0 U	U	ug/L	10.0	SW846 8260D	5	12/12/2023 20:26	ILY	A
Naphthalene	10.0 U	U	ug/L	10.0	SW846 8260D	5	12/12/2023 20:26	ILY	A
o-Chlorotoluene	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/12/2023 20:26	ILY	A
o-Xylene	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/12/2023 20:26	ILY	A
p-Chlorotoluene	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/12/2023 20:26	ILY	A
p-Isopropyltoluene	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/12/2023 20:26	ILY	A
Styrene	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/12/2023 20:26	ILY	A
Tetrachloroethene	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/12/2023 20:26	ILY	A
Toluene	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/12/2023 20:26	ILY	A
Total Xylenes	15.0 U	U	ug/L	15.0	SW846 8260D	5	12/12/2023 20:26	ILY	A
trans-1,2-Dichloroethene	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/12/2023 20:26	ILY	A
trans-1,3-Dichloropropene	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/12/2023 20:26	ILY	A
Trichloroethene	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/12/2023 20:26	ILY	A
Trichlorofluoromethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/12/2023 20:26	ILY	A
Vinyl Acetate	25.0 U	U	ug/L	25.0	SW846 8260D	5	12/12/2023 20:26	ILY	A
Vinyl Chloride	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/12/2023 20:26	ILY	A

### SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	105%	62 – 133	12/12/2023 20:26	
4-Bromofluorobenzene	460-00-4	101%	79 – 114	12/12/2023 20:26	
Dibromofluoromethane	1868-53-7	100%	78 – 116	12/12/2023 20:26	
Toluene-d8	2037-26-5	98.4%	76 – 127	12/12/2023 20:26	



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## Results

Client Sample ID	MW-05R	Collected	12/03/2023 12:05
Lab Sample ID	3335533004	Lab Receipt	12/04/2023 18:15

### SEMIVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	2.5	3	ug/L	1.0	SW846 8270E SIM	1	12/08/2023 10:39	S7M	C

### SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnaphthalene-d10	7297-45-2	60.3%	29 – 112	12/08/2023 10:39	
Fluoranthene-d10	93951-69-0	84.3%	45 – 130	12/08/2023 10:39	

### 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	12/12/2023 14:36	ILY	A
1,1,1-Trichloroethane	1.5		ug/L	1.0	SW846 8260D	1	12/12/2023 14:36	ILY	A
1,1,2,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:36	ILY	A
1,1,2-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:36	ILY	A
1,1-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:36	ILY	A
1,1-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:36	ILY	A
1,1-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:36	ILY	A
1,2,3-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 14:36	ILY	A
1,2,3-Trichloropropane	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 14:36	ILY	A
1,2,4-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 14:36	ILY	A
1,2-Dibromo-3-chloropropane	7.0 U	U	ug/L	7.0	SW846 8260D	1	12/12/2023 14:36	ILY	A
1,2-Dibromoethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:36	ILY	A
1,2-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:36	ILY	A
1,2-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:36	ILY	A
1,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:36	ILY	A
1,3-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:36	ILY	A
1,3-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:36	ILY	A
1,4-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:36	ILY	A
2,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:36	ILY	A
2-Butanone	10.0 U	U	ug/L	10.0	SW846 8260D	1	12/12/2023 14:36	ILY	A
2-Hexanone	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/12/2023 14:36	ILY	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/12/2023 14:36	ILY	A
Acetone	10.0 U	U	ug/L	10.0	SW846 8260D	1	12/12/2023 14:36	ILY	A
Benzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:36	ILY	A
Bromobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:36	ILY	A
Bromochloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:36	ILY	A
Bromodichloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:36	ILY	A
Bromoform	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:36	ILY	A
Bromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:36	ILY	A
Carbon Tetrachloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:36	ILY	A
Chlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:36	ILY	A
Chlorodibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:36	ILY	A
Chloroethane	1.0 U	U,1	ug/L	1.0	SW846 8260D	1	12/12/2023 14:36	ILY	A
Chloroform	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:36	ILY	A
Chloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:36	ILY	A



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## Results

Client Sample ID	MW-05R	Collected	12/03/2023 12:05
Lab Sample ID	3335533004	Lab Receipt	12/04/2023 18:15

### 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	12/12/2023 14:36	ILY	A
cis-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:36	ILY	A
Dibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:36	ILY	A
Dichlorodifluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:36	ILY	A
Diisopropyl ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:36	ILY	A
Ethylbenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:36	ILY	A
Hexachlorobutadiene	5.0 U	U,2	ug/L	5.0	SW846 8260D	1	12/12/2023 14:36	ILY	A
Methyl t-Butyl Ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:36	ILY	A
Methylene Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:36	ILY	A
mp-Xylene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 14:36	ILY	A
Naphthalene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 14:36	ILY	A
o-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:36	ILY	A
o-Xylene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:36	ILY	A
p-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:36	ILY	A
p-Isopropyltoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:36	ILY	A
Styrene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:36	ILY	A
Tetrachloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:36	ILY	A
Toluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:36	ILY	A
Total Xylenes	3.0 U	U	ug/L	3.0	SW846 8260D	1	12/12/2023 14:36	ILY	A
trans-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:36	ILY	A
trans-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:36	ILY	A
Trichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:36	ILY	A
Trichlorofluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:36	ILY	A
Vinyl Acetate	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/12/2023 14:36	ILY	A
Vinyl Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:36	ILY	A

### SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	97.9%	62 – 133	12/12/2023 14:36	
4-Bromofluorobenzene	460-00-4	106%	79 – 114	12/12/2023 14:36	
Dibromofluoromethane	1868-53-7	104%	78 – 116	12/12/2023 14:36	
Toluene-d8	2037-26-5	105%	76 – 127	12/12/2023 14:36	



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## Results

Client Sample ID	MW-09	Collected	12/03/2023 15:30
Lab Sample ID	3335533005	Lab Receipt	12/04/2023 18:15

### SEMIVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	6.4	3	ug/L	1.0	SW846 8270E SIM	1	12/08/2023 11:05	S7M	C

### SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnaphthalene-d10	7297-45-2	65.5%	29 – 112	12/08/2023 11:05	
Fluoranthene-d10	93951-69-0	79%	45 – 130	12/08/2023 11:05	

### 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	12/12/2023 15:00	ILY	A
1,1,1-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:00	ILY	A
1,1,2,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:00	ILY	A
1,1,2-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:00	ILY	A
1,1-Dichloroethane	2.6		ug/L	1.0	SW846 8260D	1	12/12/2023 15:00	ILY	A
1,1-Dichloroethene	53.4		ug/L	1.0	SW846 8260D	1	12/12/2023 15:00	ILY	A
1,1-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:00	ILY	A
1,2,3-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 15:00	ILY	A
1,2,3-Trichloropropane	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 15:00	ILY	A
1,2,4-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 15:00	ILY	A
1,2-Dibromo-3-chloropropane	7.0 U	U	ug/L	7.0	SW846 8260D	1	12/12/2023 15:00	ILY	A
1,2-Dibromoethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:00	ILY	A
1,2-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:00	ILY	A
1,2-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:00	ILY	A
1,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:00	ILY	A
1,3-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:00	ILY	A
1,3-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:00	ILY	A
1,4-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:00	ILY	A
2,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:00	ILY	A
2-Butanone	10.0 U	U	ug/L	10.0	SW846 8260D	1	12/12/2023 15:00	ILY	A
2-Hexanone	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/12/2023 15:00	ILY	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/12/2023 15:00	ILY	A
Acetone	10.0 U	U	ug/L	10.0	SW846 8260D	1	12/12/2023 15:00	ILY	A
Benzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:00	ILY	A
Bromobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:00	ILY	A
Bromochloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:00	ILY	A
Bromodichloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:00	ILY	A
Bromoform	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:00	ILY	A
Bromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:00	ILY	A
Carbon Tetrachloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:00	ILY	A
Chlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:00	ILY	A
Chlorodibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:00	ILY	A
Chloroethane	1.0 U	U,1	ug/L	1.0	SW846 8260D	1	12/12/2023 15:00	ILY	A
Chloroform	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:00	ILY	A
Chloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:00	ILY	A



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## Results

Client Sample ID	MW-09	Collected	12/03/2023 15:30
Lab Sample ID	3335533005	Lab Receipt	12/04/2023 18:15

### 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	12/12/2023 15:00	ILY	A
cis-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:00	ILY	A
Dibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:00	ILY	A
Dichlorodifluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:00	ILY	A
Diisopropyl ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:00	ILY	A
Ethylbenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:00	ILY	A
Hexachlorobutadiene	5.0 U	U,2	ug/L	5.0	SW846 8260D	1	12/12/2023 15:00	ILY	A
Methyl t-Butyl Ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:00	ILY	A
Methylene Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:00	ILY	A
mp-Xylene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 15:00	ILY	A
Naphthalene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 15:00	ILY	A
o-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:00	ILY	A
o-Xylene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:00	ILY	A
p-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:00	ILY	A
p-Isopropyltoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:00	ILY	A
Styrene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:00	ILY	A
Tetrachloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:00	ILY	A
Toluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:00	ILY	A
Total Xylenes	3.0 U	U	ug/L	3.0	SW846 8260D	1	12/12/2023 15:00	ILY	A
trans-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:00	ILY	A
trans-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:00	ILY	A
Trichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:00	ILY	A
Trichlorofluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:00	ILY	A
Vinyl Acetate	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/12/2023 15:00	ILY	A
Vinyl Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:00	ILY	A

### SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	97.8%	62 – 133	12/12/2023 15:00	
4-Bromofluorobenzene	460-00-4	107%	79 – 114	12/12/2023 15:00	
Dibromofluoromethane	1868-53-7	103%	78 – 116	12/12/2023 15:00	
Toluene-d8	2037-26-5	105%	76 – 127	12/12/2023 15:00	



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## Results

Client Sample ID	MW-16	Collected	12/03/2023 16:05
Lab Sample ID	3335533006	Lab Receipt	12/04/2023 18:15

### SEMOVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	96.3	3	ug/L	50.4	SW846 8270E SIM	50	12/12/2023 08:33	S7M	C

### SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnaphthalene-d10	7297-45-2	65.7%	29 – 112	12/08/2023 11:31	
2-Methylnaphthalene-d10	7297-45-2	0*%	29 – 112	12/12/2023 08:33	4
Fluoranthene-d10	93951-69-0	71.2%	45 – 130	12/08/2023 11:31	
Fluoranthene-d10	93951-69-0	0*%	45 – 130	12/12/2023 08:33	5

### 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	12/12/2023 21:13	ILY	A
1,1,1-Trichloroethane	2200		ug/L	20.0	SW846 8260D	20	12/12/2023 21:13	ILY	A
1,1,2,2-Tetrachloroethane	20.0 U	U	ug/L	20.0	SW846 8260D	20	12/12/2023 21:13	ILY	A
1,1,2-Trichloroethane	20.0 U	U	ug/L	20.0	SW846 8260D	20	12/12/2023 21:13	ILY	A
1,1-Dichloroethane	3040		ug/L	20.0	SW846 8260D	20	12/12/2023 21:13	ILY	A
1,1-Dichloroethene	3990		ug/L	20.0	SW846 8260D	20	12/12/2023 21:13	ILY	A
1,1-Dichloropropene	20.0 U	U	ug/L	20.0	SW846 8260D	20	12/12/2023 21:13	ILY	A
1,2,3-Trichlorobenzene	40.0 U	U	ug/L	40.0	SW846 8260D	20	12/12/2023 21:13	ILY	A
1,2,3-Trichloropropane	40.0 U	U	ug/L	40.0	SW846 8260D	20	12/12/2023 21:13	ILY	A
1,2,4-Trichlorobenzene	40.0 U	U	ug/L	40.0	SW846 8260D	20	12/12/2023 21:13	ILY	A
1,2-Dibromo-3-chloropropane	140 U	U	ug/L	140	SW846 8260D	20	12/12/2023 21:13	ILY	A
1,2-Dibromoethane	20.0 U	U	ug/L	20.0	SW846 8260D	20	12/12/2023 21:13	ILY	A
1,2-Dichlorobenzene	20.0 U	U	ug/L	20.0	SW846 8260D	20	12/12/2023 21:13	ILY	A
1,2-Dichloroethane	20.0 U	U	ug/L	20.0	SW846 8260D	20	12/12/2023 21:13	ILY	A
1,2-Dichloropropane	20.0 U	U	ug/L	20.0	SW846 8260D	20	12/12/2023 21:13	ILY	A
1,3-Dichlorobenzene	20.0 U	U	ug/L	20.0	SW846 8260D	20	12/12/2023 21:13	ILY	A
1,3-Dichloropropane	20.0 U	U	ug/L	20.0	SW846 8260D	20	12/12/2023 21:13	ILY	A
1,4-Dichlorobenzene	20.0 U	U	ug/L	20.0	SW846 8260D	20	12/12/2023 21:13	ILY	A
2,2-Dichloropropane	20.0 U	U	ug/L	20.0	SW846 8260D	20	12/12/2023 21:13	ILY	A
2-Butanone	200 U	U	ug/L	200	SW846 8260D	20	12/12/2023 21:13	ILY	A
2-Hexanone	100 U	U	ug/L	100	SW846 8260D	20	12/12/2023 21:13	ILY	A
4-Methyl-2-Pentanone(MIBK)	100 U	U	ug/L	100	SW846 8260D	20	12/12/2023 21:13	ILY	A
Acetone	200 U	U	ug/L	200	SW846 8260D	20	12/12/2023 21:13	ILY	A
Benzene	20.0 U	U	ug/L	20.0	SW846 8260D	20	12/12/2023 21:13	ILY	A
Bromobenzene	20.0 U	U	ug/L	20.0	SW846 8260D	20	12/12/2023 21:13	ILY	A
Bromochloromethane	20.0 U	U	ug/L	20.0	SW846 8260D	20	12/12/2023 21:13	ILY	A
Bromodichloromethane	20.0 U	U	ug/L	20.0	SW846 8260D	20	12/12/2023 21:13	ILY	A
Bromoform	20.0 U	U	ug/L	20.0	SW846 8260D	20	12/12/2023 21:13	ILY	A
Bromomethane	20.0 U	U	ug/L	20.0	SW846 8260D	20	12/12/2023 21:13	ILY	A
Carbon Tetrachloride	20.0 U	U	ug/L	20.0	SW846 8260D	20	12/12/2023 21:13	ILY	A
Chlorobenzene	20.0 U	U	ug/L	20.0	SW846 8260D	20	12/12/2023 21:13	ILY	A
Chlorodibromomethane	20.0 U	U	ug/L	20.0	SW846 8260D	20	12/12/2023 21:13	ILY	A
Chloroethane	124	1	ug/L	20.0	SW846 8260D	20	12/12/2023 21:13	ILY	A

## Results

Client Sample ID	MW-16	Collected	12/03/2023 16:05
Lab Sample ID	3335533006	Lab Receipt	12/04/2023 18:15

### VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
Chloroform	20.0 U	U	ug/L	20.0	SW846 8260D	20	12/12/2023 21:13	ILY	A
Chloromethane	20.0 U	U	ug/L	20.0	SW846 8260D	20	12/12/2023 21:13	ILY	A
cis-1,2-Dichloroethene	20.0 U	U	ug/L	20.0	SW846 8260D	20	12/12/2023 21:13	ILY	A
cis-1,3-Dichloropropene	20.0 U	U	ug/L	20.0	SW846 8260D	20	12/12/2023 21:13	ILY	A
Dibromomethane	20.0 U	U	ug/L	20.0	SW846 8260D	20	12/12/2023 21:13	ILY	A
Dichlorodifluoromethane	20.0 U	U	ug/L	20.0	SW846 8260D	20	12/12/2023 21:13	ILY	A
Diisopropyl ether	20.0 U	U	ug/L	20.0	SW846 8260D	20	12/12/2023 21:13	ILY	A
Ethylbenzene	20.0 U	U	ug/L	20.0	SW846 8260D	20	12/12/2023 21:13	ILY	A
Hexachlorobutadiene	100 U	U,2	ug/L	100	SW846 8260D	20	12/12/2023 21:13	ILY	A
Methyl t-Butyl Ether	20.0 U	U	ug/L	20.0	SW846 8260D	20	12/12/2023 21:13	ILY	A
Methylene Chloride	20.0 U	U	ug/L	20.0	SW846 8260D	20	12/12/2023 21:13	ILY	A
mp-Xylene	40.0 U	U	ug/L	40.0	SW846 8260D	20	12/12/2023 21:13	ILY	A
Naphthalene	40.0 U	U	ug/L	40.0	SW846 8260D	20	12/12/2023 21:13	ILY	A
o-Chlorotoluene	20.0 U	U	ug/L	20.0	SW846 8260D	20	12/12/2023 21:13	ILY	A
o-Xylene	20.0 U	U	ug/L	20.0	SW846 8260D	20	12/12/2023 21:13	ILY	A
p-Chlorotoluene	20.0 U	U	ug/L	20.0	SW846 8260D	20	12/12/2023 21:13	ILY	A
p-Isopropyltoluene	20.0 U	U	ug/L	20.0	SW846 8260D	20	12/12/2023 21:13	ILY	A
Styrene	20.0 U	U	ug/L	20.0	SW846 8260D	20	12/12/2023 21:13	ILY	A
Tetrachloroethene	20.0 U	U	ug/L	20.0	SW846 8260D	20	12/12/2023 21:13	ILY	A
Toluene	20.0 U	U	ug/L	20.0	SW846 8260D	20	12/12/2023 21:13	ILY	A
Total Xylenes	60.0 U	U	ug/L	60.0	SW846 8260D	20	12/12/2023 21:13	ILY	A
trans-1,2-Dichloroethene	20.0 U	U	ug/L	20.0	SW846 8260D	20	12/12/2023 21:13	ILY	A
trans-1,3-Dichloropropene	20.0 U	U	ug/L	20.0	SW846 8260D	20	12/12/2023 21:13	ILY	A
Trichloroethene	20.5		ug/L	20.0	SW846 8260D	20	12/12/2023 21:13	ILY	A
Trichlorofluoromethane	20.0 U	U	ug/L	20.0	SW846 8260D	20	12/12/2023 21:13	ILY	A
Vinyl Acetate	100 U	U	ug/L	100	SW846 8260D	20	12/12/2023 21:13	ILY	A
Vinyl Chloride	20.0 U	U	ug/L	20.0	SW846 8260D	20	12/12/2023 21:13	ILY	A

### SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	106%	62 – 133	12/12/2023 21:13	
4-Bromofluorobenzene	460-00-4	101%	79 – 114	12/12/2023 21:13	
Dibromofluoromethane	1868-53-7	101%	78 – 116	12/12/2023 21:13	
Toluene-d8	2037-26-5	99.9%	76 – 127	12/12/2023 21:13	



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## Results

Client Sample ID	MW-18	Collected	12/03/2023 11:40
Lab Sample ID	3335533007	Lab Receipt	12/04/2023 18:15

### SEMIVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	1.0 U	U,3	ug/L	1.0	SW846 8270E SIM	1	12/08/2023 12:24	S7M	C

### SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnaphthalene-d10	7297-45-2	61.6%	29 – 112	12/08/2023 12:24	
Fluoranthene-d10	93951-69-0	86.8%	45 – 130	12/08/2023 12:24	

### 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	12/12/2023 15:23	ILY	A
1,1,1-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:23	ILY	A
1,1,2,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:23	ILY	A
1,1,2-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:23	ILY	A
1,1-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:23	ILY	A
1,1-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:23	ILY	A
1,1-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:23	ILY	A
1,2,3-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 15:23	ILY	A
1,2,3-Trichloropropane	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 15:23	ILY	A
1,2,4-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 15:23	ILY	A
1,2-Dibromo-3-chloropropane	7.0 U	U	ug/L	7.0	SW846 8260D	1	12/12/2023 15:23	ILY	A
1,2-Dibromoethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:23	ILY	A
1,2-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:23	ILY	A
1,2-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:23	ILY	A
1,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:23	ILY	A
1,3-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:23	ILY	A
1,3-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:23	ILY	A
1,4-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:23	ILY	A
2,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:23	ILY	A
2-Butanone	10.0 U	U	ug/L	10.0	SW846 8260D	1	12/12/2023 15:23	ILY	A
2-Hexanone	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/12/2023 15:23	ILY	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/12/2023 15:23	ILY	A
Acetone	10.0 U	U	ug/L	10.0	SW846 8260D	1	12/12/2023 15:23	ILY	A
Benzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:23	ILY	A
Bromobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:23	ILY	A
Bromochloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:23	ILY	A
Bromodichloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:23	ILY	A
Bromoform	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:23	ILY	A
Bromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:23	ILY	A
Carbon Tetrachloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:23	ILY	A
Chlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:23	ILY	A
Chlorodibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:23	ILY	A
Chloroethane	1.0 U	U,1	ug/L	1.0	SW846 8260D	1	12/12/2023 15:23	ILY	A
Chloroform	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:23	ILY	A
Chloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:23	ILY	A



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## Results

Client Sample ID	MW-18	Collected	12/03/2023 11:40
Lab Sample ID	3335533007	Lab Receipt	12/04/2023 18:15

### 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	12/12/2023 15:23	ILY	A
cis-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:23	ILY	A
Dibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:23	ILY	A
Dichlorodifluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:23	ILY	A
Diisopropyl ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:23	ILY	A
Ethylbenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:23	ILY	A
Hexachlorobutadiene	5.0 U	U,2	ug/L	5.0	SW846 8260D	1	12/12/2023 15:23	ILY	A
Methyl t-Butyl Ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:23	ILY	A
Methylene Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:23	ILY	A
mp-Xylene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 15:23	ILY	A
Naphthalene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 15:23	ILY	A
o-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:23	ILY	A
o-Xylene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:23	ILY	A
p-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:23	ILY	A
p-Isopropyltoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:23	ILY	A
Styrene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:23	ILY	A
Tetrachloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:23	ILY	A
Toluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:23	ILY	A
Total Xylenes	3.0 U	U	ug/L	3.0	SW846 8260D	1	12/12/2023 15:23	ILY	A
trans-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:23	ILY	A
trans-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:23	ILY	A
Trichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:23	ILY	A
Trichlorofluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:23	ILY	A
Vinyl Acetate	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/12/2023 15:23	ILY	A
Vinyl Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:23	ILY	A

### SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	99%	62 – 133	12/12/2023 15:23	
4-Bromofluorobenzene	460-00-4	105%	79 – 114	12/12/2023 15:23	
Dibromofluoromethane	1868-53-7	103%	78 – 116	12/12/2023 15:23	
Toluene-d8	2037-26-5	103%	76 – 127	12/12/2023 15:23	



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## Results

Client Sample ID	MW-20	Collected	12/03/2023 15:15
Lab Sample ID	3335533008	Lab Receipt	12/04/2023 18:15

### SEMOVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	404	3	ug/L	102	SW846 8270E SIM	100	12/12/2023 08:59	S7M	C

### SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnaphthalene-d10	7297-45-2	70.7%	29 – 112	12/08/2023 12:50	
2-Methylnaphthalene-d10	7297-45-2	0*%	29 – 112	12/12/2023 08:59	6
Fluoranthene-d10	93951-69-0	73%	45 – 130	12/08/2023 12:50	
Fluoranthene-d10	93951-69-0	0*%	45 – 130	12/12/2023 08:59	7

### 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	12/12/2023 20:50	ILY	A
1,1,1-Trichloroethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/12/2023 20:50	ILY	A
1,1,2,2-Tetrachloroethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/12/2023 20:50	ILY	A
1,1,2-Trichloroethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/12/2023 20:50	ILY	A
1,1-Dichloroethane	432		ug/L	5.0	SW846 8260D	5	12/12/2023 20:50	ILY	A
1,1-Dichloroethene	631		ug/L	5.0	SW846 8260D	5	12/12/2023 20:50	ILY	A
1,1-Dichloropropene	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/12/2023 20:50	ILY	A
1,2,3-Trichlorobenzene	10.0 U	U	ug/L	10.0	SW846 8260D	5	12/12/2023 20:50	ILY	A
1,2,3-Trichloropropane	10.0 U	U	ug/L	10.0	SW846 8260D	5	12/12/2023 20:50	ILY	A
1,2,4-Trichlorobenzene	10.0 U	U	ug/L	10.0	SW846 8260D	5	12/12/2023 20:50	ILY	A
1,2-Dibromo-3-chloropropane	35.0 U	U	ug/L	35.0	SW846 8260D	5	12/12/2023 20:50	ILY	A
1,2-Dibromoethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/12/2023 20:50	ILY	A
1,2-Dichlorobenzene	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/12/2023 20:50	ILY	A
1,2-Dichloroethane	13.1		ug/L	5.0	SW846 8260D	5	12/12/2023 20:50	ILY	A
1,2-Dichloropropane	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/12/2023 20:50	ILY	A
1,3-Dichlorobenzene	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/12/2023 20:50	ILY	A
1,3-Dichloropropane	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/12/2023 20:50	ILY	A
1,4-Dichlorobenzene	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/12/2023 20:50	ILY	A
2,2-Dichloropropane	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/12/2023 20:50	ILY	A
2-Butanone	50.0 U	U	ug/L	50.0	SW846 8260D	5	12/12/2023 20:50	ILY	A
2-Hexanone	25.0 U	U	ug/L	25.0	SW846 8260D	5	12/12/2023 20:50	ILY	A
4-Methyl-2-Pentanone(MIBK)	25.0 U	U	ug/L	25.0	SW846 8260D	5	12/12/2023 20:50	ILY	A
Acetone	50.0 U	U	ug/L	50.0	SW846 8260D	5	12/12/2023 20:50	ILY	A
Benzene	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/12/2023 20:50	ILY	A
Bromobenzene	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/12/2023 20:50	ILY	A
Bromochloromethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/12/2023 20:50	ILY	A
Bromodichloromethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/12/2023 20:50	ILY	A
Bromoform	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/12/2023 20:50	ILY	A
Bromomethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/12/2023 20:50	ILY	A
Carbon Tetrachloride	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/12/2023 20:50	ILY	A
Chlorobenzene	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/12/2023 20:50	ILY	A
Chlorodibromomethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/12/2023 20:50	ILY	A
Chloroethane	5.0 U	U,1	ug/L	5.0	SW846 8260D	5	12/12/2023 20:50	ILY	A

## Results

Client Sample ID	MW-20	Collected	12/03/2023 15:15
Lab Sample ID	3335533008	Lab Receipt	12/04/2023 18:15

### 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	12/12/2023 20:50	ILY	A
Chloromethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/12/2023 20:50	ILY	A
cis-1,2-Dichloroethene	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/12/2023 20:50	ILY	A
cis-1,3-Dichloropropene	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/12/2023 20:50	ILY	A
Dibromomethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/12/2023 20:50	ILY	A
Dichlorodifluoromethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/12/2023 20:50	ILY	A
Diisopropyl ether	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/12/2023 20:50	ILY	A
Ethylbenzene	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/12/2023 20:50	ILY	A
Hexachlorobutadiene	25.0 U	U,2	ug/L	25.0	SW846 8260D	5	12/12/2023 20:50	ILY	A
Methyl t-Butyl Ether	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/12/2023 20:50	ILY	A
Methylene Chloride	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/12/2023 20:50	ILY	A
mp-Xylene	10.0 U	U	ug/L	10.0	SW846 8260D	5	12/12/2023 20:50	ILY	A
Naphthalene	10.0 U	U	ug/L	10.0	SW846 8260D	5	12/12/2023 20:50	ILY	A
o-Chlorotoluene	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/12/2023 20:50	ILY	A
o-Xylene	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/12/2023 20:50	ILY	A
p-Chlorotoluene	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/12/2023 20:50	ILY	A
p-Isopropyltoluene	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/12/2023 20:50	ILY	A
Styrene	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/12/2023 20:50	ILY	A
Tetrachloroethene	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/12/2023 20:50	ILY	A
Toluene	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/12/2023 20:50	ILY	A
Total Xylenes	15.0 U	U	ug/L	15.0	SW846 8260D	5	12/12/2023 20:50	ILY	A
trans-1,2-Dichloroethene	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/12/2023 20:50	ILY	A
trans-1,3-Dichloropropene	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/12/2023 20:50	ILY	A
Trichloroethene	5.9		ug/L	5.0	SW846 8260D	5	12/12/2023 20:50	ILY	A
Trichlorofluoromethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/12/2023 20:50	ILY	A
Vinyl Acetate	25.0 U	U	ug/L	25.0	SW846 8260D	5	12/12/2023 20:50	ILY	A
Vinyl Chloride	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/12/2023 20:50	ILY	A

### SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	106%	62 – 133	12/12/2023 20:50	
4-Bromofluorobenzene	460-00-4	99.4%	79 – 114	12/12/2023 20:50	
Dibromofluoromethane	1868-53-7	102%	78 – 116	12/12/2023 20:50	
Toluene-d8	2037-26-5	99.4%	76 – 127	12/12/2023 20:50	



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## Results

Client Sample ID	MW-38R	Collected	12/03/2023 11:20
Lab Sample ID	3335533009	Lab Receipt	12/04/2023 18:15

### SEMOVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	18.2	3	ug/L	10.5	SW846 8270E SIM	10	12/12/2023 09:26	S7M	C

### SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnaphthalene-d10	7297-45-2	63.4%	29 – 112	12/08/2023 13:17	
2-Methylnaphthalene-d10	7297-45-2	84%	29 – 112	12/12/2023 09:26	
Fluoranthene-d10	93951-69-0	91.2%	45 – 130	12/08/2023 13:17	
Fluoranthene-d10	93951-69-0	101%	45 – 130	12/12/2023 09:26	

### 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	12/12/2023 15:47	ILY	A
1,1,1-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:47	ILY	A
1,1,2,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:47	ILY	A
1,1,2-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:47	ILY	A
1,1-Dichloroethane	4.2		ug/L	1.0	SW846 8260D	1	12/12/2023 15:47	ILY	A
1,1-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:47	ILY	A
1,1-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:47	ILY	A
1,2,3-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 15:47	ILY	A
1,2,3-Trichloropropane	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 15:47	ILY	A
1,2,4-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 15:47	ILY	A
1,2-Dibromo-3-chloropropane	7.0 U	U	ug/L	7.0	SW846 8260D	1	12/12/2023 15:47	ILY	A
1,2-Dibromoethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:47	ILY	A
1,2-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:47	ILY	A
1,2-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:47	ILY	A
1,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:47	ILY	A
1,3-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:47	ILY	A
1,3-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:47	ILY	A
1,4-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:47	ILY	A
2,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:47	ILY	A
2-Butanone	10.0 U	U	ug/L	10.0	SW846 8260D	1	12/12/2023 15:47	ILY	A
2-Hexanone	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/12/2023 15:47	ILY	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/12/2023 15:47	ILY	A
Acetone	10.0 U	U	ug/L	10.0	SW846 8260D	1	12/12/2023 15:47	ILY	A
Benzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:47	ILY	A
Bromobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:47	ILY	A
Bromochloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:47	ILY	A
Bromodichloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:47	ILY	A
Bromoform	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:47	ILY	A
Bromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:47	ILY	A
Carbon Tetrachloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:47	ILY	A
Chlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:47	ILY	A
Chlorodibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:47	ILY	A
Chloroethane	1.0 U	U,1	ug/L	1.0	SW846 8260D	1	12/12/2023 15:47	ILY	A

## Results

Client Sample ID	MW-38R	Collected	12/03/2023 11:20
Lab Sample ID	3335533009	Lab Receipt	12/04/2023 18:15

### 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	12/12/2023 15:47	ILY	A
Chloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:47	ILY	A
cis-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:47	ILY	A
cis-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:47	ILY	A
Dibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:47	ILY	A
Dichlorodifluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:47	ILY	A
Diisopropyl ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:47	ILY	A
Ethylbenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:47	ILY	A
Hexachlorobutadiene	5.0 U	U,2	ug/L	5.0	SW846 8260D	1	12/12/2023 15:47	ILY	A
Methyl t-Butyl Ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:47	ILY	A
Methylene Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:47	ILY	A
mp-Xylene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 15:47	ILY	A
Naphthalene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 15:47	ILY	A
o-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:47	ILY	A
o-Xylene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:47	ILY	A
p-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:47	ILY	A
p-Isopropyltoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:47	ILY	A
Styrene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:47	ILY	A
Tetrachloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:47	ILY	A
Toluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:47	ILY	A
Total Xylenes	3.0 U	U	ug/L	3.0	SW846 8260D	1	12/12/2023 15:47	ILY	A
trans-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:47	ILY	A
trans-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:47	ILY	A
Trichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:47	ILY	A
Trichlorofluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:47	ILY	A
Vinyl Acetate	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/12/2023 15:47	ILY	A
Vinyl Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:47	ILY	A

### SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	98.4%	62 – 133	12/12/2023 15:47	
4-Bromofluorobenzene	460-00-4	104%	79 – 114	12/12/2023 15:47	
Dibromofluoromethane	1868-53-7	102%	78 – 116	12/12/2023 15:47	
Toluene-d8	2037-26-5	104%	76 – 127	12/12/2023 15:47	



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## Results

Client Sample ID	MW-42	Collected	12/03/2023 11:35
Lab Sample ID	3335533010	Lab Receipt	12/04/2023 18:15

### SEMIVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	4.1	3	ug/L	1.0	SW846 8270E SIM	1	12/08/2023 13:43	S7M	C

### SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnaphthalene-d10	7297-45-2	64.2%	29 – 112	12/08/2023 13:43	
Fluoranthene-d10	93951-69-0	83.6%	45 – 130	12/08/2023 13:43	

### 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	12/12/2023 16:10	ILY	A
1,1,1-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:10	ILY	A
1,1,2,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:10	ILY	A
1,1,2-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:10	ILY	A
1,1-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:10	ILY	A
1,1-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:10	ILY	A
1,1-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:10	ILY	A
1,2,3-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 16:10	ILY	A
1,2,3-Trichloropropane	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 16:10	ILY	A
1,2,4-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 16:10	ILY	A
1,2-Dibromo-3-chloropropane	7.0 U	U	ug/L	7.0	SW846 8260D	1	12/12/2023 16:10	ILY	A
1,2-Dibromoethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:10	ILY	A
1,2-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:10	ILY	A
1,2-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:10	ILY	A
1,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:10	ILY	A
1,3-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:10	ILY	A
1,3-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:10	ILY	A
1,4-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:10	ILY	A
2,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:10	ILY	A
2-Butanone	10.0 U	U	ug/L	10.0	SW846 8260D	1	12/12/2023 16:10	ILY	A
2-Hexanone	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/12/2023 16:10	ILY	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/12/2023 16:10	ILY	A
Acetone	10.0 U	U	ug/L	10.0	SW846 8260D	1	12/12/2023 16:10	ILY	A
Benzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:10	ILY	A
Bromobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:10	ILY	A
Bromochloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:10	ILY	A
Bromodichloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:10	ILY	A
Bromoform	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:10	ILY	A
Bromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:10	ILY	A
Carbon Tetrachloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:10	ILY	A
Chlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:10	ILY	A
Chlorodibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:10	ILY	A
Chloroethane	1.0 U	U,1	ug/L	1.0	SW846 8260D	1	12/12/2023 16:10	ILY	A
Chloroform	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:10	ILY	A
Chloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:10	ILY	A



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## Results

Client Sample ID	MW-42	Collected	12/03/2023 11:35
Lab Sample ID	3335533010	Lab Receipt	12/04/2023 18:15

### 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	12/12/2023 16:10	ILY	A
cis-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:10	ILY	A
Dibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:10	ILY	A
Dichlorodifluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:10	ILY	A
Diisopropyl ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:10	ILY	A
Ethylbenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:10	ILY	A
Hexachlorobutadiene	5.0 U	U,2	ug/L	5.0	SW846 8260D	1	12/12/2023 16:10	ILY	A
Methyl t-Butyl Ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:10	ILY	A
Methylene Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:10	ILY	A
mp-Xylene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 16:10	ILY	A
Naphthalene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 16:10	ILY	A
o-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:10	ILY	A
o-Xylene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:10	ILY	A
p-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:10	ILY	A
p-Isopropyltoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:10	ILY	A
Styrene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:10	ILY	A
Tetrachloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:10	ILY	A
Toluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:10	ILY	A
Total Xylenes	3.0 U	U	ug/L	3.0	SW846 8260D	1	12/12/2023 16:10	ILY	A
trans-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:10	ILY	A
trans-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:10	ILY	A
Trichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:10	ILY	A
Trichlorofluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:10	ILY	A
Vinyl Acetate	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/12/2023 16:10	ILY	A
Vinyl Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:10	ILY	A

### SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	102%	62 – 133	12/12/2023 16:10	
4-Bromofluorobenzene	460-00-4	104%	79 – 114	12/12/2023 16:10	
Dibromofluoromethane	1868-53-7	101%	78 – 116	12/12/2023 16:10	
Toluene-d8	2037-26-5	103%	76 – 127	12/12/2023 16:10	



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## Results

Client Sample ID	MW-43	Collected	12/03/2023 10:50
Lab Sample ID	3335533011	Lab Receipt	12/04/2023 18:15

### SEMIVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	8.5	3	ug/L	1.1	SW846 8270E SIM	1	12/08/2023 14:09	S7M	C

### SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnaphthalene-d10	7297-45-2	69%	29 – 112	12/08/2023 14:09	
Fluoranthene-d10	93951-69-0	82.2%	45 – 130	12/08/2023 14:09	

### 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	12/12/2023 16:33	ILY	A
1,1,1-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:33	ILY	A
1,1,2,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:33	ILY	A
1,1,2-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:33	ILY	A
1,1-Dichloroethane	1.6		ug/L	1.0	SW846 8260D	1	12/12/2023 16:33	ILY	A
1,1-Dichloroethene	19.9		ug/L	1.0	SW846 8260D	1	12/12/2023 16:33	ILY	A
1,1-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:33	ILY	A
1,2,3-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 16:33	ILY	A
1,2,3-Trichloropropane	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 16:33	ILY	A
1,2,4-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 16:33	ILY	A
1,2-Dibromo-3-chloropropane	7.0 U	U	ug/L	7.0	SW846 8260D	1	12/12/2023 16:33	ILY	A
1,2-Dibromoethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:33	ILY	A
1,2-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:33	ILY	A
1,2-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:33	ILY	A
1,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:33	ILY	A
1,3-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:33	ILY	A
1,3-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:33	ILY	A
1,4-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:33	ILY	A
2,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:33	ILY	A
2-Butanone	10.0 U	U	ug/L	10.0	SW846 8260D	1	12/12/2023 16:33	ILY	A
2-Hexanone	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/12/2023 16:33	ILY	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/12/2023 16:33	ILY	A
Acetone	10.0 U	U	ug/L	10.0	SW846 8260D	1	12/12/2023 16:33	ILY	A
Benzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:33	ILY	A
Bromobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:33	ILY	A
Bromochloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:33	ILY	A
Bromodichloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:33	ILY	A
Bromoform	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:33	ILY	A
Bromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:33	ILY	A
Carbon Tetrachloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:33	ILY	A
Chlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:33	ILY	A
Chlorodibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:33	ILY	A
Chloroethane	1.0 U	U,1	ug/L	1.0	SW846 8260D	1	12/12/2023 16:33	ILY	A
Chloroform	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:33	ILY	A
Chloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:33	ILY	A



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## Results

Client Sample ID	MW-43	Collected	12/03/2023 10:50
Lab Sample ID	3335533011	Lab Receipt	12/04/2023 18:15

### 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	12/12/2023 16:33	ILY	A
cis-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:33	ILY	A
Dibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:33	ILY	A
Dichlorodifluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:33	ILY	A
Diisopropyl ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:33	ILY	A
Ethylbenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:33	ILY	A
Hexachlorobutadiene	5.0 U	U,2	ug/L	5.0	SW846 8260D	1	12/12/2023 16:33	ILY	A
Methyl t-Butyl Ether	1.8		ug/L	1.0	SW846 8260D	1	12/12/2023 16:33	ILY	A
Methylene Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:33	ILY	A
mp-Xylene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 16:33	ILY	A
Naphthalene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 16:33	ILY	A
o-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:33	ILY	A
o-Xylene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:33	ILY	A
p-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:33	ILY	A
p-Isopropyltoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:33	ILY	A
Styrene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:33	ILY	A
Tetrachloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:33	ILY	A
Toluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:33	ILY	A
Total Xylenes	3.0 U	U	ug/L	3.0	SW846 8260D	1	12/12/2023 16:33	ILY	A
trans-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:33	ILY	A
trans-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:33	ILY	A
Trichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:33	ILY	A
Trichlorofluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:33	ILY	A
Vinyl Acetate	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/12/2023 16:33	ILY	A
Vinyl Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:33	ILY	A

### SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	102%	62 – 133	12/12/2023 16:33	
4-Bromofluorobenzene	460-00-4	101%	79 – 114	12/12/2023 16:33	
Dibromofluoromethane	1868-53-7	101%	78 – 116	12/12/2023 16:33	
Toluene-d8	2037-26-5	101%	76 – 127	12/12/2023 16:33	



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## Results

Client Sample ID	MW-44	Collected	12/03/2023 13:30
Lab Sample ID	3335533012	Lab Receipt	12/04/2023 18:15

### SEMIVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	2.6	3,8	ug/L	1.0	SW846 8270E SIM	1	12/08/2023 14:36	S7M	C

### SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnaphthalene-d10	7297-45-2	62%	29 – 112	12/08/2023 14:36	
Fluoranthene-d10	93951-69-0	76.5%	45 – 130	12/08/2023 14:36	

### 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	12/12/2023 16:56	ILY	A
1,1,1-Trichloroethane	9.4		ug/L	1.0	SW846 8260D	1	12/12/2023 16:56	ILY	A
1,1,2,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:56	ILY	A
1,1,2-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:56	ILY	A
1,1-Dichloroethane	3.9		ug/L	1.0	SW846 8260D	1	12/12/2023 16:56	ILY	A
1,1-Dichloroethene	6.8		ug/L	1.0	SW846 8260D	1	12/12/2023 16:56	ILY	A
1,1-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:56	ILY	A
1,2,3-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 16:56	ILY	A
1,2,3-Trichloropropane	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 16:56	ILY	A
1,2,4-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 16:56	ILY	A
1,2-Dibromo-3-chloropropane	7.0 U	U	ug/L	7.0	SW846 8260D	1	12/12/2023 16:56	ILY	A
1,2-Dibromoethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:56	ILY	A
1,2-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:56	ILY	A
1,2-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:56	ILY	A
1,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:56	ILY	A
1,3-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:56	ILY	A
1,3-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:56	ILY	A
1,4-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:56	ILY	A
2,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:56	ILY	A
2-Butanone	10.0 U	U	ug/L	10.0	SW846 8260D	1	12/12/2023 16:56	ILY	A
2-Hexanone	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/12/2023 16:56	ILY	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/12/2023 16:56	ILY	A
Acetone	10.0 U	U	ug/L	10.0	SW846 8260D	1	12/12/2023 16:56	ILY	A
Benzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:56	ILY	A
Bromobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:56	ILY	A
Bromochloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:56	ILY	A
Bromodichloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:56	ILY	A
Bromoform	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:56	ILY	A
Bromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:56	ILY	A
Carbon Tetrachloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:56	ILY	A
Chlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:56	ILY	A
Chlorodibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:56	ILY	A
Chloroethane	1.0 U	U,1	ug/L	1.0	SW846 8260D	1	12/12/2023 16:56	ILY	A
Chloroform	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:56	ILY	A
Chloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:56	ILY	A

## Results

Client Sample ID	MW-44	Collected	12/03/2023 13:30
Lab Sample ID	3335533012	Lab Receipt	12/04/2023 18:15

### 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	12/12/2023 16:56	ILY	A
cis-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:56	ILY	A
Dibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:56	ILY	A
Dichlorodifluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:56	ILY	A
Diisopropyl ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:56	ILY	A
Ethylbenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:56	ILY	A
Hexachlorobutadiene	5.0 U	U,2	ug/L	5.0	SW846 8260D	1	12/12/2023 16:56	ILY	A
Methyl t-Butyl Ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:56	ILY	A
Methylene Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:56	ILY	A
mp-Xylene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 16:56	ILY	A
Naphthalene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 16:56	ILY	A
o-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:56	ILY	A
o-Xylene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:56	ILY	A
p-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:56	ILY	A
p-Isopropyltoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:56	ILY	A
Styrene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:56	ILY	A
Tetrachloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:56	ILY	A
Toluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:56	ILY	A
Total Xylenes	3.0 U	U	ug/L	3.0	SW846 8260D	1	12/12/2023 16:56	ILY	A
trans-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:56	ILY	A
trans-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:56	ILY	A
Trichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:56	ILY	A
Trichlorofluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:56	ILY	A
Vinyl Acetate	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/12/2023 16:56	ILY	A
Vinyl Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:56	ILY	A

### SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	103%	62 – 133	12/12/2023 16:56	
4-Bromofluorobenzene	460-00-4	101%	79 – 114	12/12/2023 16:56	
Dibromofluoromethane	1868-53-7	100%	78 – 116	12/12/2023 16:56	
Toluene-d8	2037-26-5	101%	76 – 127	12/12/2023 16:56	



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## Results

Client Sample ID	MW-45	Collected	12/04/2023 13:30
Lab Sample ID	3335533013	Lab Receipt	12/04/2023 18:15

### SEMIVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	1.0 U	U,3	ug/L	1.0	SW846 8270E SIM	1	12/08/2023 15:28	S7M	C

### SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnaphthalene-d10	7297-45-2	65%	29 – 112	12/08/2023 15:28	
Fluoranthene-d10	93951-69-0	78%	45 – 130	12/08/2023 15:28	

### 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	12/12/2023 17:20	ILY	A
1,1,1-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 17:20	ILY	A
1,1,2,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 17:20	ILY	A
1,1,2-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 17:20	ILY	A
1,1-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 17:20	ILY	A
1,1-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 17:20	ILY	A
1,1-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 17:20	ILY	A
1,2,3-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 17:20	ILY	A
1,2,3-Trichloropropane	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 17:20	ILY	A
1,2,4-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 17:20	ILY	A
1,2-Dibromo-3-chloropropane	7.0 U	U	ug/L	7.0	SW846 8260D	1	12/12/2023 17:20	ILY	A
1,2-Dibromoethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 17:20	ILY	A
1,2-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 17:20	ILY	A
1,2-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 17:20	ILY	A
1,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 17:20	ILY	A
1,3-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 17:20	ILY	A
1,3-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 17:20	ILY	A
1,4-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 17:20	ILY	A
2,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 17:20	ILY	A
2-Butanone	10.0 U	U	ug/L	10.0	SW846 8260D	1	12/12/2023 17:20	ILY	A
2-Hexanone	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/12/2023 17:20	ILY	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/12/2023 17:20	ILY	A
Acetone	10.0 U	U	ug/L	10.0	SW846 8260D	1	12/12/2023 17:20	ILY	A
Benzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 17:20	ILY	A
Bromobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 17:20	ILY	A
Bromochloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 17:20	ILY	A
Bromodichloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 17:20	ILY	A
Bromoform	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 17:20	ILY	A
Bromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 17:20	ILY	A
Carbon Tetrachloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 17:20	ILY	A
Chlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 17:20	ILY	A
Chlorodibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 17:20	ILY	A
Chloroethane	1.0 U	U,1	ug/L	1.0	SW846 8260D	1	12/12/2023 17:20	ILY	A
Chloroform	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 17:20	ILY	A
Chloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 17:20	ILY	A

## Results

Client Sample ID	MW-45	Collected	12/04/2023 13:30
Lab Sample ID	3335533013	Lab Receipt	12/04/2023 18:15

### 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	12/12/2023 17:20	ILY	A
cis-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 17:20	ILY	A
Dibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 17:20	ILY	A
Dichlorodifluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 17:20	ILY	A
Diisopropyl ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 17:20	ILY	A
Ethylbenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 17:20	ILY	A
Hexachlorobutadiene	5.0 U	U,2	ug/L	5.0	SW846 8260D	1	12/12/2023 17:20	ILY	A
Methyl t-Butyl Ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 17:20	ILY	A
Methylene Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 17:20	ILY	A
mp-Xylene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 17:20	ILY	A
Naphthalene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 17:20	ILY	A
o-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 17:20	ILY	A
o-Xylene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 17:20	ILY	A
p-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 17:20	ILY	A
p-Isopropyltoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 17:20	ILY	A
Styrene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 17:20	ILY	A
Tetrachloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 17:20	ILY	A
Toluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 17:20	ILY	A
Total Xylenes	3.0 U	U	ug/L	3.0	SW846 8260D	1	12/12/2023 17:20	ILY	A
trans-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 17:20	ILY	A
trans-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 17:20	ILY	A
Trichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 17:20	ILY	A
Trichlorofluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 17:20	ILY	A
Vinyl Acetate	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/12/2023 17:20	ILY	A
Vinyl Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 17:20	ILY	A

### SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	104%	62 – 133	12/12/2023 17:20	
4-Bromofluorobenzene	460-00-4	105%	79 – 114	12/12/2023 17:20	
Dibromofluoromethane	1868-53-7	102%	78 – 116	12/12/2023 17:20	
Toluene-d8	2037-26-5	102%	76 – 127	12/12/2023 17:20	



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## Results

Client Sample ID	MW-01D	Collected	12/03/2023 14:30
Lab Sample ID	3335533014	Lab Receipt	12/04/2023 18:15

### SEMIVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	6.5	3	ug/L	1.0	SW846 8270E SIM	1	12/08/2023 15:55	S7M	C

### SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnaphthalene-d10	7297-45-2	74.2%	29 – 112	12/08/2023 15:55	
Fluoranthene-d10	93951-69-0	83%	45 – 130	12/08/2023 15:55	

### 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	12/12/2023 17:43	ILY	A
1,1,1-Trichloroethane	1.0		ug/L	1.0	SW846 8260D	1	12/12/2023 17:43	ILY	A
1,1,2,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 17:43	ILY	A
1,1,2-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 17:43	ILY	A
1,1-Dichloroethane	3.8		ug/L	1.0	SW846 8260D	1	12/12/2023 17:43	ILY	A
1,1-Dichloroethene	21.3		ug/L	1.0	SW846 8260D	1	12/12/2023 17:43	ILY	A
1,1-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 17:43	ILY	A
1,2,3-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 17:43	ILY	A
1,2,3-Trichloropropane	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 17:43	ILY	A
1,2,4-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 17:43	ILY	A
1,2-Dibromo-3-chloropropane	7.0 U	U	ug/L	7.0	SW846 8260D	1	12/12/2023 17:43	ILY	A
1,2-Dibromoethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 17:43	ILY	A
1,2-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 17:43	ILY	A
1,2-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 17:43	ILY	A
1,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 17:43	ILY	A
1,3-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 17:43	ILY	A
1,3-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 17:43	ILY	A
1,4-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 17:43	ILY	A
2,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 17:43	ILY	A
2-Butanone	10.0 U	U	ug/L	10.0	SW846 8260D	1	12/12/2023 17:43	ILY	A
2-Hexanone	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/12/2023 17:43	ILY	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/12/2023 17:43	ILY	A
Acetone	10.0 U	U	ug/L	10.0	SW846 8260D	1	12/12/2023 17:43	ILY	A
Benzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 17:43	ILY	A
Bromobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 17:43	ILY	A
Bromochloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 17:43	ILY	A
Bromodichloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 17:43	ILY	A
Bromoform	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 17:43	ILY	A
Bromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 17:43	ILY	A
Carbon Tetrachloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 17:43	ILY	A
Chlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 17:43	ILY	A
Chlorodibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 17:43	ILY	A
Chloroethane	1.0 U	U,1	ug/L	1.0	SW846 8260D	1	12/12/2023 17:43	ILY	A
Chloroform	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 17:43	ILY	A
Chloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 17:43	ILY	A



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## Results

Client Sample ID	MW-01D	Collected	12/03/2023 14:30
Lab Sample ID	3335533014	Lab Receipt	12/04/2023 18:15

### 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	12/12/2023 17:43	ILY	A
cis-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 17:43	ILY	A
Dibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 17:43	ILY	A
Dichlorodifluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 17:43	ILY	A
Diisopropyl ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 17:43	ILY	A
Ethylbenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 17:43	ILY	A
Hexachlorobutadiene	5.0 U	U,2	ug/L	5.0	SW846 8260D	1	12/12/2023 17:43	ILY	A
Methyl t-Butyl Ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 17:43	ILY	A
Methylene Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 17:43	ILY	A
mp-Xylene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 17:43	ILY	A
Naphthalene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 17:43	ILY	A
o-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 17:43	ILY	A
o-Xylene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 17:43	ILY	A
p-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 17:43	ILY	A
p-Isopropyltoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 17:43	ILY	A
Styrene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 17:43	ILY	A
Tetrachloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 17:43	ILY	A
Toluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 17:43	ILY	A
Total Xylenes	3.0 U	U	ug/L	3.0	SW846 8260D	1	12/12/2023 17:43	ILY	A
trans-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 17:43	ILY	A
trans-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 17:43	ILY	A
Trichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 17:43	ILY	A
Trichlorofluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 17:43	ILY	A
Vinyl Acetate	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/12/2023 17:43	ILY	A
Vinyl Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 17:43	ILY	A

### SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	104%	62 – 133	12/12/2023 17:43	
4-Bromofluorobenzene	460-00-4	100%	79 – 114	12/12/2023 17:43	
Dibromofluoromethane	1868-53-7	99.3%	78 – 116	12/12/2023 17:43	
Toluene-d8	2037-26-5	99.5%	76 – 127	12/12/2023 17:43	



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## Results

Client Sample ID	MW-16D	Collected	12/03/2023 16:15
Lab Sample ID	3335533015	Lab Receipt	12/04/2023 18:15

### SEMOVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	34.5	3	ug/L	10.4	SW846 8270E SIM	10	12/12/2023 09:52	S7M	C

### SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnaphthalene-d10	7297-45-2	69.9%	29 – 112	12/08/2023 16:21	
2-Methylnaphthalene-d10	7297-45-2	86.4%	29 – 112	12/12/2023 09:52	
Fluoranthene-d10	93951-69-0	84.9%	45 – 130	12/08/2023 16:21	
Fluoranthene-d10	93951-69-0	85.9%	45 – 130	12/12/2023 09:52	

### 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	12/12/2023 18:06	ILY	A
1,1,1-Trichloroethane	5.2		ug/L	1.0	SW846 8260D	1	12/12/2023 18:06	ILY	A
1,1,2,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:06	ILY	A
1,1,2-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:06	ILY	A
1,1-Dichloroethane	21.8		ug/L	1.0	SW846 8260D	1	12/12/2023 18:06	ILY	A
1,1-Dichloroethene	103		ug/L	1.0	SW846 8260D	1	12/12/2023 18:06	ILY	A
1,1-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:06	ILY	A
1,2,3-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 18:06	ILY	A
1,2,3-Trichloropropane	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 18:06	ILY	A
1,2,4-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 18:06	ILY	A
1,2-Dibromo-3-chloropropane	7.0 U	U	ug/L	7.0	SW846 8260D	1	12/12/2023 18:06	ILY	A
1,2-Dibromoethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:06	ILY	A
1,2-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:06	ILY	A
1,2-Dichloroethane	1.1		ug/L	1.0	SW846 8260D	1	12/12/2023 18:06	ILY	A
1,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:06	ILY	A
1,3-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:06	ILY	A
1,3-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:06	ILY	A
1,4-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:06	ILY	A
2,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:06	ILY	A
2-Butanone	10.0 U	U	ug/L	10.0	SW846 8260D	1	12/12/2023 18:06	ILY	A
2-Hexanone	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/12/2023 18:06	ILY	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/12/2023 18:06	ILY	A
Acetone	10.0 U	U	ug/L	10.0	SW846 8260D	1	12/12/2023 18:06	ILY	A
Benzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:06	ILY	A
Bromobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:06	ILY	A
Bromochloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:06	ILY	A
Bromodichloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:06	ILY	A
Bromoform	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:06	ILY	A
Bromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:06	ILY	A
Carbon Tetrachloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:06	ILY	A
Chlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:06	ILY	A
Chlorodibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:06	ILY	A
Chloroethane	1.0 U	U,1	ug/L	1.0	SW846 8260D	1	12/12/2023 18:06	ILY	A

## Results

Client Sample ID	MW-16D	Collected	12/03/2023 16:15
Lab Sample ID	3335533015	Lab Receipt	12/04/2023 18:15

### 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	12/12/2023 18:06	ILY	A
Chloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:06	ILY	A
cis-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:06	ILY	A
cis-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:06	ILY	A
Dibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:06	ILY	A
Dichlorodifluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:06	ILY	A
Diisopropyl ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:06	ILY	A
Ethylbenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:06	ILY	A
Hexachlorobutadiene	5.0 U	U,2	ug/L	5.0	SW846 8260D	1	12/12/2023 18:06	ILY	A
Methyl t-Butyl Ether	1.0		ug/L	1.0	SW846 8260D	1	12/12/2023 18:06	ILY	A
Methylene Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:06	ILY	A
mp-Xylene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 18:06	ILY	A
Naphthalene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 18:06	ILY	A
o-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:06	ILY	A
o-Xylene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:06	ILY	A
p-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:06	ILY	A
p-Isopropyltoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:06	ILY	A
Styrene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:06	ILY	A
Tetrachloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:06	ILY	A
Toluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:06	ILY	A
Total Xylenes	3.0 U	U	ug/L	3.0	SW846 8260D	1	12/12/2023 18:06	ILY	A
trans-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:06	ILY	A
trans-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:06	ILY	A
Trichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:06	ILY	A
Trichlorofluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:06	ILY	A
Vinyl Acetate	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/12/2023 18:06	ILY	A
Vinyl Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:06	ILY	A

### SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	104%	62 – 133	12/12/2023 18:06	
4-Bromofluorobenzene	460-00-4	100%	79 – 114	12/12/2023 18:06	
Dibromofluoromethane	1868-53-7	101%	78 – 116	12/12/2023 18:06	
Toluene-d8	2037-26-5	99.8%	76 – 127	12/12/2023 18:06	



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## Results

Client Sample ID	MW-21D	Collected	12/03/2023 13:55
Lab Sample ID	3335533016	Lab Receipt	12/04/2023 18:15

### SEMIVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	7.7	3	ug/L	1.0	SW846 8270E SIM	1	12/08/2023 16:47	S7M	C

### SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnaphthalene-d10	7297-45-2	68.6%	29 – 112	12/08/2023 16:47	
Fluoranthene-d10	93951-69-0	80.1%	45 – 130	12/08/2023 16:47	

### 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	12/12/2023 18:30	ILY	A
1,1,1-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:30	ILY	A
1,1,2,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:30	ILY	A
1,1,2-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:30	ILY	A
1,1-Dichloroethane	1.0 U	U,11	ug/L	1.0	SW846 8260D	1	12/12/2023 18:30	ILY	A
1,1-Dichloroethene	30.8	12	ug/L	1.0	SW846 8260D	1	12/12/2023 18:30	ILY	A
1,1-Dichloropropene	1.0 U	U,16	ug/L	1.0	SW846 8260D	1	12/12/2023 18:30	ILY	A
1,2,3-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 18:30	ILY	A
1,2,3-Trichloropropane	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 18:30	ILY	A
1,2,4-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 18:30	ILY	A
1,2-Dibromo-3-chloropropane	7.0 U	U	ug/L	7.0	SW846 8260D	1	12/12/2023 18:30	ILY	A
1,2-Dibromoethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:30	ILY	A
1,2-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:30	ILY	A
1,2-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:30	ILY	A
1,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:30	ILY	A
1,3-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:30	ILY	A
1,3-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:30	ILY	A
1,4-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:30	ILY	A
2,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:30	ILY	A
2-Butanone	10.0 U	U	ug/L	10.0	SW846 8260D	1	12/12/2023 18:30	ILY	A
2-Hexanone	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/12/2023 18:30	ILY	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/12/2023 18:30	ILY	A
Acetone	10.0 U	U	ug/L	10.0	SW846 8260D	1	12/12/2023 18:30	ILY	A
Benzene	1.0 U	U,9	ug/L	1.0	SW846 8260D	1	12/12/2023 18:30	ILY	A
Bromobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:30	ILY	A
Bromochloromethane	1.0 U	U,10	ug/L	1.0	SW846 8260D	1	12/12/2023 18:30	ILY	A
Bromodichloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:30	ILY	A
Bromoform	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:30	ILY	A
Bromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:30	ILY	A
Carbon Tetrachloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:30	ILY	A
Chlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:30	ILY	A
Chlorodibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:30	ILY	A
Chloroethane	1.0 U	U,1	ug/L	1.0	SW846 8260D	1	12/12/2023 18:30	ILY	A
Chloroform	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:30	ILY	A
Chloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:30	ILY	A



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## Results

Client Sample ID	MW-21D	Collected	12/03/2023 13:55
Lab Sample ID	3335533016	Lab Receipt	12/04/2023 18:15

### VOLATILE ORGANICS (cont.)

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
cis-1,2-Dichloroethene	1.0 U	U,13	ug/L	1.0	SW846 8260D	1	12/12/2023 18:30	ILY	A
cis-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:30	ILY	A
Dibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:30	ILY	A
Dichlorodifluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:30	ILY	A
Diisopropyl ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:30	ILY	A
Ethylbenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:30	ILY	A
Hexachlorobutadiene	5.0 U	U,2	ug/L	5.0	SW846 8260D	1	12/12/2023 18:30	ILY	A
Methyl t-Butyl Ether	1.0 U	U,17,18	ug/L	1.0	SW846 8260D	1	12/12/2023 18:30	ILY	A
Methylene Chloride	1.0 U	U,19	ug/L	1.0	SW846 8260D	1	12/12/2023 18:30	ILY	A
mp-Xylene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 18:30	ILY	A
Naphthalene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 18:30	ILY	A
o-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:30	ILY	A
o-Xylene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:30	ILY	A
p-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:30	ILY	A
p-Isopropyltoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:30	ILY	A
Styrene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:30	ILY	A
Tetrachloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:30	ILY	A
Toluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:30	ILY	A
Total Xylenes	3.0 U	U	ug/L	3.0	SW846 8260D	1	12/12/2023 18:30	ILY	A
trans-1,2-Dichloroethene	1.0 U	U,14,15	ug/L	1.0	SW846 8260D	1	12/12/2023 18:30	ILY	A
trans-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:30	ILY	A
Trichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:30	ILY	A
Trichlorofluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:30	ILY	A
Vinyl Acetate	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/12/2023 18:30	ILY	A
Vinyl Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:30	ILY	A

### SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	104%	62 – 133	12/12/2023 18:30	
4-Bromofluorobenzene	460-00-4	103%	79 – 114	12/12/2023 18:30	
Dibromofluoromethane	1868-53-7	99.3%	78 – 116	12/12/2023 18:30	
Toluene-d8	2037-26-5	100%	76 – 127	12/12/2023 18:30	



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## Results

Client Sample ID	MW-22D	Collected	12/03/2023 14:55
Lab Sample ID	3335533017	Lab Receipt	12/04/2023 18:15

### SEMIVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	2.0	3	ug/L	1.0	SW846 8270E SIM	1	12/08/2023 17:14	S7M	C

### SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnaphthalene-d10	7297-45-2	62.9%	29 – 112	12/08/2023 17:14	
Fluoranthene-d10	93951-69-0	79.8%	45 – 130	12/08/2023 17:14	

### 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	12/12/2023 18:53	ILY	A
1,1,1-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:53	ILY	A
1,1,2,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:53	ILY	A
1,1,2-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:53	ILY	A
1,1-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:53	ILY	A
1,1-Dichloroethene	8.5		ug/L	1.0	SW846 8260D	1	12/12/2023 18:53	ILY	A
1,1-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:53	ILY	A
1,2,3-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 18:53	ILY	A
1,2,3-Trichloropropane	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 18:53	ILY	A
1,2,4-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 18:53	ILY	A
1,2-Dibromo-3-chloropropane	7.0 U	U	ug/L	7.0	SW846 8260D	1	12/12/2023 18:53	ILY	A
1,2-Dibromoethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:53	ILY	A
1,2-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:53	ILY	A
1,2-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:53	ILY	A
1,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:53	ILY	A
1,3-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:53	ILY	A
1,3-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:53	ILY	A
1,4-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:53	ILY	A
2,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:53	ILY	A
2-Butanone	10.0 U	U	ug/L	10.0	SW846 8260D	1	12/12/2023 18:53	ILY	A
2-Hexanone	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/12/2023 18:53	ILY	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/12/2023 18:53	ILY	A
Acetone	10.0 U	U	ug/L	10.0	SW846 8260D	1	12/12/2023 18:53	ILY	A
Benzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:53	ILY	A
Bromobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:53	ILY	A
Bromochloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:53	ILY	A
Bromodichloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:53	ILY	A
Bromoform	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:53	ILY	A
Bromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:53	ILY	A
Carbon Tetrachloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:53	ILY	A
Chlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:53	ILY	A
Chlorodibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:53	ILY	A
Chloroethane	1.0 U	U,1	ug/L	1.0	SW846 8260D	1	12/12/2023 18:53	ILY	A
Chloroform	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:53	ILY	A
Chloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:53	ILY	A



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## Results

Client Sample ID	MW-22D	Collected	12/03/2023 14:55
Lab Sample ID	3335533017	Lab Receipt	12/04/2023 18:15

### 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	12/12/2023 18:53	ILY	A
cis-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:53	ILY	A
Dibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:53	ILY	A
Dichlorodifluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:53	ILY	A
Diisopropyl ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:53	ILY	A
Ethylbenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:53	ILY	A
Hexachlorobutadiene	5.0 U	U,2	ug/L	5.0	SW846 8260D	1	12/12/2023 18:53	ILY	A
Methyl t-Butyl Ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:53	ILY	A
Methylene Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:53	ILY	A
mp-Xylene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 18:53	ILY	A
Naphthalene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 18:53	ILY	A
o-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:53	ILY	A
o-Xylene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:53	ILY	A
p-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:53	ILY	A
p-Isopropyltoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:53	ILY	A
Styrene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:53	ILY	A
Tetrachloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:53	ILY	A
Toluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:53	ILY	A
Total Xylenes	3.0 U	U	ug/L	3.0	SW846 8260D	1	12/12/2023 18:53	ILY	A
trans-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:53	ILY	A
trans-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:53	ILY	A
Trichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:53	ILY	A
Trichlorofluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:53	ILY	A
Vinyl Acetate	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/12/2023 18:53	ILY	A
Vinyl Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 18:53	ILY	A

### SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	105%	62 – 133	12/12/2023 18:53	
4-Bromofluorobenzene	460-00-4	103%	79 – 114	12/12/2023 18:53	
Dibromofluoromethane	1868-53-7	99.7%	78 – 116	12/12/2023 18:53	
Toluene-d8	2037-26-5	99.7%	76 – 127	12/12/2023 18:53	



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## Results

Client Sample ID	MW-23D	Collected	12/03/2023 15:40
Lab Sample ID	3335533018	Lab Receipt	12/04/2023 18:15

### SEMOVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	56.1	3	ug/L	10.4	SW846 8270E SIM	10	12/12/2023 10:19	S7M	C

### SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnaphthalene-d10	7297-45-2	70.2%	29 – 112	12/08/2023 17:40	
2-Methylnaphthalene-d10	7297-45-2	77.7%	29 – 112	12/12/2023 10:19	
Fluoranthene-d10	93951-69-0	86.5%	45 – 130	12/08/2023 17:40	
Fluoranthene-d10	93951-69-0	81.8%	45 – 130	12/12/2023 10:19	

### 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	12/12/2023 19:16	ILY	A
1,1,1-Trichloroethane	9.3		ug/L	1.0	SW846 8260D	1	12/12/2023 19:16	ILY	A
1,1,2,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 19:16	ILY	A
1,1,2-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 19:16	ILY	A
1,1-Dichloroethane	41.2		ug/L	1.0	SW846 8260D	1	12/12/2023 19:16	ILY	A
1,1-Dichloroethene	177		ug/L	1.0	SW846 8260D	1	12/12/2023 19:16	ILY	A
1,1-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 19:16	ILY	A
1,2,3-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 19:16	ILY	A
1,2,3-Trichloropropane	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 19:16	ILY	A
1,2,4-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 19:16	ILY	A
1,2-Dibromo-3-chloropropane	7.0 U	U	ug/L	7.0	SW846 8260D	1	12/12/2023 19:16	ILY	A
1,2-Dibromoethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 19:16	ILY	A
1,2-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 19:16	ILY	A
1,2-Dichloroethane	1.7		ug/L	1.0	SW846 8260D	1	12/12/2023 19:16	ILY	A
1,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 19:16	ILY	A
1,3-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 19:16	ILY	A
1,3-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 19:16	ILY	A
1,4-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 19:16	ILY	A
2,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 19:16	ILY	A
2-Butanone	10.0 U	U	ug/L	10.0	SW846 8260D	1	12/12/2023 19:16	ILY	A
2-Hexanone	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/12/2023 19:16	ILY	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/12/2023 19:16	ILY	A
Acetone	10.0 U	U	ug/L	10.0	SW846 8260D	1	12/12/2023 19:16	ILY	A
Benzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 19:16	ILY	A
Bromobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 19:16	ILY	A
Bromochloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 19:16	ILY	A
Bromodichloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 19:16	ILY	A
Bromoform	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 19:16	ILY	A
Bromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 19:16	ILY	A
Carbon Tetrachloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 19:16	ILY	A
Chlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 19:16	ILY	A
Chlorodibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 19:16	ILY	A
Chloroethane	1.0 U	U,1	ug/L	1.0	SW846 8260D	1	12/12/2023 19:16	ILY	A

## Results

Client Sample ID	MW-23D	Collected	12/03/2023 15:40
Lab Sample ID	3335533018	Lab Receipt	12/04/2023 18:15

### 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	12/12/2023 19:16	ILY	A
Chloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 19:16	ILY	A
cis-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 19:16	ILY	A
cis-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 19:16	ILY	A
Dibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 19:16	ILY	A
Dichlorodifluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 19:16	ILY	A
Diisopropyl ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 19:16	ILY	A
Ethylbenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 19:16	ILY	A
Hexachlorobutadiene	5.0 U	U,2	ug/L	5.0	SW846 8260D	1	12/12/2023 19:16	ILY	A
Methyl t-Butyl Ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 19:16	ILY	A
Methylene Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 19:16	ILY	A
mp-Xylene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 19:16	ILY	A
Naphthalene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 19:16	ILY	A
o-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 19:16	ILY	A
o-Xylene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 19:16	ILY	A
p-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 19:16	ILY	A
p-Isopropyltoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 19:16	ILY	A
Styrene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 19:16	ILY	A
Tetrachloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 19:16	ILY	A
Toluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 19:16	ILY	A
Total Xylenes	3.0 U	U	ug/L	3.0	SW846 8260D	1	12/12/2023 19:16	ILY	A
trans-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 19:16	ILY	A
trans-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 19:16	ILY	A
Trichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 19:16	ILY	A
Trichlorofluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 19:16	ILY	A
Vinyl Acetate	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/12/2023 19:16	ILY	A
Vinyl Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 19:16	ILY	A

### SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	104%	62 – 133	12/12/2023 19:16	
4-Bromofluorobenzene	460-00-4	103%	79 – 114	12/12/2023 19:16	
Dibromofluoromethane	1868-53-7	100%	78 – 116	12/12/2023 19:16	
Toluene-d8	2037-26-5	99.8%	76 – 127	12/12/2023 19:16	



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## Results

Client Sample ID	MW-27D	Collected	12/03/2023 10:00
Lab Sample ID	3335533019	Lab Receipt	12/04/2023 18:15

### SEMIVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	1.0 U	U,3	ug/L	1.0	SW846 8270E SIM	1	12/08/2023 18:07	S7M	C

### SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnaphthalene-d10	7297-45-2	74.5%	29 – 112	12/08/2023 18:07	
Fluoranthene-d10	93951-69-0	85.3%	45 – 130	12/08/2023 18:07	

### 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	12/12/2023 19:40	ILY	A
1,1,1-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 19:40	ILY	A
1,1,2,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 19:40	ILY	A
1,1,2-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 19:40	ILY	A
1,1-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 19:40	ILY	A
1,1-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 19:40	ILY	A
1,1-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 19:40	ILY	A
1,2,3-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 19:40	ILY	A
1,2,3-Trichloropropane	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 19:40	ILY	A
1,2,4-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 19:40	ILY	A
1,2-Dibromo-3-chloropropane	7.0 U	U	ug/L	7.0	SW846 8260D	1	12/12/2023 19:40	ILY	A
1,2-Dibromoethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 19:40	ILY	A
1,2-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 19:40	ILY	A
1,2-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 19:40	ILY	A
1,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 19:40	ILY	A
1,3-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 19:40	ILY	A
1,3-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 19:40	ILY	A
1,4-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 19:40	ILY	A
2,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 19:40	ILY	A
2-Butanone	10.0 U	U	ug/L	10.0	SW846 8260D	1	12/12/2023 19:40	ILY	A
2-Hexanone	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/12/2023 19:40	ILY	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/12/2023 19:40	ILY	A
Acetone	10.0 U	U	ug/L	10.0	SW846 8260D	1	12/12/2023 19:40	ILY	A
Benzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 19:40	ILY	A
Bromobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 19:40	ILY	A
Bromochloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 19:40	ILY	A
Bromodichloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 19:40	ILY	A
Bromoform	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 19:40	ILY	A
Bromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 19:40	ILY	A
Carbon Tetrachloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 19:40	ILY	A
Chlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 19:40	ILY	A
Chlorodibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 19:40	ILY	A
Chloroethane	1.0 U	U,1	ug/L	1.0	SW846 8260D	1	12/12/2023 19:40	ILY	A
Chloroform	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 19:40	ILY	A
Chloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 19:40	ILY	A



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## Results

Client Sample ID	MW-27D	Collected	12/03/2023 10:00
Lab Sample ID	3335533019	Lab Receipt	12/04/2023 18:15

### 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	12/12/2023 19:40	ILY	A
cis-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 19:40	ILY	A
Dibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 19:40	ILY	A
Dichlorodifluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 19:40	ILY	A
Diisopropyl ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 19:40	ILY	A
Ethylbenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 19:40	ILY	A
Hexachlorobutadiene	5.0 U	U,2	ug/L	5.0	SW846 8260D	1	12/12/2023 19:40	ILY	A
Methyl t-Butyl Ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 19:40	ILY	A
Methylene Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 19:40	ILY	A
mp-Xylene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 19:40	ILY	A
Naphthalene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 19:40	ILY	A
o-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 19:40	ILY	A
o-Xylene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 19:40	ILY	A
p-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 19:40	ILY	A
p-Isopropyltoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 19:40	ILY	A
Styrene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 19:40	ILY	A
Tetrachloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 19:40	ILY	A
Toluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 19:40	ILY	A
Total Xylenes	3.0 U	U	ug/L	3.0	SW846 8260D	1	12/12/2023 19:40	ILY	A
trans-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 19:40	ILY	A
trans-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 19:40	ILY	A
Trichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 19:40	ILY	A
Trichlorofluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 19:40	ILY	A
Vinyl Acetate	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/12/2023 19:40	ILY	A
Vinyl Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 19:40	ILY	A

### SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	106%	62 – 133	12/12/2023 19:40	
4-Bromofluorobenzene	460-00-4	103%	79 – 114	12/12/2023 19:40	
Dibromofluoromethane	1868-53-7	101%	78 – 116	12/12/2023 19:40	
Toluene-d8	2037-26-5	101%	76 – 127	12/12/2023 19:40	



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## Results

Client Sample ID	MW-40D	Collected	12/03/2023 11:50
Lab Sample ID	3335533020	Lab Receipt	12/04/2023 18:15

### SEMIVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	1.0 U	U,3	ug/L	1.0	SW846 8270E SIM	1	12/08/2023 18:34	S7M	C

### SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnaphthalene-d10	7297-45-2	69.7%	29 – 112	12/08/2023 18:34	
Fluoranthene-d10	93951-69-0	90.6%	45 – 130	12/08/2023 18:34	

### 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	12/12/2023 20:03	ILY	A
1,1,1-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 20:03	ILY	A
1,1,2,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 20:03	ILY	A
1,1,2-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 20:03	ILY	A
1,1-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 20:03	ILY	A
1,1-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 20:03	ILY	A
1,1-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 20:03	ILY	A
1,2,3-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 20:03	ILY	A
1,2,3-Trichloropropane	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 20:03	ILY	A
1,2,4-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 20:03	ILY	A
1,2-Dibromo-3-chloropropane	7.0 U	U	ug/L	7.0	SW846 8260D	1	12/12/2023 20:03	ILY	A
1,2-Dibromoethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 20:03	ILY	A
1,2-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 20:03	ILY	A
1,2-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 20:03	ILY	A
1,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 20:03	ILY	A
1,3-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 20:03	ILY	A
1,3-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 20:03	ILY	A
1,4-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 20:03	ILY	A
2,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 20:03	ILY	A
2-Butanone	10.0 U	U	ug/L	10.0	SW846 8260D	1	12/12/2023 20:03	ILY	A
2-Hexanone	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/12/2023 20:03	ILY	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/12/2023 20:03	ILY	A
Acetone	10.0 U	U	ug/L	10.0	SW846 8260D	1	12/12/2023 20:03	ILY	A
Benzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 20:03	ILY	A
Bromobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 20:03	ILY	A
Bromochloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 20:03	ILY	A
Bromodichloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 20:03	ILY	A
Bromoform	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 20:03	ILY	A
Bromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 20:03	ILY	A
Carbon Tetrachloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 20:03	ILY	A
Chlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 20:03	ILY	A
Chlorodibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 20:03	ILY	A
Chloroethane	1.0 U	U,1	ug/L	1.0	SW846 8260D	1	12/12/2023 20:03	ILY	A
Chloroform	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 20:03	ILY	A
Chloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 20:03	ILY	A



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## Results

Client Sample ID	MW-40D	Collected	12/03/2023 11:50
Lab Sample ID	3335533020	Lab Receipt	12/04/2023 18:15

### 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	12/12/2023 20:03	ILY	A
cis-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 20:03	ILY	A
Dibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 20:03	ILY	A
Dichlorodifluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 20:03	ILY	A
Diisopropyl ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 20:03	ILY	A
Ethylbenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 20:03	ILY	A
Hexachlorobutadiene	5.0 U	U,2	ug/L	5.0	SW846 8260D	1	12/12/2023 20:03	ILY	A
Methyl t-Butyl Ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 20:03	ILY	A
Methylene Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 20:03	ILY	A
mp-Xylene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 20:03	ILY	A
Naphthalene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 20:03	ILY	A
o-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 20:03	ILY	A
o-Xylene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 20:03	ILY	A
p-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 20:03	ILY	A
p-Isopropyltoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 20:03	ILY	A
Styrene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 20:03	ILY	A
Tetrachloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 20:03	ILY	A
Toluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 20:03	ILY	A
Total Xylenes	3.0 U	U	ug/L	3.0	SW846 8260D	1	12/12/2023 20:03	ILY	A
trans-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 20:03	ILY	A
trans-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 20:03	ILY	A
Trichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 20:03	ILY	A
Trichlorofluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 20:03	ILY	A
Vinyl Acetate	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/12/2023 20:03	ILY	A
Vinyl Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 20:03	ILY	A

### SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	105%	62 – 133	12/12/2023 20:03	
4-Bromofluorobenzene	460-00-4	100%	79 – 114	12/12/2023 20:03	
Dibromofluoromethane	1868-53-7	99.6%	78 – 116	12/12/2023 20:03	
Toluene-d8	2037-26-5	99.1%	76 – 127	12/12/2023 20:03	



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## Results

Client Sample ID	MW-41D	Collected	12/03/2023 14:05
Lab Sample ID	3335533021	Lab Receipt	12/04/2023 18:15

### 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	12/11/2023 07:28	S7M	C

### SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnaphthalene-d10	7297-45-2	64.4%	29 – 112	12/11/2023 07:28	
Fluoranthene-d10	93951-69-0	78%	45 – 130	12/11/2023 07:28	

### 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	12/12/2023 15:34	ILY	A
1,1,1-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:34	ILY	A
1,1,2,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:34	ILY	A
1,1,2-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:34	ILY	A
1,1-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:34	ILY	A
1,1-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:34	ILY	A
1,1-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:34	ILY	A
1,2,3-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 15:34	ILY	A
1,2,3-Trichloropropane	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 15:34	ILY	A
1,2,4-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 15:34	ILY	A
1,2-Dibromo-3-chloropropane	7.0 U	U	ug/L	7.0	SW846 8260D	1	12/12/2023 15:34	ILY	A
1,2-Dibromoethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:34	ILY	A
1,2-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:34	ILY	A
1,2-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:34	ILY	A
1,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:34	ILY	A
1,3-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:34	ILY	A
1,3-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:34	ILY	A
1,4-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:34	ILY	A
2,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:34	ILY	A
2-Butanone	10.0 U	U	ug/L	10.0	SW846 8260D	1	12/12/2023 15:34	ILY	A
2-Hexanone	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/12/2023 15:34	ILY	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/12/2023 15:34	ILY	A
Acetone	10.0 U	U	ug/L	10.0	SW846 8260D	1	12/12/2023 15:34	ILY	A
Benzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:34	ILY	A
Bromobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:34	ILY	A
Bromochloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:34	ILY	A
Bromodichloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:34	ILY	A
Bromoform	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:34	ILY	A
Bromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:34	ILY	A
Carbon Tetrachloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:34	ILY	A
Chlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:34	ILY	A
Chlorodibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:34	ILY	A
Chloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:34	ILY	A
Chloroform	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:34	ILY	A
Chloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:34	ILY	A



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## Results

Client Sample ID	MW-41D	Collected	12/03/2023 14:05
Lab Sample ID	3335533021	Lab Receipt	12/04/2023 18:15

### 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	12/12/2023 15:34	ILY	A
cis-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:34	ILY	A
Dibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:34	ILY	A
Dichlorodifluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:34	ILY	A
Diisopropyl ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:34	ILY	A
Ethylbenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:34	ILY	A
Hexachlorobutadiene	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/12/2023 15:34	ILY	A
Methyl t-Butyl Ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:34	ILY	A
Methylene Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:34	ILY	A
mp-Xylene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 15:34	ILY	A
Naphthalene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 15:34	ILY	A
o-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:34	ILY	A
o-Xylene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:34	ILY	A
p-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:34	ILY	A
p-Isopropyltoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:34	ILY	A
Styrene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:34	ILY	A
Tetrachloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:34	ILY	A
Toluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:34	ILY	A
Total Xylenes	3.0 U	U	ug/L	3.0	SW846 8260D	1	12/12/2023 15:34	ILY	A
trans-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:34	ILY	A
trans-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:34	ILY	A
Trichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:34	ILY	A
Trichlorofluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:34	ILY	A
Vinyl Acetate	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/12/2023 15:34	ILY	A
Vinyl Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:34	ILY	A

### SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	105%	62 – 133	12/12/2023 15:34	
4-Bromofluorobenzene	460-00-4	94%	79 – 114	12/12/2023 15:34	
Dibromofluoromethane	1868-53-7	98.4%	78 – 116	12/12/2023 15:34	
Toluene-d8	2037-26-5	97.3%	76 – 127	12/12/2023 15:34	



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Workorder 3335533

## Results

Client Sample ID	MW-46D	Collected	12/03/2023 10:35
Lab Sample ID	3335533022	Lab Receipt	12/04/2023 18:15

### SEMOVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	27.3	20	ug/L	10.2	SW846 8270E SIM	10	12/12/2023 10:45	S7M	C

### SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnaphthalene-d10	7297-45-2	67.9%	29 – 112	12/11/2023 07:54	
2-Methylnaphthalene-d10	7297-45-2	68.3%	29 – 112	12/12/2023 10:45	
Fluoranthene-d10	93951-69-0	90.8%	45 – 130	12/11/2023 07:54	
Fluoranthene-d10	93951-69-0	82.5%	45 – 130	12/12/2023 10:45	

### 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	12/12/2023 15:54	ILY	A
1,1,1-Trichloroethane	1.6		ug/L	1.0	SW846 8260D	1	12/12/2023 15:54	ILY	A
1,1,2,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:54	ILY	A
1,1,2-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:54	ILY	A
1,1-Dichloroethane	8.7		ug/L	1.0	SW846 8260D	1	12/12/2023 15:54	ILY	A
1,1-Dichloroethene	51.5		ug/L	1.0	SW846 8260D	1	12/12/2023 15:54	ILY	A
1,1-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:54	ILY	A
1,2,3-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 15:54	ILY	A
1,2,3-Trichloropropane	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 15:54	ILY	A
1,2,4-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 15:54	ILY	A
1,2-Dibromo-3-chloropropane	7.0 U	U	ug/L	7.0	SW846 8260D	1	12/12/2023 15:54	ILY	A
1,2-Dibromoethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:54	ILY	A
1,2-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:54	ILY	A
1,2-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:54	ILY	A
1,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:54	ILY	A
1,3-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:54	ILY	A
1,3-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:54	ILY	A
1,4-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:54	ILY	A
2,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:54	ILY	A
2-Butanone	10.0 U	U	ug/L	10.0	SW846 8260D	1	12/12/2023 15:54	ILY	A
2-Hexanone	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/12/2023 15:54	ILY	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/12/2023 15:54	ILY	A
Acetone	10.0 U	U	ug/L	10.0	SW846 8260D	1	12/12/2023 15:54	ILY	A
Benzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:54	ILY	A
Bromobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:54	ILY	A
Bromochloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:54	ILY	A
Bromodichloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:54	ILY	A
Bromoform	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:54	ILY	A
Bromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:54	ILY	A
Carbon Tetrachloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:54	ILY	A
Chlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:54	ILY	A
Chlorodibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:54	ILY	A
Chloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:54	ILY	A

## Results

Client Sample ID	MW-46D	Collected	12/03/2023 10:35
Lab Sample ID	3335533022	Lab Receipt	12/04/2023 18:15

### 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	12/12/2023 15:54	ILY	A
Chloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:54	ILY	A
cis-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:54	ILY	A
cis-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:54	ILY	A
Dibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:54	ILY	A
Dichlorodifluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:54	ILY	A
Diisopropyl ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:54	ILY	A
Ethylbenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:54	ILY	A
Hexachlorobutadiene	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/12/2023 15:54	ILY	A
Methyl t-Butyl Ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:54	ILY	A
Methylene Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:54	ILY	A
mp-Xylene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 15:54	ILY	A
Naphthalene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 15:54	ILY	A
o-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:54	ILY	A
o-Xylene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:54	ILY	A
p-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:54	ILY	A
p-Isopropyltoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:54	ILY	A
Styrene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:54	ILY	A
Tetrachloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:54	ILY	A
Toluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:54	ILY	A
Total Xylenes	3.0 U	U	ug/L	3.0	SW846 8260D	1	12/12/2023 15:54	ILY	A
trans-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:54	ILY	A
trans-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:54	ILY	A
Trichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:54	ILY	A
Trichlorofluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:54	ILY	A
Vinyl Acetate	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/12/2023 15:54	ILY	A
Vinyl Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 15:54	ILY	A

### SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	103%	62 – 133	12/12/2023 15:54	
4-Bromofluorobenzene	460-00-4	94%	79 – 114	12/12/2023 15:54	
Dibromofluoromethane	1868-53-7	95.7%	78 – 116	12/12/2023 15:54	
Toluene-d8	2037-26-5	94%	76 – 127	12/12/2023 15:54	



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## Results

Client Sample ID	DUP-120323	Collected	12/03/2023 12:30
Lab Sample ID	3335533023	Lab Receipt	12/04/2023 18:15

### SEMOVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	27.0	20	ug/L	10.2	SW846 8270E SIM	10	12/12/2023 11:11	S7M	C

### SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnaphthalene-d10	7297-45-2	68.5%	29 – 112	12/11/2023 08:20	
2-Methylnaphthalene-d10	7297-45-2	68.8%	29 – 112	12/12/2023 11:11	
Fluoranthene-d10	93951-69-0	79.2%	45 – 130	12/11/2023 08:20	
Fluoranthene-d10	93951-69-0	85.4%	45 – 130	12/12/2023 11:11	

### 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	12/12/2023 16:15	ILY	A
1,1,1-Trichloroethane	4.7		ug/L	1.0	SW846 8260D	1	12/12/2023 16:15	ILY	A
1,1,2,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:15	ILY	A
1,1,2-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:15	ILY	A
1,1-Dichloroethane	19.7		ug/L	1.0	SW846 8260D	1	12/12/2023 16:15	ILY	A
1,1-Dichloroethene	98.3		ug/L	1.0	SW846 8260D	1	12/12/2023 16:15	ILY	A
1,1-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:15	ILY	A
1,2,3-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 16:15	ILY	A
1,2,3-Trichloropropane	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 16:15	ILY	A
1,2,4-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 16:15	ILY	A
1,2-Dibromo-3-chloropropane	7.0 U	U	ug/L	7.0	SW846 8260D	1	12/12/2023 16:15	ILY	A
1,2-Dibromoethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:15	ILY	A
1,2-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:15	ILY	A
1,2-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:15	ILY	A
1,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:15	ILY	A
1,3-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:15	ILY	A
1,3-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:15	ILY	A
1,4-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:15	ILY	A
2,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:15	ILY	A
2-Butanone	10.0 U	U	ug/L	10.0	SW846 8260D	1	12/12/2023 16:15	ILY	A
2-Hexanone	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/12/2023 16:15	ILY	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/12/2023 16:15	ILY	A
Acetone	10.0 U	U	ug/L	10.0	SW846 8260D	1	12/12/2023 16:15	ILY	A
Benzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:15	ILY	A
Bromobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:15	ILY	A
Bromochloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:15	ILY	A
Bromodichloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:15	ILY	A
Bromoform	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:15	ILY	A
Bromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:15	ILY	A
Carbon Tetrachloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:15	ILY	A
Chlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:15	ILY	A
Chlorodibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:15	ILY	A
Chloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:15	ILY	A

## Results

Client Sample ID	DUP-120323	Collected	12/03/2023 12:30
Lab Sample ID	3335533023	Lab Receipt	12/04/2023 18:15

### 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	12/12/2023 16:15	ILY	A
Chloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:15	ILY	A
cis-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:15	ILY	A
cis-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:15	ILY	A
Dibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:15	ILY	A
Dichlorodifluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:15	ILY	A
Diisopropyl ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:15	ILY	A
Ethylbenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:15	ILY	A
Hexachlorobutadiene	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/12/2023 16:15	ILY	A
Methyl t-Butyl Ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:15	ILY	A
Methylene Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:15	ILY	A
mp-Xylene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 16:15	ILY	A
Naphthalene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 16:15	ILY	A
o-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:15	ILY	A
o-Xylene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:15	ILY	A
p-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:15	ILY	A
p-Isopropyltoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:15	ILY	A
Styrene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:15	ILY	A
Tetrachloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:15	ILY	A
Toluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:15	ILY	A
Total Xylenes	3.0 U	U	ug/L	3.0	SW846 8260D	1	12/12/2023 16:15	ILY	A
trans-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:15	ILY	A
trans-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:15	ILY	A
Trichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:15	ILY	A
Trichlorofluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:15	ILY	A
Vinyl Acetate	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/12/2023 16:15	ILY	A
Vinyl Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 16:15	ILY	A

### SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	104%	62 – 133	12/12/2023 16:15	
4-Bromofluorobenzene	460-00-4	91.4%	79 – 114	12/12/2023 16:15	
Dibromofluoromethane	1868-53-7	96.9%	78 – 116	12/12/2023 16:15	
Toluene-d8	2037-26-5	90.7%	76 – 127	12/12/2023 16:15	

## Results

Client Sample ID	Trip Blank A	Collected	12/03/2023 00:00
Lab Sample ID	3335533024	Lab Receipt	12/04/2023 18:15

### 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	12/12/2023 13:52	ILY	A
1,1,1-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 13:52	ILY	A
1,1,2,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 13:52	ILY	A
1,1,2-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 13:52	ILY	A
1,1-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 13:52	ILY	A
1,1-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 13:52	ILY	A
1,1-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 13:52	ILY	A
1,2,3-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 13:52	ILY	A
1,2,3-Trichloropropane	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 13:52	ILY	A
1,2,4-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 13:52	ILY	A
1,2-Dibromo-3-chloropropane	7.0 U	U	ug/L	7.0	SW846 8260D	1	12/12/2023 13:52	ILY	A
1,2-Dibromoethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 13:52	ILY	A
1,2-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 13:52	ILY	A
1,2-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 13:52	ILY	A
1,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 13:52	ILY	A
1,3-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 13:52	ILY	A
1,3-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 13:52	ILY	A
1,4-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 13:52	ILY	A
2,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 13:52	ILY	A
2-Butanone	10.0 U	U	ug/L	10.0	SW846 8260D	1	12/12/2023 13:52	ILY	A
2-Hexanone	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/12/2023 13:52	ILY	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/12/2023 13:52	ILY	A
Acetone	10.0 U	U	ug/L	10.0	SW846 8260D	1	12/12/2023 13:52	ILY	A
Benzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 13:52	ILY	A
Bromobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 13:52	ILY	A
Bromochloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 13:52	ILY	A
Bromodichloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 13:52	ILY	A
Bromoform	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 13:52	ILY	A
Bromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 13:52	ILY	A
Carbon Tetrachloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 13:52	ILY	A
Chlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 13:52	ILY	A
Chlorodibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 13:52	ILY	A
Chloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 13:52	ILY	A
Chloroform	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 13:52	ILY	A
Chloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 13:52	ILY	A
cis-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 13:52	ILY	A
cis-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 13:52	ILY	A
Dibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 13:52	ILY	A
Dichlorodifluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 13:52	ILY	A
Diisopropyl ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 13:52	ILY	A
Ethylbenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 13:52	ILY	A
Hexachlorobutadiene	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/12/2023 13:52	ILY	A
Methyl t-Butyl Ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 13:52	ILY	A
Methylene Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 13:52	ILY	A
mp-Xylene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 13:52	ILY	A
Naphthalene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 13:52	ILY	A
o-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 13:52	ILY	A

## Results

Client Sample ID	Trip Blank A	Collected	12/03/2023 00:00
Lab Sample ID	3335533024	Lab Receipt	12/04/2023 18:15

### 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	12/12/2023 13:52	ILY	A
p-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 13:52	ILY	A
p-Isopropyltoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 13:52	ILY	A
Styrene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 13:52	ILY	A
Tetrachloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 13:52	ILY	A
Toluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 13:52	ILY	A
Total Xylenes	3.0 U	U	ug/L	3.0	SW846 8260D	1	12/12/2023 13:52	ILY	A
trans-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 13:52	ILY	A
trans-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 13:52	ILY	A
Trichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 13:52	ILY	A
Trichlorofluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 13:52	ILY	A
Vinyl Acetate	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/12/2023 13:52	ILY	A
Vinyl Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 13:52	ILY	A

### SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	107%	62 – 133	12/12/2023 13:52	
4-Bromofluorobenzene	460-00-4	94.6%	79 – 114	12/12/2023 13:52	
Dibromofluoromethane	1868-53-7	99.6%	78 – 116	12/12/2023 13:52	
Toluene-d8	2037-26-5	96.3%	76 – 127	12/12/2023 13:52	

## Results

Client Sample ID	Trip Blank B	Collected	12/03/2023 00:00
Lab Sample ID	3335533025	Lab Receipt	12/04/2023 18:15

### 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	12/12/2023 14:12	ILY	A
1,1,1-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:12	ILY	A
1,1,2,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:12	ILY	A
1,1,2-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:12	ILY	A
1,1-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:12	ILY	A
1,1-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:12	ILY	A
1,1-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:12	ILY	A
1,2,3-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 14:12	ILY	A
1,2,3-Trichloropropane	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 14:12	ILY	A
1,2,4-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 14:12	ILY	A
1,2-Dibromo-3-chloropropane	7.0 U	U	ug/L	7.0	SW846 8260D	1	12/12/2023 14:12	ILY	A
1,2-Dibromoethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:12	ILY	A
1,2-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:12	ILY	A
1,2-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:12	ILY	A
1,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:12	ILY	A
1,3-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:12	ILY	A
1,3-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:12	ILY	A
1,4-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:12	ILY	A
2,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:12	ILY	A
2-Butanone	10.0 U	U	ug/L	10.0	SW846 8260D	1	12/12/2023 14:12	ILY	A
2-Hexanone	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/12/2023 14:12	ILY	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/12/2023 14:12	ILY	A
Acetone	10.0 U	U	ug/L	10.0	SW846 8260D	1	12/12/2023 14:12	ILY	A
Benzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:12	ILY	A
Bromobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:12	ILY	A
Bromochloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:12	ILY	A
Bromodichloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:12	ILY	A
Bromoform	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:12	ILY	A
Bromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:12	ILY	A
Carbon Tetrachloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:12	ILY	A
Chlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:12	ILY	A
Chlorodibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:12	ILY	A
Chloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:12	ILY	A
Chloroform	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:12	ILY	A
Chloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:12	ILY	A
cis-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:12	ILY	A
cis-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:12	ILY	A
Dibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:12	ILY	A
Dichlorodifluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:12	ILY	A
Diisopropyl ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:12	ILY	A
Ethylbenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:12	ILY	A
Hexachlorobutadiene	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/12/2023 14:12	ILY	A
Methyl t-Butyl Ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:12	ILY	A
Methylene Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:12	ILY	A
mp-Xylene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 14:12	ILY	A
Naphthalene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 14:12	ILY	A
o-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:12	ILY	A

## Results

Client Sample ID	Trip Blank B	Collected	12/03/2023 00:00
Lab Sample ID	3335533025	Lab Receipt	12/04/2023 18:15

### 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	12/12/2023 14:12	ILY	A
p-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:12	ILY	A
p-Isopropyltoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:12	ILY	A
Styrene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:12	ILY	A
Tetrachloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:12	ILY	A
Toluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:12	ILY	A
Total Xylenes	3.0 U	U	ug/L	3.0	SW846 8260D	1	12/12/2023 14:12	ILY	A
trans-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:12	ILY	A
trans-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:12	ILY	A
Trichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:12	ILY	A
Trichlorofluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:12	ILY	A
Vinyl Acetate	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/12/2023 14:12	ILY	A
Vinyl Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:12	ILY	A

### SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	105%	62 – 133	12/12/2023 14:12	
4-Bromofluorobenzene	460-00-4	91.9%	79 – 114	12/12/2023 14:12	
Dibromofluoromethane	1868-53-7	97.8%	78 – 116	12/12/2023 14:12	
Toluene-d8	2037-26-5	94.4%	76 – 127	12/12/2023 14:12	

## Results

Client Sample ID	Trip Blank C	Collected	12/03/2023 00:00
Lab Sample ID	3335533026	Lab Receipt	12/04/2023 18:15

### 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	12/12/2023 14:33	ILY	A
1,1,1-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:33	ILY	A
1,1,2,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:33	ILY	A
1,1,2-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:33	ILY	A
1,1-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:33	ILY	A
1,1-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:33	ILY	A
1,1-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:33	ILY	A
1,2,3-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 14:33	ILY	A
1,2,3-Trichloropropane	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 14:33	ILY	A
1,2,4-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 14:33	ILY	A
1,2-Dibromo-3-chloropropane	7.0 U	U	ug/L	7.0	SW846 8260D	1	12/12/2023 14:33	ILY	A
1,2-Dibromoethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:33	ILY	A
1,2-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:33	ILY	A
1,2-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:33	ILY	A
1,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:33	ILY	A
1,3-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:33	ILY	A
1,3-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:33	ILY	A
1,4-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:33	ILY	A
2,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:33	ILY	A
2-Butanone	10.0 U	U	ug/L	10.0	SW846 8260D	1	12/12/2023 14:33	ILY	A
2-Hexanone	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/12/2023 14:33	ILY	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/12/2023 14:33	ILY	A
Acetone	10.0 U	U	ug/L	10.0	SW846 8260D	1	12/12/2023 14:33	ILY	A
Benzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:33	ILY	A
Bromobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:33	ILY	A
Bromochloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:33	ILY	A
Bromodichloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:33	ILY	A
Bromoform	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:33	ILY	A
Bromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:33	ILY	A
Carbon Tetrachloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:33	ILY	A
Chlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:33	ILY	A
Chlorodibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:33	ILY	A
Chloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:33	ILY	A
Chloroform	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:33	ILY	A
Chloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:33	ILY	A
cis-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:33	ILY	A
cis-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:33	ILY	A
Dibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:33	ILY	A
Dichlorodifluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:33	ILY	A
Diisopropyl ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:33	ILY	A
Ethylbenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:33	ILY	A
Hexachlorobutadiene	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/12/2023 14:33	ILY	A
Methyl t-Butyl Ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:33	ILY	A
Methylene Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:33	ILY	A
mp-Xylene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 14:33	ILY	A
Naphthalene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/12/2023 14:33	ILY	A
o-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:33	ILY	A

## Results

Client Sample ID	Trip Blank C	Collected	12/03/2023 00:00
Lab Sample ID	3335533026	Lab Receipt	12/04/2023 18:15

### 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	12/12/2023 14:33	ILY	A
p-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:33	ILY	A
p-Isopropyltoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:33	ILY	A
Styrene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:33	ILY	A
Tetrachloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:33	ILY	A
Toluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:33	ILY	A
Total Xylenes	3.0 U	U	ug/L	3.0	SW846 8260D	1	12/12/2023 14:33	ILY	A
trans-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:33	ILY	A
trans-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:33	ILY	A
Trichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:33	ILY	A
Trichlorofluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:33	ILY	A
Vinyl Acetate	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/12/2023 14:33	ILY	A
Vinyl Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/12/2023 14:33	ILY	A

### SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	108%	62 – 133	12/12/2023 14:33	
4-Bromofluorobenzene	460-00-4	91%	79 – 114	12/12/2023 14:33	
Dibromofluoromethane	1868-53-7	98.5%	78 – 116	12/12/2023 14:33	
Toluene-d8	2037-26-5	91.1%	76 – 127	12/12/2023 14:33	



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### Sample - Method Cross Reference Table

Lab ID	Sample ID	Analysis Method	Preparation Method	Leachate Method
3335533001	MW-01	SW846 8270E SIM SW846 8260D	SW846 3510C N/A	
3335533002	MW-03	SW846 8270E SIM SW846 8260D	SW846 3510C N/A	
3335533003	MW-04R	SW846 8270E SIM SW846 8260D	SW846 3510C N/A	
3335533004	MW-05R	SW846 8270E SIM SW846 8260D	SW846 3510C N/A	
3335533005	MW-09	SW846 8270E SIM SW846 8260D	SW846 3510C N/A	
3335533006	MW-16	SW846 8270E SIM SW846 8260D	SW846 3510C N/A	
3335533007	MW-18	SW846 8270E SIM SW846 8260D	SW846 3510C N/A	
3335533008	MW-20	SW846 8270E SIM SW846 8260D	SW846 3510C N/A	
3335533009	MW-38R	SW846 8270E SIM SW846 8260D	SW846 3510C N/A	
3335533010	MW-42	SW846 8270E SIM SW846 8260D	SW846 3510C N/A	
3335533011	MW-43	SW846 8270E SIM SW846 8260D	SW846 3510C N/A	
3335533012	MW-44	SW846 8270E SIM SW846 8260D	SW846 3510C N/A	
3335533013	MW-45	SW846 8270E SIM SW846 8260D	SW846 3510C N/A	
3335533014	MW-01D	SW846 8270E SIM SW846 8260D	SW846 3510C N/A	
3335533015	MW-16D	SW846 8270E SIM SW846 8260D	SW846 3510C N/A	
3335533016	MW-21D	SW846 8270E SIM SW846 8260D	SW846 3510C N/A	
3335533017	MW-22D	SW846 8270E SIM SW846 8260D	SW846 3510C N/A	
3335533018	MW-23D	SW846 8270E SIM SW846 8260D	SW846 3510C N/A	
3335533019	MW-27D	SW846 8270E SIM SW846 8260D	SW846 3510C N/A	
3335533020	MW-40D	SW846 8270E SIM SW846 8260D	SW846 3510C N/A	
3335533021	MW-41D	SW846 8270E SIM SW846 8260D	SW846 3510C N/A	
3335533022	MW-46D	SW846 8270E SIM SW846 8260D	SW846 3510C N/A	
3335533023	DUP-120323	SW846 8270E SIM SW846 8260D	SW846 3510C N/A	
3335533024	Trip Blank A	SW846 8260D	N/A	
3335533025	Trip Blank B	SW846 8260D	N/A	
3335533026	Trip Blank C	SW846 8260D	N/A	

## QUALITY CONTROL SAMPLES

### SEMIVOLATILE SIM

QC Batch				Associated Samples			
<u>QC Batch</u>	1096962	<u>Prep Method</u>	SW846 3510C	3335533006	3335533007	3335533008	3335533001
<u>Date</u>	12/06/2023 10:50	<u>Analysis Method</u>	SW846 8270E SIM	3335533002	3335533003	3335533004	3335533005
<u>Tech.</u>	BNR			3335533009	3335533013	3335533014	3335533015
				3335533016	3335533017	3335533020	3335533018
				3335533019	3335533010	3335533011	3335533012

<b>Method Blank</b>	3758535 (MB)	Created on 12/05/2023 12:21	For QC Batch 1096962
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### 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	Expected	Rec.	Limits (%)	Qualifiers
2-Methylnaphthalene-d10	7297-45-2	BLK	0.65	1	65	29 - 112
Fluoranthene-d10	93951-69-0	BLK	0.87	1	87.3	45 - 130

<b>Lab Control Standard</b>	3758536 (LCS)	Created on 12/05/2023 12:21	For QC Batch 1096962
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### RESULTS

Compound	CAS No	Result	Orig. Result	Spk Added	Rec. (%)	Limits (%)	RPD Limit (%)	Qualifiers
1,4-Dioxane	123-91-1	LCS	0.52	1	51.6	22 - 75		U

### SURROGATES

Compound	CAS No	Result	Expected	Rec.	Limits (%)	Qualifiers
2-Methylnaphthalene-d10	7297-45-2	LCS	0.68	1	68.2	29 - 112
Fluoranthene-d10	93951-69-0	LCS	0.87	1	86.6	45 - 130

<b>Matrix Spike</b>	3758537 (MS)	3335533006	For QC Batch 1096962
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\*\*\*\*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	Orig. Result	Spk Added	Rec. (%)	Limits (%)	RPD Limit (%)	Qualifiers
1,4-Dioxane	123-91-1	MS	104	96.30	1.30	NC	22 - 75	



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## QUALITY CONTROL SAMPLES

### SEMIVOLATILE SIM (cont.)

#### SURROGATES

Compound	CAS No		Result (ug/L)	Expected (ug/L)	Rec. (%)	Limits (%)	Qualifiers
2-Methylnaphthalene-d10	7297-45-2	MS	0.69	1.30	51.6	29 - 112	
Fluoranthene-d10	93951-69-0	MS	0.84	1.30	62.4	45 - 130	

**Duplicate** 3758538 (DUP) 3335533012 For QC Batch 1096962

\*\*\*\*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)	RPD	Qualifiers
1,4-Dioxane	123-91-1	DUP	4.5264	2.6153	53.50* (Max-30)	

#### SURROGATES

Compound	CAS No		Result (ug/L)	Expected (ug/L)	Rec. (%)	Limits (%)	Qualifiers
2-Methylnaphthalene-d10	7297-45-2	DUP	0.68	1	66.1	29 - 112	
Fluoranthene-d10	93951-69-0	DUP	0.87	1	84	45 - 130	

#### QC Batch

QC Batch 1097820      Prep Method SW846 3510C  
 Date 12/07/2023 11:45      Analysis Method SW846 8270E SIM  
 Tech. BNR

#### Associated Samples

3335533021 3335533022 3335533023

#### Method Blank

3759481 (MB)

Created on 12/07/2023 08:50

For QC Batch 1097820

#### 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-Methylnaphthalene-d10	7297-45-2	BLK	0.69	1	69.4	29 - 112	
Fluoranthene-d10	93951-69-0	BLK	0.81	1	80.7	45 - 130	

#### Lab Control Standard

3759482 (LCS)

Created on 12/07/2023 08:50

For QC Batch 1097820

## QUALITY CONTROL SAMPLES

### SEMIVOLATILE SIM (cont.)

#### RESULTS

<u>Compound</u>	<u>CAS No</u>		<u>Result</u> (ug/L)	<u>Orig.</u> (ug/L)	<u>Spk.</u> Added (ug/L)	<u>Rec.</u> (%)	<u>Limits (%)</u>	<u>RPD Limit (%)</u>	<u>Qualifiers</u>
1,4-Dioxane	123-91-1	LCS	0.69		1	69.4	22 - 75		U

#### SURROGATES

<u>Compound</u>	<u>CAS No</u>		<u>Result</u> (ug/L)	<u>Expected</u> (ug/L)	<u>Rec.</u> (%)	<u>Limits (%)</u>	<u>Qualifiers</u>
2-Methylnaphthalene-d10	7297-45-2	LCS	0.69	1	68.7	29 - 112	
Fluoranthene-d10	93951-69-0	LCS	0.92	1	92.4	45 - 130	

## QUALITY CONTROL SAMPLES

### VOLATILE ORGANICS

**QC Batch**

<u>QC Batch</u>	1101196	<u>Prep Method</u>	N/A
<u>Date</u>	N/A	<u>Analysis Method</u>	SW846 8260D
<u>Tech.</u>			

**Associated Samples**

3335533005	3335533006	3335533007	3335533008
3335533001	3335533002	3335533003	3335533004
3335533009	3335533010	3335533013	3335533014
3335533018	3335533020	3335533015	3335533016
3335533017	3335533019	3335533011	3335533012

**Method Blank**

3761558 (MB)

Created on 12/12/2023 12:20

For QC Batch 1101196

**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
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



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## QUALITY CONTROL SAMPLES

### VOLATILE ORGANICS (cont.)

#### RESULTS

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

#### SURROGATES

<u>Compound</u>	<u>CAS No</u>		<u>Result</u> (ug/L)	<u>Expected</u> (ug/L)	<u>Rec.</u> (%)	<u>Limits (%)</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	17060-07-0	BLK	28.30	30	94.3	62 - 133	
4-Bromofluorobenzene	460-00-4	BLK	32	30	107	79 - 114	
Dibromofluoromethane	1868-53-7	BLK	30.80	30	103	78 - 116	
Toluene-d8	2037-26-5	BLK	31.30	30	104	76 - 127	

**Lab Control Standard** 3761559 (LCS)      Created on 12/12/2023 12:20      For QC Batch 1101196

#### RESULTS

<u>Compound</u>	<u>CAS No</u>		<u>Result</u> (ug/L)	<u>Orig. Result</u> (ug/L)	<u>Spk Added</u> (ug/L)	<u>Rec.</u> (%)	<u>Limits (%)</u>	<u>RPD Limit (%)</u>	<u>Qualifiers</u>
1,1,1,2-Tetrachloroethane	630-20-6	LCS	22.20		20	111	78 - 121		
1,1,1-Trichloroethane	71-55-6	LCS	22.10		20	111	66 - 130		
1,1,2,2-Tetrachloroethane	79-34-5	LCS	18.70		20	93.7	74 - 135		
1,1,2-Trichloroethane	79-00-5	LCS	20.40		20	102	82 - 126		
1,1-Dichloroethane	75-34-3	LCS	20		20	100	78 - 124		
1,1-Dichloroethene	75-35-4	LCS	21.30		20	107	63 - 128		
1,1-Dichloropropene	563-58-6	LCS	21.10		20	105	76 - 126		
1,2,3-Trichlorobenzene	87-61-6	LCS	22.50		20	112	61 - 126		
1,2,3-Trichloropropane	96-18-4	LCS	19.60		20	97.9	75 - 132		

## 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
1,2,4-Trichlorobenzene	120-82-1	LCS	23.20		20	116	67 - 123		
1,2-Dibromo-3-chloropropane	96-12-8	LCS	17.40		20	87.1	59 - 133		
1,2-Dibromoethane	106-93-4	LCS	21.80		20	109	80 - 124		
1,2-Dichlorobenzene	95-50-1	LCS	21.20		20	106	82 - 118		
1,2-Dichloroethane	107-06-2	LCS	19.30		20	96.5	70 - 133		
1,2-Dichloropropane	78-87-5	LCS	19.50		20	97.3	81 - 127		
1,3-Dichlorobenzene	541-73-1	LCS	20.80		20	104	81 - 118		
1,3-Dichloropropane	142-28-9	LCS	20.80		20	104	82 - 126		
1,4-Dichlorobenzene	106-46-7	LCS	20.50		20	103	81 - 116		
2,2-Dichloropropane	594-20-7	LCS	20.30		20	102	64 - 129		
2-Butanone	78-93-3	LCS	119		100	119	50 - 152		
2-Hexanone	591-78-6	LCS	92		100	92	65 - 154		
4-Methyl-2-Pentanone(MIBK)	108-10-1	LCS	103		100	103	71 - 146		
Acetone	67-64-1	LCS	93.10		100	93.1	40 - 151		
Benzene	71-43-2	LCS	20.60		20	103	80 - 124		
Bromobenzene	108-86-1	LCS	20.40		20	102	81 - 119		
Bromochloromethane	74-97-5	LCS	22.40		20	112	73 - 117		
Bromodichloromethane	75-27-4	LCS	20.60		20	103	79 - 126		
Bromoform	75-25-2	LCS	21		20	105	70 - 123		
Bromomethane	74-83-9	LCS	20.80		20	104	45 - 148		
Carbon Tetrachloride	56-23-5	LCS	25.50		20	127	62 - 132		
Chlorobenzene	108-90-7	LCS	21.20		20	106	85 - 117		
Chlorodibromomethane	124-48-1	LCS	22.10		20	110	77 - 122		
Chloroethane	75-00-3	LCS	11.30		20	56.6	51 - 142		
Chloroform	67-66-3	LCS	21.10		20	106	78 - 122		
Chloromethane	74-87-3	LCS	15.30		20	76.3	38 - 156		
cis-1,2-Dichloroethylene	156-59-2	LCS	20.50		20	103	78 - 125		
cis-1,3-Dichloropropene	10061-01-5	LCS	20.40		20	102	81 - 121		
Dibromomethane	74-95-3	LCS	21.40		20	107	81 - 125		
Dichlorodifluoromethane	75-71-8	LCS	16.30		20	81.7	17 - 166		
Diisopropyl ether	108-20-3	LCS	19.30		20	96.7	74 - 131		
Ethylbenzene	100-41-4	LCS	22.50		20	113	80 - 124		
Hexachlorobutadiene	87-68-3	LCS	25.80		20	129*	55 - 128		
Methyl t-Butyl Ether	1634-04-4	LCS	21.60		20	108	69 - 115		
Methylene Chloride	75-09-2	LCS	21.10		20	106	76 - 121		
mp-Xylene	108383/106423	LCS	44.70		40	112	79 - 125		
Naphthalene	91-20-3	LCS	18.50		20	92.3	56 - 134		
o-Chlorotoluene	95-49-8	LCS	18		20	90.2	78 - 126		
o-Xylene	95-47-6	LCS	19.90		20	99.5	79 - 124		
p-Chlorotoluene	106-43-4	LCS	17.60		20	88.1	78 - 125		
p-Isopropyltoluene	99-87-6	LCS	19.50		20	97.6	72 - 123		
Styrene	100-42-5	LCS	18.50		20	92.4	79 - 123		
Tetrachloroethene	127-18-4	LCS	23.90		20	119	72 - 124		
Toluene	108-88-3	LCS	19.90		20	99.7	80 - 125		
Total Xylenes	1330-20-7	LCS	64.60		60	108	79 - 125		
trans-1,2-Dichloroethene	156-60-5	LCS	20.80		20	104	71 - 122		
trans-1,3-Dichloropropene	10061-02-6	LCS	20.80		20	104	78 - 126		



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## 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
Trichloroethene	79-01-6	LCS	20.70		20	103	77 - 124		
Trichlorofluoromethane	75-69-4	LCS	14.30		20	71.5	38 - 123		
Vinyl Acetate	108-05-4	LCS	21.90		20	109	58 - 136		
Vinyl Chloride	75-01-4	LCS	16.40		20	81.8	27 - 138		

#### SURROGATES

Compound	CAS No		Result (ug/L)	Expected (ug/L)	Rec. (%)	Limits (%)	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	LCS	29.30	30	97.7	62 - 133	
4-Bromofluorobenzene	460-00-4	LCS	30.40	30	101	79 - 114	
Dibromofluoromethane	1868-53-7	LCS	30.60	30	102	78 - 116	
Toluene-d8	2037-26-5	LCS	30.70	30	102	76 - 127	

**Matrix Spike** 3761560 (MS) 3335533016 For QC Batch 1101196

\*\*\*\*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** 3761561 (MSD) 3335533016 For QC Batch 1101196

#### 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	21.80	0	20	109	78 - 121		
1,1,1,2-Tetrachloroethane	630-20-6	MSD	21.30	0	20	107	78 - 121	RPD <u>2.36</u> (Max-16)	
1,1,1-Trichloroethane	71-55-6	MS	25.70	0	20	128	66 - 130		
1,1,1-Trichloroethane	71-55-6	MSD	24.80	0	20	124	66 - 130	RPD <u>3.37</u> (Max-20)	
1,1,2,2-Tetrachloroethane	79-34-5	MS	23.30	0	20	116	74 - 135		
1,1,2,2-Tetrachloroethane	79-34-5	MSD	23.10	0	20	116	74 - 135	RPD <u>0.55</u> (Max-16)	
1,1,2-Trichloroethane	79-00-5	MS	22	0	20	110	82 - 126		
1,1,2-Trichloroethane	79-00-5	MSD	21.30	0	20	106	82 - 126	RPD <u>3.23</u> (Max-15)	
1,1-Dichloroethane	75-34-3	MS	26.60	0.85	20	129*	78 - 124		
1,1-Dichloroethane	75-34-3	MSD	25.20	0.85	20	122	78 - 124	RPD <u>5.36</u> (Max-15)	
1,1-Dichloroethene	75-35-4	MS	57	30.80	20	131*	63 - 128		
1,1-Dichloroethene	75-35-4	MSD	54.30	30.80	20	117	63 - 128	RPD <u>4.92</u> (Max-21)	
1,1-Dichloropropene	563-58-6	MS	26.20	0	20	131*	76 - 126		
1,1-Dichloropropene	563-58-6	MSD	25.10	0	20	125	76 - 126	RPD <u>4.32</u> (Max-16)	
1,2,3-Trichlorobenzene	87-61-6	MS	20.50	0	20	102	61 - 126		
1,2,3-Trichlorobenzene	87-61-6	MSD	20	0	20	100	61 - 126	RPD <u>2.33</u> (Max-36)	
1,2,3-Trichloropropane	96-18-4	MS	22.40	0	20	112	75 - 132		
1,2,3-Trichloropropane	96-18-4	MSD	22.30	0	20	112	75 - 132	RPD <u>0.19</u> (Max-19)	
1,2,4-Trichlorobenzene	120-82-1	MS	21.80	0	20	109	67 - 123		
1,2,4-Trichlorobenzene	120-82-1	MSD	21.60	0	20	108	67 - 123	RPD <u>0.90</u> (Max-22)	
1,2-Dibromo-3-chloropropane	96-12-8	MS	20.30	0	20	102	59 - 133		
1,2-Dibromo-3-chloropropane	96-12-8	MSD	20.80	0	20	104	59 - 133	RPD <u>2.20</u> (Max-26)	
1,2-Dibromoethane	106-93-4	MS	21.70	0	20	109	80 - 124		
1,2-Dibromoethane	106-93-4	MSD	21	0	20	105	80 - 124	RPD <u>3.35</u> (Max-19)	

## 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
1,2-Dichlorobenzene	95-50-1	MS	22.20	0	20	111	82 - 118		
1,2-Dichlorobenzene	95-50-1	MSD	22.20	0	20	111	82 - 118	RPD <u>0.07</u> (Max-15)	
1,2-Dichloroethane	107-06-2	MS	23.60	0.52	20	116	70 - 133		
1,2-Dichloroethane	107-06-2	MSD	22.60	0.52	20	110	70 - 133	RPD <u>4.59</u> (Max-19)	
1,2-Dichloropropane	78-87-5	MS	24.10	0	20	121	81 - 127		
1,2-Dichloropropane	78-87-5	MSD	23.40	0	20	117	81 - 127	RPD <u>2.95</u> (Max-15)	
1,3-Dichlorobenzene	541-73-1	MS	22.20	0	20	111	81 - 118		
1,3-Dichlorobenzene	541-73-1	MSD	22.20	0	20	111	81 - 118	RPD <u>0.24</u> (Max-16)	
1,3-Dichloropropane	142-28-9	MS	22.70	0	20	113	82 - 126		
1,3-Dichloropropane	142-28-9	MSD	22	0	20	110	82 - 126	RPD <u>3.18</u> (Max-15)	
1,4-Dichlorobenzene	106-46-7	MS	21.60	0	20	108	81 - 116		
1,4-Dichlorobenzene	106-46-7	MSD	21.70	0	20	109	81 - 116	RPD <u>0.57</u> (Max-15)	
2,2-Dichloropropane	594-20-7	MS	22	0	20	110	64 - 129		
2,2-Dichloropropane	594-20-7	MSD	21.30	0	20	107	64 - 129	RPD <u>3.06</u> (Max-18)	
2-Butanone	78-93-3	MS	128	0	100	128	50 - 152		
2-Butanone	78-93-3	MSD	125	0	100	125	50 - 152	RPD <u>2.25</u> (Max-16)	
2-Hexanone	591-78-6	MS	108	0	100	108	65 - 154		
2-Hexanone	591-78-6	MSD	107	0	100	107	65 - 154	RPD <u>0.44</u> (Max-17)	
4-Methyl-2-Pentanone(MIBK)	108-10-1	MS	121	0	100	121	71 - 146		
4-Methyl-2-Pentanone(MIBK)	108-10-1	MSD	120	0	100	120	71 - 146	RPD <u>0.63</u> (Max-16)	
Acetone	67-64-1	MS	97.20	0	100	97.2	40 - 151		
Acetone	67-64-1	MSD	98.20	0	100	98.2	40 - 151	RPD <u>0.99</u> (Max-40)	
Benzene	71-43-2	MS	25.10	0	20	126*	80 - 124		
Benzene	71-43-2	MSD	24.30	0	20	121	80 - 124	RPD <u>3.41</u> (Max-26)	
Bromobenzene	108-86-1	MS	22	0	20	110	81 - 119		
Bromobenzene	108-86-1	MSD	22	0	20	110	81 - 119	RPD <u>0.16</u> (Max-17)	
Bromoform	74-97-5	MS	23.90	0	20	120*	73 - 117		
Bromoform	74-97-5	MSD	23	0	20	115	73 - 117	RPD <u>4.13</u> (Max-19)	
Bromodichloromethane	75-27-4	MS	23.60	0	20	118	79 - 126		
Bromodichloromethane	75-27-4	MSD	22.90	0	20	115	79 - 126	RPD <u>3.19</u> (Max-16)	
Bromoform	75-25-2	MS	20.20	0	20	101	70 - 123		
Bromoform	75-25-2	MSD	19.80	0	20	98.8	70 - 123	RPD <u>2.18</u> (Max-16)	
Bromomethane	74-83-9	MS	22.50	0	20	112	45 - 148		
Bromomethane	74-83-9	MSD	21.60	0	20	108	45 - 148	RPD <u>3.96</u> (Max-26)	
Carbon Tetrachloride	56-23-5	MS	25.60	0	20	128	62 - 132		
Carbon Tetrachloride	56-23-5	MSD	24.70	0	20	124	62 - 132	RPD <u>3.42</u> (Max-17)	
Chlorobenzene	108-90-7	MS	21.50	0	20	108	85 - 117		
Chlorobenzene	108-90-7	MSD	20.80	0	20	104	85 - 117	RPD <u>3.54</u> (Max-15)	
Chlorodibromomethane	124-48-1	MS	21.40	0	20	107	77 - 122		
Chlorodibromomethane	124-48-1	MSD	20.50	0	20	103	77 - 122	RPD <u>3.95</u> (Max-15)	
Chloroethane	75-00-3	MS	17.30	0	20	86.6	51 - 142		
Chloroethane	75-00-3	MSD	13.60	0	20	68	51 - 142	RPD <u>24</u> (Max-24)	
Chloroform	67-66-3	MS	23.50	0	20	117	78 - 122		
Chloroform	67-66-3	MSD	23	0	20	115	78 - 122	RPD <u>2.28</u> (Max-16)	
Chloromethane	74-87-3	MS	19.70	0	20	98.6	38 - 156		
Chloromethane	74-87-3	MSD	19.30	0	20	96.3	38 - 156	RPD <u>2.42</u> (Max-27)	
cis-1,2-Dichloroethene	156-59-2	MS	26.10	0	20	130*	78 - 125		
cis-1,2-Dichloroethene	156-59-2	MSD	24.90	0	20	125	78 - 125	RPD <u>4.55</u> (Max-21)	
cis-1,3-Dichloropropene	10061-01-5	MS	21.20	0	20	106	81 - 121		

## 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
cis-1,3-Dichloropropene	10061-01-5	MSD	20.70	0	20	104	81 - 121	RPD <u>2.44</u> (Max-16)	
Dibromomethane	74-95-3	MS	23.60	0	20	118	81 - 125		
Dibromomethane	74-95-3	MSD	22.90	0	20	115	81 - 125	RPD <u>2.68</u> (Max-16)	
Dichlorodifluoromethane	75-71-8	MS	17.50	0	20	87.6	17 - 166		
Dichlorodifluoromethane	75-71-8	MSD	16.90	0	20	84.4	17 - 166	RPD <u>3.72</u> (Max-24)	
Diisopropyl ether	108-20-3	MS	25.30	0	20	126	74 - 131		
Diisopropyl ether	108-20-3	MSD	24.80	0	20	124	74 - 131	RPD <u>2.15</u> (Max-15)	
Ethylbenzene	100-41-4	MS	23	0	20	115	80 - 124		
Ethylbenzene	100-41-4	MSD	22.70	0	20	113	80 - 124	RPD <u>1.39</u> (Max-19)	
Hexachlorobutadiene	87-68-3	MS	23.20	0	20	116	55 - 128		
Hexachlorobutadiene	87-68-3	MSD	20.70	0	20	104	55 - 128	RPD <u>11.20</u> (Max-35)	
Methyl t-Butyl Ether	1634-04-4	MS	25.10	0.93	20	121*	69 - 115		
Methyl t-Butyl Ether	1634-04-4	MSD	24.70	0.93	20	119*	69 - 115	RPD <u>1.77</u> (Max-20)	
Methylene Chloride	75-09-2	MS	24.40	0	20	122*	76 - 121		
Methylene Chloride	75-09-2	MSD	23.60	0	20	118	76 - 121	RPD <u>3.55</u> (Max-17)	
mp-Xylene	108383/106423	MS	45.80	0	40	115	79 - 125		
mp-Xylene	108383/106423	MSD	45.10	0	40	113	79 - 125	RPD <u>1.50</u> (Max-21)	
Naphthalene	91-20-3	MS	17.60	0	20	87.8	56 - 134		
Naphthalene	91-20-3	MSD	18.30	0	20	91.6	56 - 134	RPD <u>4.22</u> (Max-40)	
o-Chlorotoluene	95-49-8	MS	21.30	0	20	106	78 - 126		
o-Chlorotoluene	95-49-8	MSD	21.40	0	20	107	78 - 126	RPD <u>0.38</u> (Max-17)	
o-Xylene	95-47-6	MS	20.10	0	20	101	79 - 124		
o-Xylene	95-47-6	MSD	20	0	20	99.9	79 - 124	RPD <u>0.78</u> (Max-19)	
p-Chlorotoluene	106-43-4	MS	20.90	0	20	104	78 - 125		
p-Chlorotoluene	106-43-4	MSD	20.80	0	20	104	78 - 125	RPD <u>0.57</u> (Max-16)	
p-Isopropyltoluene	99-87-6	MS	20.40	0	20	102	72 - 123		
p-Isopropyltoluene	99-87-6	MSD	20.50	0	20	103	72 - 123	RPD <u>0.64</u> (Max-17)	
Styrene	100-42-5	MS	21	0	20	105	79 - 123		
Styrene	100-42-5	MSD	20.60	0	20	103	79 - 123	RPD <u>1.60</u> (Max-16)	
Tetrachloroethene	127-18-4	MS	21	0	20	105	72 - 124		
Tetrachloroethene	127-18-4	MSD	20.60	0	20	103	72 - 124	RPD <u>1.92</u> (Max-38)	
Toluene	108-88-3	MS	21.60	0	20	108	80 - 125		
Toluene	108-88-3	MSD	21	0	20	105	80 - 125	RPD <u>3.04</u> (Max-20)	
Total Xylenes	1330-20-7	MS	65.90	0	60	110	79 - 125		
Total Xylenes	1330-20-7	MSD	65.10	0	60	108	79 - 125	RPD <u>1.28</u> (Max-35)	
trans-1,2-Dichloroethene	156-60-5	MS	26.70	0	20	134*	71 - 122		
trans-1,2-Dichloroethene	156-60-5	MSD	25.40	0	20	127*	71 - 122	RPD <u>4.94</u> (Max-22)	
trans-1,3-Dichloropropene	10061-02-6	MS	21.90	0	20	110	78 - 126		
trans-1,3-Dichloropropene	10061-02-6	MSD	21.10	0	20	106	78 - 126	RPD <u>3.79</u> (Max-18)	
Trichloroethene	79-01-6	MS	23.80	0	20	119	77 - 124		
Trichloroethene	79-01-6	MSD	22.80	0	20	114	77 - 124	RPD <u>4.33</u> (Max-18)	
Trichlorofluoromethane	75-69-4	MS	20.90	0	20	105	38 - 123		
Trichlorofluoromethane	75-69-4	MSD	19	0	20	94.8	38 - 123	RPD <u>9.87</u> (Max-23)	
Vinyl Acetate	108-05-4	MS	18.90	0	20	94.7	58 - 136		
Vinyl Acetate	108-05-4	MSD	18.10	0	20	90.3	58 - 136	RPD <u>4.82</u> (Max-17)	
Vinyl Chloride	75-01-4	MS	19.40	0	20	97.2	27 - 138		
Vinyl Chloride	75-01-4	MSD	18.10	0	20	90.3	27 - 138	RPD <u>7.38</u> (Max-40)	



Project Former KOP-Flex Facility Onsit  
Workorder 3335533

## QUALITY CONTROL SAMPLES

### VOLATILE ORGANICS (cont.)

#### SURROGATES

Compound	CAS No		Result (ug/L)	Expected (ug/L)	Rec. (%)	Limits (%)	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	MS	31.60	30	105	62 - 133	
1,2-Dichloroethane-d4	17060-07-0	MSD	31.80	30	106	62 - 133	
4-Bromofluorobenzene	460-00-4	MS	29.80	30	99.3	79 - 114	
4-Bromofluorobenzene	460-00-4	MSD	30	30	100	79 - 114	
Dibromofluoromethane	1868-53-7	MS	29.70	30	98.9	78 - 116	
Dibromofluoromethane	1868-53-7	MSD	30.10	30	100	78 - 116	
Toluene-d8	2037-26-5	MS	28.70	30	95.8	76 - 127	
Toluene-d8	2037-26-5	MSD	28.80	30	95.9	76 - 127	

#### QC Batch

<u>QC Batch</u>	1101227	<u>Prep Method</u>	N/A
<u>Date</u>	N/A	<u>Analysis Method</u>	SW846 8260D
<u>Tech.</u>			

#### Associated Samples

3335533021	3335533026	3335533024	3335533025
3335533022	3335533023		

#### Method Blank

3761690 (MB)

Created on 12/12/2023 14:12

For QC Batch 1101227

#### RESULTS

Compound	CAS No		Result	Units	RDL	Qualifiers
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
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



Project Former KOP-Flex Facility Onsit  
Workorder 3335533

## QUALITY CONTROL SAMPLES

### VOLATILE ORGANICS (cont.)

#### RESULTS

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

#### SURROGATES

<u>Compound</u>	<u>CAS No</u>		<u>Result</u> (ug/L)	<u>Expected</u> (ug/L)	<u>Rec.</u> (%)	<u>Limits (%)</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	17060-07-0	BLK	32.10	30	107	62 - 133	
4-Bromofluorobenzene	460-00-4	BLK	28.70	30	95.6	79 - 114	
Dibromofluoromethane	1868-53-7	BLK	29.90	30	99.8	78 - 116	
Toluene-d8	2037-26-5	BLK	30.20	30	101	76 - 127	



Project Former KOP-Flex Facility Onsit  
Workorder 3335533

## QUALITY CONTROL SAMPLES

### VOLATILE ORGANICS (cont.)

**Lab Control Standard** 3761691 (LCS)      **Created on** 12/12/2023 14:12      **For QC Batch** 1101227

#### RESULTS

<u>Compound</u>	<u>CAS No</u>	<u>Result</u> (ug/L)	<u>Orig.</u> <u>Result</u> (ug/L)	<u>Spk</u> <u>Added</u> (ug/L)	<u>Rec.</u> (%)	<u>Limits (%)</u>	<u>RPD Limit (%)</u>	<u>Qualifiers</u>
1,1,1,2-Tetrachloroethane	630-20-6	LCS	21.70	20	108	78 - 121		
1,1,1-Trichloroethane	71-55-6	LCS	22.10	20	111	66 - 130		
1,1,2,2-Tetrachloroethane	79-34-5	LCS	21	20	105	74 - 135		
1,1,2-Trichloroethane	79-00-5	LCS	21.90	20	109	82 - 126		
1,1-Dichloroethane	75-34-3	LCS	21.60	20	108	78 - 124		
1,1-Dichloroethene	75-35-4	LCS	24.60	20	123	63 - 128		
1,1-Dichloropropene	563-58-6	LCS	21.60	20	108	76 - 126		
1,2,3-Trichlorobenzene	87-61-6	LCS	20.50	20	102	61 - 126		
1,2,3-Trichloropropane	96-18-4	LCS	21.60	20	108	75 - 132		
1,2,4-Trichlorobenzene	120-82-1	LCS	20.10	20	100	67 - 123		
1,2-Dibromo-3-chloropropane	96-12-8	LCS	20.40	20	102	59 - 133		
1,2-Dibromoethane	106-93-4	LCS	21.50	20	107	80 - 124		
1,2-Dichlorobenzene	95-50-1	LCS	20	20	100	82 - 118		
1,2-Dichloroethane	107-06-2	LCS	21.70	20	108	70 - 133		
1,2-Dichloropropane	78-87-5	LCS	21.60	20	108	81 - 127		
1,3-Dichlorobenzene	541-73-1	LCS	20	20	99.9	81 - 118		
1,3-Dichloropropane	142-28-9	LCS	22.20	20	111	82 - 126		
1,4-Dichlorobenzene	106-46-7	LCS	20.50	20	102	81 - 116		
2,2-Dichloropropane	594-20-7	LCS	21.30	20	107	64 - 129		
2-Butanone	78-93-3	LCS	106	100	106	50 - 152		
2-Hexanone	591-78-6	LCS	116	100	116	65 - 154		
4-Methyl-2-Pentanone(MIBK)	108-10-1	LCS	113	100	113	71 - 146		
Acetone	67-64-1	LCS	126	100	126	40 - 151		
Benzene	71-43-2	LCS	21.20	20	106	80 - 124		
Bromobenzene	108-86-1	LCS	20.50	20	102	81 - 119		
Bromochloromethane	74-97-5	LCS	21.90	20	110	73 - 117		
Bromodichloromethane	75-27-4	LCS	21.60	20	108	79 - 126		
Bromoform	75-25-2	LCS	20.70	20	103	70 - 123		
Bromomethane	74-83-9	LCS	22.50	20	113	45 - 148		
Carbon Tetrachloride	56-23-5	LCS	22.20	20	111	62 - 132		
Chlorobenzene	108-90-7	LCS	20.70	20	103	85 - 117		
Chlorodibromomethane	124-48-1	LCS	21.50	20	107	77 - 122		
Chloroethane	75-00-3	LCS	21.40	20	107	51 - 142		
Chloroform	67-66-3	LCS	21.90	20	110	78 - 122		
Chloromethane	74-87-3	LCS	17.30	20	86.7	38 - 156		
cis-1,2-Dichloroethene	156-59-2	LCS	21.90	20	110	78 - 125		
cis-1,3-Dichloropropene	10061-01-5	LCS	20.80	20	104	81 - 121		
Dibromomethane	74-95-3	LCS	21.60	20	108	81 - 125		
Dichlorodifluoromethane	75-71-8	LCS	17.10	20	85.6	17 - 166		
Diisopropyl ether	108-20-3	LCS	21.60	20	108	74 - 131		
Ethylbenzene	100-41-4	LCS	20.80	20	104	80 - 124		
Hexachlorobutadiene	87-68-3	LCS	21	20	105	55 - 128		
Methyl t-Butyl Ether	1634-04-4	LCS	22.10	20	111	69 - 115		
Methylene Chloride	75-09-2	LCS	22	20	110	76 - 121		

## QUALITY CONTROL SAMPLES

### VOLATILE ORGANICS (cont.)

#### RESULTS

<u>Compound</u>	<u>CAS No</u>		<u>Result</u> (ug/L)	<u>Orig.</u> <u>Result</u> (ug/L)	<u>Spk</u> <u>Added</u> (ug/L)	<u>Rec.</u> (%)	<u>Limits (%)</u>	<u>RPD Limit (%)</u>	<u>Qualifiers</u>
mp-Xylene	108383/106423	LCS	42.10		40	105	79 - 125		
Naphthalene	91-20-3	LCS	20.70		20	103	56 - 134		
o-Chlorotoluene	95-49-8	LCS	21.20		20	106	78 - 126		
o-Xylene	95-47-6	LCS	21		20	105	79 - 124		
p-Chlorotoluene	106-43-4	LCS	20.60		20	103	78 - 125		
p-Isopropyltoluene	99-87-6	LCS	22		20	110	72 - 123		
Styrene	100-42-5	LCS	20.70		20	103	79 - 123		
Tetrachloroethene	127-18-4	LCS	21.10		20	106	72 - 124		
Toluene	108-88-3	LCS	20.70		20	103	80 - 125		
Total Xylenes	1330-20-7	LCS	63.10		60	105	79 - 125		
trans-1,2-Dichloroethene	156-60-5	LCS	22.50		20	113	71 - 122		
trans-1,3-Dichloropropene	10061-02-6	LCS	22		20	110	78 - 126		
Trichloroethene	79-01-6	LCS	20.70		20	103	77 - 124		
Trichlorofluoromethane	75-69-4	LCS	21.30		20	107	38 - 123		
Vinyl Acetate	108-05-4	LCS	22.50		20	112	58 - 136		
Vinyl Chloride	75-01-4	LCS	19.40		20	97.2	27 - 138		

#### SURROGATES

<u>Compound</u>	<u>CAS No</u>		<u>Result</u> (ug/L)	<u>Expected</u> (ug/L)	<u>Rec.</u> (%)	<u>Limits (%)</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	17060-07-0	LCS	30.40	30	101	62 - 133	
4-Bromofluorobenzene	460-00-4	LCS	27.30	30	91.1	79 - 114	
Dibromofluoromethane	1868-53-7	LCS	29.70	30	98.9	78 - 116	
Toluene-d8	2037-26-5	LCS	27.80	30	92.8	76 - 127	

### QUALITY CONTROL DATA CROSS REFERENCE TABLE

Lab ID	Sample ID	Preparation Method	Prep Batch	Prep Date/Time	By	Analysis Method	Anly Batch
3335533001	MW-01	SW846 3510C N/A	1096962 N/A	12/06/2023 10:50 N/A	BNR	SW846 8270E SIM SW846 8260D	1098684 1101196
3335533002	MW-03	SW846 3510C N/A	1096962 N/A	12/06/2023 10:50 N/A	BNR	SW846 8270E SIM SW846 8260D	1098684 1101196
3335533003	MW-04R	SW846 3510C SW846 3510C N/A	1096962 1096962 N/A	12/06/2023 10:50 12/06/2023 10:50 N/A	BNR	SW846 8270E SIM SW846 8270E SIM SW846 8260D	1098684 1101861 1101196
3335533004	MW-05R	SW846 3510C N/A	1096962 N/A	12/06/2023 10:50 N/A	BNR	SW846 8270E SIM SW846 8260D	1098684 1101196
3335533005	MW-09	SW846 3510C N/A	1096962 N/A	12/06/2023 10:50 N/A	BNR	SW846 8270E SIM SW846 8260D	1098684 1101196
3335533006	MW-16	SW846 3510C SW846 3510C N/A	1096962 1096962 N/A	12/06/2023 10:50 12/06/2023 10:50 N/A	BNR	SW846 8270E SIM SW846 8270E SIM SW846 8260D	1098684 1101861 1101196
3335533007	MW-18	SW846 3510C N/A	1096962 N/A	12/06/2023 10:50 N/A	SXM	SW846 8270E SIM SW846 8260D	1098684 1101196
3335533008	MW-20	SW846 3510C SW846 3510C N/A	1096962 1096962 N/A	12/06/2023 10:50 12/06/2023 10:50 N/A	BNR	SW846 8270E SIM SW846 8270E SIM SW846 8260D	1098684 1101861 1101196
3335533009	MW-38R	SW846 3510C SW846 3510C N/A	1096962 1096962 N/A	12/06/2023 10:50 12/06/2023 10:50 N/A	BNR	SW846 8270E SIM SW846 8270E SIM SW846 8260D	1101861 1098684 1101196
3335533010	MW-42	SW846 3510C N/A	1096962 N/A	12/06/2023 10:50 N/A	BNR	SW846 8270E SIM SW846 8260D	1098684 1101196
3335533011	MW-43	SW846 3510C N/A	1096962 N/A	12/06/2023 10:50 N/A	BNR	SW846 8270E SIM SW846 8260D	1098684 1101196
3335533012	MW-44	SW846 3510C N/A	1096962 N/A	12/06/2023 10:50 N/A	BNR	SW846 8270E SIM SW846 8260D	1098684 1101196
3335533013	MW-45	SW846 3510C N/A	1096962 N/A	12/06/2023 10:50 N/A	BNR	SW846 8270E SIM SW846 8260D	1098684 1101196
3335533014	MW-01D	SW846 3510C N/A	1096962 N/A	12/06/2023 10:50 N/A	BNR	SW846 8270E SIM SW846 8260D	1098684 1101196
3335533015	MW-16D	SW846 3510C SW846 3510C N/A	1096962 1096962 N/A	12/06/2023 10:50 12/06/2023 10:50 N/A	BNR	SW846 8270E SIM SW846 8270E SIM SW846 8260D	1098684 1101861 1101196
3335533016	MW-21D	SW846 3510C N/A	1096962 N/A	12/06/2023 10:50 N/A	BNR	SW846 8270E SIM SW846 8260D	1098684 1101196
3335533017	MW-22D	SW846 3510C N/A	1096962 N/A	12/06/2023 10:50 N/A	BNR	SW846 8270E SIM SW846 8260D	1098684 1101196
3335533018	MW-23D	SW846 3510C SW846 3510C N/A	1096962 1096962 N/A	12/06/2023 10:50 12/06/2023 10:50 N/A	BNR	SW846 8270E SIM SW846 8270E SIM SW846 8260D	1098684 1101861 1101196
3335533019	MW-27D	SW846 3510C N/A	1096962 N/A	12/06/2023 10:50 N/A	BNR	SW846 8270E SIM SW846 8260D	1098684 1101196
3335533020	MW-40D	SW846 3510C N/A	1096962 N/A	12/06/2023 10:50 N/A	BNR	SW846 8270E SIM SW846 8260D	1098684 1101196
3335533021	MW-41D	SW846 3510C N/A	1097820 N/A	12/07/2023 11:45 N/A	BNR	SW846 8270E SIM SW846 8260D	1100276 1101227
3335533022	MW-46D	SW846 3510C SW846 3510C N/A	1097820 1097820 N/A	12/07/2023 11:45 12/07/2023 11:45 N/A	BNR	SW846 8270E SIM SW846 8270E SIM SW846 8260D	1100276 1101861 1101227
3335533023	DUP-120323	SW846 3510C SW846 3510C N/A	1097820 1097820 N/A	12/07/2023 11:45 12/07/2023 11:45 N/A	BNR	SW846 8270E SIM SW846 8270E SIM SW846 8260D	1100276 1101861 1101227
3335533024	Trip Blank A	N/A	N/A	N/A		SW846 8260D	1101227
3335533025	Trip Blank B	N/A	N/A	N/A		SW846 8260D	1101227
3335533026	Trip Blank C	N/A	N/A	N/A		SW846 8260D	1101227







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

**CHAIN OF CUSTODY/  
REQUEST FOR ANALYSIS**

REQUEST FOR ANALYSIS  
DRAFT

**ALL SPOTS MUST BE COMPLETED BY THE CLIENT /  
SAMPLER. INSTRUCTIONS ON THE BACK.**

Receipt Information (completed by Receiving Lab)																																																													
Temp Taken By:			Therm ID:																																																										
Receipt Info completed by:			WQ Temp (°C)																																																										
Cooler Custody Seals Intact			Y N NA Deviations? NO YES If YES, list below:																																																										
Sample Custody Seal Intact			Y N NA																																																										
Received on Ice			Y N NA																																																										
C 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 #			Client contact: Date/Tech:																																																										
Sample(s) for Radiation testing?			Y N																																																										
Reportable SDWA Sample(s)?			Y N																																																										
SDWA State of Origin?			New Source Contact: Y N																																																										
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																																																													
<table border="1"> <tr> <td>Standard Lvl 1</td> <td><input type="checkbox"/></td> <td>CLP-like</td> <td><input type="checkbox"/></td> <td>HSCA</td> <td><input type="checkbox"/></td> <td>State Samples Collected In</td> </tr> <tr> <td>Standard Lvl 2</td> <td><input checked="" type="checkbox"/></td> <td>DOD</td> <td><input type="checkbox"/></td> <td>I-landfill</td> <td><input type="checkbox"/></td> <td>NY</td> </tr> <tr> <td>Standard Lvl 3</td> <td><input type="checkbox"/></td> <td>NU RED</td> <td><input type="checkbox"/></td> <td>NU GW</td> <td><input type="checkbox"/></td> <td>NJ</td> </tr> <tr> <td>Standard Lvl 4</td> <td><input type="checkbox"/></td> <td>NU Full</td> <td><input type="checkbox"/></td> <td></td> <td></td> <td>PA</td> </tr> <tr> <td colspan="3">Data Deliverables</td> <td colspan="3">Sample Disposal</td> <td></td> </tr> <tr> <td colspan="3">EDDS</td> <td colspan="3">Lab</td> <td>WV</td> </tr> <tr> <td colspan="3">Excel Summary</td> <td colspan="3">Equis</td> <td>FL</td> </tr> <tr> <td colspan="3">Custom</td> <td colspan="3">Special</td> <td>other</td> </tr> </table>						Standard Lvl 1	<input type="checkbox"/>	CLP-like	<input type="checkbox"/>	HSCA	<input type="checkbox"/>	State Samples Collected In	Standard Lvl 2	<input checked="" type="checkbox"/>	DOD	<input type="checkbox"/>	I-landfill	<input type="checkbox"/>	NY	Standard Lvl 3	<input type="checkbox"/>	NU RED	<input type="checkbox"/>	NU GW	<input type="checkbox"/>	NJ	Standard Lvl 4	<input type="checkbox"/>	NU Full	<input type="checkbox"/>			PA	Data Deliverables			Sample Disposal				EDDS			Lab			WV	Excel Summary			Equis			FL	Custom			Special			other
Standard Lvl 1	<input type="checkbox"/>	CLP-like	<input type="checkbox"/>	HSCA	<input type="checkbox"/>	State Samples Collected In																																																							
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Standard Lvl 3	<input type="checkbox"/>	NU RED	<input type="checkbox"/>	NU GW	<input type="checkbox"/>	NJ																																																							
Standard Lvl 4	<input type="checkbox"/>	NU Full	<input type="checkbox"/>			PA																																																							
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Excel Summary			Equis			FL																																																							
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EDDS: Format Type																																																													
ALS SHIPPING ADDRESS: 301 Fulling Mill Road, Suite A, Middleton, PA 17057																																																													
91 of 91																																																													
* G=Grab, C=Composite    **Matrix A=Air D=Drinking Water GW=Groundwater O=Oil LW=Liquid Waste S=Solid/Soil/Studge SW=Surface Water WP=Water WW=Master Water																																																													
12/13/2023 3:37 PM																																																													



Main Site: 301 Fulling Mill Road | Middletown, PA 17057 | Phone: 717-944-5541 | Fax: 717-944-1430 | [www.alsglobal.com](http://www.alsglobal.com)  
Associated Site: 20 Riverside Drive | Spring City, PA 19475 | Phone: 610-948-4903 | Fax: 717-944-1430 |

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

Analytical Results Report For

**WSP USA Inc.**

Project      Former KOP-Flex Facility Onsit  
Workorder    3338319  
Report ID    291955 on 12/29/2023

### Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on Dec 21, 2023.

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](http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads).

This laboratory report may not be reproduced, except in full, without the written approval of ALS Global.  
ALS Middletown: 301 Fulling Mill Road, Middletown, PA 17057 : 717-944-5541.

Recipient(s):

Elliott Martynkiewicz - WSP USA Inc.  
Eric Johnson - WSP USA INC

*Susan Scherer*

**Susan Scherer**  
Project Coordinator

(ALS Digital Signature)

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

Project Former KOP-Flex Facility Onsit  
Workorder 3338319



## Sample Summary

<u>Lab ID</u>	<u>Sample ID</u>	<u>Matrix</u>	<u>Date Collected</u>	<u>Date Received</u>	<u>Collector</u>	<u>Collection Company</u>
3338319001	MW-39	Ground Water	12/20/2023 09:50	12/21/2023 08:24	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 performed 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 Former KOP-Flex Facility Onsit  
Workorder 3338319



### Project Notations

Lab ID      Sample ID

### Sample Notations

Notation Ref.

### Result Notations

Project Former KOP-Flex Facility Onsit  
Workorder 3338319



## Detected Results Summary

Not applicable for this WO.



Project Former KOP-Flex Facility Onsit  
Workorder 3338319

## Results

Client Sample ID	MW-39	Collected	12/20/2023 09:50
Lab Sample ID	3338319001	Lab Receipt	12/21/2023 08:24

### 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	12/26/2023 19:12	CGS	C

### SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnaphthalene-d10	7297-45-2	55.7%	29 – 112	12/26/2023 19:12	
Fluoranthene-d10	93951-69-0	77.5%	45 – 130	12/26/2023 19:12	

### 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	12/22/2023 14:26	ILY	A
1,1,1-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/22/2023 14:26	ILY	A
1,1,2,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/22/2023 14:26	ILY	A
1,1,2-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/22/2023 14:26	ILY	A
1,1-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/22/2023 14:26	ILY	A
1,1-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/22/2023 14:26	ILY	A
1,1-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/22/2023 14:26	ILY	A
1,2,3-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/22/2023 14:26	ILY	A
1,2,3-Trichloropropane	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/22/2023 14:26	ILY	A
1,2,4-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/22/2023 14:26	ILY	A
1,2-Dibromo-3-chloropropane	7.0 U	U	ug/L	7.0	SW846 8260D	1	12/22/2023 14:26	ILY	A
1,2-Dibromoethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/22/2023 14:26	ILY	A
1,2-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/22/2023 14:26	ILY	A
1,2-Dichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/22/2023 14:26	ILY	A
1,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/22/2023 14:26	ILY	A
1,3-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/22/2023 14:26	ILY	A
1,3-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/22/2023 14:26	ILY	A
1,4-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/22/2023 14:26	ILY	A
2,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/22/2023 14:26	ILY	A
2-Butanone	10.0 U	U	ug/L	10.0	SW846 8260D	1	12/22/2023 14:26	ILY	A
2-Hexanone	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/22/2023 14:26	ILY	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/22/2023 14:26	ILY	A
Acetone	10.0 U	U	ug/L	10.0	SW846 8260D	1	12/22/2023 14:26	ILY	A
Benzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/22/2023 14:26	ILY	A
Bromobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/22/2023 14:26	ILY	A
Bromochloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/22/2023 14:26	ILY	A
Bromodichloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/22/2023 14:26	ILY	A
Bromoform	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/22/2023 14:26	ILY	A
Bromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/22/2023 14:26	ILY	A
Carbon Tetrachloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/22/2023 14:26	ILY	A
Chlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/22/2023 14:26	ILY	A
Chlorodibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/22/2023 14:26	ILY	A
Chloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/22/2023 14:26	ILY	A
Chloroform	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/22/2023 14:26	ILY	A
Chloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/22/2023 14:26	ILY	A



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## Results

Client Sample ID	MW-39	Collected	12/20/2023 09:50
Lab Sample ID	3338319001	Lab Receipt	12/21/2023 08:24

### 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	12/22/2023 14:26	ILY	A
cis-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/22/2023 14:26	ILY	A
Dibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/22/2023 14:26	ILY	A
Dichlorodifluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/22/2023 14:26	ILY	A
Diisopropyl ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/22/2023 14:26	ILY	A
Ethylbenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/22/2023 14:26	ILY	A
Hexachlorobutadiene	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/22/2023 14:26	ILY	A
Methyl t-Butyl Ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/22/2023 14:26	ILY	A
Methylene Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/22/2023 14:26	ILY	A
mp-Xylene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/22/2023 14:26	ILY	A
Naphthalene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/22/2023 14:26	ILY	A
o-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/22/2023 14:26	ILY	A
o-Xylene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/22/2023 14:26	ILY	A
p-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/22/2023 14:26	ILY	A
p-Isopropyltoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/22/2023 14:26	ILY	A
Styrene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/22/2023 14:26	ILY	A
Tetrachloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/22/2023 14:26	ILY	A
Toluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/22/2023 14:26	ILY	A
Total Xylenes	3.0 U	U	ug/L	3.0	SW846 8260D	1	12/22/2023 14:26	ILY	A
trans-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/22/2023 14:26	ILY	A
trans-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/22/2023 14:26	ILY	A
Trichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/22/2023 14:26	ILY	A
Trichlorofluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/22/2023 14:26	ILY	A
Vinyl Acetate	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/22/2023 14:26	ILY	A
Vinyl Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/22/2023 14:26	ILY	A

### SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	109%	62 – 133	12/22/2023 14:26	
4-Bromofluorobenzene	460-00-4	89.7%	79 – 114	12/22/2023 14:26	
Dibromofluoromethane	1868-53-7	102%	78 – 116	12/22/2023 14:26	
Toluene-d8	2037-26-5	108%	76 – 127	12/22/2023 14:26	

### Sample - Method Cross Reference Table

Lab ID	Sample ID	Analysis Method	Preparation Method	Leachate Method
3338319001	MW-39	SW846 8270E SIM SW846 8260D	SW846 3510C N/A	

## QUALITY CONTROL SAMPLES

### SEMIVOLATILE SIM

QC Batch		Associated Samples	
<u>QC Batch</u>	1108803	<u>Prep Method</u>	SW846 3510C
<u>Date</u>	12/21/2023 16:10	<u>Analysis Method</u>	SW846 8270E SIM
<u>Tech.</u>	SXM		3338319001

<b>Method Blank</b>	3766005 (MB)	Created on 12/21/2023 10:00	For QC Batch 1108803
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### 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	Expected	Rec.	Limits (%)	Qualifiers
2-Methylnaphthalene-d10	7297-45-2	BLK	0.54	1	54	29 - 112
Fluoranthene-d10	93951-69-0	BLK	0.72	1	71.7	45 - 130

<b>Lab Control Standard</b>	3766006 (LCS)	Created on 12/21/2023 10:00	For QC Batch 1108803
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### RESULTS

Compound	CAS No	Result	Orig. Result	Spk Added	Rec. (%)	Limits (%)	RPD Limit (%)	Qualifiers
1,4-Dioxane	123-91-1	LCS	0.29	1	28.9	22 - 75		U

### SURROGATES

Compound	CAS No	Result	Expected	Rec.	Limits (%)	Qualifiers
2-Methylnaphthalene-d10	7297-45-2	LCS	0.52	1	51.8	29 - 112
Fluoranthene-d10	93951-69-0	LCS	0.69	1	69	45 - 130



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## QUALITY CONTROL SAMPLES

### VOLATILE ORGANICS

#### QC Batch

<u>QC Batch</u>	1109980	<u>Prep Method</u>	N/A
<u>Date</u>	N/A	<u>Analysis Method</u>	SW846 8260D
<u>Tech.</u>			

#### Associated Samples

3338319001

**Matrix Spike** 3766856 (MS) 3338364001 (non-Project Sample) For QC Batch 1109980

\*\*\*\*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** 3766857 (MSD) 3338364001 (non-Project Sample) For QC Batch 1109980

### RESULTS

Compound	CAS No	Result ( <u>ug/L</u> )	Orig. Result ( <u>ug/L</u> )	Spk Added ( <u>ug/L</u> )	Rec. (%)	Limits (%)	RPD Limit (%)	Qualifiers
1,1,2-Tetrachloroethane	630-20-6	MS	21.50	0	20	108	78 - 121	
1,1,2-Tetrachloroethane	630-20-6	MSD	20.80	0	20	104	78 - 121	RPD <u>3.54</u> (Max-16)
1,1,1-Trichloroethane	71-55-6	MS	23.30	0	20	116	66 - 130	
1,1,1-Trichloroethane	71-55-6	MSD	21.40	0	20	107	66 - 130	RPD <u>8.47</u> (Max-20)
1,1,2,2-Tetrachloroethane	79-34-5	MS	21.20	0	20	106	74 - 135	
1,1,2,2-Tetrachloroethane	79-34-5	MSD	21.20	0	20	106	74 - 135	RPD <u>0.05</u> (Max-16)
1,1,2-Trichloroethane	79-00-5	MS	24.50	0	20	122	82 - 126	
1,1,2-Trichloroethane	79-00-5	MSD	23.20	0	20	116	82 - 126	RPD <u>5.08</u> (Max-15)
1,1-Dichloroethane	75-34-3	MS	23.10	0	20	116	78 - 124	
1,1-Dichloroethane	75-34-3	MSD	21.70	0	20	108	78 - 124	RPD <u>6.44</u> (Max-15)
1,1-Dichloroethene	75-35-4	MS	25.90	0	20	130*	63 - 128	
1,1-Dichloroethene	75-35-4	MSD	23.80	0	20	119	63 - 128	RPD <u>8.37</u> (Max-21)
1,1-Dichloropropene	563-58-6	MS	23.20	0	20	116	76 - 126	
1,1-Dichloropropene	563-58-6	MSD	21.50	0	20	107	76 - 126	RPD <u>7.80</u> (Max-16)
1,2,3-Trichlorobenzene	87-61-6	MS	18.70	0	20	93.7	61 - 126	
1,2,3-Trichlorobenzene	87-61-6	MSD	18.70	0	20	93.5	61 - 126	RPD <u>0.22</u> (Max-36)
1,2,3-Trichloropropane	96-18-4	MS	21.40	0	20	107	75 - 132	
1,2,3-Trichloropropane	96-18-4	MSD	21.30	0	20	106	75 - 132	RPD <u>0.68</u> (Max-19)
1,2,4-Trichlorobenzene	120-82-1	MS	18.50	0	20	92.4	67 - 123	
1,2,4-Trichlorobenzene	120-82-1	MSD	18.80	0	20	94.2	67 - 123	RPD <u>2.03</u> (Max-22)
1,2-Dibromo-3-chloropropane	96-12-8	MS	18	0	20	89.9	59 - 133	
1,2-Dibromo-3-chloropropane	96-12-8	MSD	20.30	0	20	102	59 - 133	RPD <u>12.40</u> (Max-26)
1,2-Dibromoethane	106-93-4	MS	21.10	0	20	106	80 - 124	
1,2-Dibromoethane	106-93-4	MSD	20.30	0	20	102	80 - 124	RPD <u>3.91</u> (Max-19)
1,2-Dichlorobenzene	95-50-1	MS	19.70	0	20	98.4	82 - 118	
1,2-Dichlorobenzene	95-50-1	MSD	19.70	0	20	98.6	82 - 118	RPD <u>0.20</u> (Max-15)
1,2-Dichloroethane	107-06-2	MS	20.80	0	20	104	70 - 133	
1,2-Dichloroethane	107-06-2	MSD	19.70	0	20	98.6	70 - 133	RPD <u>5.39</u> (Max-19)
1,2-Dichloropropane	78-87-5	MS	22.70	0	20	113	81 - 127	
1,2-Dichloropropane	78-87-5	MSD	21.30	0	20	106	81 - 127	RPD <u>6.37</u> (Max-15)
1,3-Dichlorobenzene	541-73-1	MS	19.70	0	20	98.5	81 - 118	
1,3-Dichlorobenzene	541-73-1	MSD	19.70	0	20	98.5	81 - 118	RPD <u>0.01</u> (Max-16)
1,3-Dichloropropane	142-28-9	MS	22.20	0	20	111	82 - 126	
1,3-Dichloropropane	142-28-9	MSD	21.10	0	20	106	82 - 126	RPD <u>5.17</u> (Max-15)
1,4-Dichlorobenzene	106-46-7	MS	19.90	0	20	99.4	81 - 116	

## 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
				0	20	98.6	81 - 116	RPD <u>0.89</u> (Max-15)	
1,4-Dichlorobenzene	106-46-7	MSD	19.70	0	20	98.6	81 - 116	RPD <u>0.89</u> (Max-15)	
2,2-Dichloropropane	594-20-7	MS	20.80	0	20	104	64 - 129		
2,2-Dichloropropane	594-20-7	MSD	19	0	20	95.1	64 - 129	RPD <u>8.98</u> (Max-18)	
2-Butanone	78-93-3	MS	95	0	100	95	50 - 152		
2-Butanone	78-93-3	MSD	96	0	100	96	50 - 152	RPD <u>0.97</u> (Max-16)	
2-Hexanone	591-78-6	MS	112	0	100	112	65 - 154		
2-Hexanone	591-78-6	MSD	109	0	100	109	65 - 154	RPD <u>2.36</u> (Max-17)	
4-Methyl-2-Pentanone(MIBK)	108-10-1	MS	112	0	100	112	71 - 146		
4-Methyl-2-Pentanone(MIBK)	108-10-1	MSD	109	0	100	109	71 - 146	RPD <u>2.62</u> (Max-16)	
Acetone	67-64-1	MS	124	0	100	124	40 - 151		
Acetone	67-64-1	MSD	117	0	100	117	40 - 151	RPD <u>5.23</u> (Max-40)	
Benzene	71-43-2	MS	54.60	31.40	20	116	80 - 124		
Benzene	71-43-2	MSD	50.90	31.40	20	97.6	80 - 124	RPD <u>7</u> (Max-26)	
Bromobenzene	108-86-1	MS	19.90	0	20	99.7	81 - 119		
Bromobenzene	108-86-1	MSD	19.60	0	20	97.8	81 - 119	RPD <u>1.90</u> (Max-17)	
Bromochloromethane	74-97-5	MS	21.80	0	20	109	73 - 117		
Bromochloromethane	74-97-5	MSD	20.60	0	20	103	73 - 117	RPD <u>5.86</u> (Max-19)	
Bromodichloromethane	75-27-4	MS	22.30	0	20	112	79 - 126		
Bromodichloromethane	75-27-4	MSD	20.10	0	20	100	79 - 126	RPD <u>10.60</u> (Max-16)	
Bromoform	75-25-2	MS	18.40	0	20	92	70 - 123		
Bromoform	75-25-2	MSD	19.10	0	20	95.5	70 - 123	RPD <u>3.73</u> (Max-16)	
Bromomethane	74-83-9	MS	20.70	0	20	104	45 - 148		
Bromomethane	74-83-9	MSD	18.80	0	20	93.8	45 - 148	RPD <u>9.91</u> (Max-26)	
Carbon Tetrachloride	56-23-5	MS	21.70	0	20	109	62 - 132		
Carbon Tetrachloride	56-23-5	MSD	20.90	0	20	105	62 - 132	RPD <u>3.79</u> (Max-17)	
Chlorobenzene	108-90-7	MS	21	0	20	105	85 - 117		
Chlorobenzene	108-90-7	MSD	20.20	0	20	101	85 - 117	RPD <u>3.88</u> (Max-15)	
Chlorodibromomethane	124-48-1	MS	20.80	0	20	104	77 - 122		
Chlorodibromomethane	124-48-1	MSD	20.10	0	20	101	77 - 122	RPD <u>3.38</u> (Max-15)	
Chloroethane	75-00-3	MS	18.10	0	20	90.7	51 - 142		
Chloroethane	75-00-3	MSD	17.30	0	20	86.3	51 - 142	RPD <u>5</u> (Max-24)	
Chloroform	67-66-3	MS	22.70	0	20	113	78 - 122		
Chloroform	67-66-3	MSD	21.10	0	20	105	78 - 122	RPD <u>7.33</u> (Max-16)	
Chloromethane	74-87-3	MS	20.60	0	20	103	38 - 156		
Chloromethane	74-87-3	MSD	18.20	0	20	91.1	38 - 156	RPD <u>12.40</u> (Max-27)	
cis-1,2-Dichloroethene	156-59-2	MS	23.10	0	20	115	78 - 125		
cis-1,2-Dichloroethene	156-59-2	MSD	21.60	0	20	108	78 - 125	RPD <u>6.59</u> (Max-21)	
cis-1,3-Dichloropropene	10061-01-5	MS	21	0	20	105	81 - 121		
cis-1,3-Dichloropropene	10061-01-5	MSD	20.10	0	20	101	81 - 121	RPD <u>4.43</u> (Max-16)	
Dibromomethane	74-95-3	MS	21.20	0	20	106	81 - 125		
Dibromomethane	74-95-3	MSD	20.70	0	20	104	81 - 125	RPD <u>2.20</u> (Max-16)	
Dichlorodifluoromethane	75-71-8	MS	19	0	20	95	17 - 166		
Dichlorodifluoromethane	75-71-8	MSD	17.30	0	20	86.5	17 - 166	RPD <u>9.36</u> (Max-24)	
Diisopropyl ether	108-20-3	MS	23.30	1.10	20	111	74 - 131		
Diisopropyl ether	108-20-3	MSD	22.20	1.10	20	105	74 - 131	RPD <u>4.95</u> (Max-15)	
Ethylbenzene	100-41-4	MS	64.60	43.20	20	107	80 - 124		
Ethylbenzene	100-41-4	MSD	61.80	43.20	20	93	80 - 124	RPD <u>4.38</u> (Max-19)	
Hexachlorobutadiene	87-68-3	MS	19.60	0	20	98	55 - 128		
Hexachlorobutadiene	87-68-3	MSD	19.30	0	20	96.5	55 - 128	RPD <u>1.46</u> (Max-35)	

## 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
Methyl t-Butyl Ether	1634-04-4	MS	21.40	0	20	107	69 - 115		
Methyl t-Butyl Ether	1634-04-4	MSD	20.60	0	20	103	69 - 115	RPD <u>3.57</u> (Max-20)	
Methylene Chloride	75-09-2	MS	22.20	0	20	111	76 - 121		
Methylene Chloride	75-09-2	MSD	21.10	0	20	105	76 - 121	RPD <u>5.26</u> (Max-17)	
mp-Xylene	108383/106423	MS	50	6.30	40	109	79 - 125		
mp-Xylene	108383/106423	MSD	46.90	6.30	40	102	79 - 125	RPD <u>6.28</u> (Max-21)	
Naphthalene	91-20-3	MS	38.30	19.20	20	95.9	56 - 134		
Naphthalene	91-20-3	MSD	39.40	19.20	20	101	56 - 134	RPD <u>2.79</u> (Max-40)	
o-Chlorotoluene	95-49-8	MS	21.60	0	20	108	78 - 126		
o-Chlorotoluene	95-49-8	MSD	21	0	20	105	78 - 126	RPD <u>3.01</u> (Max-17)	
o-Xylene	95-47-6	MS	22.60	0	20	113	79 - 124		
o-Xylene	95-47-6	MSD	21.60	0	20	108	79 - 124	RPD <u>4.57</u> (Max-19)	
p-Chlorotoluene	106-43-4	MS	20.60	0	20	103	78 - 125		
p-Chlorotoluene	106-43-4	MSD	20.60	0	20	103	78 - 125	RPD <u>0.11</u> (Max-16)	
p-Isopropyltoluene	99-87-6	MS	22.90	0	20	114	72 - 123		
p-Isopropyltoluene	99-87-6	MSD	22.90	0	20	115	72 - 123	RPD <u>0.11</u> (Max-17)	
Styrene	100-42-5	MS	21.20	0	20	106	79 - 123		
Styrene	100-42-5	MSD	21	0	20	105	79 - 123	RPD <u>0.82</u> (Max-16)	
Tetrachloroethene	127-18-4	MS	21.10	2.50	20	93.1	72 - 124		
Tetrachloroethene	127-18-4	MSD	20.10	2.50	20	87.8	72 - 124	RPD <u>5.14</u> (Max-38)	
Toluene	108-88-3	MS	23	1.30	20	108	80 - 125		
Toluene	108-88-3	MSD	21.70	1.30	20	102	80 - 125	RPD <u>5.79</u> (Max-20)	
Total Xylenes	1330-20-7	MS	72.60	6.30	60	110	79 - 125		
Total Xylenes	1330-20-7	MSD	68.50	6.30	60	104	79 - 125	RPD <u>5.74</u> (Max-35)	
trans-1,2-Dichloroethene	156-60-5	MS	23.50	0	20	118	71 - 122		
trans-1,2-Dichloroethene	156-60-5	MSD	21.90	0	20	109	71 - 122	RPD <u>7.32</u> (Max-22)	
trans-1,3-Dichloropropene	10061-02-6	MS	21.50	0	20	108	78 - 126		
trans-1,3-Dichloropropene	10061-02-6	MSD	20.90	0	20	104	78 - 126	RPD <u>3.06</u> (Max-18)	
Trichloroethene	79-01-6	MS	21.80	1.40	20	102	77 - 124		
Trichloroethene	79-01-6	MSD	21	1.40	20	98	77 - 124	RPD <u>3.80</u> (Max-18)	
Trichlorofluoromethane	75-69-4	MS	19.60	0	20	97.9	38 - 123		
Trichlorofluoromethane	75-69-4	MSD	18.20	0	20	90.9	38 - 123	RPD <u>7.38</u> (Max-23)	
Vinyl Acetate	108-05-4	MS	20.50	0	20	103	58 - 136		
Vinyl Acetate	108-05-4	MSD	20.10	0	20	100	58 - 136	RPD <u>2.21</u> (Max-17)	
Vinyl Chloride	75-01-4	MS	18.10	0	20	90.5	27 - 138		
Vinyl Chloride	75-01-4	MSD	16.90	0	20	84.7	27 - 138	RPD <u>6.63</u> (Max-40)	

#### SURROGATES

Compound	CAS No		Result (ug/L)	Expected (ug/L)	Rec. (%)	Limits (%)	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	MS	36.10	30	120	62 - 133	
1,2-Dichloroethane-d4	17060-07-0	MSD	34	30	113	62 - 133	
4-Bromofluorobenzene	460-00-4	MS	27.80	30	92.8	79 - 114	
4-Bromofluorobenzene	460-00-4	MSD	27.40	30	91.2	79 - 114	
Dibromofluoromethane	1868-53-7	MS	33.20	30	111	78 - 116	
Dibromofluoromethane	1868-53-7	MSD	31.80	30	106	78 - 116	
Toluene-d8	2037-26-5	MS	32.60	30	109	76 - 127	
Toluene-d8	2037-26-5	MSD	32.60	30	109	76 - 127	

## QUALITY CONTROL SAMPLES

### VOLATILE ORGANICS (cont.)

**Method Blank**

3766854 (MB)

Created on 12/22/2023 12:38

For QC Batch 1109980

### 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
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

## QUALITY CONTROL SAMPLES

### VOLATILE ORGANICS (cont.)

#### RESULTS

Compound	CAS No		Result	Units	RDL	Qualifiers
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
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	32.70	30	109	62 - 133	
4-Bromofluorobenzene	460-00-4	BLK	23.90	30	79.5	79 - 114	
Dibromofluoromethane	1868-53-7	BLK	30.40	30	101	78 - 116	
Toluene-d8	2037-26-5	BLK	31.40	30	105	76 - 127	

**Lab Control Standard** 3766855 (LCS) Created on 12/22/2023 12:38 For QC Batch 1109980

#### RESULTS

Compound	CAS No		Result (ug/L)	Orig. Result (ug/L)	Spk Added (ug/L)	Rec. (%)	Limits (%)	RPD Limit (%)	Qualifiers
1,1,2-Tetrachloroethane	630-20-6	LCS	21.70		20	108	78 - 121		
1,1,1-Trichloroethane	71-55-6	LCS	20.20		20	101	66 - 130		
1,1,2,2-Tetrachloroethane	79-34-5	LCS	21.40		20	107	74 - 135		
1,1,2-Trichloroethane	79-00-5	LCS	21.30		20	106	82 - 126		
1,1-Dichloroethane	75-34-3	LCS	20.60		20	103	78 - 124		
1,1-Dichloroethene	75-35-4	LCS	21.80		20	109	63 - 128		
1,1-Dichloropropene	563-58-6	LCS	20.70		20	103	76 - 126		
1,2,3-Trichlorobenzene	87-61-6	LCS	21.70		20	108	61 - 126		
1,2,3-Trichloropropane	96-18-4	LCS	21.10		20	105	75 - 132		
1,2,4-Trichlorobenzene	120-82-1	LCS	21.20		20	106	67 - 123		
1,2-Dibromo-3-chloropropane	96-12-8	LCS	18.50		20	92.4	59 - 133		
1,2-Dibromoethane	106-93-4	LCS	21.20		20	106	80 - 124		
1,2-Dichlorobenzene	95-50-1	LCS	21.30		20	107	82 - 118		
1,2-Dichloroethane	107-06-2	LCS	19.10		20	95.5	70 - 133		
1,2-Dichloropropane	78-87-5	LCS	20.90		20	104	81 - 127		
1,3-Dichlorobenzene	541-73-1	LCS	21.10		20	105	81 - 118		
1,3-Dichloropropane	142-28-9	LCS	22		20	110	82 - 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
1,4-Dichlorobenzene	106-46-7	LCS	21.50		20	108	81 - 116		
2,2-Dichloropropane	594-20-7	LCS	20.10		20	100	64 - 129		
2-Butanone	78-93-3	LCS	96.50		100	96.5	50 - 152		
2-Hexanone	591-78-6	LCS	112		100	112	65 - 154		
4-Methyl-2-Pentanone(MIBK)	108-10-1	LCS	104		100	104	71 - 146		
Acetone	67-64-1	LCS	114		100	114	40 - 151		
Benzene	71-43-2	LCS	20.60		20	103	80 - 124		
Bromobenzene	108-86-1	LCS	20.60		20	103	81 - 119		
Bromochloromethane	74-97-5	LCS	20.60		20	103	73 - 117		
Bromodichloromethane	75-27-4	LCS	20.20		20	101	79 - 126		
Bromoform	75-25-2	LCS	20.10		20	101	70 - 123		
Bromomethane	74-83-9	LCS	20.70		20	103	45 - 148		
Carbon Tetrachloride	56-23-5	LCS	19.80		20	98.8	62 - 132		
Chlorobenzene	108-90-7	LCS	21.30		20	106	85 - 117		
Chlorodibromomethane	124-48-1	LCS	20.90		20	104	77 - 122		
Chloroethane	75-00-3	LCS	16.40		20	81.8	51 - 142		
Chloroform	67-66-3	LCS	20.40		20	102	78 - 122		
Chloromethane	74-87-3	LCS	18.70		20	93.7	38 - 156		
cis-1,2-Dichloroethene	156-59-2	LCS	21.10		20	106	78 - 125		
cis-1,3-Dichloropropene	10061-01-5	LCS	21.20		20	106	81 - 121		
Dibromomethane	74-95-3	LCS	20.20		20	101	81 - 125		
Dichlorodifluoromethane	75-71-8	LCS	17.30		20	86.4	17 - 166		
Diisopropyl ether	108-20-3	LCS	20.10		20	101	74 - 131		
Ethylbenzene	100-41-4	LCS	21.60		20	108	80 - 124		
Hexachlorobutadiene	87-68-3	LCS	23.10		20	116	55 - 128		
Methyl t-Butyl Ether	1634-04-4	LCS	19.70		20	98.3	69 - 115		
Methylene Chloride	75-09-2	LCS	21		20	105	76 - 121		
mp-Xylene	108383/106423	LCS	43.60		40	109	79 - 125		
Naphthalene	91-20-3	LCS	22.20		20	111	56 - 134		
o-Chlorotoluene	95-49-8	LCS	22		20	110	78 - 126		
o-Xylene	95-47-6	LCS	21.40		20	107	79 - 124		
p-Chlorotoluene	106-43-4	LCS	21.60		20	108	78 - 125		
p-Isopropyltoluene	99-87-6	LCS	22.90		20	115	72 - 123		
Styrene	100-42-5	LCS	23		20	115	79 - 123		
Tetrachloroethene	127-18-4	LCS	20.30		20	101	72 - 124		
Toluene	108-88-3	LCS	21.40		20	107	80 - 125		
Total Xylenes	1330-20-7	LCS	65		60	108	79 - 125		
trans-1,2-Dichloroethene	156-60-5	LCS	21		20	105	71 - 122		
trans-1,3-Dichloropropene	10061-02-6	LCS	21.70		20	108	78 - 126		
Trichloroethene	79-01-6	LCS	19.50		20	97.7	77 - 124		
Trichlorofluoromethane	75-69-4	LCS	18.30		20	91.3	38 - 123		
Vinyl Acetate	108-05-4	LCS	21.70		20	109	58 - 136		
Vinyl Chloride	75-01-4	LCS	16.30		20	81.3	27 - 138		

## QUALITY CONTROL SAMPLES

### VOLATILE ORGANICS (cont.)

#### *SURROGATES*

<u>Compound</u>	<u>CAS No</u>		<u>Result</u> (ug/L)	<u>Expected</u> (ug/L)	<u>Rec.</u> (%)	<u>Limits (%)</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	17060-07-0	LCS	32.40	30	108	62 - 133	
4-Bromofluorobenzene	460-00-4	LCS	25.70	30	85.6	79 - 114	
Dibromofluoromethane	1868-53-7	LCS	30.80	30	103	78 - 116	
Toluene-d8	2037-26-5	LCS	30.80	30	103	76 - 127	

## QUALITY CONTROL DATA CROSS REFERENCE TABLE

Lab ID	Sample ID	Preparation Method	Prep Batch	Prep Date/Time	By	Analysis Method	Anly Batch
3338319001	MW-39	SW846 3510C N/A	1108803 N/A	12/21/2023 16:10 N/A	SXM	SW846 8270E SIM SW846 8260D	1111044 1109980



**ENCLOSURE B – CERTIFIED LABORATORY ANALYTICAL REPORT FOR ONSITE  
RECOVERY WELL SAMPLES (DECEMBER 2023)**



Main Site: 301 Fulling Mill Road | Middletown, PA 17057 | Phone: 717-944-5541 | Fax: 717-944-1430 | [www.alsglobal.com](http://www.alsglobal.com)  
Associated Site: 20 Riverside Drive | Spring City, PA 19475 | Phone: 610-948-4903 | Fax: 717-944-1430 |

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

Analytical Results Report For

**WSP USA Inc.**

Project      Former KOP-Flex Facility Onsit  
Workorder    3335523  
Report ID    288688 on 12/13/2023

### Certificate of Analysis

Enclosed are the analytical results for samples received by the laboratory on Dec 04, 2023.

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](http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads).

This laboratory report may not be reproduced, except in full, without the written approval of ALS Global.  
ALS Middletown: 301 Fulling Mill Road, Middletown, PA 17057 : 717-944-5541.

Recipient(s):

Elliott Martynkiewicz - WSP USA Inc.  
Eric Johnson - WSP USA INC

*Susan Scherer*

**Susan Scherer**  
Project Coordinator

(ALS Digital Signature)

*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
3335523001	RW-1S	Ground Water	12/03/2023 11:10	12/04/2023 18:15	CBC	Collected By Client
3335523002	RW-2S	Ground Water	12/03/2023 12:15	12/04/2023 18:15	CBC	Collected By Client
3335523003	RW-1D	Ground Water	12/03/2023 13:45	12/04/2023 18:15	CBC	Collected By Client
3335523004	RW-2D	Ground Water	12/03/2023 14:15	12/04/2023 18:15	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 performed 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

Lab ID      Sample ID

### Sample Notations

### Result Notations

#### Notation Ref.

- 1 The initial calibration verification for method SW846 8260D was outside the control limits for the analyte chloroethane. The % Recovery was reported as 51% and the control limits were 70 to 130%.
- 2 The QC sample type LCS for method SW846 8260D was outside the control limits for the analyte Chloroethane. The % Recovery was reported as 49.9 and the control limits were 51 to 142.
- 3 The surrogate 2-Methylnaphthalene-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 40.
- 4 The surrogate Fluoranthene-d10 for method SW846 8270E SIM was outside of control limits. The % Recovery was reported as 0 and the control limits were 45 to 130. This result was reported at a dilution of 40.

## Detected Results Summary

Client Sample ID	RW-1S	Collected	12/03/2023 11:10
Lab Sample ID	3335523001	Lab Receipt	12/04/2023 18:15

<u>Compound</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>	<u>Method</u>	<u>Flag</u>
<b>SEMICVOLATILE SIM</b>					
1,4-Dioxane	133	ug/L	40.0	SW846 8270E SIM	#
<b>VOLATILE ORGANICS</b>					
1,1,1-Trichloroethane	39.4	ug/L	5.0	SW846 8260D	#
1,1-Dichloroethane	180	ug/L	5.0	SW846 8260D	#
1,1-Dichloroethene	775	ug/L	5.0	SW846 8260D	#
Chloroethane	22.4	ug/L	5.0	SW846 8260D	#
Vinyl Chloride	6.4	ug/L	5.0	SW846 8260D	#

## Detected Results Summary

Client Sample ID	RW-2S	Collected	12/03/2023 12:15
Lab Sample ID	3335523002	Lab Receipt	12/04/2023 18:15

<u>Compound</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>	<u>Method</u>	<u>Flag</u>
<b>SEMIVOLATILE SIM</b>					
1,4-Dioxane	139	ug/L	40.0	SW846 8270E SIM	#
<b>VOLATILE ORGANICS</b>					
1,1,1-Trichloroethane	301	ug/L	5.0	SW846 8260D	#
1,1-Dichloroethane	72.4	ug/L	5.0	SW846 8260D	#
1,1-Dichloroethene	517	ug/L	5.0	SW846 8260D	#

## Detected Results Summary

Client Sample ID	RW-1D	Collected	12/03/2023 13:45
Lab Sample ID	3335523003	Lab Receipt	12/04/2023 18:15

<u>Compound</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>	<u>Method</u>	<u>Flag</u>
<b>SEMICVOLATILE SIM</b>					
1,4-Dioxane	34.0	ug/L	10.0	SW846 8270E SIM	#
<b>VOLATILE ORGANICS</b>					
1,1,1-Trichloroethane	12.9	ug/L	5.0	SW846 8260D	#
1,1-Dichloroethane	87.3	ug/L	5.0	SW846 8260D	#
1,1-Dichloroethene	431	ug/L	5.0	SW846 8260D	#
Chloroethane	15.2	ug/L	5.0	SW846 8260D	#

## Detected Results Summary

Client Sample ID	RW-2D	Collected	12/03/2023 14:15
Lab Sample ID	3335523004	Lab Receipt	12/04/2023 18:15

<u>Compound</u>	<u>Result</u>	<u>Units</u>	<u>RDL</u>	<u>Method</u>	<u>Flag</u>
<b>SEMICVOLATILE SIM</b>					
1,4-Dioxane	29.5	ug/L	10.2	SW846 8270E SIM	#
<b>VOLATILE ORGANICS</b>					
1,1,1-Trichloroethane	3.9	ug/L	1.0	SW846 8260D	#
1,1-Dichloroethane	22.8	ug/L	1.0	SW846 8260D	#
1,1-Dichloroethene	154	ug/L	1.0	SW846 8260D	#
1,2-Dichloroethane	1.3	ug/L	1.0	SW846 8260D	#



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## Results

Client Sample ID	RW-1S	Collected	12/03/2023 11:10
Lab Sample ID	3335523001	Lab Receipt	12/04/2023 18:15

### SEMOVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	133		ug/L	40.0	SW846 8270E SIM	40	12/12/2023 05:31	S7M	C

### SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnaphthalene-d10	7297-45-2	63.1%	29 – 112	12/06/2023 19:39	
2-Methylnaphthalene-d10	7297-45-2	0*%	29 – 112	12/12/2023 05:31	3
Fluoranthene-d10	93951-69-0	80.8%	45 – 130	12/06/2023 19:39	
Fluoranthene-d10	93951-69-0	0*%	45 – 130	12/12/2023 05:31	4

### 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	12/07/2023 17:19	AHI	A
1,1,1-Trichloroethane	39.4		ug/L	5.0	SW846 8260D	5	12/07/2023 17:19	AHI	A
1,1,2,2-Tetrachloroethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 17:19	AHI	A
1,1,2-Trichloroethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 17:19	AHI	A
1,1-Dichloroethane	180		ug/L	5.0	SW846 8260D	5	12/07/2023 17:19	AHI	A
1,1-Dichloroethene	775		ug/L	5.0	SW846 8260D	5	12/07/2023 17:19	AHI	A
1,1-Dichloropropene	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 17:19	AHI	A
1,2,3-Trichlorobenzene	10.0 U	U	ug/L	10.0	SW846 8260D	5	12/07/2023 17:19	AHI	A
1,2,3-Trichloropropane	10.0 U	U	ug/L	10.0	SW846 8260D	5	12/07/2023 17:19	AHI	A
1,2,4-Trichlorobenzene	10.0 U	U	ug/L	10.0	SW846 8260D	5	12/07/2023 17:19	AHI	A
1,2-Dibromo-3-chloropropane	35.0 U	U	ug/L	35.0	SW846 8260D	5	12/07/2023 17:19	AHI	A
1,2-Dibromoethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 17:19	AHI	A
1,2-Dichlorobenzene	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 17:19	AHI	A
1,2-Dichloroethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 17:19	AHI	A
1,2-Dichloropropane	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 17:19	AHI	A
1,3-Dichlorobenzene	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 17:19	AHI	A
1,3-Dichloropropane	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 17:19	AHI	A
1,4-Dichlorobenzene	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 17:19	AHI	A
2,2-Dichloropropane	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 17:19	AHI	A
2-Butanone	50.0 U	U	ug/L	50.0	SW846 8260D	5	12/07/2023 17:19	AHI	A
2-Hexanone	25.0 U	U	ug/L	25.0	SW846 8260D	5	12/07/2023 17:19	AHI	A
4-Methyl-2-Pentanone(MIBK)	25.0 U	U	ug/L	25.0	SW846 8260D	5	12/07/2023 17:19	AHI	A
Acetone	50.0 U	U	ug/L	50.0	SW846 8260D	5	12/07/2023 17:19	AHI	A
Benzene	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 17:19	AHI	A
Bromobenzene	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 17:19	AHI	A
Bromochloromethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 17:19	AHI	A
Bromodichloromethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 17:19	AHI	A
Bromoform	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 17:19	AHI	A
Bromomethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 17:19	AHI	A
Carbon Tetrachloride	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 17:19	AHI	A
Chlorobenzene	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 17:19	AHI	A
Chlorodibromomethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 17:19	AHI	A
Chloroethane	22.4	1,2	ug/L	5.0	SW846 8260D	5	12/07/2023 17:19	AHI	A

## Results

Client Sample ID	RW-1S	Collected	12/03/2023 11:10
Lab Sample ID	3335523001	Lab Receipt	12/04/2023 18:15

### 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	12/07/2023 17:19	AHI	A
Chloromethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 17:19	AHI	A
cis-1,2-Dichloroethene	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 17:19	AHI	A
cis-1,3-Dichloropropene	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 17:19	AHI	A
Dibromomethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 17:19	AHI	A
Dichlorodifluoromethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 17:19	AHI	A
Diisopropyl ether	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 17:19	AHI	A
Ethylbenzene	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 17:19	AHI	A
Hexachlorobutadiene	25.0 U	U	ug/L	25.0	SW846 8260D	5	12/07/2023 17:19	AHI	A
Methyl t-Butyl Ether	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 17:19	AHI	A
Methylene Chloride	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 17:19	AHI	A
mp-Xylene	10.0 U	U	ug/L	10.0	SW846 8260D	5	12/07/2023 17:19	AHI	A
Naphthalene	10.0 U	U	ug/L	10.0	SW846 8260D	5	12/07/2023 17:19	AHI	A
o-Chlorotoluene	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 17:19	AHI	A
o-Xylene	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 17:19	AHI	A
p-Chlorotoluene	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 17:19	AHI	A
p-Isopropyltoluene	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 17:19	AHI	A
Styrene	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 17:19	AHI	A
Tetrachloroethene	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 17:19	AHI	A
Toluene	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 17:19	AHI	A
Total Xylenes	15.0 U	U	ug/L	15.0	SW846 8260D	5	12/07/2023 17:19	AHI	A
trans-1,2-Dichloroethene	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 17:19	AHI	A
trans-1,3-Dichloropropene	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 17:19	AHI	A
Trichloroethene	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 17:19	AHI	A
Trichlorofluoromethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 17:19	AHI	A
Vinyl Acetate	25.0 U	U	ug/L	25.0	SW846 8260D	5	12/07/2023 17:19	AHI	A
Vinyl Chloride	6.4		ug/L	5.0	SW846 8260D	5	12/07/2023 17:19	AHI	A

### SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	103%	62 – 133	12/07/2023 17:19	
4-Bromofluorobenzene	460-00-4	101%	79 – 114	12/07/2023 17:19	
Dibromofluoromethane	1868-53-7	103%	78 – 116	12/07/2023 17:19	
Toluene-d8	2037-26-5	104%	76 – 127	12/07/2023 17:19	



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## Results

Client Sample ID	RW-2S	Collected	12/03/2023 12:15
Lab Sample ID	3335523002	Lab Receipt	12/04/2023 18:15

### SEMOVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	139		ug/L	40.0	SW846 8270E SIM	40	12/12/2023 05:57	S7M	C

### SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnaphthalene-d10	7297-45-2	59.1%	29 – 112	12/06/2023 20:05	
2-Methylnaphthalene-d10	7297-45-2	0*%	29 – 112	12/12/2023 05:57	3
Fluoranthene-d10	93951-69-0	81.3%	45 – 130	12/06/2023 20:05	
Fluoranthene-d10	93951-69-0	0*%	45 – 130	12/12/2023 05:57	4

### 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	12/07/2023 17:42	AHI	A
1,1,1-Trichloroethane	301		ug/L	5.0	SW846 8260D	5	12/07/2023 17:42	AHI	A
1,1,2,2-Tetrachloroethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 17:42	AHI	A
1,1,2-Trichloroethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 17:42	AHI	A
1,1-Dichloroethane	72.4		ug/L	5.0	SW846 8260D	5	12/07/2023 17:42	AHI	A
1,1-Dichloroethene	517		ug/L	5.0	SW846 8260D	5	12/07/2023 17:42	AHI	A
1,1-Dichloropropene	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 17:42	AHI	A
1,2,3-Trichlorobenzene	10.0 U	U	ug/L	10.0	SW846 8260D	5	12/07/2023 17:42	AHI	A
1,2,3-Trichloropropane	10.0 U	U	ug/L	10.0	SW846 8260D	5	12/07/2023 17:42	AHI	A
1,2,4-Trichlorobenzene	10.0 U	U	ug/L	10.0	SW846 8260D	5	12/07/2023 17:42	AHI	A
1,2-Dibromo-3-chloropropane	35.0 U	U	ug/L	35.0	SW846 8260D	5	12/07/2023 17:42	AHI	A
1,2-Dibromoethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 17:42	AHI	A
1,2-Dichlorobenzene	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 17:42	AHI	A
1,2-Dichloroethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 17:42	AHI	A
1,2-Dichloropropane	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 17:42	AHI	A
1,3-Dichlorobenzene	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 17:42	AHI	A
1,3-Dichloropropane	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 17:42	AHI	A
1,4-Dichlorobenzene	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 17:42	AHI	A
2,2-Dichloropropane	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 17:42	AHI	A
2-Butanone	50.0 U	U	ug/L	50.0	SW846 8260D	5	12/07/2023 17:42	AHI	A
2-Hexanone	25.0 U	U	ug/L	25.0	SW846 8260D	5	12/07/2023 17:42	AHI	A
4-Methyl-2-Pentanone(MIBK)	25.0 U	U	ug/L	25.0	SW846 8260D	5	12/07/2023 17:42	AHI	A
Acetone	50.0 U	U	ug/L	50.0	SW846 8260D	5	12/07/2023 17:42	AHI	A
Benzene	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 17:42	AHI	A
Bromobenzene	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 17:42	AHI	A
Bromochloromethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 17:42	AHI	A
Bromodichloromethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 17:42	AHI	A
Bromoform	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 17:42	AHI	A
Bromomethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 17:42	AHI	A
Carbon Tetrachloride	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 17:42	AHI	A
Chlorobenzene	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 17:42	AHI	A
Chlorodibromomethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 17:42	AHI	A
Chloroethane	5.0 U	U,1,2	ug/L	5.0	SW846 8260D	5	12/07/2023 17:42	AHI	A

## Results

Client Sample ID	RW-2S	Collected	12/03/2023 12:15
Lab Sample ID	3335523002	Lab Receipt	12/04/2023 18:15

### 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	12/07/2023 17:42	AHI	A
Chloromethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 17:42	AHI	A
cis-1,2-Dichloroethene	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 17:42	AHI	A
cis-1,3-Dichloropropene	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 17:42	AHI	A
Dibromomethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 17:42	AHI	A
Dichlorodifluoromethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 17:42	AHI	A
Diisopropyl ether	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 17:42	AHI	A
Ethylbenzene	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 17:42	AHI	A
Hexachlorobutadiene	25.0 U	U	ug/L	25.0	SW846 8260D	5	12/07/2023 17:42	AHI	A
Methyl t-Butyl Ether	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 17:42	AHI	A
Methylene Chloride	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 17:42	AHI	A
mp-Xylene	10.0 U	U	ug/L	10.0	SW846 8260D	5	12/07/2023 17:42	AHI	A
Naphthalene	10.0 U	U	ug/L	10.0	SW846 8260D	5	12/07/2023 17:42	AHI	A
o-Chlorotoluene	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 17:42	AHI	A
o-Xylene	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 17:42	AHI	A
p-Chlorotoluene	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 17:42	AHI	A
p-Isopropyltoluene	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 17:42	AHI	A
Styrene	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 17:42	AHI	A
Tetrachloroethene	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 17:42	AHI	A
Toluene	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 17:42	AHI	A
Total Xylenes	15.0 U	U	ug/L	15.0	SW846 8260D	5	12/07/2023 17:42	AHI	A
trans-1,2-Dichloroethene	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 17:42	AHI	A
trans-1,3-Dichloropropene	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 17:42	AHI	A
Trichloroethene	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 17:42	AHI	A
Trichlorofluoromethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 17:42	AHI	A
Vinyl Acetate	25.0 U	U	ug/L	25.0	SW846 8260D	5	12/07/2023 17:42	AHI	A
Vinyl Chloride	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 17:42	AHI	A

### SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	103%	62 – 133	12/07/2023 17:42	
4-Bromofluorobenzene	460-00-4	101%	79 – 114	12/07/2023 17:42	
Dibromofluoromethane	1868-53-7	104%	78 – 116	12/07/2023 17:42	
Toluene-d8	2037-26-5	103%	76 – 127	12/07/2023 17:42	

## Results

Client Sample ID	RW-1D	Collected	12/03/2023 13:45
Lab Sample ID	3335523003	Lab Receipt	12/04/2023 18:15

### SEMOVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	34.0		ug/L	10.0	SW846 8270E SIM	10	12/12/2023 06:23	S7M	C

### SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnaphthalene-d10	7297-45-2	64.5%	29 – 112	12/06/2023 20:32	
2-Methylnaphthalene-d10	7297-45-2	64.9%	29 – 112	12/12/2023 06:23	
Fluoranthene-d10	93951-69-0	87%	45 – 130	12/06/2023 20:32	
Fluoranthene-d10	93951-69-0	78.1%	45 – 130	12/12/2023 06:23	

### 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	12/07/2023 18:05	AHI	A
1,1,1-Trichloroethane	12.9		ug/L	5.0	SW846 8260D	5	12/07/2023 18:05	AHI	A
1,1,2,2-Tetrachloroethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 18:05	AHI	A
1,1,2-Trichloroethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 18:05	AHI	A
1,1-Dichloroethane	87.3		ug/L	5.0	SW846 8260D	5	12/07/2023 18:05	AHI	A
1,1-Dichloroethene	431		ug/L	5.0	SW846 8260D	5	12/07/2023 18:05	AHI	A
1,1-Dichloropropene	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 18:05	AHI	A
1,2,3-Trichlorobenzene	10.0 U	U	ug/L	10.0	SW846 8260D	5	12/07/2023 18:05	AHI	A
1,2,3-Trichloropropane	10.0 U	U	ug/L	10.0	SW846 8260D	5	12/07/2023 18:05	AHI	A
1,2,4-Trichlorobenzene	10.0 U	U	ug/L	10.0	SW846 8260D	5	12/07/2023 18:05	AHI	A
1,2-Dibromo-3-chloropropane	35.0 U	U	ug/L	35.0	SW846 8260D	5	12/07/2023 18:05	AHI	A
1,2-Dibromoethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 18:05	AHI	A
1,2-Dichlorobenzene	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 18:05	AHI	A
1,2-Dichloroethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 18:05	AHI	A
1,2-Dichloropropane	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 18:05	AHI	A
1,3-Dichlorobenzene	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 18:05	AHI	A
1,3-Dichloropropane	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 18:05	AHI	A
1,4-Dichlorobenzene	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 18:05	AHI	A
2,2-Dichloropropane	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 18:05	AHI	A
2-Butanone	50.0 U	U	ug/L	50.0	SW846 8260D	5	12/07/2023 18:05	AHI	A
2-Hexanone	25.0 U	U	ug/L	25.0	SW846 8260D	5	12/07/2023 18:05	AHI	A
4-Methyl-2-Pentanone(MIBK)	25.0 U	U	ug/L	25.0	SW846 8260D	5	12/07/2023 18:05	AHI	A
Acetone	50.0 U	U	ug/L	50.0	SW846 8260D	5	12/07/2023 18:05	AHI	A
Benzene	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 18:05	AHI	A
Bromobenzene	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 18:05	AHI	A
Bromochloromethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 18:05	AHI	A
Bromodichloromethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 18:05	AHI	A
Bromoform	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 18:05	AHI	A
Bromomethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 18:05	AHI	A
Carbon Tetrachloride	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 18:05	AHI	A
Chlorobenzene	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 18:05	AHI	A
Chlorodibromomethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 18:05	AHI	A
Chloroethane	15.2	1,2	ug/L	5.0	SW846 8260D	5	12/07/2023 18:05	AHI	A

## Results

Client Sample ID	RW-1D	Collected	12/03/2023 13:45
Lab Sample ID	3335523003	Lab Receipt	12/04/2023 18:15

### 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	12/07/2023 18:05	AHI	A
Chloromethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 18:05	AHI	A
cis-1,2-Dichloroethene	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 18:05	AHI	A
cis-1,3-Dichloropropene	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 18:05	AHI	A
Dibromomethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 18:05	AHI	A
Dichlorodifluoromethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 18:05	AHI	A
Diisopropyl ether	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 18:05	AHI	A
Ethylbenzene	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 18:05	AHI	A
Hexachlorobutadiene	25.0 U	U	ug/L	25.0	SW846 8260D	5	12/07/2023 18:05	AHI	A
Methyl t-Butyl Ether	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 18:05	AHI	A
Methylene Chloride	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 18:05	AHI	A
mp-Xylene	10.0 U	U	ug/L	10.0	SW846 8260D	5	12/07/2023 18:05	AHI	A
Naphthalene	10.0 U	U	ug/L	10.0	SW846 8260D	5	12/07/2023 18:05	AHI	A
o-Chlorotoluene	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 18:05	AHI	A
o-Xylene	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 18:05	AHI	A
p-Chlorotoluene	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 18:05	AHI	A
p-Isopropyltoluene	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 18:05	AHI	A
Styrene	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 18:05	AHI	A
Tetrachloroethene	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 18:05	AHI	A
Toluene	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 18:05	AHI	A
Total Xylenes	15.0 U	U	ug/L	15.0	SW846 8260D	5	12/07/2023 18:05	AHI	A
trans-1,2-Dichloroethene	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 18:05	AHI	A
trans-1,3-Dichloropropene	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 18:05	AHI	A
Trichloroethene	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 18:05	AHI	A
Trichlorofluoromethane	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 18:05	AHI	A
Vinyl Acetate	25.0 U	U	ug/L	25.0	SW846 8260D	5	12/07/2023 18:05	AHI	A
Vinyl Chloride	5.0 U	U	ug/L	5.0	SW846 8260D	5	12/07/2023 18:05	AHI	A

### SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	103%	62 – 133	12/07/2023 18:05	
4-Bromofluorobenzene	460-00-4	102%	79 – 114	12/07/2023 18:05	
Dibromofluoromethane	1868-53-7	103%	78 – 116	12/07/2023 18:05	
Toluene-d8	2037-26-5	102%	76 – 127	12/07/2023 18:05	



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## Results

Client Sample ID	RW-2D	Collected	12/03/2023 14:15
Lab Sample ID	3335523004	Lab Receipt	12/04/2023 18:15

### SEMOVOLATILE SIM

Compound	Result	Flag	Units	RDL	Method	Dilution	Analysis Date/Time	By	Cntr
1,4-Dioxane	29.5		ug/L	10.2	SW846 8270E SIM	10	12/12/2023 06:49	S7M	C

### SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
2-Methylnaphthalene-d10	7297-45-2	61.8%	29 – 112	12/06/2023 20:58	
2-Methylnaphthalene-d10	7297-45-2	66%	29 – 112	12/12/2023 06:49	
Fluoranthene-d10	93951-69-0	82.5%	45 – 130	12/06/2023 20:58	
Fluoranthene-d10	93951-69-0	76.5%	45 – 130	12/12/2023 06:49	

### 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	12/07/2023 12:38	AHI	A
1,1,1-Trichloroethane	3.9		ug/L	1.0	SW846 8260D	1	12/07/2023 12:38	AHI	A
1,1,2,2-Tetrachloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 12:38	AHI	A
1,1,2-Trichloroethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 12:38	AHI	A
1,1-Dichloroethane	22.8		ug/L	1.0	SW846 8260D	1	12/07/2023 12:38	AHI	A
1,1-Dichloroethene	154		ug/L	1.0	SW846 8260D	1	12/07/2023 12:38	AHI	A
1,1-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 12:38	AHI	A
1,2,3-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/07/2023 12:38	AHI	A
1,2,3-Trichloropropane	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/07/2023 12:38	AHI	A
1,2,4-Trichlorobenzene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/07/2023 12:38	AHI	A
1,2-Dibromo-3-chloropropane	7.0 U	U	ug/L	7.0	SW846 8260D	1	12/07/2023 12:38	AHI	A
1,2-Dibromoethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 12:38	AHI	A
1,2-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 12:38	AHI	A
1,2-Dichloroethane	1.3		ug/L	1.0	SW846 8260D	1	12/07/2023 12:38	AHI	A
1,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 12:38	AHI	A
1,3-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 12:38	AHI	A
1,3-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 12:38	AHI	A
1,4-Dichlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 12:38	AHI	A
2,2-Dichloropropane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 12:38	AHI	A
2-Butanone	10.0 U	U	ug/L	10.0	SW846 8260D	1	12/07/2023 12:38	AHI	A
2-Hexanone	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/07/2023 12:38	AHI	A
4-Methyl-2-Pentanone(MIBK)	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/07/2023 12:38	AHI	A
Acetone	10.0 U	U	ug/L	10.0	SW846 8260D	1	12/07/2023 12:38	AHI	A
Benzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 12:38	AHI	A
Bromobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 12:38	AHI	A
Bromochloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 12:38	AHI	A
Bromodichloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 12:38	AHI	A
Bromoform	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 12:38	AHI	A
Bromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 12:38	AHI	A
Carbon Tetrachloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 12:38	AHI	A
Chlorobenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 12:38	AHI	A
Chlorodibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 12:38	AHI	A
Chloroethane	1.0 U	U,1,2	ug/L	1.0	SW846 8260D	1	12/07/2023 12:38	AHI	A

## Results

Client Sample ID	RW-2D	Collected	12/03/2023 14:15
Lab Sample ID	3335523004	Lab Receipt	12/04/2023 18:15

### 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	12/07/2023 12:38	AHI	A
Chloromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 12:38	AHI	A
cis-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 12:38	AHI	A
cis-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 12:38	AHI	A
Dibromomethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 12:38	AHI	A
Dichlorodifluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 12:38	AHI	A
Diisopropyl ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 12:38	AHI	A
Ethylbenzene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 12:38	AHI	A
Hexachlorobutadiene	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/07/2023 12:38	AHI	A
Methyl t-Butyl Ether	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 12:38	AHI	A
Methylene Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 12:38	AHI	A
mp-Xylene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/07/2023 12:38	AHI	A
Naphthalene	2.0 U	U	ug/L	2.0	SW846 8260D	1	12/07/2023 12:38	AHI	A
o-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 12:38	AHI	A
o-Xylene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 12:38	AHI	A
p-Chlorotoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 12:38	AHI	A
p-Isopropyltoluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 12:38	AHI	A
Styrene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 12:38	AHI	A
Tetrachloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 12:38	AHI	A
Toluene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 12:38	AHI	A
Total Xylenes	3.0 U	U	ug/L	3.0	SW846 8260D	1	12/07/2023 12:38	AHI	A
trans-1,2-Dichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 12:38	AHI	A
trans-1,3-Dichloropropene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 12:38	AHI	A
Trichloroethene	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 12:38	AHI	A
Trichlorofluoromethane	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 12:38	AHI	A
Vinyl Acetate	5.0 U	U	ug/L	5.0	SW846 8260D	1	12/07/2023 12:38	AHI	A
Vinyl Chloride	1.0 U	U	ug/L	1.0	SW846 8260D	1	12/07/2023 12:38	AHI	A

### SURROGATES

Compound	CAS No	Recovery	Limits(%)	Analysis Date/Time	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	103%	62 – 133	12/07/2023 12:38	
4-Bromofluorobenzene	460-00-4	108%	79 – 114	12/07/2023 12:38	
Dibromofluoromethane	1868-53-7	102%	78 – 116	12/07/2023 12:38	
Toluene-d8	2037-26-5	103%	76 – 127	12/07/2023 12:38	

### Sample - Method Cross Reference Table

Lab ID	Sample ID	Analysis Method	Preparation Method	Leachate Method
3335523001	RW-1S	SW846 8270E SIM	SW846 3510C	
		SW846 8260D	N/A	
3335523002	RW-2S	SW846 8270E SIM	SW846 3510C	
		SW846 8260D	N/A	
3335523003	RW-1D	SW846 8270E SIM	SW846 3510C	
		SW846 8260D	N/A	
3335523004	RW-2D	SW846 8270E SIM	SW846 3510C	
		SW846 8260D	N/A	



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## QUALITY CONTROL SAMPLES

### SEMOVOLATILE SIM

#### QC Batch

<u>QC Batch</u>	1096958	<u>Prep Method</u>	SW846 3510C
<u>Date</u>	12/06/2023 09:00	<u>Analysis Method</u>	SW846 8270E SIM
<u>Tech.</u>	SRL		

#### Associated Samples

3335523001 3335523002 3335523003 3335523004

**Matrix Spike** 3758525 (MS) 3335524003 (non-Project Sample) For QC Batch 1096958

\*\*\*\*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** 3758526 (MSD) 3335524003 (non-Project Sample) For QC Batch 1096958

### 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	11.70	9.40	5	46	22 - 75		
1,4-Dioxane	123-91-1	MSD	10.50	9.40	5	21.5*	22 - 75	RPD <u>11.10</u> (Max-30)	

### SURROGATES

Compound	CAS No		Result (ug/L)	Expected (ug/L)	Rec. (%)	Limits (%)	Qualifiers
2-Methylnaphthalene-d10	7297-45-2	MS	3	5	59.6	29 - 112	
2-Methylnaphthalene-d10	7297-45-2	MSD	3	5	59.9	29 - 112	
Fluoranthene-d10	93951-69-0	MS	3.60	5	71.9	45 - 130	
Fluoranthene-d10	93951-69-0	MSD	3.50	5	69.5	45 - 130	

**Method Blank** 3758523 (MB) Created on 12/05/2023 12:07 For QC Batch 1096958

### 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-Methylnaphthalene-d10	7297-45-2	BLK	0.71	1	71.3	29 - 112	
Fluoranthene-d10	93951-69-0	BLK	0.83	1	83	45 - 130	

**Lab Control Standard** 3758524 (LCS) Created on 12/05/2023 12:07 For QC Batch 1096958

### 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	0.57	1	56.8	22 - 75			U

## QUALITY CONTROL SAMPLES

### SEMIVOLATILE SIM (cont.)

#### *SURROGATES*

<u>Compound</u>	<u>CAS No</u>		<u>Result</u> (ug/L)	<u>Expected</u> (ug/L)	<u>Rec.</u> (%)	<u>Limits (%)</u>	<u>Qualifiers</u>
2-Methylnaphthalene-d10	7297-45-2	LCS	0.65	1	64.5	29 - 112	
Fluoranthene-d10	93951-69-0	LCS	0.83	1	82.7	45 - 130	



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## QUALITY CONTROL SAMPLES

### VOLATILE ORGANICS

#### QC Batch

<u>QC Batch</u>	1097850	<u>Prep Method</u>	N/A
<u>Date</u>	N/A	<u>Analysis Method</u>	SW846 8260D
<u>Tech.</u>			

#### Associated Samples

3335523001 3335523002 3335523003 3335523004

**Matrix Spike** 3759545 (MS) 3335524003 (non-Project Sample) For QC Batch 1097850

\*\*\*\*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** 3759546 (MSD) 3335524003 (non-Project Sample) For QC Batch 1097850

### RESULTS

Compound	CAS No	Result (ug/L)	Orig. Result (ug/L)	Spk Added (ug/L)	Rec. (%)	Limits (%)	RPD Limit (%)	Qualifiers
1,1,2-Tetrachloroethane	630-20-6	MS	22.80	0	20	114	78 - 121	
1,1,2-Tetrachloroethane	630-20-6	MSD	22.30	0	20	112	78 - 121	RPD <u>2.31</u> (Max-16)
1,1,1-Trichloroethane	71-55-6	MS	29.20	3.90	20	126	66 - 130	
1,1,1-Trichloroethane	71-55-6	MSD	27.90	3.90	20	120	66 - 130	RPD <u>4.33</u> (Max-20)
1,1,2,2-Tetrachloroethane	79-34-5	MS	24.20	0	20	121	74 - 135	
1,1,2,2-Tetrachloroethane	79-34-5	MSD	24.10	0	20	120	74 - 135	RPD <u>0.40</u> (Max-16)
1,1,2-Trichloroethane	79-00-5	MS	22.70	0	20	114	82 - 126	
1,1,2-Trichloroethane	79-00-5	MSD	21.90	0	20	110	82 - 126	RPD <u>3.71</u> (Max-15)
1,1-Dichloroethane	75-34-3	MS	33.70	8.40	20	126*	78 - 124	
1,1-Dichloroethane	75-34-3	MSD	31.60	8.40	20	116	78 - 124	RPD <u>6.44</u> (Max-15)
1,1-Dichloroethene	75-35-4	MS	63.70	37	20	136*	63 - 128	
1,1-Dichloroethene	75-35-4	MSD	59.80	37	20	116	63 - 128	RPD <u>6.25</u> (Max-21)
1,1-Dichloropropene	563-58-6	MS	25.70	0	20	128*	76 - 126	
1,1-Dichloropropene	563-58-6	MSD	24.50	0	20	123	76 - 126	RPD <u>4.63</u> (Max-16)
1,2,3-Trichlorobenzene	87-61-6	MS	21.80	0	20	109	61 - 126	
1,2,3-Trichlorobenzene	87-61-6	MSD	21.80	0	20	109	61 - 126	RPD <u>0.12</u> (Max-36)
1,2,3-Trichloropropane	96-18-4	MS	22.80	0	20	114	75 - 132	
1,2,3-Trichloropropane	96-18-4	MSD	23.10	0	20	116	75 - 132	RPD <u>1.41</u> (Max-19)
1,2,4-Trichlorobenzene	120-82-1	MS	22.20	0	20	111	67 - 123	
1,2,4-Trichlorobenzene	120-82-1	MSD	22.30	0	20	112	67 - 123	RPD <u>0.69</u> (Max-22)
1,2-Dibromo-3-chloropropane	96-12-8	MS	21.60	0	20	108	59 - 133	
1,2-Dibromo-3-chloropropane	96-12-8	MSD	21.70	0	20	109	59 - 133	RPD <u>0.63</u> (Max-26)
1,2-Dibromoethane	106-93-4	MS	22.40	0	20	112	80 - 124	
1,2-Dibromoethane	106-93-4	MSD	21.80	0	20	109	80 - 124	RPD <u>2.77</u> (Max-19)
1,2-Dichlorobenzene	95-50-1	MS	22.80	0	20	114	82 - 118	
1,2-Dichlorobenzene	95-50-1	MSD	23.20	0	20	116	82 - 118	RPD <u>1.88</u> (Max-15)
1,2-Dichloroethane	107-06-2	MS	23.20	0.41	20	114	70 - 133	
1,2-Dichloroethane	107-06-2	MSD	22.30	0.41	20	110	70 - 133	RPD <u>3.56</u> (Max-19)
1,2-Dichloropropane	78-87-5	MS	24	0	20	120	81 - 127	
1,2-Dichloropropane	78-87-5	MSD	23.20	0	20	116	81 - 127	RPD <u>3.46</u> (Max-15)
1,3-Dichlorobenzene	541-73-1	MS	22.70	0	20	114	81 - 118	
1,3-Dichlorobenzene	541-73-1	MSD	23	0	20	115	81 - 118	RPD <u>1.24</u> (Max-16)
1,3-Dichloropropane	142-28-9	MS	23.30	0	20	116	82 - 126	
1,3-Dichloropropane	142-28-9	MSD	22.80	0	20	114	82 - 126	RPD <u>2.15</u> (Max-15)
1,4-Dichlorobenzene	106-46-7	MS	22.60	0	20	113	81 - 116	

## 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
				0	20	114	81 - 116	RPD <u>0.75</u> (Max-15)	
1,4-Dichlorobenzene	106-46-7	MSD	22.80	0	20	114	81 - 116	RPD <u>0.75</u> (Max-15)	
2,2-Dichloropropane	594-20-7	MS	22.30	0	20	112	64 - 129		
2,2-Dichloropropane	594-20-7	MSD	21.10	0	20	105	64 - 129	RPD <u>5.86</u> (Max-18)	
2-Butanone	78-93-3	MS	123	0	100	123	50 - 152		
2-Butanone	78-93-3	MSD	127	0	100	127	50 - 152	RPD <u>3.51</u> (Max-16)	
2-Hexanone	591-78-6	MS	111	0	100	111	65 - 154		
2-Hexanone	591-78-6	MSD	111	0	100	111	65 - 154	RPD <u>0.22</u> (Max-17)	
4-Methyl-2-Pentanone(MIBK)	108-10-1	MS	123	0	100	123	71 - 146		
4-Methyl-2-Pentanone(MIBK)	108-10-1	MSD	123	0	100	123	71 - 146	RPD <u>0.16</u> (Max-16)	
Acetone	67-64-1	MS	105	0	100	105	40 - 151		
Acetone	67-64-1	MSD	105	0	100	105	40 - 151	RPD <u>0.67</u> (Max-40)	
Benzene	71-43-2	MS	24.80	0	20	124	80 - 124		
Benzene	71-43-2	MSD	23.60	0	20	118	80 - 124	RPD <u>5.10</u> (Max-26)	
Bromobenzene	108-86-1	MS	23.10	0	20	116	81 - 119		
Bromobenzene	108-86-1	MSD	22.60	0	20	113	81 - 119	RPD <u>2.15</u> (Max-17)	
Bromoform	74-97-5	MS	23.60	0	20	118*	73 - 117		
Bromoform	74-97-5	MSD	23.30	0	20	117	73 - 117	RPD <u>1.23</u> (Max-19)	
Bromodichloromethane	75-27-4	MS	23.80	0	20	119	79 - 126		
Bromodichloromethane	75-27-4	MSD	22.70	0	20	114	79 - 126	RPD <u>4.89</u> (Max-16)	
Bromoform	75-25-2	MS	20.90	0	20	105	70 - 123		
Bromoform	75-25-2	MSD	20.30	0	20	101	70 - 123	RPD <u>2.99</u> (Max-16)	
Bromomethane	74-83-9	MS	22	0	20	110	45 - 148		
Bromomethane	74-83-9	MSD	20.30	0	20	101	45 - 148	RPD <u>8.30</u> (Max-26)	
Carbon Tetrachloride	56-23-5	MS	24.30	0	20	122	62 - 132		
Carbon Tetrachloride	56-23-5	MSD	23.70	0	20	118	62 - 132	RPD <u>2.77</u> (Max-17)	
Chlorobenzene	108-90-7	MS	22.20	0	20	111	85 - 117		
Chlorobenzene	108-90-7	MSD	21.70	0	20	109	85 - 117	RPD <u>2.31</u> (Max-15)	
Chlorodibromomethane	124-48-1	MS	21.50	0	20	108	77 - 122		
Chlorodibromomethane	124-48-1	MSD	21.50	0	20	107	77 - 122	RPD <u>0.26</u> (Max-15)	
Chloroethane	75-00-3	MS	13	0	20	64.8	51 - 142		
Chloroethane	75-00-3	MSD	10.90	0	20	54.6	51 - 142	RPD <u>17.10</u> (Max-24)	
Chloroform	67-66-3	MS	23.10	0	20	115	78 - 122		
Chloroform	67-66-3	MSD	22.50	0	20	112	78 - 122	RPD <u>2.63</u> (Max-16)	
Chloromethane	74-87-3	MS	16.50	0	20	82.5	38 - 156		
Chloromethane	74-87-3	MSD	16.50	0	20	82.4	38 - 156	RPD <u>0.07</u> (Max-27)	
cis-1,2-Dichloroethene	156-59-2	MS	25.30	0	20	126*	78 - 125		
cis-1,2-Dichloroethene	156-59-2	MSD	24.40	0	20	122	78 - 125	RPD <u>3.63</u> (Max-21)	
cis-1,3-Dichloropropene	10061-01-5	MS	21.80	0	20	109	81 - 121		
cis-1,3-Dichloropropene	10061-01-5	MSD	21.20	0	20	106	81 - 121	RPD <u>2.44</u> (Max-16)	
Dibromomethane	74-95-3	MS	23.50	0	20	117	81 - 125		
Dibromomethane	74-95-3	MSD	22.80	0	20	114	81 - 125	RPD <u>2.68</u> (Max-16)	
Dichlorodifluoromethane	75-71-8	MS	15.60	0	20	78.1	17 - 166		
Dichlorodifluoromethane	75-71-8	MSD	15	0	20	75.1	17 - 166	RPD <u>3.92</u> (Max-24)	
Diisopropyl ether	108-20-3	MS	24.70	0	20	123	74 - 131		
Diisopropyl ether	108-20-3	MSD	24.20	0	20	121	74 - 131	RPD <u>2.04</u> (Max-15)	
Ethylbenzene	100-41-4	MS	23.60	0	20	118	80 - 124		
Ethylbenzene	100-41-4	MSD	23.30	0	20	116	80 - 124	RPD <u>1.48</u> (Max-19)	
Hexachlorobutadiene	87-68-3	MS	23.40	0	20	117	55 - 128		
Hexachlorobutadiene	87-68-3	MSD	21.10	0	20	106	55 - 128	RPD <u>10.30</u> (Max-35)	

## 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
Methyl t-Butyl Ether	1634-04-4	MS	25	1.20	20	119*	69 - 115		
Methyl t-Butyl Ether	1634-04-4	MSD	24.70	1.20	20	117*	69 - 115	RPD <u>1.27</u> (Max-20)	
Methylene Chloride	75-09-2	MS	24	0	20	120	76 - 121		
Methylene Chloride	75-09-2	MSD	22.90	0	20	114	76 - 121	RPD <u>4.83</u> (Max-17)	
mp-Xylene	108383/106423	MS	47.30	0	40	118	79 - 125		
mp-Xylene	108383/106423	MSD	46.50	0	40	116	79 - 125	RPD <u>1.69</u> (Max-21)	
Naphthalene	91-20-3	MS	18.90	0	20	94.6	56 - 134		
Naphthalene	91-20-3	MSD	20.10	0	20	100	56 - 134	RPD <u>5.79</u> (Max-40)	
o-Chlorotoluene	95-49-8	MS	21.90	0	20	109	78 - 126		
o-Chlorotoluene	95-49-8	MSD	22.20	0	20	111	78 - 126	RPD <u>1.28</u> (Max-17)	
o-Xylene	95-47-6	MS	20.60	0	20	103	79 - 124		
o-Xylene	95-47-6	MSD	20.50	0	20	102	79 - 124	RPD <u>0.71</u> (Max-19)	
p-Chlorotoluene	106-43-4	MS	21.10	0	20	106	78 - 125		
p-Chlorotoluene	106-43-4	MSD	21.50	0	20	107	78 - 125	RPD <u>1.70</u> (Max-16)	
p-Isopropyltoluene	99-87-6	MS	20.90	0	20	105	72 - 123		
p-Isopropyltoluene	99-87-6	MSD	21	0	20	105	72 - 123	RPD <u>0.60</u> (Max-17)	
Styrene	100-42-5	MS	21.70	0	20	108	79 - 123		
Styrene	100-42-5	MSD	21.60	0	20	108	79 - 123	RPD <u>0.35</u> (Max-16)	
Tetrachloroethene	127-18-4	MS	21.10	0	20	106	72 - 124		
Tetrachloroethene	127-18-4	MSD	21.10	0	20	106	72 - 124	RPD <u>0.10</u> (Max-38)	
Toluene	108-88-3	MS	22	0	20	110	80 - 125		
Toluene	108-88-3	MSD	21.40	0	20	107	80 - 125	RPD <u>2.64</u> (Max-20)	
Total Xylenes	1330-20-7	MS	67.90	0	60	113	79 - 125		
Total Xylenes	1330-20-7	MSD	67	0	60	112	79 - 125	RPD <u>1.39</u> (Max-35)	
trans-1,2-Dichloroethene	156-60-5	MS	25.70	0	20	129*	71 - 122		
trans-1,2-Dichloroethene	156-60-5	MSD	23.90	0	20	120	71 - 122	RPD <u>7.25</u> (Max-22)	
trans-1,3-Dichloropropene	10061-02-6	MS	22.10	0	20	110	78 - 126		
trans-1,3-Dichloropropene	10061-02-6	MSD	21.90	0	20	109	78 - 126	RPD <u>0.92</u> (Max-18)	
Trichloroethene	79-01-6	MS	23.80	0	20	119	77 - 124		
Trichloroethene	79-01-6	MSD	22.70	0	20	113	77 - 124	RPD <u>5.09</u> (Max-18)	
Trichlorofluoromethane	75-69-4	MS	19.70	0	20	98.6	38 - 123		
Trichlorofluoromethane	75-69-4	MSD	17.40	0	20	87.2	38 - 123	RPD <u>12.30</u> (Max-23)	
Vinyl Acetate	108-05-4	MS	18.30	0	20	91.6	58 - 136		
Vinyl Acetate	108-05-4	MSD	18.50	0	20	92.4	58 - 136	RPD <u>0.89</u> (Max-17)	
Vinyl Chloride	75-01-4	MS	19.50	0	20	97.6	27 - 138		
Vinyl Chloride	75-01-4	MSD	17.60	0	20	87.9	27 - 138	RPD <u>10.50</u> (Max-40)	

#### SURROGATES

Compound	CAS No		Result (ug/L)	Expected (ug/L)	Rec. (%)	Limits (%)	Qualifiers
1,2-Dichloroethane-d4	17060-07-0	MS	30.40	30	101	62 - 133	
1,2-Dichloroethane-d4	17060-07-0	MSD	31.90	30	106	62 - 133	
4-Bromofluorobenzene	460-00-4	MS	30.20	30	101	79 - 114	
4-Bromofluorobenzene	460-00-4	MSD	29.90	30	99.5	79 - 114	
Dibromofluoromethane	1868-53-7	MS	29.60	30	98.6	78 - 116	
Dibromofluoromethane	1868-53-7	MSD	29.70	30	99	78 - 116	
Toluene-d8	2037-26-5	MS	29.20	30	97.4	76 - 127	
Toluene-d8	2037-26-5	MSD	28.90	30	96.5	76 - 127	

## QUALITY CONTROL SAMPLES

### VOLATILE ORGANICS (cont.)

Method Blank 3759543 (MB)      Created on 12/07/2023 10:47      For QC Batch 1097850

### 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
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

## QUALITY CONTROL SAMPLES

### VOLATILE ORGANICS (cont.)

#### RESULTS

Compound	CAS No		Result	Units	RDL	Qualifiers
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
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	30	100	62 - 133	
4-Bromofluorobenzene	460-00-4	BLK	31.20	30	104	79 - 114	
Dibromofluoromethane	1868-53-7	BLK	29.50	30	98.3	78 - 116	
Toluene-d8	2037-26-5	BLK	30.80	30	103	76 - 127	

**Lab Control Standard** 3759544 (LCS)      Created on 12/07/2023 10:47      For QC Batch 1097850

#### RESULTS

Compound	CAS No		Result (ug/L)	Orig. Result (ug/L)	Spk Added (ug/L)	Rec. (%)	Limits (%)	RPD Limit (%)	Qualifiers
1,1,2-Tetrachloroethane	630-20-6	LCS	20.40		20	102	78 - 121		
1,1,1-Trichloroethane	71-55-6	LCS	21.70		20	108	66 - 130		
1,1,2,2-Tetrachloroethane	79-34-5	LCS	20.60		20	103	74 - 135		
1,1,2-Trichloroethane	79-00-5	LCS	19.60		20	98.2	82 - 126		
1,1-Dichloroethane	75-34-3	LCS	21.10		20	105	78 - 124		
1,1-Dichloroethene	75-35-4	LCS	22		20	110	63 - 128		
1,1-Dichloropropene	563-58-6	LCS	21.80		20	109	76 - 126		
1,2,3-Trichlorobenzene	87-61-6	LCS	22.80		20	114	61 - 126		
1,2,3-Trichloropropane	96-18-4	LCS	20.50		20	102	75 - 132		
1,2,4-Trichlorobenzene	120-82-1	LCS	23.40		20	117	67 - 123		
1,2-Dibromo-3-chloropropane	96-12-8	LCS	20.20		20	101	59 - 133		
1,2-Dibromoethane	106-93-4	LCS	20		20	99.8	80 - 124		
1,2-Dichlorobenzene	95-50-1	LCS	21		20	105	82 - 118		
1,2-Dichloroethane	107-06-2	LCS	19.80		20	99.1	70 - 133		
1,2-Dichloropropane	78-87-5	LCS	20.80		20	104	81 - 127		
1,3-Dichlorobenzene	541-73-1	LCS	21		20	105	81 - 118		
1,3-Dichloropropane	142-28-9	LCS	20.20		20	101	82 - 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
1,4-Dichlorobenzene	106-46-7	LCS	20.80		20	104	81 - 116		
2,2-Dichloropropane	594-20-7	LCS	22.80		20	114	64 - 129		
2-Butanone	78-93-3	LCS	117		100	117	50 - 152		
2-Hexanone	591-78-6	LCS	101		100	101	65 - 154		
4-Methyl-2-Pentanone(MIBK)	108-10-1	LCS	109		100	109	71 - 146		
Acetone	67-64-1	LCS	112		100	112	40 - 151		
Benzene	71-43-2	LCS	21.30		20	107	80 - 124		
Bromobenzene	108-86-1	LCS	20		20	99.9	81 - 119		
Bromochloromethane	74-97-5	LCS	20.50		20	102	73 - 117		
Bromodichloromethane	75-27-4	LCS	20.90		20	104	79 - 126		
Bromoform	75-25-2	LCS	20.30		20	101	70 - 123		
Bromomethane	74-83-9	LCS	20.60		20	103	45 - 148		
Carbon Tetrachloride	56-23-5	LCS	21.50		20	108	62 - 132		
Chlorobenzene	108-90-7	LCS	19.70		20	98.7	85 - 117		
Chlorodibromomethane	124-48-1	LCS	19.80		20	99	77 - 122		
Chloroethane	75-00-3	LCS	10		20	49.9*	51 - 142		
Chloroform	67-66-3	LCS	21.20		20	106	78 - 122		
Chloromethane	74-87-3	LCS	15.90		20	79.4	38 - 156		
cis-1,2-Dichloroethene	156-59-2	LCS	22.10		20	110	78 - 125		
cis-1,3-Dichloropropene	10061-01-5	LCS	20.70		20	104	81 - 121		
Dibromomethane	74-95-3	LCS	20.50		20	103	81 - 125		
Dichlorodifluoromethane	75-71-8	LCS	13.40		20	67	17 - 166		
Diisopropyl ether	108-20-3	LCS	21.30		20	106	74 - 131		
Ethylbenzene	100-41-4	LCS	20.90		20	105	80 - 124		
Hexachlorobutadiene	87-68-3	LCS	25.50		20	128	55 - 128		
Methyl t-Butyl Ether	1634-04-4	LCS	21		20	105	69 - 115		
Methylene Chloride	75-09-2	LCS	20.60		20	103	76 - 121		
m-p-Xylene	108383/106423	LCS	41.70		40	104	79 - 125		
Naphthalene	91-20-3	LCS	19.10		20	95.3	56 - 134		
o-Chlorotoluene	95-49-8	LCS	19.40		20	97	78 - 126		
o-Xylene	95-47-6	LCS	18.30		20	91.6	79 - 124		
p-Chlorotoluene	106-43-4	LCS	19		20	95	78 - 125		
p-Isopropyltoluene	99-87-6	LCS	20.60		20	103	72 - 123		
Styrene	100-42-5	LCS	19.30		20	96.7	79 - 123		
Tetrachloroethene	127-18-4	LCS	19.60		20	98.1	72 - 124		
Toluene	108-88-3	LCS	19.50		20	97.6	80 - 125		
Total Xylenes	1330-20-7	LCS	60.10		60	100	79 - 125		
trans-1,2-Dichloroethene	156-60-5	LCS	22.20		20	111	71 - 122		
trans-1,3-Dichloropropene	10061-02-6	LCS	20.70		20	103	78 - 126		
Trichloroethene	79-01-6	LCS	20.70		20	103	77 - 124		
Trichlorofluoromethane	75-69-4	LCS	12.80		20	64.2	38 - 123		
Vinyl Acetate	108-05-4	LCS	20.60		20	103	58 - 136		
Vinyl Chloride	75-01-4	LCS	15		20	75.1	27 - 138		

## QUALITY CONTROL SAMPLES

### VOLATILE ORGANICS (cont.)

#### *SURROGATES*

<u>Compound</u>	<u>CAS No</u>		<u>Result</u> (ug/L)	<u>Expected</u> (ug/L)	<u>Rec.</u> (%)	<u>Limits (%)</u>	<u>Qualifiers</u>
1,2-Dichloroethane-d4	17060-07-0	LCS	30.90	30	103	62 - 133	
4-Bromofluorobenzene	460-00-4	LCS	29.70	30	99.1	79 - 114	
Dibromofluoromethane	1868-53-7	LCS	29.60	30	98.8	78 - 116	
Toluene-d8	2037-26-5	LCS	29.60	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
3335523001	RW-1S	SW846 3510C	1096958	12/06/2023 09:00	SRL	SW846 8270E SIM	1097498
		SW846 3510C	1096958	12/06/2023 09:00	SRL	SW846 8270E SIM	1100662
		N/A	N/A	N/A		SW846 8260D	1097850
3335523002	RW-2S	SW846 3510C	1096958	12/06/2023 09:00	SRL	SW846 8270E SIM	1097498
		SW846 3510C	1096958	12/06/2023 09:00	SRL	SW846 8270E SIM	1100662
		N/A	N/A	N/A		SW846 8260D	1097850
3335523003	RW-1D	SW846 3510C	1096958	12/06/2023 09:00	SRL	SW846 8270E SIM	1097498
		SW846 3510C	1096958	12/06/2023 09:00	SRL	SW846 8270E SIM	1100662
		N/A	N/A	N/A		SW846 8260D	1097850
3335523004	RW-2D	SW846 3510C	1096958	12/06/2023 09:00	SRL	SW846 8270E SIM	1097498
		SW846 3510C	1096958	12/06/2023 09:00	SRL	SW846 8270E SIM	1100662
		N/A	N/A	N/A		SW846 8260D	1097850



301 Fulling Mill Rd, Suite A  
Middleton, 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.**

Client Name: **WSP USA**  
Address: **1530 Dulles Technology Dr.  
Suite 300  
Herndon VA 20171**  
Contact: **Eric Johnson**  
Phone#: **(703) 709-6500**  
Project Name#: **Kop Flex Onsite / 31405608.010**  
Bill To:

Purchase Order #:

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

Date Required:   
Email?

Comments:

Container Type **CG AG**  
Container Size **VOA 250**  
Preservative **HCl NaOH**  
Orthophosphate Filtered? **Yes**

Temp Taken By: **Rew**  
Temp Info completed by: **Rew**  
WO Temp (°C) **30**  
Cooler Custody Seals Intact **Y N NA**  
Sample Custody Seal Intact **Y N NA**  
Received on Ice **Y N NA**

Deviations? **NO YES**  
If YES, list below:

Receiving Lab **WV Containers 0-6°C Y N NA**  
WV Container 0-6°C **Y N NA**  
Sample Custody Seal Intact **Y N NA**  
Received on Ice **Y N NA**

Coilers & Samples Intact **Y N NA**  
Correct Containers Provided **Y N NA**  
Sample Label/COC Agree **Y N NA**  
Adequate Sample Volumes **Y N NA**  
VOA only: Trip Blank **Y N NA**  
NJ ≤ 4 days? **Y N NA**  
Courier/Tracking # **Y N NA**

Client contact: \_\_\_\_\_  
Date/Tech: \_\_\_\_\_

Rad Screen (uCi) \_\_\_\_\_

New Source? **Y N**

SDWA State of Origin? \_\_\_\_\_  
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

Standard Lvl 1 <input checked="" type="checkbox"/>	CLP-like <input type="checkbox"/>	HSCA <input type="checkbox"/>	State Samples Collected In NY <input type="checkbox"/>
Standard Lvl 2 <input checked="" type="checkbox"/>	DOD <input type="checkbox"/>	Landfill <input type="checkbox"/>	State Samples Collected In NJ <input type="checkbox"/>
Standard Lvl 3 <input type="checkbox"/>	NJ RED <input type="checkbox"/>	NJ GW <input type="checkbox"/>	State Samples Collected In PA <input type="checkbox"/>
Standard Lvl 4 <input type="checkbox"/>	NJ Full <input type="checkbox"/>	Sample Disposal Lab <input type="checkbox"/>	State Samples Collected In WV <input type="checkbox"/>
EDDS <input type="checkbox"/>	Excel Summary <input type="checkbox"/>	Equis <input type="checkbox"/>	Sample Disposal Special <input type="checkbox"/>
EDDS <input type="checkbox"/>	Custom <input type="checkbox"/>	Lab <input type="checkbox"/>	Sample Disposal Special <input type="checkbox"/>
EDDS <input type="checkbox"/>	Comments: _____	Comments: _____	Comments: _____

EDDS: Format Type \_\_\_\_\_

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3335523  
Logged By: SLS  
PM: SUB



y Receiving Lab  
In therm ID: **Rew**  
In therm ID: **Rew**  
WO Temp (°C) **30**  
WV Containers 0-6°C **Y N NA**  
Sample Custody Seal Intact **Y N NA**  
Received on Ice **Y N NA**

Deviations? **NO YES**  
If YES, list below:

Receiving Lab **WV Containers 0-6°C Y N NA**  
WV Container 0-6°C **Y N NA**  
Sample Custody Seal Intact **Y N NA**  
Received on Ice **Y N NA**

Coilers & Samples Intact **Y N NA**  
Correct Containers Provided **Y N NA**  
Sample Label/COC Agree **Y N NA**  
Adequate Sample Volumes **Y N NA**  
VOA only: Trip Blank **Y N NA**  
NJ ≤ 4 days? **Y N NA**  
Courier/Tracking # **Y N NA**

Client contact: \_\_\_\_\_  
Date/Tech: \_\_\_\_\_

Rad Screen (uCi) \_\_\_\_\_

New Source? **Y N**

SDWA State of Origin? \_\_\_\_\_  
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

Standard Lvl 1 <input checked="" type="checkbox"/>	CLP-like <input type="checkbox"/>	HSCA <input type="checkbox"/>	State Samples Collected In NY <input type="checkbox"/>
Standard Lvl 2 <input checked="" type="checkbox"/>	DOD <input type="checkbox"/>	Landfill <input type="checkbox"/>	State Samples Collected In NJ <input type="checkbox"/>
Standard Lvl 3 <input type="checkbox"/>	NJ RED <input type="checkbox"/>	NJ GW <input type="checkbox"/>	State Samples Collected In PA <input type="checkbox"/>
Standard Lvl 4 <input type="checkbox"/>	NJ Full <input type="checkbox"/>	Sample Disposal Lab <input type="checkbox"/>	State Samples Collected In WV <input type="checkbox"/>
EDDS <input type="checkbox"/>	Excel Summary <input type="checkbox"/>	Equis <input type="checkbox"/>	Sample Disposal Special <input type="checkbox"/>
EDDS <input type="checkbox"/>	Custom <input type="checkbox"/>	Lab <input type="checkbox"/>	Sample Disposal Special <input type="checkbox"/>
EDDS <input type="checkbox"/>	Comments: _____	Comments: _____	Comments: _____

EDDS: Format Type \_\_\_\_\_

28 of 28

Client Name: **WSP USA**  
Address: **1530 Dulles Technology Dr.  
Suite 300  
Herndon VA 20171**  
Contact: **Eric Johnson**  
Phone#: **(703) 709-6500**  
Project Name#: **Kop Flex Onsite / 31405608.010**  
Bill To:

Purchase Order #:

TAT  Normal-Standard TAT is 10-12 business days.

Rush-Subject to ALS approval and surcharges.

Date Required:

Email?

Comments: \_\_\_\_\_

Sample Description/Location  
(as it will appear on the lab report)

Date Collected Time hh:mm

immediately hh:mm

Matrix (See bottom of COC) **GC or C**

SDWA Sample Type (see key) **\*\*Matrix (See bottom of COC)**

Enter Number of Containers Per Sample or Field Results Below.

C 1 **Rew - 1S** **12/03/23 11:00** **G 6u 2X 2X**

C 2 **Rew - 2S** **12/03/23 12:15** **G 6u 2X 2X**

C 3 **Rew - 1D** **12/03/23 13:45** **G 6u 2X 2X**

C 4 **Rew - 2D** **12/03/23 14:15** **G 6u 2X 2X**

C 5 **Rew - 3D** **12/03/23 14:15** **G 6u 2X 2X**

C 6 **Rew - 4D** **12/03/23 14:15** **G 6u 2X 2X**

C 7 **Rew - 5D** **12/03/23 14:15** **G 6u 2X 2X**

C 8 **Rew - 6D** **12/03/23 14:15** **G 6u 2X 2X**

C 9 **Rew - 7D** **12/03/23 14:15** **G 6u 2X 2X**

C 10 **Rew - 8D** **12/03/23 14:15** **G 6u 2X 2X**

C 11 **Rew - 9D** **12/03/23 14:15** **G 6u 2X 2X**

C 12 **Rew - 10D** **12/03/23 14:15** **G 6u 2X 2X**

C 13 **Rew - 11D** **12/03/23 14:15** **G 6u 2X 2X**

C 14 **Rew - 12D** **12/03/23 14:15** **G 6u 2X 2X**

C 15 **Rew - 13D** **12/03/23 14:15** **G 6u 2X 2X**

C 16 **Rew - 14D** **12/03/23 14:15** **G 6u 2X 2X**

C 17 **Rew - 15D** **12/03/23 14:15** **G 6u 2X 2X**

C 18 **Rew - 16D** **12/03/23 14:15** **G 6u 2X 2X**

C 19 **Rew - 17D** **12/03/23 14:15** **G 6u 2X 2X**

C 20 **Rew - 18D** **12/03/23 14:15** **G 6u 2X 2X**

C 21 **Rew - 19D** **12/03/23 14:15** **G 6u 2X 2X**

C 22 **Rew - 20D** **12/03/23 14:15** **G 6u 2X 2X**

C 23 **Rew - 21D** **12/03/23 14:15** **G 6u 2X 2X**

C 24 **Rew - 22D** **12/03/23 14:15** **G 6u 2X 2X**

C 25 **Rew - 23D** **12/03/23 14:15** **G 6u 2X 2X**

C 26 **Rew - 24D** **12/03/23 14:15** **G 6u 2X 2X**

C 27 **Rew - 25D** **12/03/23 14:15** **G 6u 2X 2X**

C 28 **Rew - 26D** **12/03/23 14:15** **G 6u 2X 2X**

C 29 **Rew - 27D** **12/03/23 14:15** **G 6u 2X 2X**

C 30 **Rew - 28D** **12/03/23 14:15** **G 6u 2X 2X**

C 31 **Rew - 29D** **12/03/23 14:15** **G 6u 2X 2X**

C 32 **Rew - 30D** **12/03/23 14:15** **G 6u 2X 2X**

C 33 **Rew - 31D** **12/03/23 14:15** **G 6u 2X 2X**

C 34 **Rew - 32D** **12/03/23 14:15** **G 6u 2X 2X**

C 35 **Rew - 33D** **12/03/23 14:15** **G 6u 2X 2X**

C 36 **Rew - 34D** **12/03/23 14:15** **G 6u 2X 2X**

C 37 **Rew - 35D** **12/03/23 14:15** **G 6u 2X 2X**

C 38 **Rew - 36D** **12/03/23 14:15** **G 6u 2X 2X**

C 39 **Rew - 37D** **12/03/23 14:15** **G 6u 2X 2X**

C 40 **Rew - 38D** **12/03/23 14:15** **G 6u 2X 2X**

C 41 **Rew - 39D** **12/03/23 14:15** **G 6u 2X 2X**

C 42 **Rew - 40D** **12/03/23 14:15** **G 6u 2X 2X**

C 43 **Rew - 41D** **12/03/23 14:15** **G 6u 2X 2X**

C 44 **Rew - 42D** **12/03/23 14:15** **G 6u 2X 2X**

C 45 **Rew - 43D** **12/03/23 14:15** **G 6u 2X 2X**

C 46 **Rew - 44D** **12/03/23 14:15** **G 6u 2X 2X**

C 47 **Rew - 45D** **12/03/23 14:15** **G 6u 2X 2X**

C 48 **Rew - 46D** **12/03/23 14:15** **G 6u 2X 2X**

C 49 **Rew - 47D** **12/03/23 14:15** **G 6u 2X 2X**

C 50 **Rew - 48D** **12/03/23 14:15** **G 6u 2X 2X**

C 51 **Rew - 49D** **12/03/23 14:15** **G 6u 2X 2X**

C 52 **Rew - 50D** **12/03/23 14:15** **G 6u 2X 2X**

C 53 **Rew - 51D** **12/03/23 14:15** **G 6u 2X 2X**

C 54 **Rew - 52D** **12/03/23 14:15** **G 6u 2X 2X**

C 55 **Rew - 53D** **12/03/23 14:15** **G 6u 2X 2X**

C 56 **Rew - 54D** **12/03/23 14:15** **G 6u 2X 2X**

C 57 **Rew - 55D** **12/03/23 14:15** **G 6u 2X 2X**

C 58 **Rew - 56D** **12/03/23 14:15** **G 6u 2X 2X**

C 59 **Rew - 57D** **12/03/23 14:15** **G 6u 2X 2X**

C 60 **Rew - 58D** **12/03/23 14:15** **G 6u 2X 2X**

C 61 **Rew - 59D** **12/03/23 14:15** **G 6u 2X 2X**

C 62 **Rew - 60D** **12/03/23 14:15** **G 6u 2X 2X**

C 63 **Rew - 61D** **12/03/23 14:15** **G 6u 2X 2X**

C 64 **Rew - 62D** **12/03/23 14:15** **G 6u 2X 2X**

C 65 **Rew - 63D** **12/03/23 14:15** **G 6u 2X 2X**

C 66 **Rew - 64D** **12/03/23 14:15** **G 6u 2X 2X**

C 67 **Rew - 65D** **12/03/23 14:15** **G 6u 2X 2X**

C 68 **Rew - 66D** **12/03/23 14:15** **G 6u 2X 2X**

C 69 **Rew - 67D** **12/03/23 14:15** **G 6u 2X 2X**

C 70 **Rew - 68D** **12/03/23 14:15** **G 6u 2X 2X**

C 71 **Rew - 69D** **12/03/23 14:15** **G 6u 2X 2X**

C 72 **Rew - 70D** **12/03/23 14:15** **G 6u 2X 2X**

C 73 **Rew - 71D** **12/03/23 14:15** **G 6u 2X 2X**

C 74 **Rew - 72D** **12/03/23 14:15** **G 6u 2X 2X**

C 75 **Rew - 73D** **12/03/23 14:15** **G 6u 2X 2X**

C 76 **Rew - 74D** **12/03/23 14:15** **G 6u 2X 2X**

C 77 **Rew - 75D** **12/03/23 14:15** **G 6u 2X 2X**

C 78 **Rew - 76D** **12/03/23 14:15** **G 6u 2X 2X**

C 79 **Rew - 77D** **12/03/23 14:15** **G 6u 2X 2X**

C 80 **Rew - 78D** **12/03/23 14:15** **G 6u 2X 2X**

C 81 **Rew - 79D** **12/03/23 14:15** **G 6u 2X 2X**

C 82 **Rew - 80D** **12/03/23 14:15** **G 6u 2X 2X**

C 83 **Rew - 81D** **12/03/23 14:15** **G 6u 2X 2X**

C 84 **Rew - 82D** **12/03/23 14:15** **G 6u 2X 2X**

C 85 **Rew - 83D** **12/03/23 14:15** **G 6u 2X 2X**

C 86 **Rew - 84D** **12/03/23 14:15** **G 6u 2X 2X**

C 87 **Rew - 85D** **12/03/23 14:15** **G 6u 2X 2X**

C 88 **Rew - 86D** **12/03/23 14:15** **G 6u 2X 2X**